The Psychology of Borrowing and Lending

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What happens when finance mixes with friendship? We investigate the negative consequences of lending money between friends. Lenders’ (dis)satisfaction is driven by lenders’ inflated expectations of control over borrowers’ spending decisions, as well the specific nature of the borrowers’ purchases (hedonic versus utilitarian) with the loaned funds.

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Beyond Reciprocity: Examining the Interplay Between Money and Relationships

**SESSION OVERVIEW**

If one could wish for two gifts that would substantially improve life, having money and strong close relationships would be ideal candidates. Money and relationships, while being able to improve life’s outcomes, do so by dramatically different routes and mechanisms—and yet have significant overlap too. This session peeks into the consequences that money and close relationships have for one another—and in doing so reveals some thought-provoking patterns for scientific understanding and consumer welfare.

This session features cutting-edge research in the psychology of money and relationships, and seeks to answer two important questions: 1) How can individuals’ close relationships influence their perceptions of and decision-making with money? 2) Conversely, how can decisions about money influence the behavior and perceptions within relationships? This session explores two fundamental areas of research in consumer research and seeks to understand the theoretical and practical implications to aid consumer well-being.

The first two talks investigate how close relationships can influence perceptions of money and decision-making with financial assets. Vohs starts the session by examining how social support and money can be treated as interchangeable resources. Vohs and Lasalesta demonstrate the substitutability hypothesis: when people have strong close relationships and feel supported by others, individuals have less desire to obtain and hold onto money. Shah investigates the interaction between social support and money by exploring how marital status can affect financial portfolio compositions. Women make safer asset choices when they are single, divorced, or when they receive an income shock while married as compared to men.

The last two papers examine how money can influence perceptions and attitudes towards relationships. Goldstein discusses how perceptions and attitudes within relationships change when lending or borrowing money. The researchers show that there is a unique exchange expectation in lending relationships in comparison to gift-giving for example, regarding what types of goods or services the recipient is expected to consume with the borrowed money. Lenders believe that they are entitled to a certain level of control over the borrowers financial decisions, reporting frustration and anger when they feel money has been misused. At a system level, these results help explain why American taxpayers were so outraged by seeing their money being used by the government to fund indulgences such as bonuses, resulting in subsequent tax avoidance and evasion. The final talk by Lamberton examines how to reverse this result and increase satisfaction and compliance. The authors demonstrate that providing consumers with an opportunity to voice their opinions about spending priorities increases tax compliance.

In summary, this session investigates the interactive nature of money and relationships. Using a diverse set of methodologies these papers have incredible implications for policy and societal well-being, as well as basic scientific understandings of the psychology of money and relationships. This session will appeal to researchers interested in the self, interpersonal relationships, judgment and decision-making, as well as those interested in policy or managerial decision-making. As a consequence we expect that a diverse set of scientists, policymakers, and scholars will find value in the session.

### Paper #1: With Friends Like These Who Needs Money? Three Tests of the Substitutability Hypothesis of Money and Social Support

**Kathleen D. Vohs, University of Minnesota, USA**

### Paper #2: Money and Marriage? How Marital Dynamics and Gender Differences in Risk Affect Financial Portfolio Composition Choices

**Avni Shah, Duke University, USA**

**Howard Kung, University of British Columbia, Canada**

**Jawad M. Addoum, University of Miami, USA**

### Paper #3: Friendship and Finance: The Psychology of Borrowing and Lending

**Noah I. Goldstein, University of California, Los Angeles, USA**

**Ashley N. Angulo, University of California, Los Angeles, USA**

**Michael I. Norton, Harvard Business School, USA**

### Paper #4: Increasing Tax Compliance by Empowering Taxpayers

**Cait Poynor Lamberton, University of Pittsburgh, USA**

**Jan-Emmanuel De Neve, University College London, UK**

**Michael I. Norton, Harvard Business School, USA**

### EXTENDED ABSTRACT

Rich people have fewer friends than the rest, according to a Gallup poll (2004). Respondents whose income was at the top of the scale reported having the fewest friends, while those making the least money reported having the most friends.

There are many possible explanations for these stylized facts. One is that having or being around money creates a preference to be alone or an inability to make friends. Another is that having many friends weakens the desire or ability to obtain money. (Of course, there are third-variable explanations too.)

Our theory is that there is something correct about the two direct association explanations. People seem to treat money and social support as interchangeable resources, a claim that we have termed the substitutability hypothesis. This hypothesis predicts that to the extent that one resource is seen as plentiful, people will act as if there is little need to pursue the other. There already exists evidence supporting one form of the substitutability hypothesis, that money can substitute for relationships with others (e.g., Vohs et al. 2006; Zhou et al. 2009). Therefore, our investigation tested the novel hypothesis that when people feel that they have ample support from others, defined as the perception that one is cared for by others (Wills, 1991), they have less desire for money, defined as the motivation to obtain and hold onto money. Three experiments supported this hypothesis.

**Aim:** Experiment 1 was the initial test of the substitutability hypothesis. **Method:** Participants (n=39) were instructed to recall instances of social support or the number of facts they had learned throughout their lives. Next, participants ranked a list of twelve life values and traits in order of personal importance (adapted from self-affirmation research). This list included business skills and financial success, both related to the acquisition of money. **Results:** In an initial show of our hypothesized effect, participants who recalled in-
stances of social support ranked business skills and financial success as less important than those who recalled number of facts learned.

**Aim:** Experiment 2 provided a conceptual replication of the effect using different measures of desire for money: worry over money and willingness to pay. We reasoned that as desire for money weakens, people would be less worried about it, and more willing to give it up for goods and services. Experiment 2 also aimed to address an alternative explanation for the proposed effect. It is possible that recalling instances of social support heightens positive affect, which could affect how much people care about money. **Method:** Participants (n=119) rated the number of friends they talked to every day on scales that cued a social network that was small (low social support condition) or large (high social support condition). Next, participants completed a worry over money scale and indicated their willingness to pay for twenty-two items. **Results:** As predicted, participants who were cued to see themselves as having a more expansive network reported less worry over money and greater willingness to pay for goods than those cued by a smaller social network. As expected, there was no effect of condition on positive or negative mood reports. This rules out an alternate explanation of our effects based on changes in mood.

**Aim:** Experiment 3 further tested our theory using a face valid measure of desire for money and provided process evidence. **Method:** Participants completed the same manipulation from Experiment 1, recalling either number of facts learned or friends made throughout their lives. Participants then completed a standard measure of social support (Social Connectedness Scale – Revised; Lee, Draper, and Lee, 1991) to provide process evidence. Next participants completed a money importance scale as an indicator of desire for money (sample item: “Frankly speaking, having money is something that I value”). **Results:** As predicted, participants who were reminded of their friends expressed less money importance than those reminded of facts. Process evidence revealed that the effect was mediated by increased perceptions of social support.

**Conclusion:** Three experiments demonstrated evidence in support of the novel hypothesis that feeling socially supported weakens the desire for money. More broadly, this work supports the substitutability hypothesis, which states that people treat money and social support as interchangeable resources. Both money and help from others can enable people to obtain what they want and need from society and culture, and the apparent substitutability of these resources translates into a diminished motivation to attain one when feeling flush with the other.

The current work connects two large literatures whose focus bears significantly on the daily lives of people worldwide, and yet do not connect much with one another. Close relationships constitutes a fundamental part of psychology, an entire field, economics, is devoted to the study of money, whereas marketing has interests in both relationships and money. What is therefore surprising is how little research there is on how these two motivations relate, which the current work seeks to rectify.

We opened the paper by noting that a Gallup poll (2004) presented an interesting association. Respondents with the highest incomes said that they had on average the fewest friends, whereas those with the lowest incomes said that they had the most friends. While wanting to be popular can drive people to engage in unhealthy behaviors and enter dangerous situations, a putatively bigger problem (perhaps especially today) is the powerful drive to have money, lots and lots of money. Our research suggests a way to offset its power — stoke a sense of social support and people’s motivation for money should wane.

**Money and Marriage? How Marital Dynamics and Gender Differences in Risk Affect Financial Portfolio Composition Choices**

**EXTENDED ABSTRACT**

Disagreements over money are widely believed to be one of the leading causes of divorce and separation in the developed world. Hence, it is perhaps unsurprising that examination of transitions in and out of marriages reveal large differences in financial portfolio decisions. Women invest a significantly smaller proportion of their portfolios in stocks when single. In contrast, men tend to significantly increase their stockholdings when single (e.g., Hinz et al., 1997; Barber and Odean, 2001). However, what remains unclear is how these gender differences manifest themselves in financial portfolio allocations.

We examine how portfolio compositions are altered when single individuals transition to marriage, or conversely when married individuals transition to divorce. We ask how varying income levels or sudden income shocks amongst men and women within marriage affect bargaining power and subsequent financial portfolio decisions? Finally, what psychological mechanisms account for these differences in financial risk-taking and changes in bargaining power in marital dyads? We suggest that gender differences in risk, specifically that women are more risk averse while men are risk seeking, can substantially influence how financial portfolios are composed within and out of marriage. We argue that wanting to ensure financial certainty for the future will mediate this gender and safer portfolio choice relationship.

We first used field data from the Panel Study of Income Dynamics (PSID), a nationally representative longitudinal survey of nearly 9,000 U.S. families to investigate whether intra-household frictions are significant predictors for explaining life-cycle portfolio choice. We found significant evidence that women, both individually and in dyads are more risk averse than men. This was reflected in stock allocation differences. Furthermore, our results were robust to alternative risky asset definitions, including investments in stocks, real estate, and holdings in private businesses. Also, the proportion of safer to risky assets was shifted towards safer holdings when women had sudden income shocks, such as a raise or inheritance, in comparison to men. We sought to dig deeper into this relationship across three experiments.

In Study 1, we investigated whether differences in risk was actually moderated by gender. We gave participants a series of twenty gambles to choose from varying the probability of winning and amount of money earned if won. Participants were given $5 with each gamble costing $1 to play. Individuals could choose to play up to five gambles at most or could choose to play none and keep the $5. Women significantly ($p<0.01) chose less gambles to play overall than men and chose gambles with higher probabilities of winning in comparison to men demonstrating the gender disparity in risky decision-making with money ($p<0.01).

In Study 2, we sought to investigate how perceived marital status (i.e., single, married, divorced) influenced the relationship between gender and risky financial choices. We repeated the study design from experiment 1, but asked individuals to imagine that they were either single, married, or divorced during the decision-making process. We replicated the finding that women were more risk averse than men, but we found significant evidence that women made riskier choices when they were in the marriage stage as opposed to single and divorce. In

In Study 3, we wanted to investigate the potential mechanism of why women and men acted differently regarding financial decisions
within and outside of marriage. We repeated the same study design as the first two experiments but told participants that in addition to their $5 they were given for gambling, they would be given an additional either $1 or $5 in order to mimic a sudden income shock. Women made safer asset choices when single or divorced, and also made safer choices when they received larger income shocks. This effect was mediated by wanting to ensure future financial certainty, especially for their family. Thus, it is clear that relationship stage can influence decisions with assets. Also, it seems that the need for financial certainty for the future, or in other words wanting to protect resources for one’s future family also influences safer or riskier choices with money.

Such differences are interesting in documenting a potential mechanism for better understanding how and why marital status, gender, and intra-household bargaining can affect financial portfolio decisions over time.

The Psychology of Borrowing and Lending

EXTENDED ABSTRACT

How do we feel when other people – like our friends and family – spend our money? A great deal of research explores the factors that influence our satisfaction with the goods and services that we consume with our own money (Bearden and Teel 1983; Spreng et al. 1996; Van Boven and Gilovich 2003). However, there is surprisingly little research on the factors that influence our satisfaction with the goods and services that other people consume with our money. In particular, we explore the case in which one person loans another a sum of money and then must watch (uncomfortably) as that borrower spends that cash before paying it back to the lender. We suggest that this mixing of friendship and finance can quickly go awry, harming relationships in the process.

Researchers have drawn distinctions between market and communal relationships (Fiske 1992) and the unique currency (i.e., financial and social, respectively) that is acceptable for exchange within each (Hemman and Ariely 2004). Situations that blend these two types of exchanges – like close friends loaning money to each other in the manner of a bank – often have unexpected consequences.

Exchange relationships between lenders and borrowers are unique but prevalent; the implications can be small, ranging from a cup of sugar lent to one’s neighbor, to monumental in the 2008 example of the federal government loaning A.I.G. money in the largest bailout in American history (Walsh 2008). Due to the everyday and large-scale implications of lending relationships, it is important for researchers to understand how the details of the exchange, the purchase, and different expectations influence satisfaction with the various dimensions of the lending and borrowing experience.

In our research, we demonstrate that lenders and borrowers differ in how they mentally account for the loaned funds (Thaler 1985) and how they expect the money to be used. We argue that this asymmetry between lenders and borrowers contributes to the dissatisfaction with the lending experience, affecting the relationship and influencing whether lending will occur again.

Our first study demonstrates that what the borrower purchases influences the lenders’ satisfaction. Participants read a scenario in which they imagined they had loaned a certain amount of money to an acquaintance. Participants learned that the borrower made a utilitarian purchase with the money (a textbook), whereas other participants learned the borrower made a hedonic purchase (music from iTunes). Participants reported more anger towards borrowers who made the hedonic purchase than borrowers who made the utilitarian purchase. Participants also viewed borrowers that made the hedonic purchase as more selfish and ungrateful than borrowers who made a utilitarian purchase.

Study 2 explored whether these different reactions to borrowers buying hedonic or utilitarian products was unique to lending experiences – experiences that mix market and communal relationships. We compared three types of exchanges: one where a gift was given to a recipient (communal), one where a payment was made to a recipient (market), and one where a loan was made (mixing the two). As in Study 1, we also manipulated whether the recipient spent the money on a hedonic or utilitarian good. Consistent with predictions, participants reported more anger if the borrower purchased a hedonic item (versus a utilitarian one), but those who had loaned the money (versus gifted or paid) reported the most anger. These results suggest that there is a unique exchange expectation in lending relationships regarding what goods or services the recipient is expected to consume with the money they borrowed.

In Study 3, we explored whether these effects were limited to loaning money to borrowers, as opposed to lending other tangible resources, such as products. Specifically, whereas money is fungible, a tangible good like a video game is not. Participants read a scenario where they either lent a friend a video game worth $50 or loaned the friend $50 cash. Participants again reported being angrier with the borrower who purchased iTunes (versus textbook) whether they had lent them a game or loaned them money; those who loaned money (versus lent the game), however, reported the most anger.

In our last study we aimed to investigate whether the driver for lenders’ anger was the expectation that they should be able to control what the borrower purchases. Through a sense of endowment for the loaned money, the lender might expect more influence over what the borrower purchases than what the borrower expects of the lender. We asked participants how much control borrowers (versus lenders) believe that lenders should have over what the borrower does with the money. Our results revealed that lenders believe they are entitled to far more control over what the borrower purchases than borrowers believe lenders to be. This result sheds light on the possible root of the anger that lenders feel when borrowers seem to “misappropriate” their loan (Studies 1-3).

Taken together, these findings provide insights into the psychology of interpersonal lending and borrowing. More broadly, the results help to explain the “outrage” (Reddy and Bendavid 2009) American taxpayers felt after discovering that much of the money the federal government loaned to companies such as A.I.G. went to employee retention bonuses (a luxury purpose). In this example – as with lending between friends – lenders believe that borrowers should use the loaned money for utilitarian purchases, and were enraged when borrowers seemed to indulge.

Increasing Tax Compliance by Empowering Taxpayers

EXTENDED ABSTRACT

Consumers would prefer to spend their money on nearly anything but taxes (Sussman and Olivola 2011). Given this deep-seated hatred of taxes, achieving tax compliance remains a challenge. In fact, as a result of tax avoidance or tax evasion, major public programs in the US are subject to funding shortfalls amounting to over $300 billion per year. Despite the increased attention paid to financial decision-making by consumer behavior researchers, research has not yet documented interventions that increase tax compliance – behavior that can have hugely positive effects on public well-being.

We suggest that consumers’ tax compliance can be significantly increased simply by providing them a structured opportunity to voice
their opinions about spending priorities. This voice opportunity is offered in a simple advisory allocation process, where consumers provide non-binding input regarding the way their tax dollars are spent. In addition, increased compliance appears to increase satisfaction with payment, suggesting that such an intervention could benefit not only the institutions that depend on tax dollars, but decrease the irritation that taxpayers experience when paying taxes.

Two experiments support these conclusions. In study 1, two-hundred and fifty-seven English-speaking US citizens recruited via Amazon’s Mechanical Turk panel received a nominal payment in return for their participation. Participants first provided basic demographic information, reported their tax filing status, and stated their gross household income. Some participants were then given the opportunity to provide input about the way that 10%, 25%, or 50% of their tax dollars would be allocated across various categories currently used by the US government to describe tax spending (www.whitehouse.gov), while others were given no allocation opportunity. Then participants were asked to imagine that they became aware of a tax loophole that enabled them to avoid paying 10% of their income tax bill, and were asked if they would take the loophole.

When not given the opportunity to allocate, approximately 64% of participants indicated that they would take the questionable loophole. Allowing 10% allocation led to a significant decrease in likelihood of taking the questionable loophole (45%) relative to non-allocation (chi-square = 4.00, p = .05). This effect was larger when 25% allocation was offered, dropping to 39% (chi-square = 7.74, p = .005). However, allocating 50% of one’s tax dollars did not decrease likelihood of taking the questionable loophole (51.5%, chi-square = 1.83, p = .18).

Study 2 sought to replicate this pattern of effects in a laboratory setting, using actual payment and introducing the possibility of audit. One hundred eighty-nine participants (40% male, age range: 23–40) attended a paid lab session, and were told that they could earn an additional $10 for completing a task. However, they were informed that this additional payment would be subject to a 30% lab tax; they would leave $3 in an envelope placed on their desk when they left the session. Participants were also told that approximately 1 in every 8 participants would be “audited,” meaning that the experimenter would check the amount they had put in their envelope before they left the session. (This proportion reflects most US taxpayers’ beliefs about audit likelihood). Non-compliant participants who were audited were asked to both pay their overdue taxes and an additional penalty of $2.00. Participants then completed the task and were given their $10 payment. Participants were then randomly assigned to either the allocation or no allocation conditions. Participants in the no allocation simply put as much tax as they wished to pay in the envelope. By contrast, before continuing, participants in the allocation condition were told they could provide input as to how a portion of the lab tax dollars would be spent in the future, allocating their taxes across three categories: beverages for study participants, snacks for study participants, and enhanced incentives for future study participants. They then put as much tax as they wished to pay in the envelope on the desk in the same way as the no allocation participants had. Then all participants answered a number of questions about their satisfaction with paying taxes, demographic items, and beliefs about how taxes would be used. When all studies in the session were complete, lab administrators collected the envelopes and recorded the amount of money paid by each participant. Lab administrators also audited 1 in 8 participants, consistent with the instructions read by participants.

Analysis revealed a bi-modal distribution of compliance, such that most individuals either fully complied ($3 in the envelope) or did not pay any tax ($0 in the envelope). This finding is consistent with patterns among actual taxpayers (Alm, Bloomquist and McKee 2012). An ANOVA using advisory allocation or no allocation to predict the amount of tax paid, using a negative binomial distribution, showed that individuals who were not offered an opportunity to allocate opinions paid significantly less in tax ($1.58) than did individuals who provided advisory allocation ($2.11, Wald chi-square = 4.18, p = .04). Further, we find that effects on compliance are mediated by participants’ beliefs that taxes will support something they value (95% CI for indirect effect of allocation via value use: 0.01 to 0.14). This finding is consistent with Frey and Stutzer’s (2000) suggestion that higher subjective well-being associated with other direct democracy actions can be attributed to “political outcomes closer to voters’ preferences, as well as to the procedural utility of political participation possibilities.”

In contrast, beliefs about audit likelihood did not explain compliance (p > .5), consistent with a large body of literature showing the relative ineffectiveness of stringent penalties in this domain (Isaac, Schmidt and Walker 1989). Most interestingly, we find that higher compliance also mediated participants’ satisfaction with paying the lab tax (95% CI for indirect effect of allocation via amount paid: .01 to .13); this mediation does not however hold if causality is reversed. This finding is consistent with recent work suggesting that tax payment may create, rather than result from, satisfaction (Akay et al. 2012).

Future work will explore allocation’s effectiveness relative to other interventions designed to increase compliance, examining their interplay and documenting their relative effects.

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