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Managing Debt and Managing Each Other: The Interpersonal Dynamics of Joint Debt Management Decisions

Jenny G. Olson and Scott I. Rick

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Report Summary

Previous debt management research has focused on individuals' decision-making. Although research at the individual level is an important and necessary starting point, many of life's largest debts are jointly incurred and, to some extent, jointly managed (e.g., spouses deciding whether to pay off their car loan or make an extra mortgage payment). Understanding whether and why repayment patterns observed at the individual level generalize to couples is important for at least three reasons: (1) the majority of adults in the United States are currently married or cohabitating, (2) many couples describe their financial decisions as "collaborative," and (3) couples have more debt than individuals.

Prior work suggests that couple members' differences in objective financial literacy do not predict who initially has greater influence over household finances. By contrast, Jenny Olson and Scott Rick propose and demonstrate that couple members' differences in subjective financial confidence predict who has greater influence over joint debt management decisions. Although over-confidence can often lead to suboptimal decisions, there are reasons to believe that high financial confidence can be beneficial when consumers are juggling multiple debts (e.g., confidence may reduce hesitation and motivate people to take action).

Olson and Rick examined this possibility in a series of experiments, many of which featured an incentivized debt management task. Within couples, they find that following the lead of the partner with greater financial confidence is beneficial, because greater financial confidence encourages financially optimal behavior (i.e., by focusing repayment efforts on large, otherwise daunting debts). In fact, couple members manage debt more optimally when working together than when working individually. Couples benefit from a shared understanding of which partner has greater financial confidence and placing greater weight on that partner's preferences. Consistent with this account, they find that a shared financial "warm up" task can improve partners' understanding of each other's financial confidence, which in turn improves their ability to jointly manage debts. Importantly, confidence is a better predictor of performance than is financial literacy.

Their research has several implications for practitioners working with couples. First, working together (vs. independently) led couples to make more optimal decisions in the domain of debt management. Thus, financial advisors could emphasize the importance of teamwork when meeting with married/partnered clients. Second, cultivating confidence in consumer financial decision-making (above and beyond financial literacy) helps consumers feel equipped to tackle large debts. Third, facilitating open communication, both within the couple, and perhaps with third-party advisors, can help partners identify each other's confidence and allocate decision-making responsibility accordingly.

Jenny G. Olson is Assistant Professor of Marketing, Kelley School of Business, Indiana University. Scott I. Rick is Associate Professor of Marketing, Stephen M. Ross School of Business, University of Michigan.

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Consumer researchers have devoted considerable attention to the processes by which people accumulate debt (e.g., Atlas, Johnson, and Payne 2017; Prelec and Loewenstein 1998; Soman and Cheema 2002), but we know less about how consumers manage their existing debt. Understanding and, ultimately, improving debt management practices is important because carrying excessive debt is associated with many financial, affective, and even cognitive (Mani et al. 2013) costs. Excessive debt predicts heightened stress and diminished physical well-being (Brown, Taylor, and Price 2005; Netemeyer et al. in press; Sweet et al. 2013), controlling for other important predictors of these outcomes. Debt can also impose interpersonal costs, such as turning off prospective employers who have access to applicants' credit reports (Rivlin 2013) or even potential romantic partners (e.g., on websites such as CreditScoreDating.com; Silver-Greenberg 2012). Within ongoing romantic relationships, debt is a common source of arguments and reduced relationship satisfaction (e.g., Dew 2011). Failing to repay debt can also have criminal consequences. Debt collection companies in at least 26 states have used the court system to obtain arrest warrants for consumers with unpaid debts (American Civil Liberties Union 2018). Thus, while a debt-free life is not necessarily feasible or ideal (e.g., a mortgage with favorable terms can be a good investment), it is important to understand how consumers can more quickly reduce the debt they already have.

Debt management research has focused on individuals' decision-making. Although research at the individual level is an important and necessary starting point, many of life's largest debts are jointly incurred and, to some extent, jointly managed (e.g., spouses deciding whether to pay off their car loan or make an extra mortgage payment). For example, in a qualitative study of married and cohabitating couples, Wood et al. (2012) found that, while one member usually took the lead in researching or planning major financial decisions, the final decision process was

generally “collaborative” (cf. Ferber and Lee 1974). In addition, couples are more likely than individuals to hold multiple debts (Fay 2015). Given that the majority of adults in the United States are currently married or cohabitating (i.e., living with an unmarried partner; Stepler 2017; U.S. Census Bureau 2017), it is essential to understand whether and why repayment patterns observed at the individual level generalize to couples.

The current research is among the first, if not the first, to examine debt repayment decisions through an interpersonal lens. Specifically, we examine whether and why couple members working together manage debt differently than individuals. We test our predictions in a series of four studies, most of which involve consequential financial decisions. Our work makes a theoretical contribution by demonstrating a novel relationship between confidence in the consumer finance domain and debt management decisions. Specifically, we find that greater financial confidence, whether or not accompanied by strong objective financial literacy, can encourage more optimal debt repayment. We also demonstrate how couple members’ differences in financial confidence influence their relative impact on joint debt management decisions. In addition, our work has practical relevance. In particular, we demonstrate how consumers can be induced to have greater financial confidence, improving their subsequent debt management decisions. We also show how members of a dyad can gain a better understanding of each other’s level of financial confidence, which in turn improves their joint debt management decisions.

We begin with a brief discussion of how individuals make debt repayment decisions, followed by a discussion of why couple members working together may fare worse or better than couple members acting independently.

CONCEPTUAL DEVELOPMENT

Debt Repayment among Individuals

Recent studies have begun to reveal how individuals approach debt repayment decisions. Some have focused on the behavioral effects of elements of credit card statements (e.g., minimum payment size and warnings; Hershfield and Roese 2015; Navarro-Martinez et al. 2011; Stewart 2009) or repayment planning prompts (Mazar, Mochon, and Ariely in press). Others have focused on how individuals prioritize the repayment of multiple debts when they are unable to completely pay off all their debts (e.g., Amar et al. 2011; Brown and Lahey 2015; Gal and McShane 2012; Gathergood et al. 2017; Kettle et al. 2016).

One costly bias previously identified at the individual level is *debt account aversion* (DAA; Amar et al. 2011). Specifically, when indebted consumers must choose between paying off a small debt and chipping away at a larger debt with a larger interest rate, they tend to pay off the small debt. From a mathematical perspective, this is financially suboptimal. As FICO (2018) advises, indebted consumers should “come up with a payment plan that puts most of your available budget for debt payments towards the highest interest cards first.” Indeed, people who exhibit DAA in a hypothetical debt repayment task have significantly lower FICO credit scores than people who do not exhibit DAA (personal communication with Ye Li, June 2016, based on data included in Li et al. 2015).

Despite the financial suboptimality of DAA, it is a robust phenomenon because several factors contribute to it. For example, DAA could reflect an attempt to reduce paperwork or the risk that one forgets to make a monthly payment. In addition, goals that are closest to completion (e.g., debts that are closest to a \$0 balance) are often the most tempting to pursue (cf. Kivetz, Urminsky, and Zheng 2006). O’Donoghue and Rabin’s (2001) model of self-control similarly

predicts that people are most likely to procrastinate in their pursuit of highly important goals. Indebted consumers are likely to consider paying off large debts to be an important, but daunting, goal that can be postponed. Also, to the extent that debts are viewed as losses, eliminating a small debt of \$x should provide greater relief than reducing a large debt by \$x (Kahneman and Tversky 1979).

In addition to these individual-level determinants, we next consider whether there are interpersonal factors that make DAA more or less likely in joint decisions.

Couples may Manage Debt Less Optimally than Individuals

Although DAA is common at the individual level, there are reasons to expect that DAA might be even more prevalent at the couple level. Deliberation among like-minded people often amplifies existing preferences and biases (Moscovici and Zavalloni 1969; Schkade, Sunstein, and Hastie 2007). To the extent that DAA is a common individual response to managing multiple debts, interpersonal deliberation may make DAA even more common among couples.

Recent work on the influence of self-control differences within romantic couples also supports the notion that couples may be more susceptible to DAA. When joint consumption decisions must be made by mixed self-control couples (where one partner is chronically high in self-control and the other is chronically low in self-control), high self-control partners are more likely to set aside their individual preferences, in an attempt to maintain interpersonal harmony (Dzhogleva and Lamberton 2014). In other words, mixed self-control couples' decisions often resemble those made by couples where both partners have low self-control. If low self-control encourages DAA at the individual level (i.e., if the prospect of paying off a small debt is difficult to resist), couples, on average, might be even more susceptible to DAA than individuals.

Relatedly, Ward and Lynch (in press) suggested that couples are unlikely to initially follow the lead of the partner with greater financial literacy. Specifically, Ward and Lynch (in press, p. 30) argued that “financial specialization in early-stage couples may often have little to do with preexisting financial experience, expertise, and/or aptitude.” Indeed, Ward and Lynch (in press, Table 2) found that couple members’ financial literacy levels did not predict the degree to which they were initially responsible for managing money within the relationship. Ward and Lynch (in press) argued that non-financial factors, such as differences in partners’ free time, are likely to determine who initially takes most responsibility for managing the couple’s finances. If financial literacy discourages mistakes such as DAA (an open question that we investigate below), then couples may be at a disadvantage if financial literacy differences do not predict relative influence over joint debt management decisions.

Sources of Optimism about Couples’ Ability to Manage Shared Debts

Despite multiple sources of pessimism, there are also reasons for optimism about couples’ ability to successfully manage their shared debts. While Ward and Lynch (in press) found that the relationship partner with objectively greater financial literacy does not systematically assume greater influence over shared finances, we propose that the relationship partner who has greater confidence in the financial decision-making domain is likely to have greater influence over shared finances. (We explain below why this is likely beneficial for couples.) It is difficult to precisely assess one’s *own* intelligence, in general or in specific domains (Freund and Kasten 2012), so it stands to reason that couple members are likely to have limited insight into their partner’s objective level of financial literacy. Couple members may find it easier to perceive “the degree to which [their partner] feels capable and assured with respect to

marketplace decisions and behavior” (Fernandes, Lynch, and Netemeyer 2014, p. 1868), which we will refer to as “financial confidence.” In other words, partners’ financial confidence is likely to be more observable, or at least more salient, than their objective financial literacy, and thus may be especially likely to determine who has greater influence over joint financial decisions.

Evidence from other social interactions further supports the notion that confidence is likely to be particularly influential in joint decision-making contexts. For example, in student group projects, members’ confidence is a better predictor of their influence within the group than their objective competence (Anderson et al. 2012). Additionally, in court settings, eyewitnesses’ confidence in their testimony is a strong predictor of their perceived credibility (Whitley and Greenberg 1986), even though eyewitness confidence is a weak predictor of eyewitness accuracy (Wells and Murray 1984).

Of course, this reasoning is only relevant to joint financial decision-making contexts if financial confidence is only loosely related to objective financial knowledge. In other words, if financial confidence is strongly correlated with objective financial knowledge, and couple members are strongly attuned to each other’s financial confidence, they will still behave as if they are following the lead of the partner with greater objective financial knowledge. However, mounting evidence suggests that financial confidence is only loosely related to objective financial knowledge. For example, Fernandes et al. (2014) found only modest correlations between measures of financial literacy and financial confidence¹ (in the .23-.31 range). Relatedly, Hadar, Sood, and Fox (2013) found that financial confidence can change without an underlying change in objective financial knowledge.

Critically, we anticipate that couples who are managing shared debts are likely to benefit from following the lead of the partner with greater financial confidence. Although it is certainly

true that *over*-confidence in the consumer finance domain can lead to suboptimal decisions (e.g., Barber and Odean 2001), there are reasons to believe that high financial confidence can be beneficial when consumers are juggling multiple debts. Prior work suggests that high financial confidence is likely to “play a role in reducing hesitation” (Parker et al. 2012, p. 387) and to encourage consumers to “act boldly” (Hadar et al. 2013, p. 313). When financial confidence is low, indebted consumers may feel overwhelmed by large debts, preferring to pursue goals that are easier to achieve, such as paying off small debts. As Credit.com notes, “when faced with a daunting credit card balance, some might be tempted to just make minimum payments or ignore the debt altogether” (Skowronski 2017). By contrast, indebted consumers high in financial confidence may be willing to “act boldly” and take on the otherwise daunting challenge of chipping away at large debts. Thus, when focusing on large debts is helpful (e.g., when those debts have high interest rates), indebted individuals with high financial confidence may be at an advantage. To the extent that couples follow the lead of the partner higher in financial confidence, couple members should on average manage debt more optimally when working together than when working on their own.

Note that this hypothesis assumes a reasonable amount of variation in financial confidence within couples (i.e., that most relationship partners likely differ at least somewhat in their levels of financial confidence). If there is minimal variation in financial confidence within couples, our framework suggests that couple members working together and couple members working on their own should perform similarly on average (i.e., following a partner’s lead should produce roughly the same outcome as deciding on your own). It is not clear why people with similar levels of financial confidence would systematically form romantic relationships, and indeed there is some evidence that people with opposing feelings toward household finances tend

to marry one another (Rick, Small, and Finkel 2011). Thus, there is reason to believe that most relationship partners are likely to differ at least somewhat in their levels of financial confidence.

OVERVIEW OF THE PRESENT RESEARCH

We examine the role of financial confidence in financial decision-making contexts, with a particular focus on the role of financial confidence in joint debt management decisions. We begin by testing a core assumption of our framework, namely that greater financial confidence improves debt management decisions. Specifically, Studies 1A and 1B investigate whether (measured and manipulated) financial confidence improves debt management decisions at the individual level.

We then examine how financial confidence influences the interpersonal dynamics of joint financial decisions. Study 2 investigates whether romantic partners' differences in financial confidence predict differences in their influence over a joint debt management task. We also compare the performance of couple members working together to the performance of couple members working individually. If there are many "mixed" couples (where partners have different levels of financial confidence), and the partner with greater financial confidence has greater influence over joint financial decisions, then couple members working together should on average manage debt more optimally than couple members working individually.

Our framework suggests that couples benefit from recognizing which partner has greater financial confidence and enabling that partner to exert greater influence. An implication of this framework is that the better partners understand each other's level of financial confidence, the better they should be at jointly navigating debt management decisions. Study 3 tests this

implication by directly manipulating partners' understanding of each other's financial confidence.

Finally, to explore generalizability beyond the debt management paradigm we use in the lab, Study 4 used surveys to measure whether differences in financial confidence among romantic partners predict the extent to which they have influence over financial tasks at home.

Although we focus on the role of financial confidence throughout, some studies also explore the potential role of other constructs that may plausibly influence debt management decisions (financial literacy, self-efficacy, and self-control).

MEASURING DEBT REPAYMENT IN THE LAB

In an attempt to measure debt repayment in a way that ties real monetary earnings to debt repayment decisions, most of our studies used the debt management task developed by Amar et al. (2011). In the computerized task, participants are initially saddled with six debts varying in size and interest rate (see Appendix 1 for complete task instructions):

Debt	Annual Interest Rate	Initial Size
Debt 1	2.50%	\$3,000
Debt 2	2.00%	\$8,000
Debt 3	3.50%	\$11,000
Debt 4	3.25%	\$13,000
Debt 5	3.75%	\$52,000
Debt 6	4.00%	\$60,000

Critically, larger debts tend to have larger interest rates, meaning that participants must focus on repaying the large debts to perform well (performing well in the task requires minimizing total

debt). The positive correlation between initial debt size and interest rate is necessary to distinguish DAA from financially optimal repayment behavior (i.e., if initial debt size was negatively correlated with interest rates, it would be unclear whether repayments to the smallest debt are evidence of DAA or financially optimal repayment behavior).

The task lasts 25 rounds, with each round representing one “year.” Participants receive an annual (per-round) salary of \$5,000 and, to help maintain high participant engagement, three surprise “bonuses” (\$20,000 in Round 6, \$15,000 in Round 12, and \$40,000 in Round 19) that they must use to repay one or more open debt accounts. Participants were told that they must use the entire amount of cash available in each round (i.e., their salary plus any bonuses) to pay down debt because there were no saving or spending opportunities in the task. Participants repay debts by typing in the amount they want to allocate to each debt and then approving it. After participants approve their decisions, the program presents the updated balances (i.e., principal plus accrued interest), and a graph displays the past and current standing of each debt account.

In addition to a show-up fee, participants were paid based on their total amount of debt (summed across all debts) at the end of the task. For example, in Study 2, each participant earned \$12 if their total debt was less than \$30,000, \$8 if their total debt was between \$30,001 and \$35,000, \$4 if their total debt was between \$35,001 and \$40,000, and \$0 if their total debt was greater than \$40,000. Specific incentive amounts varied slightly across studies as a function of sample norms (e.g., couples had to coordinate schedules and so received higher amounts compared to student samples). Incentive amounts were visible on a dry erase board throughout the experimental sessions. When participants completed the task together (e.g., as a couple), each member of the pair individually received the show-up fee and any earnings based on the task. Given that participants were incentivized to focus on minimizing total debt at the end of the task,

we treat total debt as the key dependent variable in our analyses.

Appendix 2 displays how the debt management task interface would appear at the end of the task for both a financially optimal participant and for a purely debt account-averse participant. A financially optimal participant, who allocates all available cash to the open debt account with the highest interest rate, would conclude the task with three open debt accounts totaling \$29,428, earning the maximum incentive at the end of the experiment. A purely debt account-averse participant, who always allocates all available cash to the smallest open debt account, would conclude the task with one open debt account totaling \$47,861, earning the minimum incentive (\$0).

The debt management task necessarily includes some artificial features. Participants never have to choose between making a new purchase and repaying debt. In addition, as noted earlier, the initial size of the debts is positively correlated with the interest rates of the debts. Typically, for credit users with multiple credit cards, one would not expect any correlation between debt amounts and interest rates, as card usage seems to be largely insensitive to interest rates (e.g., Ponce, Seira, and Zamarripa 2017). (Of course, larger loans, like mortgages, tend to have lower interest rates than credit card debts. When combining those different classes of debts, a negative correlation between debt size and interest rate would be expected.)

Amar et al. (2011) found similar evidence of DAA among both lab participants completing the debt management task and respondents completing surveys about how they manage their (real) debts. We sought to further understand whether people manage debts in the debt management task similar to how they manage their real debts. We ran a pre-test with 59 adults (age range: 21-35, mean: 29; 63% female), who, as part of a previous study, had provided us with their credit report (which did not include credit scores). Ten months after providing their

credit reports, participants completed the incentivized debt management task. We examined whether debt management task performance predicted the three “potentially negative” items summarized on credit reports: number of public records (e.g., bankruptcies, tax liens), number of negative accounts (accounts with a history of late payments), and number of accounts sent to collections. Twenty-four percent of participants had at least one such “potentially negative” item on their credit report. We standardized each variable and averaged them to form a Negative Debts index. As expected, total debt in the debt management task correlated positively with the Negative Debts index ($r(57) = .29, p = .025$). The relationship remains significant if we control for participants’ age ($r(56) = .31, p = .018$). This suggests that participants who perform poorly in the debt management task (i.e., have higher total debt at the end of the task) tend to have more negative payment history events on their credit report. Thus, despite some artificial features in the debt management task, task performance appears to provide information about how people approach real debts.

STUDY 1A: MEASURED FINANCIAL CONFIDENCE

Study 1A tests the relationship between measured financial confidence and debt repayment decisions at the individual level. In addition, we explore the potential relevance of two other individual differences: general (across-domain) self-control and general self-efficacy. If the prospect of paying off small debts produces an urge that must be resisted, then greater self-control may encourage more optimal debt repayment decisions. We also examine if financial confidence is simply a proxy for general self-efficacy (a belief that one is capable of meeting task demands and achieving desirable outcomes in many contexts; Chen, Gully, and Eden 2001).

Participants and Procedure

We recruited 100 adults (age range: 18-67, mean age: 28; 64% female) from a paid subject pool at a large Midwestern university. Participants arrived at the lab individually, and each completed the study at a private computer workstation.

Participants initially completed three individual difference scales, presented in a counterbalanced order. On a financial confidence scale (FC; Fernandes et al. 2014), participants evaluated how characteristic five statements were of themselves (e.g., “I know the right sources to consult to make wise financial decisions” and “I have the skills required to make sound financial investments”; $\alpha = .88$) on a 1-5 scale, where 1 = *extremely uncharacteristic* and 5 = *extremely characteristic*. On a General Self-Control scale (GSC; Tangney et al. 2004), participants indicated how well 13 statements described themselves (e.g., “I am good at resisting temptations” and “People would say that I have iron self-discipline”; $\alpha = .87$) on a 1-7 scale, where 1 = *not at all* and 7 = *very well*. On a General Self-Efficacy scale (GSE; Chen et al. 2001), participants indicated their level of agreement with eight statements (e.g., “I will be able to achieve most of the goals that I have set for myself” and “I believe I can succeed at most any endeavor to which I set my mind”; $\alpha = .93$) on a 1-7 scale, where 1 = *strongly disagree* and 7 = *strongly agree*. See Appendix 3 for all scale items.

After completing the three individual difference scales, participants completed the debt management task described earlier. In addition to a \$10 show-up fee, participants were paid based on their total amount of debt at the end of the task. Specifically, each participant earned \$10 if their total debt was less than \$30,000, \$5 if their total debt was between \$30,001 and \$35,000, \$2.50 if their total debt was between \$35,001 and \$40,000, and \$0 if their total debt was

greater than \$40,000. The study concluded with basic demographic questions (age and sex). Participants were then debriefed and paid.

Results and Discussion

We regressed final total debt (in the debt management task) on FC, GSC, and GSE in a multiple regression model.² As anticipated, FC predicted final total debt ($\beta = -.31$, $t(96) = 2.89$, $p = .005$): the more financial confidence participants had, the less total debt they had at the end of the debt management task. Neither GSC ($\beta = .18$, $t(96) = 1.49$, $p = .14$) nor GSE ($\beta = .10$, $t(96) = .89$, $p = .38$) predicted final total debt. Zero-order correlations with final total debt revealed the same pattern (FC: $r(98) = -.21$, $p = .036$; GSC: $r(98) = .11$, $p = .26$; GSE: $r(98) = .10$, $p = .31$).

Participants high in FC appeared to benefit from focusing on repaying Debt 6 (the largest debt, which also had the highest interest rate). For example, the correlation between FC and allocating one's entire \$5,000 round 1 salary to Debt 6 (=1 if allocate entire salary, 0 otherwise) was significant ($r(98) = .24$, $p = .016$). The correlation between FC and allocating one's entire salary across rounds 1-5 (\$25,000) to Debt 6 was also significant ($r(98) = .22$, $p = .027$).

These results, though correlational, raise the possibility that greater financial confidence improves debt repayment decisions.

STUDY 1B: MANIPULATED FINANCIAL CONFIDENCE

Study 1B examines whether financial confidence has a causal influence on debt repayment decisions. Participants initially answered questions about their financial experiences and then made a debt repayment decision. We experimentally manipulated financial confidence

by varying whether we provided confidence-enhancing feedback after individuals completed the financial experiences questions. In particular, we told some participants that, based on their financial experiences, they were well-prepared to make good decisions in the upcoming debt repayment scenario. Similar “confidence-building strategies” have been used effectively in classroom settings (e.g., teachers telling students, “I know you can do it and you know you can do it”; Newby 1991). We reasoned that giving individuals a financial confidence boost (vs. no boost) before they made a repayment decision would produce more optimal repayment behavior.

Participants and Procedure

A total of 124 undergraduates (age range: 19-26, mean age: 21; 36% female) from a large Midwestern university completed the experiment in exchange for course credit. Students were seated at private computer stations where they completed the experiment individually.

The experiment began by asking participants questions about themselves (e.g., age, sex, academic standing) and their financial behaviors (e.g., what types of financial products they currently use, how many credit cards they have in their name; see Appendix 4 for the full list). After answering these questions, participants were shown an animated progress bar and asked to wait a moment while the program processed their responses. After 10 seconds, the screen changed and revealed one of two messages. Participants randomly assigned to the No Financial Confidence Boost (control) condition were told “When you’re ready to proceed to the next set of questions (about debt management), click the arrow below.” Participants randomly assigned to the Financial Confidence Boost condition were told:

Based on your answers to the financial questions, we have no doubt that you’ll do great on the next set of questions. Specifically, you will be making a few debt management decisions. Historically, people with your financial profile have done quite well in terms of making “good” decisions— you’re definitely prepared to succeed!

When you're ready to proceed, click the arrow below. Remember, YOU GOT THIS!

After viewing one of the two messages, participants were presented with the first round of the debt management task used in Study 1A. (Due to time constraints in the lab, we could only use the first round of the task, rather than the full 25-round task.) Specifically, they were shown the six debt accounts and asked to allocate \$5,000 to as few or to as many different accounts as they would like. The key dependent variables were how much money they allocated to Debt 1 (the smallest debt and the only debt that can be immediately paid off) and Debt 6 (the debt with the highest interest rate). A financially optimal individual would allocate all \$5,000 to Debt 6. A perfectly debt account-averse individual would allocate \$3,000 to Debt 1 (i.e., pay it off) and allocate \$2,000 to Debt 2 (the next smallest debt).

We were also interested in the potential relationship between objective financial literacy and debt repayment. While it is possible that high financial literacy encourages more optimal debt repayment, financial literacy alone may be insufficient to motivate people to undertake the daunting task of eliminating large, high-interest debts (cf. Hadar et al. 2013; Parker et al. 2012). Following the debt repayment decision, we asked participants two multiple choice questions measuring financial literacy (adapted from Lusardi and Tufano 2009). Each question concerned debt management and had one objectively correct answer. The first question was: "Suppose you owe \$3,000 on your credit card. You pay a minimum payment of \$30 each month. At an annual percentage rate of 12% (or 1% per month), how many years would it take to eliminate your credit card debt if you made no additional new charges?" Five response categories were provided (less than 5 years, between 5 and 10 years, between 10 and 15 years, never, don't know), with the correct answer being "never." The second question was: "Suppose you owe \$1,000 on a loan and the interest rate you are charged is 20% per year compounded annually. If you didn't pay

anything off, at this interest rate, how many years would it take for the amount you owe to double?” Five response categories were provided (less than 2 years, between 2 and 4 years, between 5 and 9 years, 10 or more years, don’t know), with the correct answer being “between 2 and 4 years.” Correct answers were coded as 1, and incorrect answers were coded as 0. Eleven percent of participants answered the first question correctly and 60% answered the second question correctly. These proportions did not differ significantly as a function of receiving a financial confidence boost or not (both $\chi^2 < .35$, $ps > .50$).

Participants were then debriefed (e.g., we assured them that any feedback they received about their financial behaviors was randomly assigned and not diagnostic) and awarded credit.

Results and Discussion

We focused our analyses on the most optimal repayment behavior (amount of money repaid to Debt 6, the debt with the highest interest rate) and the behavior most consistent with DAA (amount of money repaid to Debt 1, the smallest debt). As anticipated, the financial confidence boost significantly increased the amount of money repaid to Debt 6 ($M = \$2,561$, $SD = \$1,860$ vs. $M = \$1,809$, $SD = \$1,761$; $t(122) = 2.31$, $p = .023$, $d = .42$). Also, the financial confidence boost significantly decreased the amount of money repaid to Debt 1 ($M = \$518$, $SD = \$929$ vs. $M = \$964$, $SD = \$1,239$; $t(122) = 2.27$, $p = .025$, $d = .41$). In other words, enhanced financial confidence improved debt repayment decisions.³

We next explored the relationship between the two financial literacy items and debt repayment behavior. Accuracy on the first financial literacy item did not predict the amount repaid to Debt 1 ($r(122) = -.06$, $p = .51$) or Debt 6 ($r(122) = .09$, $p = .35$). Accuracy on the second financial literacy item marginally predicted the amount repaid to Debt 1 ($r(122) = -.16$, p

= .085), indicating that greater financial literacy was associated with allocating less money toward the smallest debt. Accuracy on the second financial literacy item did not predict the amount repaid to Debt 6 ($r(122) = .10, p = .25$).⁴ These analyses suggest that high objective financial knowledge is insufficient to ensure optimal debt repayment behavior.

Taken together, Studies 1A and 1B suggest that high financial confidence promotes more optimal debt repayment behavior at the individual level. We next turn to our central focus: understanding how partners' differences in financial confidence influence their joint debt repayment decisions.

STUDY 2: COUPLES VERSUS INDIVIDUAL COUPLE MEMBERS

Study 2 examines the role of financial confidence in joint debt repayment decisions. Specifically, we investigate whether romantic couples place greater weight on the preferences of the partner with greater financial confidence. Such a pattern could mean that couple members, on average, manage debt more optimally when working together than when working individually. In other words, romantic partners with low financial confidence should be able to do less “damage” when working with their partner than when working individually (recall from Studies 1A and 1B that low financial confidence promotes suboptimal debt repayment). To examine this implication, we randomly assigned members of romantic couples to complete the debt management task individually or with their partner.

Participants and Procedure

We recruited heterosexual couples who were cohabitating, engaged, or married to ensure shared financial history (and, presumably, a sense of each other's financial confidence). We

recruited couples through a paid subject pool at a large Midwestern university, and we required both members of the couple to participate in the same experimental session. Sixty-three couples participated. We discovered, through a post-experiment questionnaire, that three couples were only dating. Our results do not substantively change if we omit these three dating couples, so we decided to include all couples in our analyses. Participants' age ranged from 18 to 73 (mean: 30). There was a wide range of couples' relationship lengths (between two months and 44.5 years), but the distribution was significantly skewed toward earlier-stage relationships ($z = 9.84, p < .001$). The average relationship length was 6.5 years.

After participants received instructions for the task and asked any questions, they were randomly assigned to complete the task individually ($N = 21$ couples, resulting in 42 individual data points) or with their romantic partner ($N = 42$ couples). Participants in the Individual condition completed the task individually at private computer workstations. They were instructed not to communicate with their partner or other participants during the experiment (everyone complied). Participants in the Couples condition completed the task with their romantic partner at one private computer workstation. They were instructed to communicate with each other during the experiment, as they would be making decisions as a pair. On average, couples completed the task in 16.47 minutes ($SD = 7.56$), and individuals completed the task in 12.82 minutes ($SD = 7.14; t(82) = 2.27, p = .026, d = .50$). As noted earlier, each participant earned \$12 if their total debt was less than \$30,000, \$8 if their total debt was between \$30,001 and \$35,000, \$4 if their total debt was between \$35,001 and \$40,000, and \$0 if their total debt was greater than \$40,000.

At the end of the task, all participants completed questionnaires at their individual workstations. Specifically, we measured participants' financial confidence using the same

Fernandes et al. (2014) measure as Study 1A ($\alpha = .91$). Mean FC scores did not differ significantly among couple members assigned to the Individual versus Couples condition ($M = 3.01$, $SD = 1.08$ vs. $M = 3.29$, $SD = .97$; $t(124) = 1.45$, $p = .15$).

As anticipated, couple members tended to have different levels of financial confidence. There was no significant correlation between male partners' FC and female partners' FC ($r(61) = .20$, $p = .12$). Nearly all couples had partners with different levels of financial confidence. Individuals' FC scale scores ranged from 1 to 5, and the average difference between partners' FC scores was 1.07 ($SD = .83$). Only five couples had partners who reported the same level of FC.

Results

We began by analyzing which partner had greater influence in the Couples condition. To assess partners' relative influence in the Couples condition, we created two variables: HighFC (equal to the higher FC score within the couple) and LowFC (equal to the lower FC score within the couple). In the few instances in which both partners within a couple reported the same FC, HighFC = LowFC. Consistent with Study 1A, the zero-order correlations between HighFC and final debt ($r(40) = -.56$, $p < .001$) and between LowFC and final debt ($r(40) = -.49$, $p = .001$) were both significant. More importantly and consistent with our theoretical account, in a multiple regression predicting total debt, HighFC was significant ($\beta = -.43$, $t(39) = 2.50$, $p = .017$), and LowFC was not ($\beta = -.21$, $t(39) = 1.21$, $p = .23$). The greater influence of the partner with higher FC was evident even in Round 1: in a multiple regression, HighFC was a significant predictor of total debt at the end of Round 1 ($\beta = -.54$, $t(39) = 3.25$, $p = .002$), but LowFC was not ($\beta = -.13$, $t(39) = .88$, $p = .44$).

We can also gain insight into which partner had more influence by comparing the

performance of couples to the performance of individuals with relatively high and low FC. In the individual condition, as in Study 1A, total debt correlated negatively and significantly with FC scores ($r(40) = -.48, p = .001$). Figure 1 (Figures follow References) presents mean total debt among all couples, among individuals with FC scores above the scale midpoint of three ($N = 20$), and among individuals with FC scores below the scale midpoint ($N = 19$). In this analysis only, we excluded three individuals with FC scores at the scale midpoint; the results do not substantively change if those three individuals are grouped with either the high or low FC individuals (see Appendix 5 for additional details). Couples concluded the task with significantly less debt than individuals with relatively low FC scores ($M = \$34,711, SD = \$5,554$ vs. $M = \$40,904, SD = \$5,054; t(78) = 4.04, p < .001, d = 1.16$). By contrast, couples concluded the task with about as much debt as individuals with relatively high FC scores ($M = \$34,711, SD = \$5,554$ vs. $M = \$35,744, SD = \$5,981; t(78) = .69, p = .50$). This analysis further suggests that partners with relatively high FC exerted more influence over joint debt management decisions.

Finally, we compared mean total debt across conditions (all couples vs. all individuals). As predicted, couple members working together concluded the task with significantly less total debt than couple members working independently ($M = \$34,711, SD = \$5,554$ vs. $M = \$37,951, SD = \$6,146; t(82) = 2.54, p = .013, d = .55$). In other words, couple members managed shared debts more successfully when working together than when working independently.

Follow-Up

We conducted a follow-up study to address two concerns stemming from Study 2. One concern is that the results might be consistent with a reverse-causality interpretation: FC is subjective and measured at the end of the task, and the partner who had greater influence during

the task may have gained greater FC as the task progressed. (Note, though, that FC was measured before the debt management task in Study 1A and still predicted task performance.) Another concern is that Study 2 did not measure participants' objective financial literacy (FL). Measuring FL would allow us to explore whether FL differences within couples are also predictive of partners' relative influence.

To address both concerns, we attempted to re-recruit all 63 couples for a follow-up survey 10 months after the original experiment. We offered \$10 to each partner for completing the brief survey, and 35 couples (70 individuals), all of whom indicated they were still together in a romantic relationship, participated. Thus, our response rate was 56%. Participating couples were more likely to be married (during the original experiment, or "time 1") than non-participating couples (49% vs. 21%; $\chi^2(1) = 4.94, p = .026$), but there was no difference in age or relationship duration between the two groups ($ps > .65$).

The follow-up survey (administered at "time 2") began with the same measure of FC (Fernandes et al. 2014; $\alpha = .92$) administered at time 1. The correlation between FC measured at time 1 and FC measured at time 2 was large ($r(68) = .70, p < .001$). To put this correlation in context, the test-retest reliability of different measures of the Big Five personality dimensions ranges from .68 to .80 over a span of two weeks (Gosling, Rentfrow, and Swann 2003, Table 3).

We also administered a 13-item multiple-choice quiz developed by Fernandes et al. (2014) to measure FL (see Appendix 6 for the full measure). The quiz includes items such as "Suppose you have \$100 in a savings account and the interest rate is 20% per year and you never withdraw money or interest payments. After five years, how much would you have in this account in total?" (Answer: More than \$200.) FL scores (i.e., total correct) ranged from 2 to 13, with a mean of 9.66 ($SD = 2.63$). The correlation between FL (measured at time 2) and FC

(measured at time 2) was modest but significant ($r(68) = .25, p = .040$). Fernandes et al. (2014) documented similar correlations between these two constructs (in the .23-.31 range).

To examine the influence of FC and FL differences within couples, we ran a multiple regression predicting total debt. Specifically, for couples originally in the Couples condition ($N = 24$ couples), we regressed total debt at time 1 on the higher FC score within the couple at time 2 (HighFC2), the lower FC score within the couple at time 2 (LowFC2), the higher FL score within the couple at time 2 (HighFL2), and the lower FL score within the couple at time 2 (LowFL2). Consistent with our theoretical account, HighFC2 was significant ($\beta = -.54, t(19) = 2.51, p = .021$), but LowFC2 ($\beta = .02, t(19) = .10, p = .92$), HighFL2 ($\beta = -.09, t(19) = .39, p = .70$), and LowFL2 ($\beta = -.34, t(19) = 1.51, p = .15$) were not. Thus, consistent with Ward and Lynch's (in press) findings among early-stage couples, we found that FL differences did not predict influence in a joint financial decision-making task. However, consistent with our theoretical account, we found that the partner with higher FC had greater influence.

The results of this follow-up study cast doubt on the reverse-causality interpretation of the original FC results and provide evidence that differences in FC are more influential when managing shared debts than differences in FL.

Discussion

Study 2 suggests that the partner with greater FC has greater influence over joint debt repayment decisions. In fact, the average performance of couples was statistically indistinguishable from the average performance of individuals high in FC working on their own (Figure 1). As a result, on average, couple members working together managed debt significantly more optimally than couple members working individually. In addition, our follow-up study

suggested that FC differences within couples were more influential than FL differences.

STUDY 3: MANIPULATING PARTNERS' ABILITY TO PERCEIVE EACH OTHER'S FINANCIAL CONFIDENCE

Study 2 suggests that dyads outperform individuals because partners understand who has greater financial confidence and place greater weight on that partner's repayment preferences. This account suggests that improving partners' understanding of each other's financial confidence level should lead to improved debt management decisions. Study 3 examined this implication. Specifically, we experimentally manipulated partners' understanding of each other's financial confidence via a "warm up" task and examined whether this manipulated understanding influenced partners' ability to successfully manage their debts.

Participants and Procedure

One-hundred students (mean age: 20; 49% female) from a large Midwestern university participated as part of a course requirement. We initially told participants that we had created a pool of questions for an upcoming trivia event and needed to test a few of them out on local students. Participants were told that they would complete three different sets of multiple-choice questions before moving on to the next task. Participants answered questions (via computer) without receiving feedback about their accuracy.

We randomly assigned participants to either a Control or Financial Familiarity condition. The key difference between these conditions was the content of a set of questions answered with a partner. In the Control condition, participants initially completed five financial literacy questions on their own, taken from the FL measure developed by Fernandes et al. (2014).

Participants then completed a second block of five (different) financial literacy questions on their own. They were then paired with an unacquainted participant at a neighboring workstation, and we asked the pair to jointly answer five multiple-choice trivia questions about their university (e.g., identifying the year it was founded). Participants in the Financial Familiarity condition initially completed five university trivia questions on their own. They then completed five financial literacy questions on their own. They were then paired with an unacquainted participant at a neighboring workstation, and we asked the pair to jointly answer five (different) financial literacy questions. Thus, participants in both conditions were mentally stimulated to the same extent during the trivia task (i.e., answering the same 15 questions), and everyone had a chance to interact with their partner before moving on to the next task.

Following the trivia task, we informed pairs (the same pairs formed during the last block of the trivia task) that they would next complete the debt management task. Pairs received instructions for the task and had the opportunity to ask questions. Participants were instructed to communicate with their partner during the task because all decisions would be made as a pair. There were 25 pairs per condition.

Participants were paid based on their total amount of debt at the end of the task. Specifically, each participant earned \$10 if their total debt was less than \$30,000, \$7.50 if their total debt was between \$30,001 and \$35,000, \$5 if their total debt was between \$35,001 and \$40,000, and \$0 if their total debt was greater than \$40,000. Each participant in the pair earned the same incentive based on the pair's total amount of debt.

Following the task, participants returned to individual workstations where everyone proceeded to answer a few questions independently. Participants completed the FC scale used previously ($\alpha = .90$). Mean FC scores did not differ significantly between the Control and

Financial Familiarity conditions ($M = 2.88$, $SD = .95$ vs. $M = 3.04$, $SD = .81$; $t(98) = .93$, $p = .36$). They then assessed their partner's FC. Specifically, we reworded each of the five FC scale items so they referred to one's partner. For example, the FC item "I am confident in my ability to recognize a good financial investment" was reworded as "My partner is confident in his or her ability to recognize a good financial investment." This measure of partners' perceived financial confidence had good internal consistency ($\alpha = .90$).

Results

We focused our analyses on two questions. First, did the Financial Familiarity treatment improve participants' ability to accurately perceive their partner's FC? Second, did a better understanding of each other's FC improve pairs' performance in the debt management task?

Perceptions of financial confidence. We created a FC Inaccuracy index to capture how inaccurate partners were in their perceptions of each other's FC. The FC Inaccuracy index took the following form:

$$\text{FC Inaccuracy} = | \text{Partner 1's FC} - \text{Partner 1's pFC} | + | \text{Partner 2's FC} - \text{Partner 2's pFC} |$$

Specifically, we summed the absolute discrepancy between Partner 1's self-reported FC and Partner 2's perception of Partner 1's FC (Partner 1's pFC) and the absolute discrepancy between Partner 2's self-reported FC and Partner 1's perception of Partner 2's FC (Partner 2's pFC).

Thus, FC Inaccuracy was computed at the pair level.

As predicted, pairs in the Financial Familiarity condition had lower FC Inaccuracy scores than did pairs in the Control condition ($M = 1.38$, $SD = .58$ vs. $M = 1.85$, $SD = 1.03$; $t(48) = 1.99$,

$p = .052$, $d = .56$). In other words, partners had a better sense of each other's FC in the Financial Familiarity condition.

FC Inaccuracy can also be computed at the individual level (the absolute difference between my partner's FC and my perception of my partner's FC). In such an analysis, individuals in the Financial Familiarity condition had significantly lower FC Inaccuracy scores than did individuals in the Control condition ($M = .69$, $SD = .48$ vs. $M = .92$, $SD = .59$; $t(98) = 2.18$, $p = .032$, $d = .43$).

We can also analyze whether or not both partners understood their relative FC positions (i.e., whether both partners understood whether their partner had more or less FC than they themselves did). To illustrate, imagine Partner 1's FC = 3 and Partner 2's FC = 1. Also, imagine that Partner 1's pFC = Partner 2's pFC = 2. In this case, Partner 1 perceives Partner 2 as having less FC than Partner 1 has ($2 < 3$), and Partner 2 would agree ($1 < 3$). Also, Partner 2 perceives Partner 1 as having more FC than Partner 2 has ($2 > 1$), and Partner 1 would agree ($3 > 1$). Here, we would code the pair as one in which both partners understand their relative FC positions. In the Financial Familiarity condition, 52% of pairs had partners who each understood whether their partner had more or less FC than they themselves did. This proportion was only 16% in the Control condition, a significant difference ($\chi^2(1) = 7.22$, $p < .01$).

The preceding analyses suggest that our manipulation influenced partners' understanding of each other's financial confidence as intended. However, it is possible that partners in the Financial Familiarity condition were also able to observe each other's objective level of financial literacy. However, because the FL questions did not have obvious answers, and because we did not provide any feedback regarding accuracy, we anticipated that partners in the Financial Familiarity condition would primarily be able to observe each other's FC. We cannot completely

rule out the possibility that partners in the Financial Familiarity condition were able to observe each other's FL, but it is worth noting that perceptions of FC in the Financial Familiarity condition were not influenced by FL. Specifically, in the Financial Familiarity condition, when we regress perceptions of partner's FC on partner's FC and partner's FL (number of correct answers when independently answering the first block of five FL questions), we found that partner's FC was significant ($\beta = .30$, $t(47) = 2.08$, $p = .043$), and partner's FL was not significant ($\beta = .16$, $t(47) = 1.10$, $p = .28$). In other words, we can at least demonstrate that perceptions of the FC of one's partner were not influenced by the FL of one's partner.

FC Inaccuracy and debt task performance. In the remainder of our analyses, we focus on the FC Inaccuracy index (at the pair level) because it is our only continuous measure of partners' understanding of each other's FC at the pair level. As predicted, FC Inaccuracy (at the pair level) was positively and significantly correlated with total debt at the end of the task ($r(48) = .45$, $p = .001$). The strength of this relationship did not differ by condition ($z = .62$, $p = .54$). Consistent with our theorizing, the more inaccurate partners were in perceiving each other's FC, the worse they performed in the debt management task.

We next examined the relationships among our treatment (coded as +.5 for Financial Familiarity, -.5 for Control), FC Inaccuracy, and total debt in a mediation model (Hayes 2013, model 4). Figure 2 displays the results. We found a significant indirect effect of our treatment on total debt via FC Inaccuracy (95% confidence interval (CI) for the indirect effect: -.012, -.283). Note that this is a case of "indirect-only mediation" (Zhao, Lynch, and Chen 2010), as our treatment did not significantly influence total debt ($t(48) = .88$, $p = .39$). The absence of a "total effect" of our treatment on total debt is not problematic theoretically since the absence or presence of a total effect is "never relevant to establishing mediation" (Zhao et al. 2010, p. 200).

We hypothesized that our Financial Familiarity treatment would improve partners' ability to perceive each other's FC, and that increased accuracy in FC perceptions would improve performance in the task. Figure 2 is consistent with that hypothesized indirect effect.

Discussion

The evidence in Study 2 was consistent with the hypothesis that couples manage debts effectively because they understand which partner has greater FC. Study 3 provides causal evidence for this proposed process. Specifically, we manipulated partners' understanding of each other's FC and found that a better understanding of each other's FC improved partners' ability to jointly manage their shared debts.

STUDY 4: DOES FINANCIAL CONFIDENCE PREDICT HOW COUPLES MANAGE FINANCIAL RESPONSIBILITIES AT HOME?

The results thus far provide consistent support for our proposed account, but one limitation is that all of the evidence was collected in the lab. As discussed earlier, the debt management task has its virtues (e.g., incentive-compatible, predicts real-world repayment history), but it is not totally clear whether the interpersonal dynamics observed within the context of the task are likely to be observed outside the lab. It is possible that when managing real debts, many factors other than each partner's financial confidence determine influence (e.g., which partner has more time to think about finances; cf. Ward and Lynch in press). Study 4 addresses this limitation by surveying both members of romantic couples about their responsibility for repaying household debts (and other financial and non-financial household tasks).

Study 4 also addresses a second concern. Although Study 1B and the Study 2 follow-up

provide some evidence against a reverse-causality interpretation, it is still possible that partners who have greater influence over debt management gain greater financial confidence over time. We address this reverse-causality concern in Study 4 by examining household responsibilities among very early-stage couples.

Participants

As part of a separate longitudinal project, we sought to recruit heterosexual newlywed, engaged, and “soon-to-be-engaged” couples via advertisements placed on Craigslist and various social media and letters mailed to people on a bridal marketing list. We specified that participants could not have been previously married to someone else. As part of the study, members of enrolled couples periodically completed online surveys. In one of these surveys, we asked questions designed to assess the relationship between each romantic partner’s financial confidence and their responsibility for managing debt (and other household tasks). Participants independently completed the survey online, and we made it clear that their responses would not be shared with their partner. We instructed participants not to discuss the survey with their partner until both had completed it (if they discussed it at all).

Both members of 161 couples completed the survey. Ninety-seven couples were married, 59 were engaged and/or cohabitating, and five were dating seriously. Participants’ ages ranged from 18 to 57, with a mean of 28. Ninety-eight percent had at least graduated high school, and 58% had at least graduated from a four-year college. Ten percent of the couples had children.

Procedure

We asked participants four questions about the extent to which they were responsible for

different household tasks. First, to assess responsibility for debt management, we asked participants “Who is primarily in charge of managing and paying household bills?” Participants responded on a 0-100 scale, where 0 indicated that their partner is “completely responsible” and 100 indicated that they themselves are “completely responsible.” We also examined responsibility for other financial and non-financial tasks, to assess whether people high in financial confidence have greater influence only in financial domains. Specifically, we asked participants who is “primarily responsible for household budgeting decisions (for example, how much to spend on rent/mortgage, vacations; how much to save),” who is “primarily responsible for household shopping (for example, groceries, furniture),” and who is “primarily in charge of performing non-financial household tasks, such as preparing meals, performing home repairs, or, if applicable, caring for children.” Participants responded on the same 0-100 scale for each item.

Later, participants completed the FC scale used previously ($\alpha = .92$). The survey included several other items not relevant to the current study and not analyzed here.

Results

Consistent with prior research (e.g., Ross and Sicoly 1979), the sum of couple members’ self-reported responsibility for all household tasks significantly exceeded 100 (mean total for paying bills: 109.7; budgeting: 106.5; shopping: 111.7; non-financial household tasks: 109.8; in one-sample t -tests against 100: all $t(160) > 4.10$, all $p < .001$, all $d > .32$). In other words, there was evidence of over-claiming of task responsibility at the couple level.

Because of this expected pattern of over-claiming, we did not rely only on one partner’s self-reported responsibility to estimate their responsibility. Instead, we averaged each partner’s view of their own responsibility and their partner’s (implied) view of their responsibility.

Specifically, indexed responsibility for each task took the following form:

$$\text{His responsibility index} = \frac{\text{His self reported responsibility} + (100 - \text{Her self reported responsibility})}{2}$$

$$\text{Her responsibility index} = \frac{\text{Her self reported responsibility} + (100 - \text{His self reported responsibility})}{2}$$

Note that, by construction, the responsibility indices sum to 100.

Our central question was whether the relationship partner with greater financial confidence had more responsibility for managing debts (i.e., managing and paying bills) than the partner with less financial confidence. Similar to the couples in Study 2, nearly all couples had partners with different levels of financial confidence. Individuals' FC scale scores ranged from 1 to 5, and the average difference between partners' FC scores was 1.15 ($SD = .85$). Also similar to Study 2, the correlation between male partners' FC scores and female partners' FC scores was not significant ($r(159) = .05, p = .56$). In this analysis, we exclude the nine couples in which partners reported identical levels of financial confidence, leaving 152 couples to analyze. As predicted, the partner with greater financial confidence had more responsibility for managing and paying household bills ($M = 55.1, SD = 29.2$; in a one-sample t -test against 50: $t(151) = 2.13, p = .034$). The effect was small ($d = .17$), but the 95% CI around d excluded zero (.014, .335), as was true of all effect sizes reported in this paper.

We also explored whether financial confidence differences within couples predicted responsibility for other financial and non-financial tasks (using one-sample t -tests against 50). Consistent with the debt management finding, the partner with greater financial confidence had more responsibility for household budgeting decisions ($M = 54.7, SD = 20.0$; $t(151) = 2.89, p = .004, d = .24$). However, the partner with greater financial confidence did not have more responsibility for household shopping ($M = 47.7, SD = 23.2$; $t(151) = 1.22, p = .23$) or explicitly

non-financial tasks ($M = 48.6$, $SD = 20.5$; $t(150) = .85$, $p = .40$). (One participant did not answer the non-financial tasks question.) The absence of a relationship between financial confidence differences and shopping responsibility is not especially surprising, given that most shopping decisions are not conceptualized as financial tasks (cf. Lynch 2011, p. SIV). The shopping and non-financial task results suggest that the relationships between financial confidence differences and bill-paying and budgeting responsibilities are not just the result of people high in financial confidence being especially likely to claim responsibility for any type of task.⁵

Next, we addressed the possibility of reverse-causality by examining household responsibilities among very early-stage couples, which we defined as being romantically involved for three years or less. Consistent with earlier findings, the partner with greater financial confidence had more responsibility for managing and paying household bills ($M = 59.8$, $SD = 29.2$; in a one-sample t -test against 50: $t(66) = 2.75$, $p = .008$, $d = .34$) and household budgeting decisions ($M = 56.1$, $SD = 19.4$; $t(66) = 2.57$, $p = .012$, $d = .31$). However, the partner with greater financial confidence did not have more responsibility for household shopping ($M = 49.6$, $SD = 23.3$; $t(66) = .15$, $p = .88$) or explicitly non-financial tasks ($M = 49.7$, $SD = 22.5$; $t(66) = .10$, $p = .92$). This analysis suggests that the relationship between financial confidence and influence over shared financial matters is not simply driven by more influential partners gaining financial confidence over time.

Another potential alternative account for the relationship between financial confidence and influence may be that men are more likely than women to express financial confidence and to claim responsibility for financial matters. Indeed, consistent with Fernandes et al. (2014, Appendix C), we found that men expressed greater financial confidence than women ($M = 3.42$, $SD = .98$ vs. $M = 3.09$, $SD = 1.04$; paired $t(159) = 2.96$, $p = .004$, $d = .23$). However, men did not

have more responsibility for managing and paying bills ($M = 52.6$, $SD = 29.2$; one-sample t -test against 50: $t(160) = 1.13$, $p = .26$) or budgeting decisions ($M = 48.9$, $SD = 20.1$; one-sample t -test against 50: $t(160) = .68$, $p = .50$). Men did have less responsibility for shopping ($M = 39.1$, $SD = 20.4$; one-sample t -test against 50: $t(160) = 6.81$, $p < .001$, $d = .54$) and explicitly non-financial tasks ($M = 43.5$, $SD = 19.2$; one-sample t -test against 50: $t(159) = 4.26$, $p < .001$, $d = .34$). (One couple did not complete the non-financial tasks item.) Thus, sex did predict responsibility for shopping and explicitly non-financial tasks. However, for financial tasks like paying bills and budgeting decisions, financial confidence was a better predictor of responsibility than sex.

Discussion

Study 4 demonstrated that romantic partners who have greater financial confidence tend to have greater influence over household finances. Unlike the previous studies, we cannot determine whether the pattern observed here is beneficial for couples. That is, we cannot speak to whether the Study 4 couples benefit from the partner with higher FC exerting greater influence over household finances. Nevertheless, the finding that the partner with higher FC has greater influence over household finances is consistent with the dynamics observed among couples performing the debt management task, thus providing converging evidence.

We have proposed that greater financial confidence leads to greater influence over shared debt management decisions. The Study 4 results were consistent with this hypothesis, and because participating couples were all in early stages of their relationship, the results also undermine a reverse causality interpretation. However, when viewed from a broader time horizon, causality is unlikely to always flow in a single direction. For example, actively managing one's own debts when single may help to build financial confidence, which in turn

promotes greater influence over shared debt management decisions when in a relationship.

GENERAL DISCUSSION

Financial decisions are rarely made in the absence of social influence. Many of life's most important financial decisions (e.g., which house to buy; which spouse's student loan to pay off) have a shared component. Even when consumers are ostensibly making a decision on their own, reminders of others' preferences or behaviors may guide individual decision-making (Duclos, Wan, and Jiang 2013; Simpson, Griskevicius, and Rothman 2012). Thus, it is important to understand how interpersonal dynamics influence financial decision processes and outcomes. In the consumer financial decision-making domain, some prior work has examined how couples jointly make spending and saving decisions (e.g., Corfman and Lehmann 1987; Ward and Lynch in press). We build on this work by examining how partners' financial confidence, and partners' understanding of each other's financial confidence, influence joint debt management decisions.

Our work demonstrates that financial confidence plays an important role in debt management decisions, at both the individual-level (Studies 1A and 1B) and dyad-level (Studies 2-4). In particular, greater financial confidence leads to more optimal debt repayment decisions. Financial confidence encourages indebted consumers to take on the daunting challenge of tackling large, high-interest debts. Financial literacy, by contrast, does not appear to strongly influence debt management decisions at either the individual- or couple-level (cf. Fernandes et al. 2014). In other words, some indebted consumers may understand the financially optimal repayment strategy but lack the financial confidence to implement it.

Couple members generally have different levels of financial confidence (Studies 2 and 4),

and we found that the partner with greater financial confidence had greater influence over joint debt management decisions (Studies 2 and 4). As a result, couple members randomly assigned to work together managed debt more effectively than couple members randomly assigned to work on their own (Study 2).

The Study 2 evidence is consistent with the argument that greater understanding of one another's FC within a dyad causes more optimal debt repayment decisions. However, alternative explanations are conceivable (e.g., perhaps within established couples, the partner with lower FC is generally more passive or submissive). Study 3 therefore sought to establish a causal role for partners' understanding of each other's FC. We manipulated the ability of members of pairs to accurately perceive each other's FC, and we found that greater accuracy in FC perceptions caused more optimal debt repayment decisions.

Studies 1-3 used a laboratory debt management task to examine the role of financial confidence in individual and joint debt repayment decisions. As discussed earlier, this task has its virtues, but it necessarily includes some artificial elements. Study 4 therefore used surveys from both members of romantic couples about their responsibility for managing debt. Consistent with the patterns observed using the debt management task, Study 4 demonstrated that romantic partners with higher FC tend to have greater influence over household finances.

Our work suggests that couples who manage their debts jointly are more likely to develop an accurate understanding of each other's FC and more likely to manage debts optimally. However, it is worth considering what our results suggest for partners high in FC who are already responsible for most household financial matters. Should they seek to engage their lower FC partner in discussions about household finances? Figure 1 does not reveal a clear immediate benefit: individuals relatively high in FC perform about as well as couple members working

together. Over time, however, these conversations may help to further bolster each partner's FC, which should improve the couple's ability to make debt management and other financial decisions. In addition, boosting the financial confidence of the partner with lower financial confidence is important if and when that partner needs to make financial decisions on their own (e.g., due to illness, death, or divorce). Although the FC scale does have high test-retest reliability (Study 2 Follow-Up), FC is not a completely fixed and unmovable trait (Study 1B; also see Hadar et al. 2013). Couples may be able to jointly cultivate greater FC through routine discussion of household finances.

It is important to consider the extent to which our conclusions are sensitive to the decision context. The finding that higher FC partners exert greater influence over joint financial decisions does not appear particularly sensitive to context, as we observe it in the lab and in surveys of household behavior. By contrast, the finding that FC improves debt management decisions, and couples therefore benefit from following the lead of the higher FC partner when managing multiple debts, could be sensitive to context. In the debt management task, the largest debt had the largest interest rate, and high FC participants benefitted from focusing on it. If high FC individuals are only focused on repaying their largest debts, they may be at a disadvantage when their smallest debts have the largest interest rates. That said, to the extent that high FC boosts the motivation to pay off any particular debt, high FC individuals may be at an advantage. Consistent with this reasoning, Fernandes et al. (2014, Appendix C) found that FC correlated positively and significantly with self-reported credit scores. Thus, there are reasons to expect that our conclusions about the interpersonal benefits of FC generalize across decision contexts, though this is certainly an important topic for future research.

Open Questions

The current research is among the first to examine joint decision-making processes within the consumer finance domain. As such, there are several, promising avenues for future investigation. For instance, future work could provide greater clarity around the processes by which FC differences within couples predict influence. It is possible that when confronted with a novel financial decision, both partners quickly realize whose preferences should carry greater weight. Alternatively, partners with greater FC may achieve greater influence by being more persuasive in discussions with their partner, or more insistent that their preferences are the ones that are implemented. One way to further distinguish between these process explanations would be to examine situations in which discussion is not possible. For example, consider a debt repayment task in which one partner can only offer the other partner suggested repayment amounts, without any other explanation or opportunity for persuasion. Would perceptions of the advisor's FC predict how much weight the advice-recipient places on the advice? If so, that would suggest that higher FC partners achieve greater influence, at least in part, by simply being perceived as having higher FC.

It would be interesting to examine how FC and FL potentially interact to influence couples' financial decision-making. If partners with higher FC have greater voice in joint financial decisions, their level of FL may be particularly influential. By contrast, if partners with lower FC have less voice in joint financial decisions, then their level of FL may not be very influential. Thus, while partners' differences in FL levels do not predict initial influence over household finances, the level of FL among the partner with greater FC may be influential.

The influence of different motivations—e.g., to maximize financial outcomes or to maintain relationship harmony—on joint financial decisions also warrants additional

investigation. Couples who are primarily motivated to maintain relationship harmony may strive to give each partner equal “voice” and influence, possibly resulting in less optimal debt management. Couples who are primarily focused on maximizing financial outcomes may jeopardize relationship harmony.

The perceived source of debt may also play an important role in joint repayment decisions. In our lab experiments, participants inherited unlabeled debts that were not attributable to any one partner’s spending decisions. However, outside the lab, partners come into the relationship with their own debts. Indeed, prior work suggests that partners may systematically come into a marriage with very different levels of personal debt (Rick et al. 2011). It would be valuable to examine how financial confidence and responsibility for incurring a debt (potentially) interact to predict interpersonal influence.

Conclusion

There are surely instances in which high financial confidence, when unaccompanied by high financial literacy, can lead to deeply suboptimal financial decisions. Indeed, financial confidence might encourage debt accumulation in the first place (e.g., taking on a larger mortgage in anticipation of managing it effectively). However, when consumers face the often-overwhelming experience of juggling multiple debts, greater financial confidence can encourage them to take on the daunting (and often financially optimal) task of chipping away at their largest debts. Because romantic couples tend to follow the lead of the partner with greater financial confidence when jointly managing their debts, couple members manage debt more optimally when working together than when working individually.

APPENDIX 1: DEBT MANAGEMENT TASK INSTRUCTIONS

In all lab studies involving the debt management task, participants began the session seated at individual computer stations. The first author or a trained research assistant read a scripted introduction followed by detailed task instructions.

Verbal Introduction

Welcome! Today, you will be completing a debt management task on an external website. You will manage several hypothetical debts, and the goal of the task is to end the task with the lowest amount of debt possible. Depending on your total amount of debt at the end of the task, each of you will receive a cash bonus of up to \$X. Note that this amount is in addition to your show-up fee. The lower your total amount of debt at the end of the task, the more you will earn.

For example, if your total debt is *[Researcher pointed to the incentive structure, which appeared on a dry erase board at the front of the room]*:

Less than \$30,000 you will receive \$X
Between \$30,001 and \$35,000 you will receive \$X
Between \$35,001 and \$40,000 you will receive \$X
Greater than \$40,000 you will receive no bonus

[Exact incentive amounts varied across studies as a function of sample characteristics. For instance, couple members were incentivized at a higher rate than undergraduate students because the former had additional constraints like having to coordinate their schedules.]

We will now go through some instructions on how to complete the task. Click the arrow at the bottom of the computer screen. Please follow along as I read aloud. *[Participants turned their attention to the computer.]*

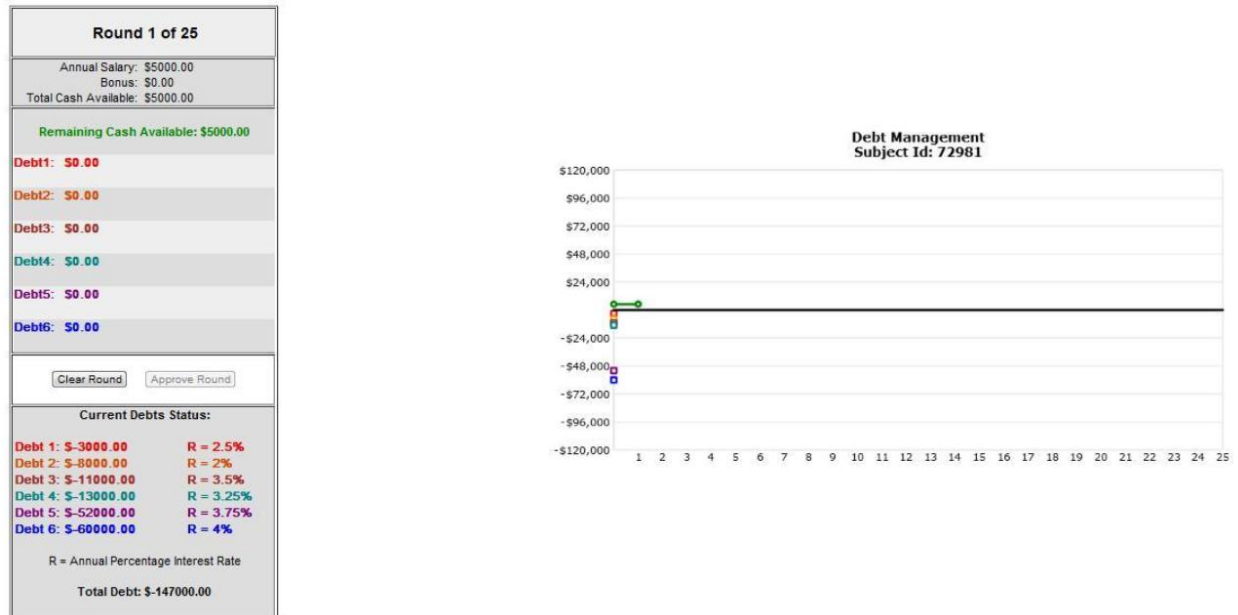
Screen 1.

The task will last 25 rounds, corresponding to 25 "years." You will begin the task with 6 different debt accounts, each with different interest rates and debt amounts. Each round you will receive a "salary" that you can use to pay down your debts. In addition to your salary, you may also occasionally receive a bonus. In the task, you can use your salaries and bonuses only for debt repayment. And, in each round, you must use the entire amount of cash available (salary and bonuses) to pay down debt (there are no saving or spending opportunities).

The next several screens show pictures of the task to give you an idea of how it will work.

Screen 2.

This is what the screen will look like when you begin. Here, the player has an annual salary of \$5000 and \$0 in bonuses for this round. The player also has six different debt accounts, each with an annual percentage interest rate denoted by "R" (see bottom left-hand corner).



Screen 3.

Your task is to decide how to allocate your cash available from each round towards paying down your debt accounts. To allocate part or all of your cash available toward a debt account, move your mouse over the debt account and a text box will appear. Type in the amount you would like to repay on that debt account for that round. Once you have allocated your entire amount of cash available to your debt accounts, you can click “approve round” and then you will advance to the next round.

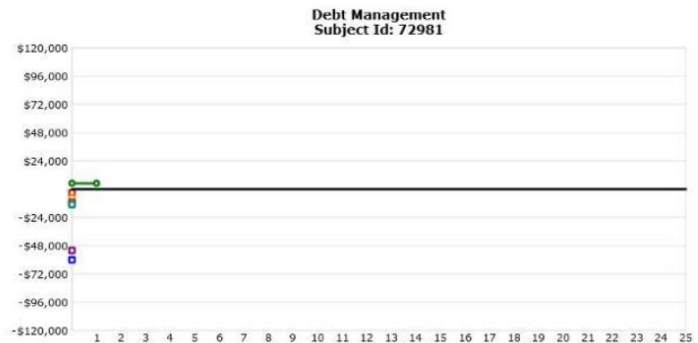
The next several screens will show you an example.

Screen 4.

Imagine that your round 1 salary is \$5,000 and you would like to pay \$2,500 toward Debt 1 and \$2,500 toward Debt 6 in this round.

To allocate your \$5,000 salary between Debts 1 and 6, first, you would move your mouse over Debt 1, and then type “2500” into the box that appears next to Debt 1. Then, you would click “Submit.”

Round 1 of 25	
Annual Salary: \$5000.00 Bonus: \$0.00 Total Cash Available: \$5000.00	
Remaining Cash Available: \$5000.00	
Debt1: \$0.00	<input type="text" value="2500"/> <input type="button" value="Submit"/>
Debt2: \$0.00	
Debt3: \$0.00	
Debt4: \$0.00	
Debt5: \$0.00	
Debt6: \$0.00	
<input type="button" value="Clear Round"/> <input type="button" value="Approve Round"/>	
Current Debts Status:	
Debt 1: \$-3000.00	R = 2.5%
Debt 2: \$-8000.00	R = 2%
Debt 3: \$-11000.00	R = 3.5%
Debt 4: \$-13000.00	R = 3.25%
Debt 5: \$-52000.00	R = 3.75%
Debt 6: \$-60000.00	R = 4%
R = Annual Percentage Interest Rate	
Total Debt: \$-147000.00	



Screen 5.

Next, you would move your mouse over Debt 6, and type “2500” into the box that appears next to Debt 6. Then, you would click “Submit.”

Note that your “remaining cash available” is now \$2,500 after you previously allocated the other \$2,500 for this round to Debt 1.

Round 1 of 25	
Annual Salary: \$5000.00 Bonus: \$0.00 Total Cash Available: \$5000.00	
Remaining Cash Available: \$2500.00	
Debt1: \$2500.00	
Debt2: \$0.00	
Debt3: \$0.00	
Debt4: \$0.00	
Debt5: \$0.00	
Debt6: \$0.00	<input type="text" value="2500"/> <input type="button" value="Submit"/>
<input type="button" value="Clear Round"/> <input type="button" value="Approve Round"/>	
Current Debts Status:	
Debt 1: \$-3000.00	R = 2.5%
Debt 2: \$-8000.00	R = 2%
Debt 3: \$-11000.00	R = 3.5%
Debt 4: \$-13000.00	R = 3.25%
Debt 5: \$-52000.00	R = 3.75%
Debt 6: \$-60000.00	R = 4%
R = Annual Percentage Interest Rate	
Total Debt: \$-147000.00	



Screen 6.

Finally, after all of your salary and bonus amounts have been allocated to debt accounts, and your “Remaining Cash Available” is equal to 0, you can click “Approve Round.”

Round 1 of 25	
Annual Salary: \$5000.00 Bonus: \$0.00 Total Cash Available: \$5000.00	
Remaining Cash Available: \$0.00	
Debt1: \$2500.00	
Debt2: \$0.00	
Debt3: \$0.00	
Debt4: \$0.00	
Debt5: \$0.00	
Debt6: \$2500.00	
<input type="button" value="Clear Round"/> <input type="button" value="Approve Round"/>	
Current Debts Status:	
Debt 1: \$-3000.00	R = 2.5%
Debt 2: \$-8000.00	R = 2%
Debt 3: \$-11000.00	R = 3.5%
Debt 4: \$-13000.00	R = 3.25%
Debt 5: \$-52000.00	R = 3.75%
Debt 6: \$-60000.00	R = 4%
R = Annual Percentage Interest Rate	
Total Debt: \$-147000.00	



Screen 7.

After you click “Approve Round,” you will advance to the next round. In this case, you will advance to Round 2. Both your debt amounts and the debt graph will update for the new round.

Round 2 of 25	
Annual Salary: \$5000.00 Bonus: \$0.00 Total Cash Available: \$5000.00	
Remaining Cash Available: \$5000.00	
Debt1: \$0.00	
Debt2: \$0.00	
Debt3: \$0.00	
Debt4: \$0.00	
Debt5: \$0.00	
Debt6: \$0.00	
<input type="button" value="Clear Round"/> <input type="button" value="Approve Round"/>	
Current Debts Status:	
Debt 1: \$-512.50	R = 2.5%
Debt 2: \$-8160.00	R = 2%
Debt 3: \$-11385.00	R = 3.5%
Debt 4: \$-13422.50	R = 3.25%
Debt 5: \$-53950.00	R = 3.75%
Debt 6: \$-59800.00	R = 4%
R = Annual Percentage Interest Rate	
Total Debt: \$-147230.00	



Screen 8.

Remember that depending on your total amount of debt at the end of the task, you will receive a bonus in addition to your \$X show-up fee. The lower your total amount of debt at the end of the task, the more you will earn.

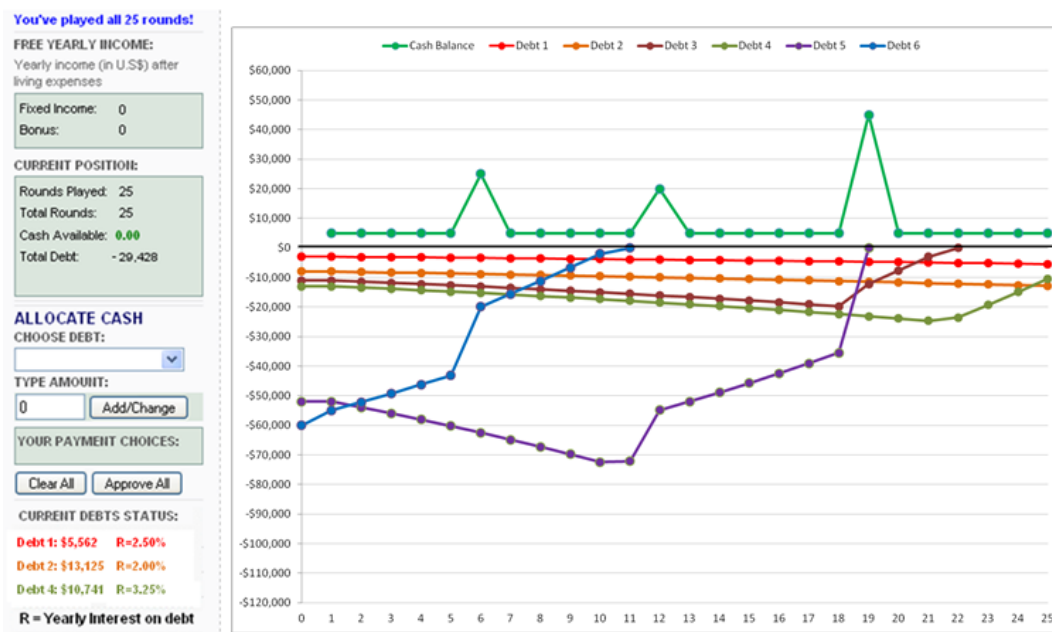
Completing the task on the external website will take approximately 15-20 minutes.

When you are finished, you will be asked to complete some final questions.

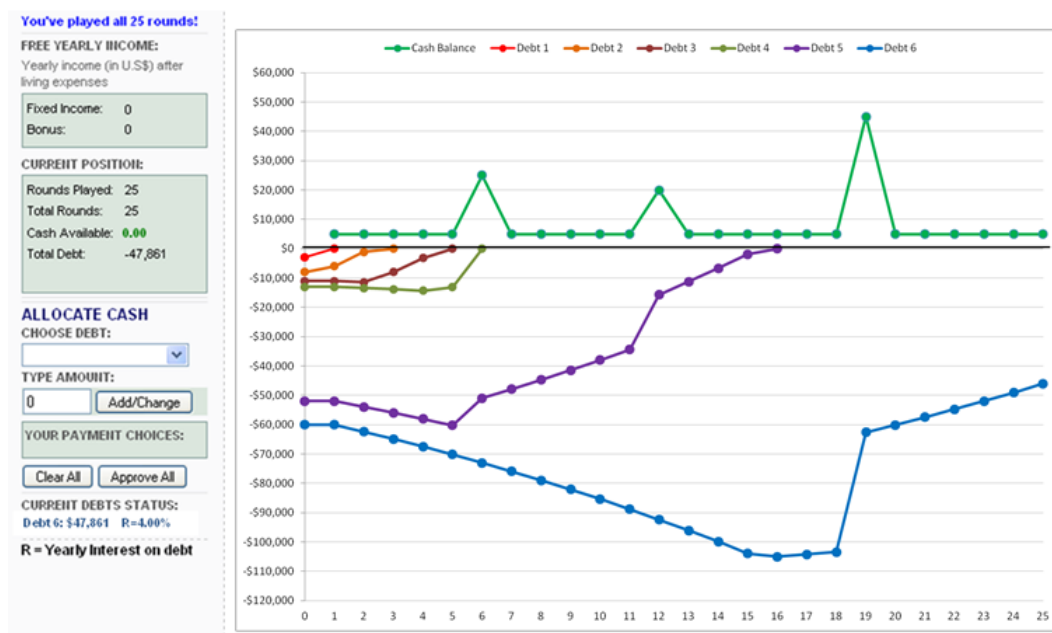
[Participants were then given an opportunity to ask questions before clicking a hyperlink to the task.]

APPENDIX 2: FINAL SCREENS OF THE DEBT MANAGEMENT TASK INTERFACE

Screen for a financially optimal participant:



Screen for a purely debt account-averse participant



APPENDIX 3: INDIVIDUAL DIFFERENCES SCALE ITEMS (STUDY 1A)

Financial Confidence (Fernandes, Lynch, and Netemeyer 2014; 1 = *extremely uncharacteristic* and 5 = *extremely characteristic*)

- I am confident in my ability to recognize a good financial investment.
- I know what investments to look for to get the most return on my money.
- I know the right questions to ask when making financial investment decisions.
- I have the skills required to make sound financial investments.
- I know the right sources to consult to make wise financial decisions.

General Self-Control (Tangney et al. 2004; 1 = *not at all* and 7 = *very well*)

- I am good at resisting temptation.
- I have a hard time breaking bad habits.*
- I am lazy.*
- I say inappropriate things.*
- I do certain things that are bad for me, if they are fun.*
- I refuse things that are bad for me.
- I wish I had more self-discipline.*
- People would say that I have iron self-discipline.
- Pleasure and fun sometimes keep me from getting work done.*
- I have trouble concentrating.*
- I am able to work effectively toward long-term goals.
- Sometimes I can't stop myself from doing something, even if I know it is wrong.*
- I often act without thinking through all the alternatives.*

*Reverse-coded items

General Self-Efficacy (Chen, Gully, and Eden 2001; 1 = *strongly disagree* and 7 = *strongly agree*)

- I will be able to achieve most of the goals that I have set for myself.
- When facing difficult tasks, I am certain that I will accomplish them.
- In general, I think that I can obtain outcomes that are important to me.
- I believe I can succeed at most any endeavor to which I set my mind.
- I will be able to successfully overcome many challenges.
- I am confident that I can perform effectively on many different tasks.
- Compared to other people, I can do most tasks very well.
- Even when things are tough, I can perform quite well.

APPENDIX 4: FINANCIAL BEHAVIOR QUESTIONS (STUDY 1B)

All participants began the study by completing a section of questions entitled “You and Your Financial Behaviors.” Below is a list of the questions we asked (in order), along with their response formats.

What is your gender?

- Male
- Female
- Other (please explain): _____

What is your age? _____

What are your academic major(s) and minor(s)? _____

What is your current academic standing?

- Freshman
- Sophomore
- Junior
- Senior
- Other (please explain): _____

Which of the following financial products do you currently use? Click all that apply.

- Checking account
- Savings account
- Credit cards
- Student loans
- Car loans
- Insurance (for example, renters, auto, etc.)

How many credit cards do you currently have in your name? If you do not have any credit cards, type "0." _____

How many bills do you personally pay each month? A "bill" can be a credit card, loan payment, utility invoice, Netflix subscription, etc. List a specific number (a ballpark estimate is fine).

If you had to guess, how much money (in U.S. dollars) do you spend in a typical month? A ballpark estimate is fine. _____

If you had to guess, how much money (in U.S. dollars) do you save in a typical month? A ballpark estimate is fine. _____

*APPENDIX 5: ADDITIONAL ANALYSES WITH INDIVIDUALS POSSESSING
HIGH AND LOW FC SCORES (STUDY 2)*

In Study 2, we compared couples (N = 42), individuals with FC scores above the scale midpoint of three (“High FC”; N = 20), and individuals with FC scores below the scale midpoint (“Low FC; N = 19) in terms of performance in the debt management task. In that analysis, we excluded three individuals with FC scores at the scale midpoint. To examine whether the results change if those three individuals are grouped with either the high or low FC individuals, we conducted two more analyses. The table below provides information about the three analyses, organized by how we grouped the three individuals with a FC score at the scale’s midpoint. The results reveal a similar pattern of results across all three analyses.

APPENDIX TABLE 1.

COUPLES PERFORM SIMILARLY TO HIGH FC INDIVIDUALS

	<i>Treatment of Three Individuals Scoring at Scale Midpoint</i>		
	(1) Omitted from analysis	(2) Grouped with High FC individuals	(3) Grouped with Low FC individuals
Couples (N = 42)	\$34,711 (\$5,554) ^a	\$34,711 (\$5,554) ^a	\$34,711 (\$5,554) ^a
High FC individuals	\$35,744 (\$5,981) ^a	\$35,513 (\$5,979) ^a	\$35,744 (\$5,981) ^a
Low FC individuals	\$40,904 (\$5,054) ^b	\$40,904 (\$5,054) ^b	\$39,958 (\$5,703) ^b

Note: For analyses 1-3, means with different superscripts are significantly different ($ps < .05$). Values in parentheses represent standard deviations of the mean.

APPENDIX 6: FINANCIAL LITERACY MEASURE (STUDY 2)

In the follow-up to Study 2, couple members completed a 13-item multiple-choice quiz developed by Fernandes et al. (2014) to measure financial literacy. The 13 items were presented in the following order. The correct response to each question is italicized below.

1. Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, would you be able to buy:

- More than today with the money in this account
- Exactly the same as today with the money in this account
- *Less than today with the money in this account*
- Don't know
- Refuse to answer

2. Do you think that the following statement is true or false? "Bonds are normally riskier than stocks."

- True
- *False*
- Don't know
- Refuse to answer

3. Considering a long time period (for example, 10 or 20 years), which asset described below normally gives the highest return?

- Savings accounts
- *Stocks*
- Bonds
- Don't know
- Refuse to answer

4. Normally, which asset described below displays the highest fluctuations over time?

- Savings accounts
- *Stocks*
- Bonds
- Don't know
- Refuse to answer

5. When an investor spreads his or her money among different assets, does the risk of losing a lot of money:

- Increase
- *Decrease*

- Stay the same
- Don't know
- Refuse to answer

6. Do you think that the following statement is true or false? "If you were to invest \$1,000 in a stock mutual fund, it would be possible to have less than \$1,000 when you withdraw your money."

- *True*
- False
- Don't know
- Refuse to answer

7. Do you think that the following statement is true or false? "A stock mutual fund combines the money of many investors to buy a variety of stocks."

- *True*
- False
- Don't know
- Refuse to answer

8. Do you think that the following statement is true or false? "After age 70 1/2, you have to withdraw at least some money from your 401(k) plan or IRA."

- *True*
- False
- It depends on the type of IRA and/or 401(k) plan
- Don't know
- Refuse to answer

9. Do you think that the following statement is true or false? "A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less."

- *True*
- False
- Don't know
- Refuse to answer

10. Suppose you have \$100 in a savings account and the interest rate is 20% per year and you never withdraw money or interest payments. After 5 years, how much would you have in this account in total?

- *More than \$200*
- Exactly \$200
- Less than \$200
- Don't know
- Refuse to answer

11. Which of the following statements is correct?

- Once one invests in a mutual fund, one cannot withdraw money in the first year
- *Mutual funds can invest in several assets, for example invest in both stocks and bonds*
- Mutual funds pay a guaranteed rate of return which depends on their past performance
- None of the above
- Don't know
- Refuse to answer

12. Which of the following statements is correct? If somebody buys a bond of firm B:

- S/he owns a part of firm B
- *S/he has lent money to firm B*
- S/he is liable for firm B's debts
- None of the above
- Don't know
- Refuse to answer

13. Suppose you owe \$3,000 on your credit card. You pay a minimum payment of \$30 each month. At an annual percentage rate of 12% (or 1% per month), how many years would it take to eliminate your credit card debt if you made no additional new charges?

- Less than 5 years
- Between 5 and 10 years
- Between 10 and 15 years
- *Never*
- Don't know
- Refuse to answer

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FOOTNOTES

¹ This measure goes by two names in Fernandes et al. (2014): “Consumer Confidence Investing” and “Consumer Confidence in Financial Information Search.” For simplicity, we refer to this measure as Financial Confidence.

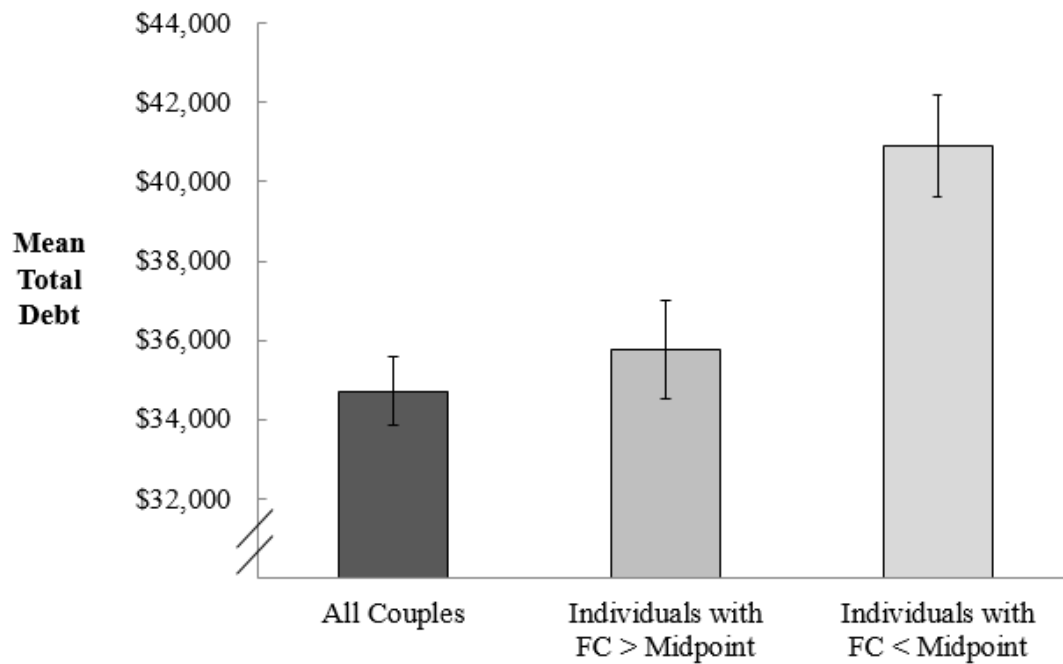
² The zero-order correlations among FC, GSC, and GSE were positive and significant ($r_s \geq .28$, $p_s \leq .01$). Thus, we assessed whether there were potential multicollinearity concerns by examining the variance inflation factors of the coefficients (VIFs; Hair et al. 2006). We assessed the VIFs here and in all multiple regressions reported in this paper. The VIFs for all coefficients were below the standard cutoff of 5 (Hair et al. 2006), suggesting that multicollinearity was not a significant concern.

³ For completeness, we also assessed whether mean repayments to Debts 2-5 differed as a function of manipulated financial confidence. Repayments to these four debt accounts did not significantly differ between participants who received the financial confidence boost and those who did not receive the boost (Debt 2: $M = \$352$, $SD = \$562$ vs. $M = \$589$, $SD = \$1,130$; Debt 3: $M = \$421$, $SD = \$670$ vs. $M = \$431$, $SD = \$667$; Debt 4: $M = \$460$, $SD = \$708$ vs. $M = \$422$, $SD = \$595$; Debt 5: $M = \$688$, $SD = \$683$ vs. $M = \$786$, $SD = \$1,083$; $t_s \leq 1.47$, $p_s \geq .14$).

⁴ We also examined whether (manipulated) financial confidence was a significant predictor of repayment decisions, above and beyond (measured) financial literacy. The results of two multiple regression models reveal that financial confidence continues to predict repayments to both Debt 1 ($\beta = -.20$, $t(120) = 2.21$, $p = .029$) and Debt 6 ($\beta = .20$, $t(120) = 2.24$, $p = .027$), even when controlling for responses to the first and second financial literacy items.

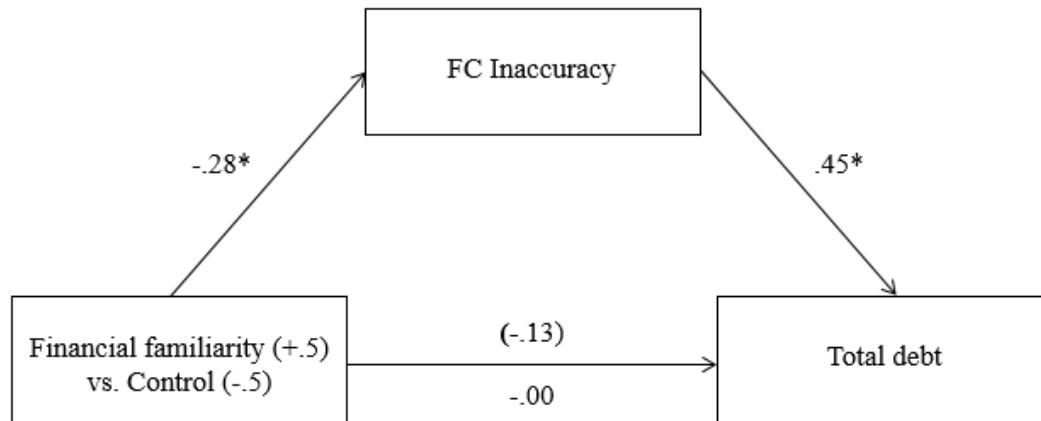
⁵ We also examined whether these patterns persisted when excluding five couples who indicated that they were “dating seriously” (since they live separately and their finances may still be separate). As before, the partner with greater financial confidence had greater responsibility for managing and paying bills ($M = 55.1$, $SD = 29.4$; one-sample t -test against 50: $t(149) = 2.13$, $p = .035$, $d = .17$) and budgeting decisions ($M = 54.8$, $SD = 20.0$; one-sample t -test against 50: $t(149) = 2.96$, $p = .004$, $d = .24$). Financial confidence differences did not predict responsibility for shopping ($M = 47.9$, $SD = 23.3$; one-sample t -test against 50: $t(149) = 1.09$, $p = .28$) or explicitly non-financial tasks ($M = 48.7$, $SD = 20.6$; one-sample t -test against 50: $t(148) = .75$, $p = .46$).

**FIGURE 1. COUPLES' PERFORMANCE DID NOT DIFFER SIGNIFICANTLY FROM
HIGH FC INDIVIDUALS' PERFORMANCE (STUDY 2)**



Note: The Financial Confidence (FC) scale is a 5-point scale with a midpoint of three. Error bars represent ± 1 standard error.

**FIGURE 2. INDIRECT EFFECT OF FINANCIAL FAMILIARITY TREATMENT ON
TOTAL DEBT, VIA FC INACCURACY (STUDY 3)**



Notes: $*p \leq .05$. Regression coefficients are standardized (β s). The coefficient in parentheses represents the relationship between our treatment and total debt when FC Inaccuracy is not included in the model.