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Although much research has found that “birds of a feather flock together,” the authors suggest that opposites tend to attract when it comes to certain spending tendencies; that is, tightwads, who generally spend less than they would ideally like to spend, and spendthrifts, who generally spend more than they would ideally like to spend, tend to marry each other, consistent with the notion that people are attracted to mates who possess characteristics dissimilar to those they deplore in themselves. Despite this complementary attraction, tightwad–spendthrift differences within a marriage predict conflict over finances, which in turn predicts diminished marital well-being. These relationships persist when controlling for important financial outcomes (household-level savings and credit card debt). These findings underscore the importance of studying the relationships among money, consumption, and happiness at an interpersonal level.

*Keywords:* spousal decision making, personal finance, consumer behavior, interpersonal relationships, marriage

## Fatal (Fiscal) Attraction: Spendthrifts and Tightwads in Marriage

Money and relationships are strange bedfellows. Depending on the situation, money can draw people closer together or isolate them completely. For example, inducing mating goals in men increases their willingness to spend money on conspicuous luxuries, presumably as an attempt to signal their wealth to potential mates (Griskevicius et al. 2007). However, even nonconscious reminders of money can lead people to physically distance themselves from others (Vohs, Mead, and Goode 2006, Study 7) and reduce their ability to understand the perspective of others (Caruso, Mead, and Vohs 2008). These findings highlight the importance of money in interpersonal contexts, though there is little research linking spending behavior to attraction and relationship satisfaction. In the current study, we examine whether the divergence between a person’s typical and desired spending behaviors (i.e., chronically spending more

or less than desired) predicts who people marry, as well as whether and why spousal differences in chronic over- or underspending influence marital well-being.

Marketing research has shed light on the dynamics of spousal decision making (e.g., Corfman and Lehmann 1987; Su, Fern, and Ye 2003), but whether spending tendencies (e.g., chronic over- or underspending) predict mate selection remains an open question. Although the existing consumer behavior literature offers few clues regarding the relationship between spouses’ spending tendencies, the attraction literature in social psychology seems to offer a clear prediction. Social psychologists have frequently found that people tend to select spouses with similar demographic characteristics, attitudes, values, and even names (Jones et al. 2004). In their comprehensive review of this literature, Watson et al. (2004) observe that the vast majority of evidence is consistent with the notion that “birds of a feather flock together” (a pattern also known as “positive assortment”), with little evidence suggesting that opposites attract (also known as “complementarity”). These findings suggest that people with similar spending tendencies will be attracted to one another.

Yet despite the overwhelming evidence suggestive of positive assortment, similarity may not be a universal principle of mate selection. Rather, an important moderator could be whether people dislike a trait in themselves. Peo-

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ple are powerfully motivated to avoid becoming their undesired self (Ogilvie 1987), and marrying someone who shares a disliked trait might be perceived as a step in that direction. Indeed, Klohnen and Mendelsohn (1998) argue that complementarity is likely to be observed for characteristics people deplore in themselves. Although people may be attracted to others who possess characteristics similar to those they value in themselves (Freud [1914] 1957) and characteristics similar to those they neither value nor deplore in themselves (e.g., arm length; Keller, Thiessen, and Young 1996), dissimilarity should be most appealing for “disliked aspects of the self” (Klohnen and Mendelsohn 1998, p. 269; cf. Heider 1958, p. 186).<sup>1</sup> This proposed moderation suggests that people who are unhappy with their typical spending behavior should be attracted to people who have dissimilar spending tendencies.

This reasoning is important because recent behavioral decision research has suggested that many people are unhappy with their typical spending behavior. This work suggests that, because opportunity costs are difficult to assess (e.g., Frederick et al. 2009; Jones et al. 1998), people rely on negative emotion—specifically, the “pain of paying”—as a proxy for opportunity costs when making spending decisions (Knutson et al. 2007; Prelec and Loewenstein 1998). However, because pain is only a crude proxy for opportunity costs, some people chronically spend more or less than they would have had they relied on consideration of opportunity costs to deter their spending (Rick, Cryder, and Loewenstein 2008). People differ in their tendency to experience the pain of paying, and Rick, Cryder, and Loewenstein (2008) refer to people on opposing ends of the continuum as “spendthrifts” and “tightwads.” Spendthrifts do not experience enough pain for their own good, leading them to spend more than they would ideally like to spend. In contrast, tightwads experience too much pain for their own good, leading them to spend less than they would ideally like to spend.

Using a sample of more than 13,000 adults, Rick, Cryder, and Loewenstein (2008) demonstrate that individual differences in chronic over- or underspending can be reliably measured with a simple self-report scale. Individual differences on this tightwad–spendthrift (TW-ST) scale strongly predicted savings and credit card debt but were unrelated to income. For example, among credit card holders, spendthrifts were three times as likely as tightwads to be in debt. Their discriminant validity analyses revealed that the TW-ST scale was distinct from several related constructs, such as self-control, impulsivity, regulatory focus, frugality, and materialism.

Building on Klohnen and Mendelsohn’s (1998) logic, we suggest one reason people on opposing ends of the TW-ST scale might attract is that they are likely to deplore their own typical spending behavior. Indeed, achieving a very low or very high TW-ST scale score is possible only if respondents indicate some divergence between their typical and desired spending behaviors.<sup>2</sup> If this divergence implies dissatisfac-

tion, tightwads and spendthrifts should be attracted to each other (Klohnen and Mendelsohn 1998):

H<sub>1</sub>: The correlation between the TW-ST scale scores of husbands and wives is negative.

Given that spending decisions are a common source of marital conflict (Madden and Janoff-Bulman 1981; Smock, Manning, and Porter 2005, p. 692) and divorce (Albrecht 1979, p. 862), it is important to consider whether the hypothesized complementarity will ultimately be beneficial for relationships. Although Klohnen and Mendelsohn’s (1998) logic makes clear predictions regarding initial partner selection, it makes no predictions regarding the implications of partner selection for relationship well-being. Indeed, Klohnen and Mendelsohn did not measure relationship satisfaction in their study, because there were no clear predictions to test.

Most previous research on marital disputes over money has focused on how couples cope with an acute financial crisis (e.g., recent unemployment) or economic hardship in general (Conger, Rueter, and Elder 1999). However, much anecdotal evidence suggests that disputes about money are not limited to couples struggling to make ends meet (e.g., Bernard 2008). Given that spousal dissimilarity tends to be positively related to marital conflict (e.g., Luo and Klohnen 2005, p. 314), spouses who differ in their spending tendencies may be particularly vulnerable to disputes over money, independent of their financial constraints. Combined with the common finding that marital conflict is negatively related to marital well-being (Luo and Klohnen 2005; Watson et al. 2004), our reasoning leads to the following hypothesis, which has two components:

H<sub>2</sub>: (a) Complementary TW-ST tendencies among spouses are associated with diminished marital well-being, and (b) this relationship is mediated by conflict over money.

Although we advance H<sub>2</sub> a priori, we are open to the possibility that the opposite pattern could emerge. Similarity does not guarantee relationship satisfaction: There are situations in which complementarity (e.g., dominance vs. submissiveness [Dryer and Horowitz 1997] or opposing regulatory focus orientations [Lake et al. 2008]) leads to more satisfying relationships. Consistent with this work, complementarity on the TW-ST dimension may enhance relationship well-being by enabling spouses to take on roles they are most comfortable with (e.g., the tightwad manages savings and investments, and the spendthrift does the bulk of the shopping). Moreover, similarity on the TW-ST dimension might produce undesirable levels of indulgence or debt (i.e., tightwad–tightwad marriages may suffer from too little indulgence, whereas spendthrift–spendthrift marriages may suffer from too much debt). We allow the data to determine the precise nature of the relationship between complementary attraction and conflict over money and marital well-being.

#### OVERVIEW OF THE CURRENT RESEARCH

To summarize, we predict that tightwads tend to marry spendthrifts but that this complementary attraction is ultimately bad for their marriage. We begin with a pretest that examines whether tightwads and spendthrifts actually dislike being tightwads and spendthrifts. Study 1 then tests our

<sup>1</sup>Klohnen and Mendelsohn (1998, p. 273) do not investigate their hypothesis directly, but they do find that the more people were unhappy with their location on a host of dimensions, the less likely they were to be similar to their spouses on those dimensions.

<sup>2</sup>Therefore, Rick, Cryder, and Loewenstein (2008) refer to people who are neither tightwads nor spendthrifts as “unconflicted consumers.”

opposites-attract hypothesis by asking married adults to assess both their own and their spouses' location on the TW-ST dimension. We also ask respondents to assess their own and their spouses' location on other spending dimensions commonly used in the marketing literature (i.e., price consciousness and sale proneness; Lichtenstein, Ridgway, and Netemeyer 1993) to determine whether complementary attraction is unique to the TW-ST dimension or whether complementarity is observed on all spending dimensions.

Because people might imperfectly assess their spouses' spending tendencies (cf. Davis, Hoch, and Ragsdale 1986; Lerouge and Warlop 2006), Study 2 tests our opposites-attract hypothesis by asking both spouses in a marriage to assess only their own spending tendencies. Study 2 also examines whether spousal TW-ST differences predict (diminished) marital well-being ( $H_{2a}$ ).

Finally, Study 3 serves three purposes. First, it provides additional insight into why tightwads and spendthrifts attract. Specifically, we examine whether the extent to which spending is a source of distress predicts the degree to which respondents have married someone with opposing TW-ST tendencies. Second, Study 3 examines whether the relationship between spousal TW-ST differences and (diminished) marital well-being is mediated by conflict over money ( $H_{2b}$ ). Third, Study 3 explores whether the relationship between spousal TW-ST differences and marital well-being persists when we control for important financial outcomes (household-level savings and credit card debt).

### Study 1

The primary purpose of Study 1 is to investigate our opposites-attract hypothesis. We also examine whether complementary attraction exists on other spending dimensions commonly used in the marketing literature (price consciousness and sale proneness; Lichtenstein, Ridgway, and Netemeyer 1993) to determine whether complementarity is unique to the TW-ST dimension. This is important to examine because it could be the case that a person's location on the TW-ST dimension, and spending attitudes in general, are difficult to define. To simplify the task of assessing their location on a given spending dimension, people may compare themselves with salient reference points. Married respondents may be inclined to compare themselves with their spouse, with whom they likely make many purchases and most of their important financial decisions. Thus, even if positive assortment objectively exists on a given spending dimension, complementarity may be observed if respondents are basing their self-assessments on perceived differences from their spouse. Although previous research has observed positive assortment on a host of subjective dimensions (e.g., extraversion, openness, ambition, humor, imaginativeness, jealousy; Keller, Thiessen, and Young 1996; McCrae et al. 2008; Watson et al. 2004), even when spouses are encouraged to compare themselves with each other (Keller, Thiessen, and Young 1996, p. 218), this prior work did not rule out spousal contrast effects on spending dimensions.

If married respondents assess their own location on spending dimensions by contrasting themselves with their spouse, we should observe complementary attraction on all three dimensions. However, if self-assessments on spending dimensions are not a by-product of spousal contrast effects, we should observe complementarity only on the TW-ST

dimension. That is, we anticipate that we will observe the positive assortment researchers have routinely observed on nonspending dimensions (Watson et al. 2004) on the price consciousness and sale proneness dimensions because there is no reason to believe, on the basis of the scale items themselves or the original conceptualizations of the constructs, that people high or low on these dimensions are particularly unhappy with their location on these dimensions (cf. Klohnen and Mendelsohn 1998).

*Pretest.* To recap, we hypothesize that people with high and low scores on the TW-ST scale are particularly dissatisfied with that aspect of themselves but that this inverted U-shaped relationship between scale scores and satisfaction does not hold for the price consciousness and sale proneness scales. We examined these hypotheses in a pretest of 300 married adults (50% were women, and ages ranged from 20 to 84 years [ $M = 48.7$  years]) who were members of a panel maintained by an online survey company. Participants were randomly assigned to complete one of three scales: the TW-ST scale, the price consciousness scale, or the sale proneness scale. The TW-ST scale (see Appendix A) consists of four items that assess the extent to which respondents experience a divergence between their typical and desired spending behaviors. The price consciousness scale (Lichtenstein, Ridgway, and Netemeyer 1993) consists of five items that assess the extent to which respondents prioritize price when making spending decisions (sample item [reverse-scored]: "The money saved by finding low prices is usually not worth the time and effort"). The sale proneness scale (Lichtenstein, Ridgway, and Netemeyer 1993) consists of six items that assess the extent to which respondents are influenced by sales (sample item: "If a product is on sale, that can be a reason for me to buy it").

After completing the one spending scale to which they were randomly assigned, participants answered two questions designed to assess the extent to which they were satisfied with their location on that particular spending dimension:

1. How happy are you with yourself regarding the spending issues raised above? In other words, how happy are you with how you typically respond to the spending issues raised above? (-3 to +3 scale, where -3 = "not at all happy" and +3 = "very happy")
2. Do you wish that you could change yourself with respect to the spending issues raised above? (-3 to +3 scale, where -3 = "very much" and +3 = "not at all")

Responses correlated highly with one another ( $r(298) = .58$ ;  $p < .0001$ ); therefore, we averaged them to form a satisfaction index.

We examined whether satisfaction index scores had an inverted U-shaped relationship with each scale. (Such a relationship would indicate that people with very high and low spending scale scores are particularly dissatisfied with that aspect of themselves.) First, we regressed satisfaction index scores on spending scale scores (a simple linear model). Next, we regressed satisfaction index scores on spending scale scores and squared spending scale scores (a curvilinear model). An inverted U-shaped relationship between satisfaction index scores and spending scale scores is demonstrated if there is no significant linear association in the simple linear model and if the squared term in the curvilinear model is significantly negative. The TW-ST scale was the only scale to meet both conditions for an

inverted U-shaped relationship with satisfaction. The price consciousness and sale proneness scales did not meet these conditions and actually trended in the opposite direction. Thus, consistent with our theory, we predicted complementarity only on the TW-ST dimension.

*Participants.* Study 1 participants were members of a panel that an online survey company maintained. Participants completed our survey (advertised simply as a “Spending Behavior Survey”) to earn a small payment. A total of 880 married adults participated (76% were women, and ages ranged from 20 to 78 years [ $M = 44.6$  years]). Respondents’ median gross household income fell between \$50,000 and \$60,000. Marital length ranged from less than 1 year to 53 years ( $M = 16.6$  years).

*Procedure.* For each of the three spending dimensions, respondents first assessed their own and then their spouse’s location on the dimension. To create scales for one’s spouse, we replaced all references to the respondent with references to the respondent’s spouse (e.g., “your spouse” instead of “you”). We counterbalanced the order of scales across participants. All scales were reliable (mean  $\alpha$  for self scales = .78; mean  $\alpha$  for spouse scales = .85).

*Results.* First, we examined whether opposites tend to attract on the TW-ST dimension. We found that the correlation between the respondent’s TW-ST score (which we refer to as “Self TW-ST”) and the spouse’s TW-ST score (which we refer to as “Spouse TW-ST”) were negative and significant ( $r(878) = -.11, p = .001$ ), consistent with the hypothesis that opposites tend to attract for disliked spending tendencies ( $H_1$ ). Although not large, this negative correlation is particularly meaningful because it strongly contrasts with prior research, in which “the accumulating data overwhelmingly support the existence of positive assortment” (Watson et al. 2004, p. 1030). However, it is consistent with the theory that for disliked aspects of the self, complementarity is desirable (Klohn and Mendelsohn 1998).<sup>3</sup> In contrast, on the other spending dimensions, for which there is no inverted U-shaped relationship between scale scores and satisfaction, we observed significant positive assortment:  $r(878) = .29 (p < .0001)$  for price consciousness and  $r(878) = .42 (p < .0001)$  for sale proneness.

*Discussion.* Study 1 offers initial support for our opposites-attract hypothesis. We observe evidence of complementarity on the TW-ST dimension but not on the price consciousness and sale proneness dimensions. Instead, we observe the much more common pattern of positive assortment (Watson et al. 2004) on these other spending dimensions. We anticipated complementarity only on the TW-ST dimension because, as the pretest revealed, it is the only spending scale that has an inverted U-shaped relationship with satisfaction.

An important limitation of Study 1 is that the analyses rely exclusively on one spouse’s view of the marriage. People in long-term romantic relationships often have difficulty predicting their partner’s attitudes toward products (Davis,

Hoch, and Ragsdale 1986; Lerouge and Warlop 2006), and it is unclear whether their partner’s spending tendencies are any more accessible. Study 2 addresses this limitation and tests  $H_{2a}$  by measuring marital well-being.

### Study 2

The first purpose of Study 2 is to replicate our key result from Study 1 (complementary attraction on the TW-ST dimension) without relying on individual respondents’ assessments of their spouse’s spending tendencies. The second purpose is to examine whether spousal TW-ST differences predicted (diminished) marital well-being ( $H_{2a}$ ).

*Participants.* In late 2007, the American RadioWorks Web site posted a survey about spending and saving. There was no indication that the survey involved marriage until marriage-related questions appeared at the end of the survey. The survey concluded by encouraging married participants to ask their spouse to complete the survey as well. Thus, spouses within a couple completed the same survey at different times; both provided their own and their spouse’s initials and zip code so that their responses could later be matched. Respondents were not paid to participate; their only incentive was learning their TW-ST score after the study concluded.

A total of 1666 adults responded, including 739 married people. Of the married respondents, 112 persuaded their spouse to participate. The 112 couples consisted of 110 heterosexual couples and 2 homosexual couples. Because some of the wording in our measure of marital well-being was designed exclusively for heterosexual couples, we focus our analyses exclusively on the 110 heterosexual couples.

In those couples, the wife was the first to take the survey 54% of the time. The mean age was 41.9 years among husbands and 40.4 years among wives. Both husbands and wives reported a median personal annual income in the range of \$60,000–\$70,000. Marital length ranged from less than 1 year to 48 years ( $M = 11.6$ ).

*Procedure.* Participants initially completed the TW-ST scale ( $\alpha = .77$ ) and then provided some demographic information. Next, married participants completed the Marital Adjustment Test (Locke and Wallace 1959;  $\alpha = .86$ ), a 15-item measure of marital well-being that assesses the extent to which partners are satisfied with the marriage and agree on important issues.

*Results.* We began by examining whether our complementary attraction finding from Study 1 replicated. The correlation between husbands’ and wives’ self-assessed TW-ST scores was negative and significant ( $r(108) = -.20, p < .05$ ). Given that spouses assessed their own spending tendencies, the significant, negative correlation we observed suggests that the complementary attraction result in Study 1 was not merely an artifact of relying on one spouse’s view of the relationship.

Next, we examined the relationship between spousal TW-ST differences and marital well-being. We focus this analysis on the 97 couples in which both husbands and wives answered all Marital Adjustment Test items. To capture TW-ST differences within the marriage, we computed  $|\text{husband TW-ST} - \text{wife TW-ST}|$ , the absolute difference between husbands’ and wives’ TW-ST scores. To capture marital well-being, we used Marital Adjustment Test scores. Scores from husbands and wives correlated significantly with one

<sup>3</sup>To examine whether this pattern reflected complementary attraction or divergence of spending tendencies over time, we regressed Spouse TW-ST on Self TW-ST, marriage length, and a Self TW-ST  $\times$  marriage length interaction. There was a significant main effect of Self TW-ST ( $\beta = -.15, p = .05$ ), no significant main effect of marriage length ( $\beta = -.03, p = .56$ ), and, most important, no significant interaction ( $\beta = .001, p = .84$ ). Thus, the data do not suggest divergence over time but rather seem consistent with complementary attraction.

another ( $r(95) = .56, p < .0001$ ); thus, we averaged them to form our measure of marital well-being. Consistent with  $H_{2a}$ ,  $|\text{husband TW-ST} - \text{wife TW-ST}|$  correlated negatively with marital well-being ( $r(95) = -.21, p < .05$ ).<sup>4</sup>

*Discussion.* Study 2 offers additional support for our opposites-attract hypothesis. When both spouses assessed their own location on the TW-ST dimension, we observe evidence of complementary attraction. However, consistent with  $H_{2a}$ , this complementary attraction ultimately seems to hurt marriages because it is associated with diminished marital well-being.

### Study 3

The previous studies demonstrate that tightwads and spendthrifts attract (Studies 1 and 2) and that TW-ST scores have an inverted U-shaped relationship with satisfaction (Study 1 pretest). In Study 3, we take the next step by first examining whether the extent to which spending is a source of distress predicts the degree to which respondents married someone with opposing TW-ST tendencies. We examine emotional distress in Study 3, rather than global dissatisfaction as in the Study 1 pretest, because we expect that distress is more likely to be the proximal mechanism driving complementary attraction.

The second purpose of Study 3 is to examine whether conflict over money mediates the relationship between spousal TW-ST differences and diminished marital well-being ( $H_{2b}$ ). The third purpose is to examine whether the relationships between spousal TW-ST differences and financial harmony and marital well-being persist when we control for household-level savings and credit card debt. Debt and (lack of) savings are important predictors of marital conflict over money (Dew 2007), and it is unclear whether the psychological costs of spousal TW-ST differences observed in Study 2 will persist when we control for financial outcomes. For example, spendthrifts may accumulate greater debt and less savings when married to another spendthrift than when married to a tightwad, and these financial problems may overwhelm the benefits of reduced conflict over money in spendthrift-spendthrift marriages.

*Participants.* In early 2007, the TierneyLab blog on the *New York Times* Web site posted a survey about spending and saving in which respondents gave their e-mail address if they were willing to be contacted about future surveys. In late 2008, 1758 respondents were sent e-mails asking them to take a new spending survey. Only 1644 respondents actually received the e-mail because 114 of the e-mail addresses given in 2007 were no longer valid. The original 2007 survey did not involve marriage, and there was no indication that the new survey involved marriage until marriage-related questions appeared at the end of the survey. Thus, it is doubt-

ful that the survey was particularly attractive to people who perceived spending to be a problem in their marriage and wanted to learn more about it. Respondents were not paid to participate; their only incentive was receiving a report of the study's results after it had concluded.

A total of 916 people responded, though our analyses focus on the 458 married respondents who completed all marriage-related questions (48% were women, and ages ranged from 24 to 83 years [ $M = 47.3$  years]). Married respondents' median gross household income fell between \$125,000 and \$150,000. Marital length ranged from less than 1 year to 61 years ( $M = 15.6$ ).

*Procedure.* First, participants completed the TW-ST scale ( $\alpha = .78$ ). They then answered two questions designed to assess the extent to which spending was a source of emotional distress:

1. Sometimes we react emotionally toward the prospect of spending money. For example, the prospect of spending money may make us anxious, or perhaps excited. If you could change your typical emotional reactions toward spending money, would you? (seven-point scale, where 1 = "absolutely not" and 7 = "absolutely")
2. Sometimes buying decisions make us feel conflicted. For example, we may want to buy something, but the anxiety we feel when contemplating spending keeps us from buying it. Or we may want to avoid buying something, but we buy it anyway and later regret it. How often do spending decisions make you feel conflicted? (seven-point scale, where 1 = "never" and 7 = "always")

Responses correlated highly with one another ( $r(456) = .51, p < .0001$ ); therefore, we averaged them to form a spending distress index.

Next, participants answered some unrelated questions and provided demographic and financial information (household-level savings, credit card debt, and income). Married participants continued to a second part of the survey, which asked them about their marriage. The survey assessed marital well-being using a three-item scale ( $\alpha = .82$ ) modified from Locke and Wallace's (1959) Marital Adjustment Test. Then, to measure the extent to which money was a source of conflict in their marriage, participants rated their agreement with ten statements we developed to measure financial harmony (see Appendix B;  $\alpha = .90$ ). Finally, we asked participants to assess their spouse's location on the TW-ST dimension by completing the TW-ST scale for their spouses ( $\alpha = .84$ ).

*Results.* We organized our analyses around three general questions: First, we examined whether opposites tend to attract and whether spending-related distress is related to the selection of a dissimilar mate. Second, we examined whether TW-ST differences within a marriage predicted conflicts over money and (diminished) marital well-being. Third, we examined whether spouses' spending tendencies predicted important financial outcomes and whether TW-ST differences predicted financial harmony and (diminished) marital well-being beyond what could be predicted from financial outcomes.

*Do opposites tend to attract, and does spending-related distress predict complementary attraction?* Consistent with Studies 1 and 2, we found that the correlation between Self TW-ST and Spouse TW-ST was negative and significant ( $r(456) = -.11, p < .02$ ), which is further indicative of com-

<sup>4</sup>One Marital Adjustment Test item measured the extent to which spouses agree or disagree when it comes to handling family finances on a 0 ("always disagree") to 5 ("always agree") scale. Responses from husbands and wives correlated significantly with one another ( $r(95) = .45, p < .0001$ ), and  $|\text{husband TW-ST} - \text{wife TW-ST}|$  correlated negatively with the average financial item response from husbands and wives ( $r(97) = -.27, p < .01$ ). The correlation between  $|\text{husband TW-ST} - \text{wife TW-ST}|$  and mean spousal Marital Adjustment Test scores remains significant if we exclude the financial item ( $r(95) = -.20, p = .05$ ). Study 3 explores these relationships further by measuring marital well-being and financial harmony with independently developed, multi-item scales.

plementarity on the TW-ST dimension. Next, we examined the relationship between spending distress index scores and TW-ST scores. We regressed the spending distress index on Self TW-ST (a simple linear model). Then, we regressed the spending distress index on Self TW-ST and squared Self TW-ST (a curvilinear model). There was no significant linear association in the simple linear model (standardized  $\beta = .03, p = .50$ ). The squared term in the curvilinear model was positive and significant (standardized  $\beta = 1.52, p < .001$ ). Thus, we observed a U-shaped relationship between TW-ST scores and spending distress scores. (Note that this is consistent with the inverted U-shaped relationship between TW-ST scores and satisfaction index scores observed in the Study 1 pretest because the spending distress and satisfaction indexes are coded in opposite directions.) The results suggest that spending is particularly distressing for tightwads and spendthrifts.

Next, we examined whether this spending-related distress predicted complementary attraction. Specifically, we examined whether spending distress scores predicted the extent to which participants have married someone unlike themselves. To capture spousal TW-ST differences, we computed  $|\text{Self TW-ST} - \text{Spouse TW-ST}|$ , the absolute difference between Self TW-ST and Spouse TW-ST. Spending distress index scores correlated positively and significantly with  $|\text{Self TW-ST} - \text{Spouse TW-ST}|$  ( $r(456) = .26, p < .0001$ ), suggesting that the more spending is a source of distress, the more likely people are to be attracted to mates with dissimilar TW-ST tendencies. One concern here is reverse causality: It is possible that being married to someone with different TW-ST tendencies produces spending-related distress (e.g., because a person's spouse complains about their spending or lack thereof). However, if we focus our analysis on the 41 newlyweds in our sample (married a year or less), the correlation between spending distress index scores and  $|\text{Self TW-ST} - \text{Spouse TW-ST}|$  increased to  $r(39) = .44$  ( $p < .005$ ). Although we did not measure how long respondents had dated before getting married, most newlywed spouses presumably have had only a limited amount of time to influence how much distress their spouse experiences in response

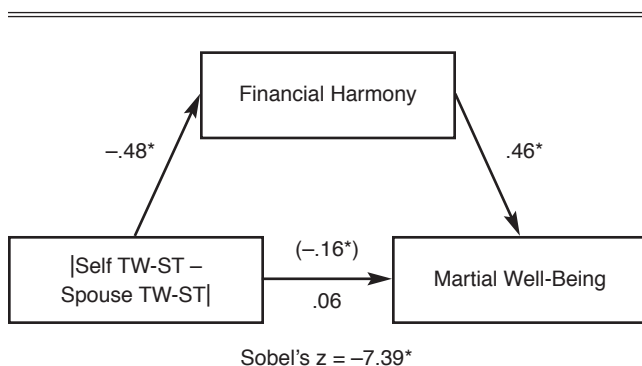
to spending. Thus, the newlywed result provides additional, albeit tentative, support for the claim that spending-related distress increases the appeal of mates with opposing TW-ST tendencies.

*Do spousal TW-ST differences predict conflict over money and (diminished) marital well-being?* We examined whether spousal TW-ST differences predicted diminished marital well-being ( $H_{2a}$ ) and whether this relationship was mediated by conflict over money ( $H_{2b}$ ). Again, to capture TW-ST differences within the marriage, we computed  $|\text{Self TW-ST} - \text{Spouse TW-ST}|$ . To capture financial harmony, we computed the average of the ten responses to the financial harmony items presented in Appendix B. To capture marital well-being, we computed the average of the three responses to the abbreviated version of the Marital Adjustment Test (Locke and Wallace 1959).

We performed the standard four-step mediation analysis (Baron and Kenny 1986). Figure 1 depicts the results from the mediation analysis. Step 1 revealed that  $|\text{Self TW-ST} - \text{Spouse TW-ST}|$  significantly predicted marital well-being (standardized  $\beta = -.16, t(456) = -3.56, p < .001$ ), consistent with Study 2. Step 2 revealed that  $|\text{Self TW-ST} - \text{Spouse TW-ST}|$  significantly predicted financial harmony (standardized  $\beta = -.48, t(456) = -11.78, p < .001$ ). In Step 3, we regressed marital well-being on financial harmony and  $|\text{Self TW-ST} - \text{Spouse TW-ST}|$ . Financial harmony was significantly associated with marital well-being (standardized  $\beta = .46, t(455) = 9.49, p < .001$ ), but  $|\text{Self TW-ST} - \text{Spouse TW-ST}|$  was no longer significantly related to marital well-being (standardized  $\beta = .06, t(455) = 1.18, p = .24$ ). In Step 4, results from the modified Sobel (1982) test revealed that the mediated effect was highly significant ( $z = -7.39, p < .0001$ ). Thus, consistent with  $H_{2b}$ , financial harmony fully mediated the relationship between spousal TW-ST differences and marital well-being.<sup>5</sup>

*Do the relationships between spousal TW-ST differences and financial harmony and (diminished) marital well-being persist when we control for financial outcomes?* We first explored whether spouses' TW-ST tendencies influenced important financial outcomes. More specifically, we examined whether spouses' TW-ST tendencies predicted household-level credit card debt (coded 1 if in debt and 0 if otherwise) and savings (coded 1 if savings are at least \$50,000 and 0 if otherwise), when controlling for income (coded on a six-point scale, where 1 = "\$50,000 or less" and 6 = "\$250,000 or more"). That is, we conducted logistic regressions of each financial outcome on Self TW-ST, Spouse TW-ST, and household income. We found that both Self TW-ST ( $\beta = .20, \text{Wald}(1) = 40.41, p < .001$ ) and Spouse TW-ST ( $\beta = .08, \text{Wald}(1) = 10.56, p < .001$ ) positively predicted the likelihood that couples were in debt. We also found that both Self TW-ST ( $\beta = -.09, \text{Wald}(1) = 8.29, p < .005$ ) and Spouse TW-ST ( $\beta = -.08, \text{Wald}(1) = 8.51, p < .005$ ) nega-

Figure 1  
MEDIATION ANALYSIS (STUDY 3)



\* $p < .001$ .

Notes: The values in the figure represent standardized regression coefficients, and the coefficient in parentheses represents the association between  $|\text{Self TW-ST} - \text{Spouse TW-ST}|$  and marital well-being when we did not include financial harmony in the model.

<sup>5</sup>A limitation of using  $|\text{husband TW-ST} - \text{wife TW-ST}|$  as the independent variable is that absolute difference scores are confounded with their components when those components have unequal variances (Griffin, Murray, and Gonzalez 1999). There was significantly less variance in Self TW-ST than Spouse TW-ST (14.28 vs. 20.77;  $F(1,456) = 15.7, p < .001$ ), so we followed Kenny's (1988) recommendation and ran a second mediation analysis in which each regression controlled for component scores (Self TW-ST and Spouse TW-ST). The Sobel test remained significant ( $z = -7.32, p < .001$ ) when we controlled for components.

tively predicted the likelihood that couples had saved at least \$50,000. Subsequent exploratory analyses revealed that all main effects of Self TW-ST and Spouse TW-ST remained significant ( $p < .05$ ) when we included a Self TW-ST  $\times$  Spouse TW-ST interaction term in the model. The results suggest that spouses' TW-ST tendencies have a largely additive influence on important financial outcomes.<sup>6</sup>

Finally, we examined whether the relationships between spousal TW-ST differences and financial harmony and marital well-being persisted when we control for financial outcomes. In separate sets of regressions, we regressed financial harmony and marital well-being on |Self TW-ST – Spouse TW-ST|, credit card debt and savings, and then all variables simultaneously (always controlling for income). We restricted these analyses to the 439 respondents for whom we had full savings, debt, and income data. Table 1 presents the regression coefficients (standardized  $\beta$ s). As the second and third regressions reveal, credit card debt and savings significantly predicted financial harmony (both  $ps < .001$ ), consistent with prior work demonstrating a link between credit card debt and (lack of) savings and marital conflict over money (Dew 2007). However, the fourth regression revealed that the relationship between |Self TW-ST – Spouse TW-ST| and financial harmony remained significant ( $p < .001$ ) when we controlled for credit card debt and savings. Credit card debt also remained significant, but its coefficient was less than half the magnitude of the coefficient for |Self TW-ST – Spouse TW-ST| (–.19 vs. –.45). Likewise, the second set of regressions revealed that the relationship between |Self TW-ST – Spouse TW-ST| and marital well-being remained significant ( $p < .001$ ) when we controlled for credit card debt and savings, which were not significantly related to marital well-being.

Thus, the results indicate that although spouses' TW-ST tendencies predict important financial outcomes and those outcomes predict financial harmony, spousal TW-ST differences predict financial harmony and marital well-being beyond what can be predicted from financial outcomes.

*Discussion.* Study 3 offers additional support for both our hypotheses. Moreover, it offers insight into why tightwads and spendthrifts attract. We found that the more spending is a source of emotional distress, the more likely people are to be attracted to mates with opposing TW-ST tendencies.

<sup>6</sup>The results were robust to several different ways of coding credit card debt (e.g.,  $\geq \$2,500$  in debt or not,  $\geq \$5,000$  in debt or not,  $\geq \$10,000$  in debt or not) and savings (e.g.,  $\geq \$25,000$  or not,  $\geq \$100,000$  or not,  $\geq \$250,000$  or not). In each regression (controlling for income), the Self TW-ST and Spouse TW-ST coefficients were significant at  $p < .05$ .

Study 3 also sheds light on the relationships among spousal TW-ST differences, important financial outcomes, and marital well-being. For example, our results suggest that spendthrifts who marry tightwads tend to be better-off financially than spendthrifts who marry spendthrifts. However, given that the relationship between spousal TW-ST differences and marital well-being remained significant when we controlled for savings and debt, our results also suggest that spendthrifts who marry spendthrifts tend to experience greater relationship satisfaction, despite their worse financial outcomes. In contrast, tightwads may enjoy better financial outcomes *and* greater relationship satisfaction if married to another tightwad.

GENERAL DISCUSSION

Consumer behavior researchers are understandably devoting more and more attention to the role of money in interpersonal behavior. For example, researchers have recently examined how the desire to form relationships influences spending decisions (Griskevicius et al. 2007), how spending money on others (vs. oneself) influences happiness (Dunn, Aknin, and Norton 2008), how monetary (vs. nonmonetary) compensation influences people's willingness to help others (Heyman and Ariely 2004), how money protects people from the pain of being socially excluded (Zhou, Vohs, and Baumeister 2009), how money reduces people's ability to take others' perspectives (Caruso, Mead, and Vohs 2008), and how money leads people to physically distance themselves from others (Vohs, Mead, and Goode 2006, 2008). We build on the recent surge of interest in money and interpersonal behavior by examining the influence of disliked spending tendencies on whom people marry and the extent to which those marriages are satisfying.

We found that tightwads tend to marry spendthrifts. Consistent with Klohnen and Mendelsohn's (1998) reasoning, we found that the more people experienced distress in response to spending situations, the more likely they were to be attracted to a mate with opposing TW-ST tendencies. This complementary attraction pattern held not only when one spouse assessed both Self and Spouse TW-ST tendencies but also when each spouse in a marriage assessed only Self TW-ST tendencies. Moreover, we did not observe complementary attraction on other spending dimensions (price consciousness and sale proneness), suggesting that the complementary attraction observed on the TW-ST dimension was not an artifact of spousal contrast effects. This pattern is striking given that researchers rarely observe complementarity in married couples (Watson et al. 2004).

Table 1  
RELATIONSHIP BETWEEN SPOUSAL TW-ST DIFFERENCES AND FINANCIAL HARMONY AND MARITAL WELL-BEING, CONTROLLING FOR FINANCIAL OUTCOMES AND INCOME (STUDY 3)

	Dependent Variables							
	Financial Harmony				Marital Well-Being			
Self TW-ST – Spouse TW-ST	–.48*			–.45*	–.16*			–.17*
Carry credit card debt		–.26*		–.19*		–.01		–.01
Save \$50,000 or more			.20*	.05			–.05	–.08
Income	–.00	–.03	–.06	–.04	.03	.03	.05	.05

\* $p < .001$ .

However, this complementary attraction ultimately seems to be bad for marriages: The degree to which spouses differ in their TW-ST tendencies is negatively associated with marital well-being, and this relationship is fully mediated by conflicts over money. This association exists even though complementary attraction is not necessarily bad for financial well-being: For example, spendthrifts would likely be financially better-off marrying a tightwad than another spendthrift. However, given that the relationship between spousal TW-ST differences and marital well-being remains significant when we control for savings and credit card debt, spendthrifts would likely enjoy greater relationship satisfaction when married to another spendthrift. In contrast, the prescription for tightwads may be less ambiguous: It seems likely that tightwads would experience greater financial and marital well-being by marrying another tightwad.

#### *Limitations and Future Directions*

The evidence for complementary attraction was relatively consistent across studies, but it should be recognized that the correlations (effect sizes) were modest (correlations ranging from  $-.11$  to  $-.20$ ). However, small effects are meaningful when observed under inauspicious circumstances (Prentice and Miller 1992), and here the circumstances were arguably inauspicious for at least two reasons. First, as we noted previously, the data from prior relationship research “overwhelmingly support the existence of positive assortment” (Watson et al. 2004, p. 1030). Moreover, the negative self/spouse correlations in Studies 1 and 3 (when respondents rated both themselves and their spouse) might be considered particularly unlikely given that self/spouse correlations tend to be significantly more positive when one spouse assesses both people than when both spouses assess only themselves (e.g., Byrne and Blaylock 1963; Thiessen, Young, and Delgado 1997, p. 159). In addition, the tendency for tightwads and spendthrifts to attract seems to have important implications for financial harmony and marital well-being. Study 3 suggests that these spousal TW-ST differences could be even more influential than actual financial outcomes (savings and credit card debt), which are typically significant predictors of marital conflict over money (Dew 2007, 2008).

Moreover, using samples of married adults raised different selection concerns from those normally raised by using convenience samples of undergraduate students. However, given that we find support for our hypotheses across three samples, for which respondents were recruited very differently (Study 1 respondents participated to earn money, Study 2 respondents persuaded their spouse to participate, and Study 3 respondents participated to receive a report summarizing the research), it seems unlikely that our results were an artifact of selection biases.

It is also worth acknowledging that because a person’s location on the TW-ST scale is impossible to define objectively (because it is partly a function of a person’s desired spending behavior), it is difficult to definitively rule out contrast effects as an artifactual explanation for the complementarity observed here. However, it is not evident why contrast effects would be any more likely for this subjective dimension than for the many other subjective dimensions (e.g., extraversion, openness, ambition; McCrae et al. 2008; Watson et al. 2004) on which researchers have observed

positive assortment. For example, Keller, Thiessen, and Young (1996, p. 218) find positive assortment on subjective dimensions such as humor, imaginativeness, and jealousy, even when encouraging spouses to compare themselves with each other. It is also unclear why the TW-ST dimension is any more susceptible to contrast effects than the other subjective spending dimensions (price consciousness and sale proneness) on which we observed positive assortment in Study 1. Instead, what seems to differ between the TW-ST dimension and these other dimensions is that people at the extreme ends of the TW-ST dimension do not like being there.

Although the complementary attraction finding supports our first hypothesis, it might also reflect the study’s key limitation. Because mates are not randomly assigned to each other, we cannot be completely confident that TW-ST differences within a marriage will necessarily stimulate conflict over money and thus diminish marital well-being. It could be that people who select mates dissimilar to themselves are more prone to be unhappy in marriage than people who select mates similar to themselves. Although complementarity on other dimensions has been associated with enhanced marital well-being (e.g., opposing regulatory focus orientations; Lake et al. 2008), we cannot rule out the possibility that people who select mates with opposing TW-ST tendencies are naturally more prone to be unhappy in marriage. Random assignment of mates to each other would be required to definitively rule out this alternative account. The nature of romantic relationships prohibits us from conducting such a study.

Many open questions remain. The process by which dissatisfaction with one’s spending tendencies stimulates complementary attraction is unclear. One possibility is that tightwads and spendthrifts actively seek their opposites, perhaps as a conscious attempt to find someone who can help them overcome their spending tendencies (e.g., tightwads may seek spendthrifts because they think spendthrifts would help them behave less like a tightwad). Alternatively, distressed spenders may simply find potential mates with opposing spending tendencies most appealing when they encounter them, without a deliberate attempt to seek out their opposite on this dimension.

Further research should also examine whether our results replicate in samples that consist exclusively of newlyweds. Given that TW-ST differences predict diminished marital quality (and perhaps divorce), surveys of people who have been married for some time (16 years, on average, in our studies) may understate the degree to which tightwads and spendthrifts initially attract.

Several open questions regarding the relationship among complementary attraction, financial conflict, and marital well-being are also worthy of further research. For example, it is worth examining whether complementary attraction influences other measures of marital quality, such as domestic violence. It would also be useful to examine whether the way in which couples handle their finances (e.g., the extent to which savings and investment decisions are shared by spouses versus controlled by one spouse; the use of joint versus separate bank accounts) moderates the influence of complementary attraction on financial conflict and marital well-being. The primary source of income within the relationship (i.e., whether the tightwad or spendthrift is the chief



wage earner) may also be an important moderator. Finally, the sizable divorce rate presents an opportunity to examine whether people learn across marriages. It is worth examining whether complementarity on the TW-ST dimension is greater in first marriages than in subsequent marriages.

### Conclusion

Generally speaking, birds of a feather flock together. People tend to select spouses with similar demographic characteristics, similar attitudes, similar values, and even similar names (Jones et al. 2004; Watson et al. 2004). However, consistent with Klohnen and Mendelsohn's (1998) logic, we observe a rare instance in which opposites tend to attract: Tightwads, who generally spend less than they would ideally like to spend, tend to marry spendthrifts, who generally spend more than they would ideally like to spend. Unfortunately, the marriages that result suggest that this complementarity is little more than fatal (fiscal) attraction.

#### APPENDIX A: THE TW-ST SCALE (RICK, CRYDER, AND LOEWENSTEIN 2008)

1. Which of the following descriptions fits you better?

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

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. (reverse-scored)

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

#### APPENDIX B: FINANCIAL HARMONY MEASURE (STUDY 3)

- (–) It is hard for me and my spouse to discuss our finances without getting upset at each other.
- When it comes to our finances, my spouse and I see eye to eye.
- (–) Money is a constant source of conflict with my spouse.
- I am satisfied with my spouse's attitudes toward money.
- My spouse is satisfied with my attitudes toward money.
- (–) I am dissatisfied with how frequently (or infrequently) my spouse wants to spend money.
- (–) The way my spouse and I handle our finances is in serious need of improvement.
- (–) I wish I could change my spouse's attitudes toward money.
- (–) My spouse wishes (s)he could change my attitudes toward money.
- (–) I have sought (or considered seeking) counseling for the financial problems in my marriage.

Agreement was rated on scales ranging from 1 to 5. Items 1, 3, 6, 7, 8, 9, and 10 are reverse-scored.

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