

**When Spendthrifts Act Like Tightwads:
Factors that Reduce Spendthrift/Tightwad
Spending Differences**

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When Spendthrifts Act Like Tightwads:
Factors that Reduce Spendthrift/Tightwad Spending Differences

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Do spendthrifts ever behave like tightwads? I examine the extent to which tightwads and spendthrifts make 24 different types of expenditures (e.g., clothes; gifts) and find that spendthrifts spend significantly more than tightwads in nearly all categories. The few categories in which tightwads and spendthrifts behave similarly are those that evoke about the same amount of pain of paying from both tightwads and spendthrifts. Another factor that influences whether tightwads and spendthrifts behave similarly is gender: spendthrift/tightwad spending differences are five times larger among men than among women. The tendency to experience a pain of paying is no less stable an individual difference among women, but rather a less influential one.

Ever since the advent of the discounted utility model (Samuelson 1937), intertemporal choice has frequently been conceptualized as an explicit tradeoff between costs and benefits occurring at different points in time. Dieters, for example, are viewed as making a conscious “trade-off between immediate gustatory pleasure and future health consequences” (Smith 2004, 386). The decision whether or not to consume addictive substances is presumably “an explicit tradeoff between the rewards of current consumption and the expected costs of lower future utility including the detrimental effect of higher discounting” (Orphanides and Zervos 1998, 89). In the domain of consumer behavior, “willingness to pay...reflects how much individuals would be willing to give up in other things to obtain [the desired good]. It is an explicit tradeoff that defines willingness to pay” (Bockstael et al. 2000, 1387).

In order to make explicit tradeoffs, consumers must be able to spontaneously interpret prices in terms of opportunity costs. That is, to compare the expected pleasure of consuming immediately to the expected pleasure of the next best use of the money, consumers must be able to assess the next best use of the money. Such assessments are typically assumed to be made with ease (Becker, Ronen, and Sorter 1974; Okada and Hoch 2004). Behavioral research, however, suggests that many people do not spontaneously consider prices in terms of opportunity costs (e.g., Northcraft and Neale 1986; Jones et al. 1998; Frederick et al. 2007).

If prices do not play their advertised role in spending decisions, then what role do they play? Prelec and Loewenstein (1998) proposed that people rely on negative emotions—specifically, a “pain of paying”—as a substitute for deliberative consideration of opportunity costs. Indeed, in a study in which participants chose whether or not to purchase a series of consumer goods while having their brains scanned with functional magnetic resonance imaging, Knutson et al. (2007) found that activation in the insula in response to prices negatively

correlated with subsequent buying decisions. Given that insula activation has frequently been observed in connection with aversive stimuli (Eisenberger et al. 2003; Sanfey et al. 2003; Wicker et al. 2003), Knutson et al. (2007) concluded that participants relied on an anticipatory pain of paying to deter their spending, rather than on a strictly deliberative consideration of what is foregone by spending immediately.

Rick, Cryder, and Loewenstein (2008) proposed that the tendency to experience a pain of paying not only varies across situations, but also across individuals. They developed a “Spendthrift-Tightwad” scale to measure individual differences in the tendency to experience a pain of paying and to identify three types of consumers: 'tightwads', 'spendthrifts', and 'unconflicted' consumers. Tightwads report experiencing the pain of paying intensely and generally spending less than they would ideally like to spend. Spendthrifts, by contrast, report experiencing minimal pain of paying and generally spending more than they would ideally like to spend. Unconflicted consumers experience an intermediate amount of pain when contemplating purchases and generally spend what they would ideally like to spend.

In their sample of over 13,000 respondents, Rick et al. (2008) found that tightwads outnumbered spendthrifts by a 3:2 ratio (24% vs. 15%), which is surprising given the intense attention to impulsive spending in the media and the academic literature. The authors also found that the Spendthrift-Tightwad scale was related to, but distinct from, measures of frugality (Lastovicka et al. 1999), impulsivity (Patton, Stanford, and Barratt 1995), materialism (Richins 2004), price consciousness (Lichtenstein, Ridgway, and Netemeyer 1993), compulsive buying (Faber and O’Guinn 1992), and self-control (Tangney, Baumeister, and Boone 2004), among others. Most importantly, Rick et al. (2008) found that Spendthrift-Tightwad scale scores predict several global measures of spending behavior. For example, spendthrifts who use credit are three

times as likely to carry debt as tightwads who use credit. Moreover, spendthrifts are twice as likely as tightwads to have less than \$10,000 in savings, whereas tightwads are twice as likely as spendthrifts to have more than \$250,000 in savings.

Of course, individual differences are not all-powerful determinants of behavior, and it is important to understand the conditions under which these individual differences are likely to be most influential (Belk 1975; Caspi and Moffitt 1993). Although Rick et al. found strong spendthrift/tightwad differences on global measures of spending behavior, the extent to which spendthrift/tightwad spending differences persist across disparate domains remains entirely unclear. Many people diagnose themselves as tightwads in some domains, but spendthrifts in others; for example, most readers have likely heard (or made) self-reports such as, “I never buy new clothes for myself, but I’m always buying gifts for my grandchildren.” This raises the question of whether there are certain types of expenditures (e.g., buying clothes; buying gifts) in which tightwads and spendthrifts consistently behave similarly. Expenditures that evoke a similar amount of pain of paying from both tightwads and spendthrifts are likely candidates. This research examines the extent to which different types of expenditures are painful to make and whether spendthrift/tightwad differences in experienced pain of paying across expenditure categories can explain spendthrift/tightwad differences in spending across categories.

While much previous research has attempted to classify goods according to the extent to which they command attention and involvement, or to which their acquisition is based on thinking or feeling, or to which their attributes could be considered hedonic or utilitarian (e.g., Hirschman and Holbrook 1982; Mano and Oliver 1993; Ratchford 1987), no research has examined whether goods vary in the amount of pain their acquisition evokes. In this research I examine how painful it is to make 24 different types of expenditures that vary along a number of

dimensions that, according to Prelec and Loewenstein (1998), should influence the pain of paying (e.g., whether the money is spent before or after consumption). Since there has been little research into the relative importance of different situational determinants of the pain of paying, it is difficult to predict the net effect of such factors, and therefore difficult to predict which types of expenditures will be most painful to make. What is clear, however, is that spendthrift/tightwad differences in spending should be greatest in those categories that produce the greatest spendthrift/tightwad differences in the pain of paying.

Another factor that may influence whether tightwads and spendthrifts behave similarly is gender. Previous research suggests that the determinants of women's purchasing decisions are generally more complex than the determinants of men's purchasing decisions (e.g., Benney et al. 1959; Cleveland et al. 2003; Fischer and Arnold 1990; Slama and Tashchian 1985). One reason why women's spending decisions may be more complex than those of men is that spending money is more likely to produce conflicting emotions among women. On the one hand, the prospect of spending often evokes pain (Knutson et al. 2007; Rick et al. 2008). On the other hand, people often believe that spending will improve their mood, a process commonly referred to as "retail therapy." O'Guinn and Faber (1989, 155), for example, noted that for 'compulsive buyers' spending can become "a primary response to negative events or feelings." Faber and Christenson (1996) similarly observed that spending is often used to elevate negative mood states. Several studies suggest that spending is more likely to serve such purposes among females (d'Astous 1990; Faber and Christenson 1996; Scherhorn, Reisch, and Raab 1990). The research reviewed above suggests that the pain of paying may be less influential among women, with the therapeutic benefits of spending playing a more prominent role. This leads to the prediction that spendthrift/tightwad spending differences will be greater among males than among females.

Thus, the main hypotheses of this research are:

H1: Spendthrift/tightwad spending differences will be greatest in those categories that produce the greatest spendthrift/tightwad differences in the pain of paying.

H2: Spendthrift/tightwad spending differences will be greater among males than among females.

OVERVIEW OF RESEARCH PROGRAM

As a first step in generating a list of expenditure categories, two pre-tests were conducted. The first was conducted on the campus of a private northeastern university on Commencement Day in 2006. The second involved encouraging undergraduates in a world history class to fill out an online survey and send the link to their parents so they could do the same. A broad sample was desired, as the subsequent studies will not utilize undergraduate samples. In all, 64 respondents participated (30 parents, 30 undergraduates, 4 unspecified; 53% female).

The survey began with the Spendthrift-Tightwad scale (Rick et al. 2008; see the Appendix) and then, after several unrelated questions, asked respondents, “What types of items do you find particularly painful to spend money on?” Since a subsequent study will ask respondents to report how much money they have spent in each category over the past 30 days, big-ticket items that are infrequently purchased (e.g., cars, houses, jewelry) were excluded from the final list of expenditure categories. Vague items (e.g., “high price” goods, “bills”) were also excluded. Clothes and restaurant meals were the most frequently listed items (listed by 16% and 9% of respondents, respectively), and in all 16 categories were retained for use in subsequent studies (indicated by an * in the list below). To broaden the range of categories ultimately presented to respondents, nine categories were added by the author.

The list of categories presented to respondents in the subsequent studies is shown below, in the order it was presented to respondents. Bracketed labels indicate how the categories will be referred to in subsequent tables:

| | |
|---|-----------------------|
| Clothes* | [Clothes] |
| Gifts for family or long-term friends | [Gifts] |
| Life Insurance* | [Life Insurance] |
| Restaurant meals* | [Restaurants] |
| Fresh Coffee / Tea / Pastries | [Coffee/Tea/Pastries] |
| Books / CDs / DVDs* | [Books/CDs/DVDs] |
| Luxury items (for example, gourmet chocolate or nice watches)* | [Luxuries] |
| Parking garages | [Parking] |
| Taxis | [Taxis] |
| Vacations* | [Vacations] |
| Automobile Maintenance* | [Automobile Maint.] |
| Preventive Health Care* | [Health Care] |
| Appearance Maintenance (for example, haircuts)* | [Appearance Maint.] |
| Your favorite hobby | [Favorite Hobby] |
| Donations to charity* | [Donations] |
| Cosmetics / Fragrances / Toiletries* | [Personal Care] |
| Optional cell phone features (for example, ringtones or games)* | [Cell Phone Add-Ons] |
| Lottery tickets* | [Lottery Tickets] |
| Stocks / Bonds / Long-Term Investments* | [Saving] |
| Electronic gadgets (for example, cameras, stereos, or iPods)* | [Electronics] |
| Tipping (for example, after meals) | [Tipping] |
| Cable / Internet service | [Cable/Internet] |
| Entertainment outside the home (for example, movies, concerts, or plays)* | [Entertainment] |
| Fitness (for example, gym memberships or exercise equipment) | [Fitness] |
| Beverages (non-alcoholic or alcoholic) | [Beverages] |

Notice that one category mentioned by pre-test participants – stocks / bonds / long-term investments – is inherently more like saving than spending. Although the notion of a “pain of saving” dates back nearly 100 years (Persons 1913, 567), little research has examined whether people actually experience pain in response to the prospect of saving. Rick et al. (2008) found that tightwads save significantly more than spendthrifts. Thus, although spendthrifts may generally be the least likely to experience a pain of paying, they may also be the most likely to

experience pain in response to the prospect of saving. In addition to testing the hypotheses proposed earlier, this research provides an initial empirical examination of the pain of saving.

This paper consists of three studies. Study 1 examines the extent to which each of the expenditures presented above is painful to make, as well as how the pain of paying (and saving) depends on consumer type and gender. As noted earlier, this study is largely exploratory, since the relative influence of a variety of situational factors on the pain of paying has yet to be determined (or investigated). Study 2 examines whether spendthrift/tightwad differences in the pain of paying across categories can explain spendthrift/tightwad differences in spending across categories. The moderating role of gender is also analyzed. Study 2 thus provides the key tests of both H1 and H2. Studies 3a and 3b examine why gender moderates the influence of individual differences in the tendency to experience a pain of paying. One possibility is that the tendency to experience a pain of paying is simply a less stable or well-defined individual difference among females. Study 3a therefore examines whether the test-retest reliability of the Spendthrift-Tightwad scale differs by gender. Another possibility, based on the literature reviewed above, is that the pain of paying is less influential among females. Study 3b therefore examines whether the relative influence of the pain of paying and the therapeutic benefits of spending differ by gender.

Respondents were drawn from three populations. All respondents in study 1 (N = 372) and most respondents in study 3b (N = 6,408) were readers of *The New York Times*. On January 16, 2007 *Times* columnist John Tierney wrote a piece for the Science Times section that discussed an article co-authored by the present author (Knutson et al. 2007) and included a link that interested readers could click to take one of the surveys discussed below. The remaining respondents in study 3b (N = 167) were viewers of a nightly news broadcast in Philadelphia. On

February 5, 2007 NBC's WCAU affiliate ran a story on tightwads and spendthrifts and referred viewers to their website, which featured a survey link.¹ All respondents in study 3a (N = 1,290), which examined test-retest reliability, had previously participated in study 1 or 3b. Respondents in study 2 (N = 1,315) were readers of the Knowledge@Wharton website, which reviews recent business-related research. On September 19, 2007 the website published a story about Rick et al. (2008) and included a survey link for interested readers. Across all studies (excluding study 3a), 8,262 people participated. All surveys included the Spendthrift-Tightwad scale, and respondents were given the option to enter their e-mail address if they wanted their score e-mailed to them (87% of respondents asked for their score). Given respondents' apparently strong desire for 'diagnostic utility' (Bodner and Prelec 1997), no other tangible (financial) incentives for participating were offered.

The wide range of respondents elicited through these media outlets was advantageous for several reasons. For instance, it facilitates an analysis of a wider range of categories than would be possible in the laboratory. Undergraduates are far less likely than the general population to have life insurance or long-term investments, for example. It also allows us to examine how people spend earned income, as opposed to money provided by parents or financial aid.

Study 1

Study 1 examines the extent to which the different types of expenditures are painful to make, and whether the pain of paying depends on consumer type, gender, and the interaction between the two.

¹ These surveys included several measures other than those discussed in this paper; some of those other measures were analyzed in Rick et al. (2008), but none of the analyses reported in this paper appeared in the previous paper.

Participants. Three hundred seventy-two readers of *The New York Times* participated (60% female; eight participants did not report their gender). Respondents' ages ranged from 18 to 74, with a mean of 38 (nine participants did not report their age). In general, respondents were very highly educated (89% report having at least a Bachelor's degree; 47% have advanced degrees). Approximately 78% of respondents reported being employed at least part-time; the remaining respondents were unemployed, retired, or currently attending college. Respondents' Spendthrift-Tightwad scale responses indicated that the sample included 86 tightwads, 58 spendthrifts, and 228 unconflicted consumers (the Appendix describes how Spendthrift-Tightwad scores are computed).

Method. This and all subsequent surveys began with the Spendthrift-Tightwad scale.² After completing the scale and several unrelated questions, participants were presented with the list of categories. Above the list, respondents were told, "Listed below are some types of items on which people spend money. Please indicate how painful it typically is (or would be) to spend money on each type of item by selecting a number in each row." Responses for each category ranged from 1 (not at all painful) to 7 (very painful). The survey concluded with several demographic measures.

Results. Table 1 presents mean pain of paying ratings by consumer type. In this and all subsequent tables, categories are sorted according to the extent to which they produce spendthrift/tightwad differences in pain, in descending order from the maximum difference

² Though this may raise concerns about whether scale responses influenced responses to subsequent questions, it is worth noting that Rick et al. (2008) conducted a study in which a spending decision either preceded or followed completion of the Spendthrift-Tightwad scale (or was placed in a separate survey taken on a different day). Scale placement did not influence spending decisions.

(clothes: 1.53) to the minimum difference (saving: -0.91). Overall, tightwads find spending significantly more painful than spendthrifts in 18 of the 24 expenditure (i.e., non-saving) categories, where significant is defined as different at the $p < .05$ level. Tightwads appear to be particularly likely to find consumables painful to pay for (e.g., personal care, coffee/tea/pastries, taxi rides, beverages, appearance maintenance, and entertainment outside the home).

Spendthrift/tightwad differences in the pain of paying begin to disappear once goods that offer more long-run benefits are considered (e.g., gifts (Sherry 1983), health care, life insurance).

In fact, as the final row of the table reveals, spendthrifts are significantly more likely than tightwads to report experiencing a pain of saving. Tightwads find all 24 expenditure categories more painful than saving, whereas spendthrifts find only 10 of the 24 expenditure categories more painful than saving, a highly significant difference (100% vs. 42%; $\chi^2(1) = 19.76$; $p < .0001$). For example, tightwads find tipping significantly more painful than saving ($t(86) = 2.20$; $p < .05$), whereas spendthrifts find saving significantly more painful than tipping ($t(57) = 3.94$; $p < .001$).

Insert table 1 about here

Note that the spendthrift/tightwad differences discussed above are likely not driven by spendthrift/tightwad differences in age or income. Age differs only slightly, and insignificantly, between tightwads and spendthrifts in this sample ($M_{TW} = 37$; $M_{ST} = 35$; $t(139) = 0.96$; $p = .34$). Income similarly differs only slightly between tightwads and spendthrifts (percent earning \$50,000 or less, between \$50,000 and \$100,000, and over \$100,000 among tightwads: 46%, 35%, 19%; among spendthrifts: 50%, 26%, 24%; $\chi^2(2) = 1.30$; $p = .52$).

However, as in Rick et al. (2008), gender is somewhat confounded with tightwaddism (43% of tightwads are male; 29% of spendthrifts are male; $\chi^2(1) = 2.88$; $p < .10$), and it is therefore worth examining whether the spendthrift/tightwad differences observed in table 1 persist when controlling for gender. Table 2 examines the extent to which reported pain of paying differs between tightwads and spendthrifts, within each gender. Significant spendthrift/tightwad differences exist within each gender, suggesting the patterns observed in table 1 cannot be attributed to gender differences in experienced pain of paying. Specifically, male tightwads find 10/24 expenditures significantly more painful to make than male spendthrifts, and female tightwads find 14/24 expenditures significantly more painful to make than female spendthrifts.

Insert table 2 about here

Discussion. Pooling across consumer types, the results suggest that the determinants of the pain of paying are likely complex. Pain is clearly not a simple function of price: lottery tickets are significantly more painful to pay for than automobile maintenance, for example. Future research should examine whether price relative to some other benchmark (e.g., willingness to pay, or a reference price; cf. Thaler 1985) is more closely related to the pain of paying than absolute price. Moreover, the pain of paying is clearly not a simple function of the length or magnitude of benefits offered by spending. For instance, life insurance is significantly more painful to pay for than coffee, tea, or pastries. Understanding how price, the anticipated benefits of consumption, and other factors interact to evoke pain is a likely a fruitful avenue for future research.

For our present purposes, the key question is how the pain of paying differs between tightwads and spendthrifts across categories. The results suggest that tightwads are almost always more likely than spendthrifts to find spending painful, and spendthrifts are more likely than tightwads to find saving painful. However, spendthrift/tightwad differences in the pain of paying are larger in some categories than in others, and the key question is whether tightwads and spendthrifts behave most similarly in those categories that evoke about the same amount of pain of paying from both tightwads and spendthrifts (as predicted by H1). Study 2 examines this question, as well as whether spendthrift/tightwad spending differences are greatest among males (as predicted by H2).

Study 2

Study 2 examines the extent to which the amount spent in each category over the past month depends on one's location on the Spendthrift-Tightwad dimension, gender, and the interaction between the two.

Participants. A total of 1,315 readers of the Knowledge@Wharton website participated (27% female). The age of respondents ranged from 18 to 94, with a mean of 39. Spendthrift-Tightwad scale responses indicated that the sample included 471 tightwads, 165 spendthrifts, and 679 unconflicted consumers. A sample in which tightwads greatly outnumbered spendthrifts was anticipated, given the website's highly educated readership. Rick et al. (2008) found that tightwads are more likely than spendthrifts to hold advanced degrees.

Method. The survey began with the Spendthrift-Tightwad scale. Respondents were then presented with the list of categories. Above the list, respondents were asked, "Please estimate

how much money you have spent OVER THE PAST MONTH in each category.” For each of the 25 categories, respondents could choose one of 11 intervals (\$0, \$1-10, \$11-20, \$21-30, \$31-40, \$41-50, \$51-100, \$101-150, \$151-200, \$201-250, Above \$250). Neter (1970) identified several errors that can bias responses to questions like this, but the anonymous nature of this survey and the relatively short period of time under investigation (one month) mitigate some of those concerns. Most importantly, there is no a priori reason to think that any particular group of respondents will be any more or less susceptible to such errors than any other group of respondents. Morwitz (1997), for example, found that the likelihood of accurately recalling the date of a personal computer purchase did not vary by gender or age.

Results. Table 3 presents the distribution of responses by consumer type for each category. Overall, spendthrifts spend significantly more than tightwads in 19 of the 24 expenditure categories. Tightwads and spendthrifts behave the most differently in the category that produces the largest spendthrift/tightwad difference in the pain of paying (as revealed in study 1): clothes. Tightwads are twice as likely as spendthrifts to have spent nothing over the past month on clothes (50% vs. 24%; $\chi^2(1) = 32.61$; $p < .0001$), and spendthrifts are nearly eight times as likely as tightwads to have spent over \$250 over the past month on clothes (23% vs. 3%; $\chi^2(1) = 71.02$; $p < .0001$). However, spendthrifts do not spend more than tightwads across the board. Recall that spendthrift/tightwad differences in spending are hypothesized to be smallest when spendthrift/tightwad differences in the pain of paying are smallest (H1). To test H1, we compare spendthrift/tightwad spending differences in the 12 categories that produce the largest spendthrift/tightwad differences in the pain of paying (clothes through tipping) to spendthrift/tightwad spending differences in the 12 categories that produce the smallest

spendthrift/tightwad differences in the pain of paying (lottery tickets through automobile maintenance). Table 3 reveals that spendthrifts spend significantly more than tightwads in 100% of the 12 categories that produce the largest spendthrift/tightwad differences in the pain of paying, but in only 58% of the 12 categories that produce the smallest spendthrift/tightwad differences in the pain of paying. These proportions differ significantly ($p < .04$, Fisher's Exact Test), providing support for H1.

Insert table 3 about here

Next, we examine the role of gender. Before analyzing whether gender moderates spendthrift/tightwad spending differences, however, we first examine the main effect of gender on spending. Given that females were relatively unlikely to participate in this survey in the first place (males outnumber females by a roughly 3:1 ratio), it is worth examining whether there is anything peculiar about the females who did participate (in terms of spending, that is). Table 4 presents the distribution of spending responses by gender. Males spend significantly more than females in seven categories (automobile maintenance, electronic gadgets, cable/internet service, parking garages, restaurant meals, beverages, and their favorite hobby). Females spend significantly more than males in six categories (clothes, personal care, appearance maintenance, gifts, donations, and preventive health care). Given the nature of the categories that differ by gender, it appears there was nothing too peculiar about the general spending behavior of the males and females who participated.

Insert table 4 about here

We now examine whether gender moderates the influence of individual differences in the tendency to experience a pain of paying. Tables 5 and 6 present the distribution of responses by consumer type among males and females, respectively. Among males, spendthrifts spend significantly more than tightwads in 20 of the 24 expenditure categories. Among females, spendthrifts spend significantly more than tightwads in only 4 of the 24 expenditure categories (the significant difference in donations is not included in this total, as it is female tightwads who donate significantly more than female spendthrifts). This difference is highly significant (83% vs. 17%; $\chi^2(1) = 21.33$; $p < .0001$), providing support for H2.

Insert tables 5 and 6 about here

Discussion. Study 2 provides support for Hypotheses 1 and 2. More generally, it reveals how important it is to consider the conditions under which spendthrift/tightwad spending differences are most likely to emerge. Only four expenditure categories produce significant spending differences between tightwads and spendthrifts within each gender (clothes, personal care, appearance maintenance, and cell phone add-ons), and only three categories never produce spendthrift/tightwad spending differences (preventive health care, life insurance, and automobile maintenance). In the remaining 71% of expenditure categories, gender influences whether spendthrifts act like tightwads.

Studies 3a and 3b examine why gender moderates the influence of individual differences in the tendency to experience a pain of paying. Specifically, I analyze whether the tendency to experience a pain of paying is a less stable individual difference among females, or a less influential one.

Study 3a

To examine whether the tendency to experience a pain of paying is a less stable individual difference among females, Study 3a examines whether the test-retest reliability of the Spendthrift-Tightwad scale differs by gender.

Participants and Method. At the conclusion of the *New York Times* and NBC surveys, participants were asked if they would be willing to take similar online surveys in the future. Approximately 52% of respondents agreed to be contacted in the future and provided their e-mail address. Those participants were contacted nearly three months after taking the original survey and asked to take a brief follow-up survey, which included the Spendthrift-Tightwad scale as well as a few unrelated questions. Overall, 1,290 respondents took the follow-up survey (49% female). The amount of time between the initial and follow-up survey ranged from 76 to 150 days, with an average difference of 117 days.

Results. Consistent with Rick et al. (2008), we find that the test-retest reliability of the Spendthrift-Tightwad scale is highly significant ($r = 0.82$; $t(1,288) = 51.31$; $p < .0001$). Among males, test-retest reliability is 0.79 ($t(654) = 33.45$; $p < .0001$). Among females, test-retest reliability is 0.84 ($t(632) = 38.69$; $p < .0001$). Thus, it appears that the tendency to experience a pain of paying is no less stable an individual difference among females than among males. In fact, test-retest reliability is significantly greater among females ($z = 2.38$; $p < .02$).

Study 3b

The results of study 3a suggest that one's location along the Spendthrift-Tightwad dimension is no less stable an individual difference among females. Study 3b examines one factor that may suppress the influence of the pain of paying, namely the therapeutic benefits of spending. Specifically, Study 3b analyzes how the relative influence of the pain of paying and the therapeutic benefits of spending differ by gender.

Participants. As in study 1, respondents were recruited through a web link advertised in a *New York Times* article. A total of 6,575 respondents participated (43% female). Respondents' ages ranged from 18 to 98, with a mean of 40. Respondents' Spendthrift-Tightwad scale responses indicated that the sample included 1,639 tightwads, 983 spendthrifts, and 3,953 unconflicted consumers.

Method. The survey began with the Spendthrift-Tightwad scale. Participants were then asked to rate their agreement with several statements on a 1 (strongly disagree) to 5 (strongly agree) scale, many of which were unrelated to the topic under investigation. However, the responses to two items ("Spending money is painful for me" and "Spending money helps me feel better when I'm sad or blue") will ultimately be used as independent variables in regressions predicting spending by category. Following those agree/disagree items, participants were presented with the list of categories. Above the list, respondents were told, "Listed below are some types of items on which people spend money. Please indicate how often you under-spend or over-spend on each type of item by selecting a number in each row, or select N/A if you do not spend money on that type of item." Responses were rated on a 1 ("Don't spend when I should") to 7 ("Spend when I shouldn't") scale, where 4 was labeled as "Neither over-spend nor

under-spend.” A continuous dependent measure of spending was utilized in study 3b since data were to be analyzed with regression.

Results. We begin by examining whether the continuous spending measure produced results similar to the categorical measure utilized in study 2. Raw spending ratings have been re-coded (raw rating – 4), so that instances of over-spending or under-spending can be more easily identified (i.e., -3 now represents “Don’t spend when I should,” 0 represents “Neither over-spend nor under-spend,” and 3 represents “Spend when I shouldn’t”). Table 7 presents spending ratings by category for each consumer type. Overall, spendthrifts report over-spending significantly more (or under-spending significantly less) than tightwads in 20 of the 24 expenditure categories. Consistent with study 2, spendthrifts spend significantly more than tightwads in all 12 categories that produce the largest spendthrift/tightwad differences in the pain of paying (clothes through tipping). In the 12 categories that produce the smallest spendthrift/tightwad differences in the pain of paying (lottery tickets through automobile maintenance), spendthrifts spend significantly more than tightwads in eight categories. This difference (100% vs. 67%) is marginally significant ($p < .10$, Fisher’s Exact Test), replicating the general pattern observed in study 2 and providing further support for H1.

Insert table 7 about here

Next, we examine the relative influence of the pain of paying and the therapeutic benefits of spending among males and females. Responses to the therapeutic item (“Spending money helps me feel better when I’m sad or blue”) have been reverse-scored so that responses to both the pain item (“Spending money is painful for me”) and therapeutic item will generally be

negatively correlated with spending ratings. Responses to the pain and therapeutic items are modestly but significantly correlated ($r = 0.11$; $t(6484) = 8.50$; $p < .0001$). Table 8 presents the results of a series of regressions using the pain and therapeutic items to predict spending ratings by category. Although we have participants' responses to the Spendthrift-Tightwad scale, which measures individual differences in the tendency to experience a pain of paying, the single pain item is used in the regressions since there is only a single item measuring the extent to which participants derive therapeutic benefits from spending. As the first column within each gender reveals, self-reported pain of paying is almost always significantly and negatively correlated with spending ratings (23/25 categories among males; 22/25 categories among females). As the second column within each gender reveals, the therapeutic benefits of spending are also often significantly and negatively correlated with spending ratings (17/25 categories among males; 19/25 categories among females). However, when both the pain and therapeutic items are entered in multiple regressions predicting spending ratings by category, we find that the pain of paying is more likely to be significantly more influential than the therapeutic benefits of spending among males. According to Wald tests, the coefficient for the pain item is significantly more negative than the coefficient for the therapeutic item in 14 categories among males and in only seven categories among females, a significant difference (56% vs. 28%; $\chi^2(1) = 4.02$; $p < .05$). Moreover, when the pain and therapeutic items are entered into a multiple regression predicting the average spending rating across all categories (the OVERALL row in table 8), we find that the magnitude of the pain coefficient is more than twice as large as the therapeutic coefficient among males (-.29 vs. -.13), but the two are nearly identical among females (-.22 vs. -.21).

Insert table 8 about here

Discussion. Studies 3a and 3b attempted to determine why spendthrift/tightwad spending differences are significantly smaller among females than among males. The results reveal that the tendency to experience a pain of paying is no less stable an individual difference among females, but rather a less influential one. While the pain of paying appears to be at least twice as influential as the therapeutic benefits of spending among males, these factors appear to be about equally influential among females.

GENERAL DISCUSSION

It is often said that consumer behavior and decision-making research pays too little attention to the role of individual differences (e.g., Frederick 2005; Hunter 2001). This is likely true, but one reason why 'situational' researchers have paid so little attention to traits may be that many individual difference researchers have devoted too little effort to clarifying the conditions under which the traits they are interested in are most likely to influence behavior. To facilitate informed and productive usage of the Spendthrift-Tightwad scale, the research reported here uses a nationwide sample of over 8,000 respondents to understand when and why spendthrifts and tightwads are most likely to behave differently.

Specifically, this research examines the extent to which different types of expenditures are painful to make and whether spendthrift/tightwad differences in experienced pain of paying across categories can explain spendthrift/tightwad differences in spending across categories. We find that tightwads and spendthrifts behave most similarly in those categories that evoke about the same amount of pain of paying from both tightwads and spendthrifts. However, most types of

expenditures evoke significantly more pain among tightwads than spendthrifts, and in most of those categories spendthrifts spend significantly more.

In addition to expenditure category, gender also strongly moderates the influence of individual differences in the tendency to experience a pain of paying. Spendthrift/tightwad spending differences are five times larger among males than among females. The tendency to experience a pain of paying is no less stable an individual difference among females, but rather a less influential one. Among females, the pain of paying appears to be no more influential than the therapeutic benefits of spending. Among males, by contrast, the pain of paying is at least twice as influential as the therapeutic benefits of spending.

Limitations and Future Directions

One limitation of the present work is that the 24 expenditure categories under investigation are, of course, far from a comprehensive assortment of the kinds of expenditures made by consumers. It is unclear how sensitive the conclusions drawn here are to the types of categories under investigation. One set of expenditures that were particularly under-represented in the present research were purchases of big-ticket items (e.g., cars, houses, jewelry), since those items are by their nature unlikely to have been purchased during the time period respondents were asked to recall (the past month). It is worth examining whether spendthrift/tightwad spending differences persist when expenditures are large, important, and made only a few times over the lifespan.

Moreover, future research could delve deeper into why gender moderates the influence of individual differences in the tendency to experience a pain of paying. Although this research

identifies one important factor (the therapeutic benefits of spending), there are likely other important factors that suppress the influence of the pain of paying among females. Marriage is one likely candidate, since many spending decisions that were once made individually are now being made jointly. Although marriage likely reduces the influence of the pain of paying among both men and women, women may be most affected if they are most likely to shop on behalf of the family. Of course, the extent to which marriage acts as a moderator likely depends heavily on the extent to which opposites (tightwads and spendthrifts) attract, an interesting research question itself.

Finally, future research should examine the determinants of the pain of saving and why spendthrifts are most likely to experience it. One possibility is that saving among tightwads is more automated or rule-based (e.g., having a portion of each paycheck direct deposited in a savings account, or manually depositing a fixed proportion of each paycheck into savings), whereas saving among spendthrifts may be more effortful or ad hoc. As an initial examination of this possibility, the following open-ended question was included at the end of the survey described in study 3b: “Finally, please tell us about some of the strategies you use to try to save money. Are these strategies always effective? Or are there certain situations in which you are unable to control your spending?” Responses were coded according to whether or not they mentioned some element of automation or rule-based saving. Counterintuitively, spendthrifts were significantly more likely than tightwads to spontaneously report automated or rule-based saving practices (24% vs. 17%; $\chi^2(1) = 12.05; p < .001$). Indeed, several tightwads claimed that they do not consciously try to save; for example, one 33 year-old female tightwad noted:

“To be honest, I consciously try not to strategize about ways to save money. I tend to analyze my potential purchases too much as it is – do I like it? Is it useful or necessary? Do I want it as much as they're charging for it? Do I care enough to want to get it right now, or would I rather put it off? – I think if I added a conscious level of rigor to not

spending, I would end up as one of those crazy miser ladies who live a sub-poverty life, yet have millions. I'm maybe a little too good at saving money already; I don't think I need to strategize to get better at it."

Future research should more closely examine whether tightwads' large savings accounts are the result of conscious planning and scrimping, or rather the byproduct of an inability to spend as much as they would ideally like to spend.

APPENDIX

THE SPENDTHRIFT-TIGHTWAD SCALE (Rick et al. 2008)

1. Which of the following descriptions fits you better?

| | | | | | | | | | | |
|-----------------------------|---|---|----------------|---|---|---|-----------------------------------|---|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Tightwad | | | About the same | | | | Spendthrift | | | |
| (difficulty spending money) | | | or neither | | | | (difficulty controlling spending) | | | |

2. Some people have trouble limiting their spending: they often spend money—for example on clothes, meals, vacations, phone calls—when they would do better not to.

Other people have trouble spending money. Perhaps because spending money makes them anxious, they often don't spend money on things they should spend it on.

a. How well does the first description fit you? That is, do you have trouble limiting your spending?

| | | | | |
|-------|--------|-----------|-------|--------|
| 1 | 2 | 3 | 4 | 5 |
| Never | Rarely | Sometimes | Often | Always |

b. (-) How well does the second description fit you? That is, do you have trouble spending money?

| | | | | |
|-------|--------|-----------|-------|--------|
| 1 | 2 | 3 | 4 | 5 |
| Never | Rarely | Sometimes | Often | Always |

3. (-) Following is a scenario describing the behavior of two shoppers. After reading about each shopper, please answer the question that follows.

Mr. A is accompanying a good friend who is on a shopping spree at a local mall. When they enter a large department store, Mr. A sees that the store has a “one-day-only-sale” where everything is priced 10-60% off. He realizes he doesn't need anything, yet can't resist and ends up spending almost \$100 on stuff.

Mr. B is accompanying a good friend who is on a shopping spree at a local mall. When they enter a large department store, Mr. B sees that the store has a “one-day-only-sale” where everything is priced 10-60% off. He figures he can get great deals on many items that he needs, yet the thought of spending the money keeps him from buying the stuff.

In terms of your own behavior, who are you more similar to, Mr. A or Mr. B?

| | | | | |
|-------|---------------------------|---|---|-------|
| 1 | 2 | 3 | 4 | 5 |
| Mr. A | About the same or neither | | | Mr. B |

Note: Items 2b and 3 are reverse-scored, and then all responses are summed. Following Rick et al. (2008), tightwads are those with Spendthrift-Tightwad scale sums from 4 to 11, unconflicted consumers are those with sums from 12 to 18, and spendthrifts are those with sums from 19 to 26.

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TABLE 1
MEAN PAIN OF PAYING RATINGS BY CATEGORY AND CONSUMER TYPE

| | TIGHTWAD (n = 86) | UNCONFLICTED (n = 228) | SPENDTHRIFT (n = 58) | OVERALL (n = 372) |
|---------------------|------------------------------------|---|---------------------------------------|------------------------------------|
| Clothes | 4.06 _a | 3.36 _b | 2.53 _c | 3.39 |
| Personal Care | 4.49 _a | 3.92 _b | 3.02 _c | 3.91 |
| Books/CDs/DVDs | 3.80 _a | 3.20 _b | 2.43 _c | 3.22 |
| Luxuries | 5.69 _a | 5.22 _b | 4.36 _c | 5.20 |
| Coffee/Tea/Pastries | 3.60 _a | 3.11 _b | 2.42 _c | 3.12 |
| Electronics | 4.80 _a | 4.14 _b | 3.67 _b | 4.22 |
| Beverages | 3.56 _a | 2.91 _b | 2.45 _b | 2.99 |
| Taxis | 5.50 _a | 4.61 _b | 4.40 _b | 4.78 |
| Appearance Maint. | 3.94 _a | 3.14 _b | 2.95 _b | 3.30 |
| Fitness | 4.27 _a | 3.60 _b | 3.40 _b | 3.72 |
| Entertainment | 3.78 _a | 3.13 _b | 2.95 _b | 3.25 |
| Tipping | 3.00 _a | 2.48 _b | 2.22 _b | 2.56 |
| Lottery Tickets | 5.82 _a | 5.43 _{ab} | 5.11 _b | 5.47 |
| Cell Phone Add-Ons | 6.29 _a | 6.12 _a | 5.63 _b | 6.08 |
| Favorite Hobby | 2.65 _a | 2.29 _b | 2.07 _b | 2.34 |
| Restaurants | 3.31 _a | 2.93 _b | 2.75 _b | 2.99 |
| Gifts | 2.93 _a | 2.51 _b | 2.38 _b | 2.59 |
| Vacations | 4.17 _a | 3.47 _b | 3.64 _b | 3.66 |
| Parking | 5.22 _a | 4.76 _b | 4.70 _{ab} | 4.86 |
| Cable/Internet | 3.68 _a | 3.33 _a | 3.19 _a | 3.39 |
| Donations | 3.45 _a | 3.29 _a | 3.16 _a | 3.30 |
| Health Care | 3.19 _a | 2.81 _a | 3.19 _a | 2.96 |
| Life Insurance | 4.34 _a | 4.29 _a | 4.52 _a | 4.34 |
| Automobile Maint. | 4.02 _a | 3.77 _a | 4.79 _b | 3.99 |
| Saving | 2.46 _a | 2.44 _a | 3.37 _b | 2.59 |

Note: Excluding the Overall column, means within a row that do not share a common subscript differ at the $p < .05$ level.

TABLE 2
MEAN PAIN OF PAYING RATINGS BY CATEGORY AND CONSUMER TYPE, AMONG EACH GENDER

| | MALES | | | FEMALES | | |
|---------------------|----------------------|--------------------------|-------------------------|----------------------|---------------------------|-------------------------|
| | TIGHTWAD (n = 36) | UNCONFLICTED (n = 94) | SPENDTHRIFT (n = 17) | TIGHTWAD (n = 47) | UNCONFLICTED (n = 129) | SPENDTHRIFT (n = 41) |
| Clothes | 3.94 _a | 3.60 _a | 2.25 _b | 4.13 _a | 3.16 _b | 2.63 _c |
| Personal Care | 4.86 _a | 4.35 _a | 3.35 _b | 4.32 _a | 3.58 _b | 2.88 _c |
| Books/CDs/DVDs | 3.25 _a | 2.88 _a | 2.00 _b | 4.15 _a | 3.43 _b | 2.61 _c |
| Luxuries | 5.61 _a | 5.16 _a | 4.76 _a | 5.66 _a | 5.28 _a | 4.20 _b |
| Coffee/Tea/Pastries | 3.31 _a | 2.97 _{ab} | 2.12 _b | 3.91 _a | 3.18 _b | 2.55 _c |
| Electronics | 4.42 _a | 3.73 _b | 2.94 _b | 5.09 _a | 4.43 _b | 3.98 _b |
| Beverages | 3.31 _a | 2.71 _{ab} | 2.06 _b | 3.87 _a | 3.10 _b | 2.61 _b |
| Taxis | 5.22 _a | 4.41 _b | 4.82 _{ab} | 5.77 _a | 4.73 _b | 4.22 _b |
| Appearance Maint. | 3.78 _a | 2.94 _b | 3.00 _{ab} | 4.17 _a | 3.33 _b | 2.93 _b |
| Fitness | 3.81 _a | 3.48 _a | 3.53 _a | 4.78 _a | 3.68 _b | 3.34 _b |
| Entertainment | 3.53 _a | 3.09 _a | 2.76 _a | 4.04 _a | 3.18 _b | 3.02 _b |
| Tipping | 3.08 _a | 2.60 _{ab} | 1.94 _b | 2.89 _a | 2.43 _a | 2.34 _a |
| Lottery Tickets | 5.50 _a | 5.33 _a | 4.75 _a | 6.02 _a | 5.59 _{ab} | 5.24 _b |
| Cell Phone Add-Ons | 6.17 _a | 6.03 _a | 5.13 _b | 6.36 _a | 6.19 _a | 5.83 _a |
| Favorite Hobby | 2.42 _a | 2.13 _{ab} | 1.65 _b | 2.91 _a | 2.40 _b | 2.24 _b |
| Restaurants | 3.14 _a | 2.76 _{ab} | 2.24 _b | 3.48 _a | 3.05 _a | 2.98 _a |
| Gifts | 2.75 _a | 2.61 _a | 2.06 _a | 3.06 _a | 2.46 _b | 2.51 _{ab} |
| Vacations | 4.00 _a | 3.52 _a | 3.71 _a | 4.45 _a | 3.48 _b | 3.61 _b |
| Parking | 4.92 _a | 4.56 _a | 4.29 _a | 5.41 _a | 4.91 _a | 4.88 _a |
| Cable/Internet | 3.44 _a | 3.13 _a | 2.76 _a | 3.98 _a | 3.49 _a | 3.37 _a |
| Donations | 3.42 _a | 3.22 _a | 2.94 _a | 3.45 _a | 3.29 _a | 3.24 _a |
| Health Care | 3.03 _a | 2.82 _a | 3.18 _a | 3.38 _a | 2.83 _a | 3.20 _a |
| Life Insurance | 4.06 _a | 4.43 _a | 4.06 _a | 4.65 _a | 4.18 _a | 4.71 _a |
| Automobile Maint. | 4.11 _a | 3.38 _b | 4.35 _a | 3.93 _a | 4.10 _a | 4.98 _b |
| Saving | 1.92 _a | 2.39 _{ab} | 3.19 _b | 2.91 _{ab} | 2.49 _a | 3.44 _b |

Note: Within each gender, means within a row that do not share a common subscript differ at the $p < .05$ level.

TABLE 3
ONE-MONTH SPENDING DISTRIBUTIONS BY CONSUMER TYPE (%)

| | TIGHTWAD (n = 471) | | | | UNCONFLICTED (n = 679) | | | | SPENDTHRIFT (n = 165) | | | | Significance of Diff. (based on $\chi^2(3)$ tests) | | |
|---------------------|-------------------------------|---------------|-----------------|------------------|-----------------------------------|---------------|-----------------|------------------|----------------------------------|---------------|-----------------|------------------|--|--------------|--------------|
| | \$0 | \$1-50 | \$51-250 | >\$250 | \$0 | \$1-50 | \$51-250 | >\$250 | \$0 | \$1-50 | \$51-250 | >\$250 | TW/UC | ST/UC | TW/ST |
| Clothes | 50 | 28 | 19 | 3 | 38 | 25 | 28 | 9 | 24 | 18 | 34 | 23 | <.001 | <.001 | <.001 |
| Personal Care | 53 | 45 | 2 | 0 | 41 | 54 | 5 | 0 | 25 | 56 | 16 | 3 | <.001 | <.001 | <.001 |
| Books/CDs/DVDs | 37 | 49 | 13 | 0 | 28 | 54 | 18 | 1 | 21 | 44 | 28 | 7 | .002 | <.001 | <.001 |
| Luxuries | 89 | 11 | 0 | 0 | 80 | 17 | 3 | 1 | 63 | 24 | 7 | 5 | <.001 | <.001 | <.001 |
| Coffee/Tea/Pastries | 39 | 57 | 4 | 0 | 25 | 65 | 10 | 0 | 22 | 59 | 19 | 0 | <.001 | .027 | <.001 |
| Electronics | 84 | 9 | 3 | 3 | 77 | 10 | 7 | 7 | 71 | 12 | 5 | 12 | .003 | .120 | <.001 |
| Beverages | 11 | 64 | 22 | 3 | 7 | 63 | 27 | 3 | 9 | 42 | 36 | 13 | .089 | <.001 | <.001 |
| Taxis | 83 | 14 | 3 | 0 | 76 | 19 | 5 | 0 | 67 | 19 | 12 | 2 | .028 | <.001 | <.001 |
| Appearance Maint. | 36 | 58 | 6 | 0 | 25 | 61 | 13 | 1 | 22 | 46 | 29 | 3 | <.001 | <.001 | <.001 |
| Fitness | 63 | 23 | 13 | 1 | 55 | 28 | 16 | 2 | 55 | 25 | 16 | 4 | .046 | .267 | .045 |
| Entertainment | 44 | 44 | 10 | 2 | 32 | 49 | 17 | 2 | 32 | 40 | 22 | 7 | <.001 | .004 | <.001 |
| Tipping | 13 | 77 | 10 | 0 | 8 | 82 | 10 | 0 | 7 | 64 | 25 | 4 | .052 | <.001 | <.001 |
| Lottery Tickets | 88 | 11 | 0 | 0 | 85 | 14 | 1 | 0 | 80 | 17 | 3 | 0 | .176 | .043 | .003 |
| Cell Phone Add-Ons | 97 | 3 | 0 | 0 | 91 | 9 | 0 | 0 | 81 | 16 | 2 | 0 | <.001 | <.001 | <.001 |
| Favorite Hobby | 48 | 34 | 14 | 4 | 45 | 36 | 14 | 5 | 42 | 29 | 18 | 11 | .524 | .012 | .002 |
| Restaurants | 5 | 32 | 48 | 15 | 4 | 18 | 61 | 17 | 2 | 18 | 50 | 31 | <.001 | <.001 | <.001 |
| Gifts | 45 | 34 | 15 | 5 | 36 | 37 | 22 | 6 | 30 | 34 | 26 | 10 | .006 | .149 | <.001 |
| Vacations | 74 | 3 | 8 | 14 | 72 | 2 | 10 | 16 | 69 | 2 | 7 | 22 | .377 | .295 | .142 |
| Parking | 72 | 25 | 3 | 1 | 72 | 22 | 5 | 1 | 66 | 24 | 7 | 3 | .139 | .108 | .012 |
| Cable/Internet | 11 | 47 | 41 | 1 | 10 | 40 | 49 | 0 | 12 | 34 | 53 | 2 | .068 | .119 | .019 |
| Donations | 52 | 27 | 13 | 8 | 51 | 28 | 13 | 8 | 51 | 23 | 18 | 9 | .969 | .349 | .496 |
| Health Care | 55 | 28 | 13 | 4 | 48 | 34 | 15 | 3 | 48 | 35 | 9 | 7 | .056 | .026 | .095 |
| Life Insurance | 63 | 22 | 10 | 5 | 59 | 24 | 14 | 4 | 58 | 25 | 13 | 4 | .089 | .962 | .481 |
| Automobile Maint. | 53 | 22 | 13 | 12 | 56 | 21 | 15 | 8 | 53 | 23 | 14 | 9 | .138 | .825 | .778 |
| Saving | 46 | 4 | 11 | 40 | 47 | 6 | 12 | 35 | 56 | 5 | 12 | 26 | .184 | .111 | .026 |

Note: Some rows within a respondent category (tightwad, unconflicted, or spendthrift) do not sum to 100% due to rounding errors.

TABLE 4
ONE-MONTH SPENDING DISTRIBUTIONS BY GENDER (%)

| | MALE (n = 962) | | | | FEMALE (n = 353) | | | | Significance of Diff. (based on $\chi^2(3)$ tests) |
|---------------------|---------------------------|---------------|-----------------|------------------|-----------------------------|---------------|-----------------|------------------|--|
| | \$0 | \$1-50 | \$51-250 | >\$250 | \$0 | \$1-50 | \$51-250 | >\$250 | Male/Female |
| Clothes | 46 | 26 | 21 | 7 | 24 | 24 | 39 | 12 | <.001 |
| Personal Care | 49 | 47 | 3 | 0 | 27 | 60 | 11 | 2 | <.001 |
| Books/CDs/DVDs | 31 | 50 | 18 | 2 | 30 | 55 | 15 | 1 | .270 |
| Luxuries | 83 | 14 | 2 | 1 | 76 | 20 | 3 | 1 | .064 |
| Coffee/Tea/Pastries | 29 | 61 | 10 | 0 | 31 | 61 | 7 | 0 | .415 |
| Electronics | 76 | 11 | 6 | 7 | 86 | 6 | 3 | 6 | <.001 |
| Beverages | 7 | 58 | 30 | 5 | 14 | 68 | 16 | 2 | <.001 |
| Taxis | 76 | 17 | 6 | 1 | 80 | 16 | 4 | 0 | .163 |
| Appearance Maint. | 29 | 64 | 6 | 0 | 27 | 42 | 29 | 2 | <.001 |
| Fitness | 59 | 25 | 15 | 2 | 56 | 27 | 15 | 3 | .639 |
| Entertainment | 36 | 46 | 15 | 3 | 38 | 45 | 14 | 2 | .823 |
| Tipping | 9 | 77 | 13 | 1 | 11 | 80 | 8 | 0 | .058 |
| Lottery Tickets | 84 | 15 | 1 | 0 | 89 | 10 | 1 | 0 | .176 |
| Cell Phone Add-Ons | 92 | 8 | 0 | 0 | 91 | 8 | 1 | 0 | .873 |
| Favorite Hobby | 44 | 33 | 16 | 6 | 50 | 39 | 8 | 3 | <.001 |
| Restaurants | 4 | 21 | 55 | 20 | 4 | 29 | 55 | 12 | <.001 |
| Gifts | 41 | 34 | 18 | 7 | 30 | 39 | 26 | 6 | <.001 |
| Vacations | 72 | 2 | 9 | 17 | 73 | 4 | 9 | 14 | .387 |
| Parking | 69 | 24 | 6 | 1 | 76 | 21 | 3 | 1 | .026 |
| Cable/Internet | 10 | 40 | 49 | 1 | 14 | 47 | 40 | 0 | .007 |
| Donations | 54 | 25 | 13 | 8 | 44 | 32 | 16 | 8 | .018 |
| Health Care | 54 | 30 | 13 | 4 | 41 | 40 | 15 | 4 | <.001 |
| Life Insurance | 61 | 21 | 13 | 5 | 58 | 28 | 11 | 3 | .059 |
| Automobile Maint. | 54 | 20 | 14 | 11 | 56 | 25 | 14 | 5 | .005 |
| Saving | 48 | 5 | 10 | 37 | 46 | 6 | 15 | 33 | .083 |

Note: Some rows within either gender do not sum to 100% due to rounding errors.

TABLE 5
ONE-MONTH SPENDING DISTRIBUTIONS BY CONSUMER TYPE AMONG MALES (%)

| | TIGHTWAD (n = 386) | | | | UNCONFLICTED (n = 479) | | | | SPENDTHRIFT (n = 97) | | | | Significance of Diff. (based on $\chi^2(3)$ tests) | | |
|---------------------|-------------------------------|---------------|-----------------|------------------|-----------------------------------|---------------|-----------------|------------------|---------------------------------|---------------|-----------------|------------------|--|--------------|--------------|
| | \$0 | \$1-50 | \$51-250 | >\$250 | \$0 | \$1-50 | \$51-250 | >\$250 | \$0 | \$1-50 | \$51-250 | >\$250 | TW/UC | ST/UC | TW/ST |
| Clothes | 54 | 28 | 16 | 2 | 44 | 26 | 23 | 7 | 29 | 16 | 29 | 25 | <.001 | <.001 | <.001 |
| Personal Care | 55 | 44 | 2 | 0 | 48 | 49 | 3 | 0 | 35 | 55 | 9 | 1 | .186 | <.001 | <.001 |
| Books/CDs/DVDs | 38 | 49 | 13 | 0 | 28 | 52 | 20 | 1 | 16 | 39 | 34 | 10 | .002 | <.001 | <.001 |
| Luxuries | 90 | 9 | 0 | 0 | 81 | 16 | 2 | 1 | 57 | 25 | 10 | 7 | .002 | <.001 | <.001 |
| Coffee/Tea/Pastries | 39 | 57 | 4 | 0 | 24 | 64 | 11 | 0 | 14 | 61 | 25 | 0 | <.001 | .003 | <.001 |
| Electronics | 83 | 10 | 4 | 3 | 73 | 11 | 8 | 8 | 65 | 14 | 7 | 15 | <.001 | .203 | <.001 |
| Beverages | 9 | 63 | 24 | 3 | 5 | 60 | 31 | 3 | 8 | 29 | 44 | 19 | .027 | <.001 | <.001 |
| Taxis | 82 | 14 | 3 | 1 | 75 | 19 | 5 | 0 | 59 | 21 | 16 | 4 | .057 | <.001 | <.001 |
| Appearance Maint. | 35 | 60 | 5 | 0 | 25 | 70 | 5 | 0 | 22 | 54 | 21 | 4 | .023 | <.001 | <.001 |
| Fitness | 64 | 22 | 13 | 2 | 56 | 28 | 16 | 1 | 52 | 25 | 19 | 5 | .075 | .034 | .039 |
| Entertainment | 45 | 43 | 10 | 2 | 31 | 49 | 18 | 2 | 22 | 46 | 23 | 9 | <.001 | <.001 | <.001 |
| Tipping | 13 | 77 | 10 | 0 | 7 | 81 | 11 | 0 | 5 | 55 | 34 | 6 | .053 | <.001 | <.001 |
| Lottery Tickets | 87 | 13 | 0 | 0 | 84 | 15 | 1 | 0 | 76 | 21 | 3 | 0 | .344 | .086 | 0.006 |
| Cell Phone Add-Ons | 97 | 3 | 0 | 0 | 90 | 10 | 0 | 0 | 84 | 14 | 2 | 0 | <.001 | .078 | <.001 |
| Favorite Hobby | 48 | 34 | 14 | 4 | 42 | 34 | 16 | 7 | 37 | 25 | 24 | 15 | .154 | .008 | <.001 |
| Restaurants | 4 | 31 | 48 | 16 | 4 | 15 | 63 | 19 | 2 | 10 | 44 | 43 | <.001 | <.001 | <.001 |
| Gifts | 47 | 33 | 14 | 5 | 39 | 35 | 19 | 6 | 31 | 31 | 25 | 13 | .091 | .061 | .002 |
| Vacations | 75 | 3 | 8 | 14 | 71 | 2 | 10 | 16 | 66 | 1 | 5 | 28 | .213 | .044 | .010 |
| Parking | 71 | 26 | 3 | 1 | 70 | 23 | 7 | 1 | 58 | 26 | 12 | 4 | .056 | .014 | <.001 |
| Cable/Internet | 10 | 46 | 43 | 1 | 9 | 38 | 52 | 1 | 9 | 28 | 60 | 2 | .060 | .158 | .008 |
| Donations | 56 | 24 | 13 | 8 | 53 | 27 | 13 | 7 | 49 | 25 | 14 | 12 | .628 | .350 | .556 |
| Health Care | 57 | 26 | 12 | 5 | 52 | 32 | 14 | 2 | 51 | 32 | 7 | 10 | .006 | <.001 | .072 |
| Life Insurance | 63 | 21 | 10 | 5 | 60 | 21 | 15 | 4 | 60 | 21 | 13 | 6 | .163 | .694 | .876 |
| Automobile Maint. | 53 | 20 | 14 | 14 | 55 | 20 | 15 | 9 | 53 | 21 | 13 | 13 | .249 | .687 | .985 |
| Saving | 47 | 4 | 10 | 39 | 48 | 6 | 10 | 36 | 58 | 2 | 9 | 31 | .322 | .203 | .256 |

Note: Some rows within a respondent category (tightwad, unconflicted, or spendthrift) do not sum to 100% due to rounding errors.

TABLE 6
ONE-MONTH SPENDING DISTRIBUTIONS BY CONSUMER TYPE AMONG FEMALES (%)

| | TIGHTWAD (n = 85) | | | | UNCONFLICTED (n = 200) | | | | SPENDTHRIFT (n = 68) | | | | Significance of Diff. (based on $\chi^2(3)$ tests) | | |
|---------------------|------------------------------|---------------|-----------------|------------------|-----------------------------------|---------------|-----------------|------------------|---------------------------------|---------------|-----------------|------------------|--|--------------|--------------|
| | \$0 | \$1-50 | \$51-250 | >\$250 | \$0 | \$1-50 | \$51-250 | >\$250 | \$0 | \$1-50 | \$51-250 | >\$250 | TW/UC | ST/UC | TW/ST |
| Clothes | 33 | 27 | 35 | 5 | 23 | 24 | 40 | 13 | 17 | 21 | 41 | 21 | .089 | .301 | .004 |
| Personal Care | 44 | 51 | 2 | 2 | 25 | 65 | 10 | 1 | 12 | 57 | 25 | 6 | .002 | <.001 | <.001 |
| Books/CDs/DVDs | 36 | 50 | 13 | 1 | 28 | 58 | 14 | 0 | 26 | 51 | 19 | 3 | .246 | .075 | .479 |
| Luxuries | 81 | 18 | 1 | 0 | 76 | 19 | 5 | 1 | 72 | 24 | 1 | 3 | .484 | .203 | .334 |
| Coffee/Tea/Pastries | 39 | 57 | 4 | 0 | 27 | 65 | 8 | 0 | 34 | 56 | 10 | 0 | .184 | .593 | .407 |
| Electronics | 91 | 2 | 1 | 5 | 86 | 6 | 4 | 5 | 81 | 9 | 1 | 9 | .466 | .330 | .226 |
| Beverages | 19 | 66 | 13 | 1 | 12 | 71 | 15 | 2 | 10 | 61 | 24 | 4 | .516 | .169 | .119 |
| Taxis | 87 | 11 | 2 | 0 | 79 | 17 | 5 | 0 | 78 | 18 | 4 | 0 | .505 | .998 | .583 |
| Appearance Maint. | 40 | 46 | 12 | 2 | 24 | 42 | 31 | 3 | 22 | 35 | 41 | 1 | .004 | .484 | <.001 |
| Fitness | 61 | 26 | 13 | 0 | 53 | 28 | 16 | 4 | 59 | 25 | 13 | 3 | .271 | .871 | .474 |
| Entertainment | 39 | 50 | 10 | 1 | 36 | 47 | 14 | 3 | 46 | 31 | 21 | 3 | .650 | .123 | .066 |
| Tipping | 15 | 76 | 8 | 0 | 10 | 83 | 7 | 1 | 10 | 76 | 13 | 0 | .406 | .330 | .653 |
| Lottery Tickets | 95 | 5 | 0 | 0 | 87 | 12 | 1 | 0 | 86 | 11 | 3 | 0 | .285 | .412 | .229 |
| Cell Phone Add-Ons | 98 | 2 | 0 | 0 | 93 | 7 | 0 | 0 | 78 | 19 | 3 | 0 | .490 | .003 | .002 |
| Favorite Hobby | 49 | 38 | 10 | 4 | 50 | 41 | 7 | 2 | 49 | 35 | 10 | 6 | .575 | .193 | .925 |
| Restaurants | 7 | 39 | 46 | 8 | 4 | 26 | 57 | 13 | 1 | 28 | 57 | 13 | .063 | .857 | .127 |
| Gifts | 38 | 37 | 21 | 5 | 27 | 40 | 27 | 6 | 29 | 37 | 28 | 6 | .344 | .971 | .648 |
| Vacations | 70 | 5 | 11 | 14 | 74 | 3 | 9 | 14 | 72 | 4 | 10 | 13 | .996 | .917 | .996 |
| Parking | 75 | 21 | 4 | 0 | 76 | 21 | 3 | 1 | 78 | 21 | 0 | 1 | .919 | .439 | .293 |
| Cable/Internet | 14 | 52 | 34 | 0 | 13 | 46 | 41 | 0 | 15 | 42 | 42 | 2 | .694 | .316 | .439 |
| Donations | 35 | 42 | 16 | 7 | 45 | 31 | 14 | 10 | 53 | 21 | 22 | 4 | .233 | .082 | .023 |
| Health Care | 43 | 40 | 15 | 1 | 39 | 39 | 15 | 6 | 45 | 40 | 12 | 3 | .349 | .637 | .809 |
| Life Insurance | 63 | 24 | 7 | 5 | 56 | 29 | 11 | 4 | 55 | 30 | 13 | 1 | .534 | .821 | .327 |
| Automobile Maint. | 56 | 29 | 10 | 5 | 57 | 23 | 15 | 6 | 53 | 26 | 16 | 4 | .513 | .901 | .706 |
| Saving | 43 | 4 | 13 | 40 | 44 | 6 | 15 | 35 | 55 | 9 | 17 | 20 | .722 | .137 | .040 |

Note: Some rows within a respondent category (tightwad, unconflicted, or spendthrift) do not sum to 100% due to rounding errors.

TABLE 7
OVER-SPENDING / UNDER-SPENDING RATINGS BY CONSUMER TYPE

| | TIGHTWAD (n = 1639) | UNCONFLICTED (n = 3953) | SPENDTHRIFT (n = 983) | OVERALL (n = 6575) |
|---------------------|--------------------------------------|--|--|-------------------------------------|
| Clothes | -1.21 _a | -0.34 _b | 0.78 _c | -0.39 |
| Personal Care | -0.74 _a | -0.35 _b | 0.17 _c | -0.36 |
| Books/CDs/DVDs | -0.08 _a | 0.43 _b | 0.95 _c | 0.38 |
| Luxuries | -0.89 _a | -0.45 _b | 0.05 _c | -0.47 |
| Coffee/Tea/Pastries | -0.07 _a | 0.22 _b | 0.65 _c | 0.22 |
| Electronics | -0.28 _a | 0.10 _b | 0.43 _c | 0.06 |
| Beverages | 0.18 _a | 0.44 _b | 0.87 _c | 0.44 |
| Taxis | -0.78 _a | -0.36 _b | -0.14 _c | -0.43 |
| Appearance Maint. | -1.10 _a | -0.67 _b | -0.17 _c | -0.70 |
| Fitness | -0.55 _a | -0.38 _b | -0.36 _b | -0.42 |
| Entertainment | -0.64 _a | -0.25 _b | 0.17 _c | -0.29 |
| Tipping | 0.30 _a | 0.47 _b | 0.68 _c | 0.46 |
| Lottery Tickets | -0.60 _a | -0.54 _a | -0.54 _a | -0.56 |
| Cell Phone Add-Ons | -0.79 _a | -0.64 _b | -0.40 _c | -0.63 |
| Favorite Hobby | -0.02 _a | 0.41 _b | 1.00 _c | 0.39 |
| Restaurants | 0.27 _a | 0.62 _b | 1.22 _c | 0.63 |
| Gifts | -0.44 _a | 0.08 _b | 0.56 _c | 0.03 |
| Vacations | -0.60 _a | -0.18 _b | 0.15 _c | -0.23 |
| Parking | -0.68 _a | -0.35 _b | -0.20 _c | -0.41 |
| Cable/Internet | 0.07 _a | 0.20 _b | 0.40 _c | 0.20 |
| Donations | -1.04 _a | -0.90 _b | -0.76 _c | -0.92 |
| Health Care | -0.49 _a | -0.38 _b | -0.49 _a | -0.42 |
| Life Insurance | -0.49 _{ab} | -0.47 _a | -0.60 _b | -0.50 |
| Automobile Maint. | -0.40 _a | -0.30 _b | -0.43 _a | -0.35 |
| Saving | -0.45 _a | -0.67 _b | -1.19 _c | -0.68 |

Note: Excluding the Overall column, means within a row that do not share a common subscript differ at the $p < .05$ level.

TABLE 8
RELATIVE INFLUENCE OF PAIN OF PAYING (β_1) AND THERAPEUTIC BENEFITS (β_2) ON SPENDING BY GENDER

| | MALE (n = 3718) | | | | FEMALE (n = 2780) | | | |
|---------------------|--------------------|--------------|--------------------------|--------------------------|----------------------|--------------|--------------------------|--------------------------|
| | β_1 | β_2 | β_1 | β_2 | β_1 | β_2 | β_1 | β_2 |
| Clothes | -.23* | -.13* | -.23* _a | -.12 _b | -.23* | -.31* | -.19* _a | -.28* _a |
| Personal Care | -.12* | -.05* | -.12* _a | -.04* _b | -.15* | -.23* | -.12* _a | -.21* _b |
| Books/CDs/DVDs | -.14* | -.17* | -.12* _a | -.16* _a | -.11* | -.13* | -.09* _a | -.12* _a |
| Luxuries | -.19* | -.10* | -.18* _a | -.09* _b | -.15* | -.16* | -.14* _a | -.15* _a |
| Coffee/Tea/Pastries | -.10* | -.13* | -.09* _a | -.13* _a | -.05* | -.13* | -.03 _a | -.13* _b |
| Electronics | -.13* | -.14* | -.12* _a | -.13* _a | -.10* | -.09* | -.09* _a | -.08* _a |
| Beverages | -.10* | -.11* | -.09* _a | -.10* _a | -.02 | -.09* | -.01 _a | -.09* _b |
| Taxis | -.17* | -.07* | -.17* _a | -.06* _b | -.11* | -.06* | -.11* _a | -.05 _b |
| Appearance Maint. | -.18* | -.07* | -.17* _a | -.06* _b | -.19* | -.14* | -.14* _a | -.12* _b |
| Fitness | -.05* | .02 | -.06* _a | .03 _b | -.03 | .00 | -.03 _a | .01 _a |
| Entertainment | -.15* | -.09* | -.14* _a | -.08* _b | -.12* | -.12* | -.10* _a | -.11* _a |
| Tipping | -.08* | -.10* | -.07* _a | -.09* _a | -.01 | -.10* | .01 _a | -.10* _b |
| Lottery Tickets | -.08* | -.00 | -.08* _a | .00 _b | -.06* | .02 | -.06* _a | .02 _a |
| Cell Phone Add-Ons | -.11* | -.05* | -.10* _a | -.04* _b | -.11* | -.05* | -.10* _a | -.04 _b |
| Favorite Hobby | -.14* | -.17* | -.13* _a | -.16* _a | -.15* | -.15* | -.13* _a | -.13* _a |
| Restaurants | -.10* | -.15* | -.09* _a | -.15* _a | -.07* | -.18* | -.05* _a | -.17* _b |
| Gifts | -.15* | -.09* | -.15* _a | -.08* _b | -.12* | -.16* | -.10* _a | -.15* _a |
| Vacations | -.15* | .00 | -.15* _a | .01 _b | -.12* | -.05* | -.11* _a | -.03 _b |
| Parking | -.16* | -.05* | -.15* _a | -.04* _b | -.09* | -.06* | -.09* _a | -.05* _a |
| Cable/Internet | -.08* | -.04* | -.08* _a | -.04* _b | -.07* | -.08* | -.06* _a | -.07* _a |
| Donations | -.08* | .01 | -.08* _a | .01 _b | -.08* | -.01 | -.08* _a | -.00 _b |
| Health Care | -.05* | .06* | -.05* _a | .06* _b | -.10* | -.01 | -.10* _a | -.00 _b |
| Life Insurance | -.01 | .10* | -.02 _a | .10* _b | -.08* | .01 | -.08* _a | .02 _b |
| Automobile Maint. | -.09* | .05* | -.09* _a | .06* _b | -.10* | -.07* | -.11* _a | .09* _b |
| Saving | .05* | .12* | -.04* _a | .12* _b | -.06* | .11* | -.07* _a | .12* _b |
| OVERALL | -.30* | -.16* | -.29*_a | -.13*_b | -.25* | -.25* | -.22*_a | -.21*_a |

Note: For each gender and product category, three regressions were run [Regression 1: Spending rating = β_1 (Pain of Paying); Regression 2: Spending rating = β_2 (Therapeutic Benefits); Regression 3: Spending rating = β_1 (Pain of Paying) + β_2 (Therapeutic Benefits)]. Spending rating is the re-coded -3 (Don't spend when I should) to +3 (Spend when I shouldn't) response for a given category; Pain of Paying is the 1 (Strongly Disagree) to 5 (Strongly Agree) response to the "Spending money is painful for me" item; and Therapeutic Benefits is the response to the "Spending money helps me feel better when I'm sad or blue" item, which has been reverse-scored so that 1 indicates Strongly Agree and 5 indicates Strongly Disagree. The OVERALL category is the average Spending rating across all categories. Standardized regression weights are reported above. Within each gender, the first column reports the results of Regression 1, the second column reports the results of Regression 2, and the third and fourth columns report the results of Regression 3. An * indicates that the regression weight is significantly different from zero at the $p < .05$ level. Within the third and fourth columns of each gender, coefficients within a row that have different subscripts differ at the $p < .05$ level, according to Wald tests.