

Buying Marital Bliss: Time-Saving Purchases Promote Relationship Satisfaction

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Buying Marital Bliss:

Time-saving purchases promote relationship satisfaction

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Abstract

Disagreements about chores are a primary source of relationship conflict: both men and women become frustrated working a “second shift” at home. Using data from nine studies of cohabitating working adults in committed relationships ($N = 4,316$), we provide the first empirical evidence that couples who make time-saving purchases in a typical month report greater relationship satisfaction. We also document why and when buying time promotes relationship satisfaction: Time saving purchases enable couples to spend more quality time together, protect couples from conflict, and are most likely to promote relationship satisfaction when couples are faced with controllable (vs. uncontrollable) stressors. These findings suggest a relatively simple solution to a critical source of marital conflict: spend money to buy time.

Key Words: Time; Money; Couples; Social Support; Relationship Satisfaction; Marriage

People in the United States and around the world feel increasingly pressed for time (Hamermesh & Lee, 2007; Perlow, 1999). In a large representative US survey, 90% of respondents reported moderate to high levels of role overload, meaning that they were trying to do too many things at once to meet the demands of work and life (Duxbury, Schroeder, & Higgins, 2009). This busyness comes at a social cost—the majority of respondents both with and without children reported that they did not spend enough with their friends or romantic partners.

Yet, new technology provides a way out of the “time famine” of modern life. Sharing economy companies have made it increasingly possible for the vast majority of consumers to outsource their disliked tasks to others, with benefits for personal happiness. In recent research, people who spent money on time-saving purchases—like hiring a housecleaner or having groceries delivered—reported greater overall life satisfaction (Whillans, Dunn, Smeets, Bekkers, & Norton, 2017). In an experiment conducted with working adults, individuals reported greater positive mood and lower negative mood after spending \$40 on a time-saving purchase than after spending \$40 on a material purchase for themselves (Whillans et al., 2017). People reported greater end-of-day happiness because time-saving purchases protected them from the negative impact of time stress on positive affect. This research suggests that spending money on time-saving purchases can increase well-being. Given that time-saving purchases provide people with necessary support to deal with daily demands in turn promoting happiness, we sought to examine whether, when, and how buying time might also promote relationship satisfaction.

Can Buying Time Promote Relationship Satisfaction?

A critical source of conflict and frustration in close romantic relationships stems from disagreements about household chores. In one representative study of new divorcees, 30% of respondents cited “disagreements about housework” as the number one reason for their divorce;

a close third after “infidelity” (40%) and “drifting apart” (35%; Taylor, 2016). In another representative study of working Americans, 50% of married respondents reported that agreement over household chores was a “very important” key to a successful marriage, ranking third after having shared interests and a satisfying sex life (Pew Research Centre, 2016).

Rigorous empirical research points to a similar conclusion: couples who fight more about housework are at greater risk for depression, marital dissatisfaction, and divorce (Baxter & Western, 1998; Bird, 1999; Coltrane, 2001; Glass & Fujimoto, 1994; Kluwer et al., 1996; Yogeve & Brett, 1985). In one study, partners who disagreed about household chores were twice as likely to divorce in the first eight years of their marriage (Ruppner, Branden & Turunen, 2018). In another study, women who fought with their spouses about housework were nearly three times more likely to think about committing suicide (Lee et al., 2016). These studies provide striking evidence that conflict over chores can negatively impact happiness and relationship quality.

Time-saving purchases might provide one solution to the detrimental consequences of chores on relationship satisfaction. Broadly, financial matters are highly influential to the success of relationships (Amato & Rogers, 1997; Conger, Rueter & Elder, 1999, Dew & Wilcox, 2011; Stanley, Markman & Whitton, 2002). Controlling for socioeconomic status, couples who are overly focused on money and material possessions report greater anxiety, depression, and worse physical health as compared to couples who are less materialistically focused (Nickerson, Schwarz, Diener & Kahneman, 2003; Park, Ward & Naragon-Gainey, 2017). More specifically, how couples spend their discretionary income can play a crucial role in relationship satisfaction. For example, new research suggests that spending money on experiential purchases—like going out for dinner—can bolster feelings of relationship closeness (Chan & Mogilner, 2017). These

findings suggest that spending money on time-saving purchases may provide a profitable path from spending to happiness in romantic relationships.

Why Buying Time Promotes Relationship Satisfaction

One reason that time-saving purchases could potentially promote relationship satisfaction is by enabling couples to spend more time with each other. According to the American Time Use Survey conducted by the Department of Labor, working mothers in the US spend an average of 2.1 hours per day on household activities—such as housework, cooking, and lawn-care—while working fathers spend an average of 1.4 hours per day (Bureau of Labor Statistics, 2018). These statistics do not include time spent caring for children (2.0 hours per day for working mothers and 1 hour per day for working fathers) or time spent engaging in paid work (approximately 7 hours per day for working mothers and 8 hours per day for working fathers; Bureau of Labor Statistics, 2018). These statistics make it clear that time spent cooking, cleaning, and doing the chores can chip away at the time couples might otherwise spend with each other.

Housework is not only time-consuming, it is also miserable: time diary data suggest that time spent on daily chores represent some of the least happy moments of people's day (Kahneman & Krueger, 2006; see Mogilner, Whillans & Norton, 2018 for a review). In the context of romantic relationships, couples who spend less time engaging in enjoyable activities together such as “eating meals,” “talking with one another,” and “having fun,” report lower levels of relationship satisfaction even when controlling for the fact that couples who spend less time together are often less happy to begin with (Hickman-Evans, Higgins, Aller, Chavez, & Piercy, 2018; Johnson, Zabriskie & Hill, 2006; Kingston & Nock, 1987). In one nationally representative survey, married Americans reported that they did not have enough time to spend with one another. As one participant explained, “Since we both work, there does not seem to be

enough time to complete housework and still have time to relax” and in the words of another participant, “We become frustrated by how housework interferes with our other activities and the time that we could spend together” (Sherman, 2000). Thus, we examined whether time-saving purchases promote relationship satisfaction by enabling couples to spend more time together.

When Buying Time Promotes Relationship Satisfaction

To describe when buying time should be most likely to promote relationship satisfaction we draw on classical theories of social support, stress, and coping. We propose that when someone makes time-saving purchases, this behavior can be conceptualized as a form of problem-focused coping aimed at obtaining tangible support from the services offered by the sharing economy. Stress and coping theory defines problem-focused coping as a response that is meant to directly alter the stressful event itself as opposed to regulating the negative emotions associated with the stressful event (Folkman & Lazarus, 1980; 1985). Similarly, tangible support functions to help stressed individuals solve or eliminate problems causing their distress and can include helping with baby-sitting, transportation, or housework (Cutrona & Suhr, 1990). Our conceptualization of time-saving purchases provides a useful framework to understand when time-saving purchases should be most effective.

First, we draw on Stress-Buffering Theory, which indicates that social support can protect people from experiencing the negative consequences of stress (Cohen & Wills, 1985). For individuals with supportive networks, typical associations between stress and lower well-being tend to be significantly attenuated (e.g., DeLongis, Folkman & Lazarus, 1988; Collins & Feeney, 2000). Consistent with this Stress-Buffering Theory, research has found significant negative associations between stress and well-being indicators among individuals who did not make time-saving purchases; these associations were significantly weaker among those who

made time-saving purchases (Whillans et al., 2017). In another study, support from family and friends was found to be protective for individuals who experienced high levels of conflict with their intimate partner (Walen & Lachman, 2000). In the context of intimate relationships, time-saving purchases—a type of tangible support from outside the intimate relationship—should reduce the negative impact of relationship conflict on relationship satisfaction.

Second, we draw on Transactive Goal Dynamics and Dyadic Coping Theories. A central idea described by these models is that individuals can cooperate with the intimate partner to obtain their goals and manage stress (Bodenmann et al., 2006; Fitzsimons, Finkel, & vanDellen, 2015). Perceiving higher levels of support from the intimate partner is associated with higher relationship satisfaction (Hilpert et al., 2016). However, there may be situations when it may be better to both expect and receive less support from the spouse (Finkel, Hui, Carswell, & Larson, 2014; Finkel, Larson, Carswell, & Hui, 2014; McNulty, 2016). Consistent with this idea, some research indicates that there are situations when support from the partner has no effect or even detrimental effects on well-being (e.g., Bolger, Zuckerman, & Kessler, 2000). Other research indicates that support from friends and family members can help to make up for low levels of support from the intimate partner (Manne et al., 2003; Rini et al., 2008). We therefore argue that individuals may be able to compensate for a lack of support from the intimate partner by making time-saving purchases. Based on this theorizing, individuals who tend to receive lower levels of support from their partner when stress arises should be less satisfied with their relationships; yet, if they make time-saving purchases, the negative implications of low levels of partner support during stress should be attenuated.

Third, we draw on the Goodness-of-Fit Hypothesis, which argues for a key role of stressor controllability in influencing the effectiveness of coping responses. This model posits

that problem-focused coping should be more effective when stressors are appraised as more controllable as compared to when stressors are appraised as less controllable (Folkman, Schaefer, & Lazarus, 1979; Forsythe & Compas, 1987; Park, Folkman, & Bostrom, 2001). If making time-saving purchases is a form of problem-focused coping, then making time-saving purchases should be more effective in promoting relationship satisfaction under conditions of more controllable stress compared to conditions of less controllable stress. In contrast, making experiential purchases may function as a form of emotion-focused coping—that is, these purchases may help to regulate the negative emotions associated with the stressful event rather than helping change the stressful event itself (Folkman & Lazarus, 1980; 1985). For example, going out to dinner may help people take a break or distract themselves from a negative situation. We therefore expect that experiential purchases should be particularly effective in promoting relationship satisfaction under conditions of less controllable stress as compared to conditions of more controllable stress.

In testing these ideas, this research draws novel connections between the stress and coping literature as well as recent research examining the benefits of experiential and time-saving purchases (Chan & Mogilner, 2017; Hershfield, Mogilner & Barnea, 2016; Mogilner, Whillans & Norton, 2018; Whillans, Weidman, & Dunn, 2016; Whillans et al., 2017).

Overview

Across nine studies conducted with cohabitating working adults in committed relationships ($N = 4,316$), we examine whether, when, and why time-saving purchases promote relationship satisfaction. Demographic characteristics of respondents are presented in Table 1. First, we examine whether and why time-saving purchases are associated with greater relationship satisfaction (Studies 1a&b and 2). Next, we use a well-validated recollection

paradigm to provide causal evidence for the link between buying time and relationship satisfaction (Studies 3a-c). Finally, we use this paradigm to test when time-saving purchases are most likely to promote relationship satisfaction: when couples are faced with controllable (vs. uncontrollable) stressors (Studies 4a-c).

In this manuscript, we follow the reporting standards proposed by Simmons, Nelson & Simonsohn (2011): we report all exclusions, every central measure, and the stopping rule for each study. We report all studies that we conducted on this research question. Furthermore, we pre-registered Studies 3b and 4b through the Open Science Framework (<https://osf.io/ky289>; <http://osf.io/hf42g>). Our data and syntax for all studies is also available through the Open Science Framework (<https://osf.io/zcavu/>).

In sum, we test five hypotheses across nine correlational and experimental studies:

Hypothesis 1 (H1): Couples who spend money on time-saving purchases together in a typical month will report greater relationship satisfaction (Studies 1a-3c)

Hypothesis 2a (H2a): Time-saving purchases will predict greater relationship satisfaction by enabling couples to spend more quality time together (Studies 1a-3c).

Hypothesis 2b (H2b): Time-saving purchases will protect couples from the negative impact of conflict on relationship satisfaction (Studies 1a&b, 3a&b).

Hypothesis 2c (H2c): Time-saving purchases will make up for the negative impact of a lack of intimate partner support on relationship satisfaction (Study 2).

Hypothesis 3 (H3): Time-saving purchases will be most likely to promote relationship satisfaction when couples face controllable vs. uncontrollable stressors (Studies 4a-c).

Time-Saving Purchases

To assess whether people spent money on time-saving purchases, we implemented a measure from previous research (Whillans et al., 2017): Respondents were asked to complete the following question: “In a typical month, do you and your partner spend any money on time-saving purchases? Specifically, do you and your partner spend any money with the primary

intention of acquiring free time: a purchase that allows you and your partner to have more time? For example, do you and your partner spend money to take a taxi instead of the bus, to purchase household services (e.g., lawn-mowing, laundry, or housecleaning services), to use online services (online accounting software and research services), or to purchase more expensive groceries from a closer grocery store?” This question is identical to previous research except that in the current research we ask respondents whether *you and your partner* spend any money on time-saving purchases in a typical month. Consistent with recent research, we focused our analyses on whether respondents reported spending any money to buy time (vs. amount spent; see: Herschfield, Barnea & Mogilner, 2016; Whillans et al., 2017; Whillans, Weidman & Dunn, 2016). The results on amount spent across studies are reported in Supplemental Information (SI). Consistent with past research (Whillans et al., 2017), amount spent did not significantly predict relationship satisfaction. Furthermore, there were no reliable interactions between time-saving purchases and income to predict relationship satisfaction; results reported in the SI.

Study 1a

Overview

We conducted an initial study to document the association between time-saving purchases and relationship satisfaction. In Study 1a, we examined whether time-saving purchases were linked to greater relationship satisfaction in part by enabling couples to spend more quality time together and by protecting couples from the negative impact of relationship conflict. We also tested whether these results held controlling for demographic variables such as age, gender, marital status, number of kids living at home, household income, and whether respondents spent any money together with their partner on material and experiential purchases each month (see also Herschfield, Barnea & Mogilner, 2016; Whillans, Weidman & Dunn, 2016).

Participants and Procedure

In Study 1a, we recruited respondents from Amazon's Mechanical Turk, who completed our survey in exchange for \$0.80 USD (MTurk; 51% female). Respondents were eligible to complete the study if they were employed full-time, married or in a marriage-like relationship, and if they lived together with their partner (who also had to be employed outside the home at least 20 hours/week). To encourage honest reporting of demographic characteristics, we told respondents that there were no right or wrong answers, and that they might view different survey items depending on how they answered the eligibility survey. All ineligible respondents completed another, unrelated study. We targeted 400 participants ($n = 200$ males and $n = 200$ females) and we slightly over-recruited, resulting in a final sample of $N = 424$.

Participants first completed several measures of relationship satisfaction (described below). Participants then reported how much overall relationship conflict they typically experienced, how much relationship conflict they experienced over their finances, and how much conflict they personally experienced between work and family life. Respondents reported how much quality time they spent together with their partner in a typical month, and whether they spent any money on time-saving purchases in a typical month. Finally, respondents completed several demographic questions (e.g., gender, household income, age). On an exploratory basis, respondents also completed several questions about the specific details of the time-saving purchases that they made (e.g., how much time these purchases saved and whether these purchases primarily benefited their partner vs. themselves). Given the inconsistency of these data and to promote readability, we report the results of these exploratory measures in the SI.

Measures

Relationship Satisfaction. Participants first completed a 4-item measure of overall relationship satisfaction, reporting their relationship satisfaction on a scale from $1 = \textit{Extremely Dissatisfied}$ to $7 = \textit{Extremely Satisfied}$ (e.g., “How satisfied are you with your marriage or marriage-like relationship?”; $\alpha=0.92$; Chumm et al., 1983). Next, respondents completed a 14-item measure of relationship commitment, reporting their relationship commitment on a scale from $1 = \textit{Not at all}$ to $7 = \textit{Extremely}$ (e.g., “I feel committed to maintaining my relationship with my partner”; $\alpha = 0.95$; Rusbult et al., 1998). Respondents then completed a six-item measure of their partners’ commitment in their relationship on a scale from $1 = \textit{Not at all}$ to $7 = \textit{Extremely}$ (e.g., “I feel like my partner is very involved in our relationship”; $\alpha = 0.95$; Gable & Poore, 2008). Finally, respondents completed a five-item measure assessing how much they appreciated their partner on a scale from $1 = \textit{Not at all}$ to $7 = \textit{Extremely}$ (e.g., “I feel very lucky to have my partner in my life”; $\alpha = 0.98$; Gable & Poore, 2009). All of these items held together ($\alpha = 0.98$) and formed a one-factor solution explaining 67% of the variance in these items. As a data reduction strategy, we combined these measures to form an overall satisfaction composite.

Relationship Conflict. After reporting on their relationship satisfaction, respondents completed measures assessing three common forms of relationship conflict: overall relationship disagreement, financial conflict, and conflict between work and family life. We included these measures to examine whether time-saving purchases protected couples from the negative impact of various forms of relationship conflict on relationship satisfaction.

First, respondents completed a 4-item measure assessing overall relationship conflict. Respondents reported the extent to which they agreed with items such as “How often do you and your partner quarrel?” on a scale from $1 = \textit{Never}$ to $6 = \textit{All the time}$ ($\alpha = 0.92$; Spanier, 1976). Next, respondents completed a six-item measure assessing how often they fought with their

partner about finances. Respondents reported the extent to which they agreed with items such as “How often do you have financial disagreements with your partner?” on a scale from $1 = \textit{Never}$ to $6 = \textit{All the time}$ ($\alpha = 0.89$; Busby et al., 1995). Lastly, respondents completed an eight-item measure assessing conflict between work and family life. Respondents reported the extent to which they agreed with items such as “The demands of my work interfere with my home and family life” on a scale from $1 = \textit{Strongly Disagree}$ to $7 = \textit{Strongly Agree}$ ($\alpha = 0.93$; Netermeyer, Boles & McMurrian, 1996). See Table 2 for correlations between all variables examined.

Time-Use & Quality Time. We also examined two potential mediators: the number of chores that respondents completed and the amount of quality time that couples spent together. To measure the number of chores that respondents completed, we asked respondents to indicate which household tasks they had completed in the last week from a comprehensive list (e.g., groceries, cooking, dishes, lawn-mowing). We then asked respondents to indicate how much time they had spent completing each of these activities in the last week. We averaged respondents’ answers to these measures to form a proxy of how many hours respondents spent completing chores in the past 7 days. As a measure of the time spent together with one’s partner, we asked respondents to complete a 1-item measure: “How much quality time do you spend with your partner in a typical month” on a scale from $1 = \textit{Very little/None}$ to $7 = \textit{A great deal}$.

Discretionary Income & Demographics. The decision to spend money on time-saving purchases might reflect, in part, respondents’ level of discretionary income. Thus, as a measure of nondurable spending, we assessed respondents’ spending on material and experiential purchases (e.g., Headey, Muffels & Wooden, 2004; VanBoven & Gilovich, 2003; Whillans et al., 2017). We also controlled for the identical covariates from related research as follows: respondents’ age, the number of children living at home, total annual household income, gender,

and the number of hours that respondents typically worked at their job each week (see also: Mogilner, Chance & Norton, 2012; Whillans, Weidman & Dunn, 2016).

Other Measures. Because we collected these data as part of a larger study examining time-use, chores, and relationship satisfaction, participants completed several measures tangential to the present hypothesis (see OSF for other measures completed as part of this study).

Results

Time-Saving Purchases. In Study 1a, 26.4% of respondents spent money on time-saving purchases together with their partner in a typical month.

Relationship Satisfaction. Respondents who spent money on time-saving purchases reported higher overall relationship satisfaction ($M = 5.96$, $SD = 0.94$) as compared to respondents who did not spend money on time-saving purchases ($M = 5.71$, $SD = 1.23$), $t(253.36) = 2.20$, $p = 0.029$, 95%CI [0.03, 0.47], $d = 0.23$.

Reporting these results in regression, time-saving purchases were a marginal predictor of overall relationship satisfaction, $\beta = 0.09$, $B = 0.25(0.13)$, $p = 0.053$; these results were statistically consistent upon controlling for age, gender, number of children living at home, full-time employment, annual household income, and whether couples made experiential or material purchases each month, $\beta = 0.10$, $B = 0.26(0.13)$, $p = 0.042$. See Table 3 for the final regression model including covariates. Couples who spent money on time-saving purchases reported greater financial conflict and greater work life conflict (Table 2). The association between time-saving purchases and relationship satisfaction was stronger controlling for the financial and work-life conflict measures; without demographic covariates from Table 3, $\beta = 0.11$, $B = 0.28(0.12)$, $p = 0.019$; with demographic covariates from Table 3, $\beta = 0.11$, $B = 0.29(0.11)$, $p = 0.015$. These

results suggest that conflict partially suppressed the association between time-saving purchases and relationship satisfaction, a point we will return to in Study 1b.

Do Time-Saving Purchases Help Couples Spend More Time Together?

Number of Chores. As evidenced in Table 2, couples who spent money on time-saving purchases completed fewer chores. Consequently, we examined whether a reduction in chores helped to explain why time-saving purchases promoted relationship satisfaction. Using the Preacher & Hayes Process Macro with 10,000 bootstrapped samples to test for mediation, this reduction in the number of chores completed did not explain why time-saving purchases promoted greater relationship satisfaction, *Indirect Effect* = -0.004 (0.01), 95%CI [-0.04, 0.007].

Quality Time Together. As evidenced in Table 2, couples who spent money on time-saving purchases also spent more quality time together. We examined whether an increase in quality time spent together explained why time-saving purchases promoted relationship satisfaction. Consistent with this hypothesis, using the Preacher & Hayes Process Macro with 10,000 bootstrapped samples, there was a significant mediation, *Effect* = 0.21(0.07), 95%CI[0.08, 0.35]. Respondents who spent money on time-saving purchases spent more quality time with their partners, $B = 0.51(0.15)$, $t(423) = 3.30$, $p = 0.001$, 95%CI[0.21, 0.81]. Respondents who spent more time together with their partners reported greater relationship satisfaction, $B = 0.41(0.04)$, $t(423) = 11.65$, $p < 0.001$, 95%CI[0.34, 0.48]. Finally, when including quality time spent with their partner in the model, time-saving purchases no longer predicted overall relationship satisfaction, $B = 0.04(0.11)$, $t(423) = 0.36$, $p = 0.721$, 95%CI[-0.18, 0.26]. Thus, time-saving purchases promoted relationship satisfaction by increasing the amount of quality time that couples spent together.

Do Time-Saving Purchases Protect Couples from Relationship Conflict?

Next, we examined whether time-saving purchases protected partners from the negative impact of relationship conflict on relationship satisfaction. To test these predictions, we conducted a series of regression models. In each of these models, we entered time-saving purchase (1 = *yes*), a centered conflict measure (overall, financial, work-life), and a time-saving purchase X conflict interaction term into a regression model to predict relationship satisfaction.

Overall Relationship Conflict. First, we examined overall relationship conflict. There was a significant interaction between time-saving purchases and relationship conflict to predict relationship satisfaction, $\beta = 0.23$, $B = 0.46$ (0.10), $p < 0.001$. This result held controlling for the covariates listed in Table 3, $\beta = 0.22$, $B = 0.44$ (0.10), $p < 0.001$. Decomposing this interaction, among respondents who reported that they spent money on time-saving purchases with their partner in a typical month ($n = 111$), there was a small, negative association between relationship conflict and relationship satisfaction, $\beta = -0.21$, $B = -0.18$ (0.08), $p = 0.023$. However, for respondents who did not spend any money on time-saving purchases with their partner in a typical month ($n = 311$), there was a strong, negative association between relationship conflict and relationship satisfaction, $\beta = -0.58$, $B = -0.64$ (0.05), $p < 0.001$. Time-saving purchases protected couples from the negative impact of relationship conflict on relationship satisfaction.

Financial Conflict. The interaction between time-saving purchases and financial conflict to predict relationship satisfaction was not significant, $\beta = 0.07$, $B = 0.15$ (0.12), $p = 0.224$.

Work Life Conflict. The interaction between time-saving purchases and work-life conflict was not significant, $\beta = -0.03$, $B = -0.01$ (0.10), $p = 0.957$.

Study 1a Discussion

In an initial MTurk study, respondents who spent money on time-saving purchases reported greater overall relationship satisfaction in part because respondents were able to spend

more quality time with their partners. In this study, we assessed whether time-saving purchases promoted relationship satisfaction because these purchases helped to protect couples from the negative impact of various types of conflict on relationship satisfaction. We found initial evidence for this hypothesis: respondents who spent money on time-saving purchases were less negatively impacted by relationship conflict. However, we did not observe this pattern of results for the financial conflict or work-life conflict measures. It is worth pointing out that our study was likely underpowered to detect interaction effects because only a minority of respondents spent money on time-saving purchases together in a typical month (26.4%; $n = 111$). We therefore conducted a second study with a larger sample to replicate the results of Study 1a.

Study 1b

Participants and Procedure

In Study 1b, we targeted 600 respondents ($n = 300$ males and $n = 300$ females) through the professional survey company, Qualtrics. Qualtrics slightly over-recruited above our pre-determined target ($N = 624$). Consistent with the requirements of Study 1a&b, respondents were eligible for the study if they were employed full-time, married or in a marriage-like relationship, and living together with their partner (who was also employed at least part-time outside the home). See Table 1 for the demographic characteristics of this sample. Respondents completed the identical questionnaires asking about relationship satisfaction, overall conflict, financial conflict, work-life conflict, quality time, chores, and demographics from Study 1a. See Table 4 for the correlations between the key variables measured in this study.

Results

Time-Saving Purchases. In this study, 44% of respondents spent money on time-saving purchases with their partner in a typical month.

Relationship Satisfaction. Consistent with the analytic strategy of Study 1a, we combined the relationship measures to create an index of relationship satisfaction ($\alpha = 0.97$). Using this combined index as our outcome measure, respondents who spent money on time-saving purchases with their partner in a typical month reported greater relationship satisfaction ($M = 6.00$, $SD = 1.19$) as compared to respondents who did not spend money on time-saving purchases ($M = 5.59$, $SD = 1.40$), $t(615.88) = 4.00$, $p < 0.001$, 95%CI [0.21, 0.62], $d = 0.32$. Reporting these results in regression, time-saving purchases were a significant predictor of relationship satisfaction, $\beta = 0.16$, $B = 0.42$ (0.11), $p < 0.001$; these results were slightly attenuated when controlling for age, gender, number of children living at home, number of hours worked in a typical week, household income, and experiential and material purchases, $\beta = 0.11$, $B = 0.29$ (0.12), $p = 0.015$. See Table 5 for the final regression model including covariates.

Consistent with the results of Study 1a, respondents who spent money on time-saving purchases disagreed more with their partner overall and disagreed more about their finances (Table 4). In Study 1b, respondents who spent money on time-saving purchases also reported greater conflict between work and family life (Table 4). Once again, the association between time-saving purchases and relationship satisfaction was stronger upon controlling for these variables (without other covariates: $\beta = 0.18$, $B = 0.48$ (0.11), $p < 0.001$; with all other covariates, $\beta = 0.15$, $B = 0.39$ (0.12), $p = 0.001$). Overall conflict, financial disagreement, and work/life conflict therefore partially suppressed the association between time-saving purchases and relationship satisfaction in this study.

Do Time-Saving Purchases Enable Couples to Spend More Time Together?

Number of Chores. We examined whether time-saving purchases promoted relationship satisfaction by reducing the number of chores that couples completed. Consistent with Study 1a,

time-saving purchases did not promote relationship satisfaction through a reduction in the number of chores completed, *Indirect Effect* = 0.02 (0.02), 95%CI [-0.01, 0.07].

Quality Time Together. We then examined whether time-saving purchases promoted relationship satisfaction because these purchases allowed couples to spend more quality time together. Consistent with Study 1a, there was a significant *Indirect Effect* = 0.21(0.05), 95%CI[0.12, 0.32]. Respondents who spent money on time-saving purchases spent more quality time together with their partners, $B = 0.58(0.12)$, $t(621) = 4.80$, 95%CI[0.34, 0.82]. Respondents who spent more quality time together with their partners reported greater relationship satisfaction, $B = 0.36(0.03)$, $t(621) = 11.23$, 95%CI[0.30, 0.42]. When including the amount of quality time that respondents spent with their partners into the model, time-saving purchases less strongly predicted relationship satisfaction, $B = 0.21(0.10)$, $t(621) = 2.10$, $p = 0.0365$, 95%CI[-0.01, 0.40]. Time-saving purchases therefore promoted relationship satisfaction in part by increasing quality time spent together.

Do Time-Saving Purchases Protect Couples from Relationship Stressors?

Again, we tested whether time-saving purchases protected respondents from the negative impact of relationship conflict on relationship satisfaction. To test these predictions, we entered time-saving purchases (1 = *yes*), a centered conflict variable, and a time-saving purchase X conflict interaction into a regression model to predict relationship satisfaction.

Overall Conflict. Consistent with Study 1a, there was a significant interaction between time-saving purchases and relationship conflict to predict satisfaction, $\beta = 0.23$, $B = 0.32(0.08)$, $p < 0.001$. This result held controlling for the covariates listed in Table 5, $\beta = 0.24$, $B = 0.32(0.08)$, $p < 0.001$. Decomposing this interaction, among respondents who reported that they spent money on time-saving purchases together with their partner in a typical month ($n = 273$), there

was a smaller, negative association between conflict and relationship satisfaction, $\beta = -0.15$, $B = -0.12$ (0.05), $p = 0.013$. However, for respondents who did not spend money on time-saving purchases with their partner in a typical month ($n = 348$), there was a strong, negative association between overall conflict and relationship satisfaction, $\beta = -0.36$, $B = -0.44$ (0.06), $p < 0.001$. Thus, time-saving purchases protected couples from the negative impact of relationship conflict.

Financial Conflict. Next, we tested whether time-saving purchases protected respondents from the negative impact of financial conflict on relationship satisfaction. There was a significant interaction between time-saving purchases and financial conflict to predict relationship satisfaction, $\beta = 0.23$, $B = 0.32$ (0.08), $p < 0.001$. This result held controlling for the covariates listed in Table 5, $\beta = 0.24$, $B = 0.32$ (0.08), $p < 0.001$. Decomposing this interaction, among respondents who reported that they spent money on time-saving purchases together with their partner in a typical month ($n = 272$), there was a smaller, negative association between conflict and relationship satisfaction, $\beta = -0.15$, $B = -0.12$ (0.05), $p = 0.013$. However, for respondents who did not spend money on time-saving purchases with their partner in a typical month ($n = 348$), there was a strong, negative association between financial conflict and relationship satisfaction, $\beta = -0.36$, $B = -0.44$ (0.06), $p < 0.001$. Time-saving purchases protected couples from the negative impact of financial conflict.

Work-Life Conflict. Lastly, we tested whether time-saving purchases protected respondents from the negative impact of work-life conflict. In Study 1b, there was a significant interaction between time-saving purchases and work-life conflict to predict relationship satisfaction, $\beta = 0.17$, $B = 0.21$ (0.07), $p < 0.001$. This result held controlling for the covariates listed in Table 5, $\beta = 0.19$, $B = 0.22$ (0.07), $p = 0.002$. Decomposing this interaction, among respondents who reported that they spent money on time-saving purchases together with their

partner in a typical month ($n = 269$), there was no significant association between work-life conflict and relationship satisfaction, $\beta = 0.10$, $B = 0.08$ (0.05), $p = 0.098$. For respondents who did not spend money on time-saving purchases ($n = 346$), there was a significant, negative association between work-life conflict and relationship satisfaction, $\beta = -0.14$, $B = -0.13$ (0.05), $p = 0.010$. Time-saving purchases protected couples from the negative impact of work-life conflict.

Collectively, these analyses suggest that time-saving purchases promoted relationship satisfaction by protecting respondents from the negative impact of various relationship stressors (overall conflict, financial conflict, and work-life conflict) on relationship satisfaction.

Study 1b Discussion

Study 1b provides additional evidence that time-saving purchases promote greater overall relationship satisfaction by enabling respondents to spend more quality time with their partner (Studies 1a&b) and by protecting couples from various forms of relationship conflict, including overall conflict (Study 1a&b) as well as financial and work-life conflict (Study 1b).

Study 1a&b: Meta-Analysis

Relationship Satisfaction. To more accurately estimate the effect sizes observed in Studies 1a&b, we meta-analyzed the results of these studies ($N = 1,048$). Following the recommendations of Lipsey & Wilson (2001), individual standardized effect sizes from each study were weighted by the inverse of their variance and aggregated to arrive at a meta-analytic effect size for each analysis of interest. In this meta-analysis, respondents who spent money on time-saving purchases with their partner in a typical month reported greater overall relationship satisfaction, $d = 0.29$ (0.07), $Z = 4.41$, $p < 0.01$, 95%CI[0.16, 0.42]. This effect held controlling for the covariates listed in Tables 3 & 5, $B = 0.28$ (0.09), $Z = 3.13$, $p < 0.001$, 95%CI[0.10,

0.45]. These results provide evidence for a robust link between buying time and relationship satisfaction.

Relationship conflict. Across studies, there was a significant interaction between time-saving purchases and relationship conflict, $B = 0.38 (0.07)$, $Z = 6.00$, $p < 0.001$, 95%CI [0.25, 0.50]. Decomposing this interaction, relationship conflict was associated with lower relationship satisfaction for respondents who did not spend money on time-saving purchases ($n = 655$), $B = -0.56 (0.04)$, $Z = 14.53$, $p < 0.001$, 95%CI [-0.63, -0.48]. For respondents who spent money on time-saving purchases ($n = 389$), this relationship was attenuated, $B = -0.14 (0.04)$, $Z = 3.45$, $p < 0.001$, 95%CI [-0.22, -0.06]. A Fisher r-to-z transformation confirmed that these beta-coefficients were significantly different from one another, $Z = 7.66$, $p < 0.001$. Buying time protected partners from the impact of relationship conflict on overall relationship satisfaction.

Financial conflict. Across studies, there was a significant interaction between time-saving purchases and financial conflict, $B = 0.27 (0.07)$, $Z = 4.02$, $p < 0.001$, 95%CI [0.14, 0.40]. Decomposing this interaction, financial conflict was associated with lower relationship satisfaction for respondents who did not spend money on time-saving purchases ($n = 655$), $B = -0.48 (0.05)$, $Z = 10.50$, $p < 0.001$, 95%CI [-0.57, -0.39]. For respondents who spent money on time-saving purchases ($n = 389$), this relationship was attenuated, $B = -0.18 (0.04)$, $Z = 4.15$, $p = 0.001$, 95%CI [-0.27, -0.10]. A Fisher r-to-z transformation, confirmed that these beta-coefficients were significantly different from one another, $Z = 5.31$, $p < 0.001$. Buying time protected partners from the negative impact of financial conflict on relationship satisfaction.

Work-Life Conflict. Across studies, there was a significant interaction between time-saving purchases and work-life conflict, $B = 0.14 (0.06)$, $Z = 2.40$, $p = 0.016$, 95%CI [0.03, 0.25]. Decomposing this interaction, work life conflict was associated with lower relationship

satisfaction for respondents who did not spend money on time-saving purchases ($n = 655$), $B = -0.14$ (0.04), $Z = 3.96$, $p < 0.001$, 95%CI [-0.21, -0.07]. For respondents who spent money on time-saving purchases ($n = 389$), this relationship was attenuated, $B = -0.001$ (0.04), $Z = 0.03$, $p = 0.488$, 95%CI [-0.08, 0.08]. A Fisher r-to-z transformation confirmed that these beta-coefficients were significantly different from one another, $Z = 2.04$, $p = 0.041$. Buying time also protected partners from the negative impact of work-life conflict on relationship satisfaction.

Study 1a&b Discussion

In Studies 1a&b, respondents in committed cohabitating relationships who made time-saving purchases together with their partner in a typical month reported greater relationship satisfaction as compared to respondents who did not make time-saving purchases. These results held controlling for demographic variables that could otherwise explain these results, including age, gender, number of hours worked, income, number of children at home, and whether respondents made experiential and material purchases each month. Time-saving purchases were linked to greater relationship satisfaction because these purchases allowed respondents to spend more quality time with their partners and protected respondents from the negative impact of various forms of conflict, including overall conflict, financial conflict, and work-life stressors.

An important limitation of Studies 1a&b is that we conducted these studies with only one member of the dyad. We were therefore unable to examine whether time-saving purchases promoted the relationship satisfaction of both partners. Building on the results of Study 1a&b, we sought to replicate our results by recruiting a sample of dyads. In Study 2, we also examined whether our results held controlling for the amount of social support couples received and provided to their partners, and whether making time-saving purchases could make up for a lack of support within the intimate relationship. It is also important to examine the role of social

support because social support has been found to robustly predict relationship satisfaction (Hilpert et al., 2016). Previous research indicates an association between higher social support receipt and more adaptive coping (Manne & Zautra, 1989). An alternative explanation for the association between making time-saving purchases and relationship satisfaction is that couples who make time-saving purchases might be better at providing and receiving support. If so, time-saving purchases should show no independent relationship with relationship satisfaction. Instead, this association should be explained by the support couples receive and provide. To rule out this possibility, in Study 2, we included validated measures of support receipt and provision.

Study 2

Participants and Procedure

In Study 2, we targeted 200 heterosexual couples and were able to collect $N = 193$ couples through the professional survey company Qualtrics. Consistent with Studies 1a&b, respondents were eligible to complete the study if both partners were employed at least part time outside the home, were married or in a marriage-like relationship, and reported living together. Because data collection was costly, we simplified our relationship satisfaction measures by including only the five-item overall satisfaction measure from Study 1a&b. We were also only able to include the chore and quality time measures (as a replication of H2b). See Table 1 for the sample demographics and Table 6 for the bivariate correlations among study variables.

Additional Measures

Social Support. In addition to completing the identical measures from Study 1a&b, both partners in this study also completed validated measures of social support. To assess social support in the relationship, we used the Supportive Dyadic Coping subscales from the Dyadic Coping Inventory (FDCT-N; Bodenmann, 1997; Donato, Iafrate, & Bertoni, 2009). This

questionnaire is one of the most widely accepted scales for social support in intimate relationships, it has been found to be associated with relationship satisfaction across many studies, and it is relatively short (Falconier, Jackson, Hilpert, & Bodenmann, 2015; Hilpert et al., 2016), enabling us to include our key items of interest in this more challenging data collection.

As assessments of the amount of support partners provide and receive in their relationship, both partners completed the Supportive Dyadic Coping by Oneself and the Supportive Dyadic Coping by the Partner subscales. We obtained a score for “support provided” by averaging the seven items from the Supportive Dyadic Coping by Oneself subscale (e.g., “I show him/her my interest and understanding,” and “I take on things that he/she normally does to help him/her out”). We obtained a score for “support received” by averaging the seven items from the Supportive Dyadic Coping by the Partner subscale (e.g., “My partner shows me his/her interest and understanding,” and “My partner takes on things that I normally do to help me out”).

Analytic Approach

We conducted our analyses using a series of random intercept multilevel models in Hierarchical Linear Modelling Software (HLM v. 6.08; Raudenbush, Bryk, Cheong, & Congdon, 2004). In all models, individual-level variability was modelled at Level 1 and couple-level variability was modelled at Level 2. Robust standard errors were used in estimation. All couple-level variables were reported by both members of the dyad, and although there were high levels of cross-partner agreement (Table 6), we conducted a conservative test of our hypothesis by running three sets of models all with individual-level relationship satisfaction as the level 1 outcome variable. In the first set of models, we averaged across partners’ responses on the predictor variables and included these composite variables in the model. In the second set of models, we included the female partners’ reports of the couple-level predictor variables. In the

third set of models, we included the male partners' reports of the couple-level predictor variables. We present the first set of analyses in the main text only, but the other two sets of models are included in the SI. Unless otherwise specified, all predictor variables were centered on the mean for all participants (i.e., grand mean centered) to facilitate interpretability. Standardized effects were estimated by running each model with variables standardized using the mean and standard deviation of the entire sample.

Results

Time-Saving Purchases. In this study, 29.5% of female partners and 32.6% of male partners reported spending money on time-saving purchases with their partner in a typical month. There was 84% cross-partner agreement on whether they made time-saving purchases, $Kappa = 0.54(0.07)$, $p < 0.001$. Because of the high level of cross-spouse agreement, we created a composite variable by averaging partners' reports of whether they purchase time together and this composite was treated as a couple-level variable in all analyses. Possible scores on this variable were 0 (neither partner reported making time-saving purchases), 0.5 (one of the two partners reported making time-saving purchases), and 1 (both partners reported making time-saving purchases). We also conducted all analyses using 1) the female report of time-saving purchases and 2) the male report of time-saving purchases and the results hold either way.

Are Couples Who Buy Time Happier than Couples Who Do Not?

In our first model, we examined whether couples who bought time were more satisfied with their relationship compared to those who did not buy time. Consistent with Studies 1a&b, making time-saving purchases was significantly associated with relationship satisfaction (couple composite time-saving variable: $\beta = 0.17$, $B = 0.53 (0.16)$, $p = 0.002$; female report of time-

saving: $\beta = 0.19$, $B = 0.51$ (0.15), $p = 0.001$; male report of time-saving: $\beta = 0.11$, $B = 0.30$ (0.17), $p = 0.073$).

In our second model, we examined the association between time-saving purchases and relationship satisfaction when controlling for several demographic variables. In this model, each person's own age and whether they were employed full-time were included in the model as person-level (i.e., Level 1) control variables. This model also included the number of children living in the home, household income, and experiential and material purchases that partners made together as couple-level (i.e., Level 2) predictors. In this model, presented in Table 7, time-saving purchases were significantly associated with higher levels of relationship satisfaction, $\beta = 0.10$, $B = 0.39$ (0.16), $p = 0.016$. The other two models are included in our online supplemental file (Tables S3a and S3b). The female report of time-saving purchases was significantly associated with higher couple relationship satisfaction, $\beta = 0.18$, $B = 0.49$ (0.16), $p = 0.002$. The male report of time-saving purchases was associated with higher couple relationship satisfaction, but this association was not statistically significant, $\beta = 0.07$, $B = 0.18$ (0.16), $p = 0.265$.

What is the Role of Partner Support Mobilization?

Controlling for Support. Next, we examined the role of support within the relationship. First, we examined whether time-saving purchases were associated with relationship satisfaction when controlling for each person's own report of support receipt and support provision. In this model, each person's own report of support receipt and provision were entered into the model at Level 1, and time-saving was entered into the model at Level 2. We found that time-saving purchases were significantly associated with relationship satisfaction even after controlling for support receipt and provision (without covariates in Table 7: $\beta = 0.18$, $B = 0.54$ (0.13), $p < .001$; with covariates in Table 7: $\beta = 0.12$, $B = 0.37$ (0.12), $p = 0.003$).

Time-Saving and partner support receipt: The presence of one makes up for a lack of the other. We also wanted to examine whether making time-saving purchases protects relationship satisfaction from a lack of support receipt from the partner. We examined a model in which each person's own perception of the amount of support they receive was entered as an individual-level predictor and time-saving purchases was entered as a couple-level variable. We also included a cross-level interaction between received support and time-saving purchases. Consistent with predictions, we found a significant interaction between support receipt and making time-saving purchases (without covariates in Table 7: $\beta = -0.28$, $B = -0.56$ (0.20), $p = 0.005$; with covariates in Table 7: $\beta = 0.06$, $B = -0.50$ (0.20), $p = 0.013$).

The nature of the interactive effects between time-saving purchases and receiving partner support were such that the presence of one compensated for a lack of the other. For couples in which neither partner reported making time-saving purchases, there was a positive association between receiving support from the partner and relationship satisfaction, $\beta = 0.51$, $B = 1.02$ (0.11), $p < 0.001$. For couples in which one member of the dyad reported making time-saving purchases, there was a relatively weaker positive association between receiving support and relationship satisfaction, $\beta = 0.37$, $B = 0.74$ (0.09), $p < 0.001$. For couples in which both members of the dyad reported making time-saving purchases, the association between receiving support and relationship satisfaction was even weaker, $\beta = 0.23$, $B = 0.46$ (0.15), $p = 0.005$ —suggesting that time-saving purchases provided a critical source of social support for the couples that we surveyed.

For individuals who reported receiving low levels of partner support at one standard deviation below the mean, there was a significant positive association between time-saving purchases and relationship satisfaction, $\beta = 0.29$, $B = 0.90$ (0.12), $p < 0.001$. For individuals

who reported receiving high levels of support at one standard deviation above the mean, there was a weaker non-significant association between time-saving purchases and relationship satisfaction, $\beta = 0.06$, $B = 0.19$ (0.14), $p = 0.145$. Collectively, these results suggest that time-saving purchases substitute for support and may be most beneficial for individuals who receive lower levels of social support from their partner.

Do Time-Saving Purchases Enable Couples to Spend More Time Together?

Consistent with Studies 1a&b, we examined whether time-saving purchases promoted greater relationship satisfaction because these purchases enabled respondents to spend less time completing chores and/or because these purchases enabled respondents to spend more quality time with each other. We constructed confidence intervals of the indirect effects using the Monte Carlo Method for Assessing Mediation with 20,000 replications (MacKinnon, Lockwood, & Williams, 2004; Selig & Preacher, 2008). This method has previously been used to examine mediation in multilevel models (Bauer, Preacher, & Gil, 2006).

Number of Chores. Again, we examined whether time-saving purchases promoted relationship satisfaction by reducing the number of chores that couples completed. In this study, time-saving purchases were not significantly associated with less time spent completing chores, $\beta = -0.06$, $B = -0.60$ (0.76), $p = 0.433$. Furthermore, we did not find evidence that making time-saving purchases promotes relationship satisfaction through a reduction in the number of chores completed, *Unstandardized Indirect Effect* = -0.003, 95%CI [-0.03, 0.02], *Standardized Indirect Effect* = -0.001, 95%CI [-0.01, 0.01]. The results of Studies 1a-2 rule out the possibility that time-saving purchases promote relationship satisfaction through a reduction in chores.

Quality Time Together. We then examined whether time-saving purchases promoted relationship satisfaction because these purchases allowed couples to spend more quality time

together. We found that couples who made time-saving purchases spent significantly more quality time together than couples who did not make time-saving purchases, $\beta = 0.22$, $B = 0.79$ (0.20), $p < 0.001$. Additionally, when controlling for time-saving purchases, individuals who spent more quality time with their partners were more satisfied with their relationships, $\beta = 0.30$, $B = 0.26$ (0.05), $p < 0.001$. Consistent with Studies 1a&b, there was a significant indirect effect of time-saving purchases on relationship satisfaction through the amount of quality time partners spent together, *Unstandardized Indirect Effect* = 0.21, 95%CI [0.09, 0.35], *Standardized Indirect Effect* = 0.07, 95%CI [0.03, 0.12]. Including the amount of quality time that respondents spent with their partners, time-saving purchases were still associated with relationship satisfaction, $\beta = 0.10$, $B = 0.32$ (0.14), $p = 0.025$, suggesting that quality time did not completely explain the relationship between time-saving purchases and relationship satisfaction in this study.

Study 2 Discussion

In Study 2, a survey-based study with 193 couples, similar patterns emerged as with Studies 1a&b. Couples who spent money on time-saving purchases reported greater relationship satisfaction, and this association was explained in part by the fact that couples who made time-saving purchases also spent more quality time together. In Study 2, time-saving purchases promoted satisfaction even after controlling for the amount of support received and provided within the relationship—suggesting that time-saving purchases are an independent and reliable predictor of relationship satisfaction for cohabitating partners in committed romantic relationships. As predicted, time-saving purchases also *made up* for a lack of social support from one's partner. Individuals who received less social support from their partner were more satisfied with their relationship if they made time-saving purchases with their partner in a typical month.

However, the association between making time-saving purchases and relationship satisfaction was attenuated for individuals who received higher levels of support from the partner.

In Studies 1a-2, three studies with over 1,400 respondents, we found that spending money to buy time was linked to greater relationship satisfaction. The typical detrimental effects of various forms of conflict on relationship satisfaction were attenuated among couples who spent money on time-saving purchases (Study 1a&b). Couples who spent money on time-saving purchases each month also spent more quality time together (Study 1a&b, Study 2).

Despite the consistency of the results observed across studies, several outstanding questions remain. From these initial studies, we cannot rule out the possibility that happier couples might be more interested in buying time because they *want* to spend more time with one another. It is necessary to provide causal evidence that time-saving purchases increase the amount of quality time that partners spend together, facilitating relationship closeness. In Studies 3a&b, we used a validated recollection paradigm to provide causal evidence that spending money on time-saving purchases facilitate quality time together and in turn promotes relationship satisfaction. Following previous research (Whillans et al., 2017), to control for the experience of reflecting on a purchase, in Studies 3a&b we compared time-saving to material purchases.

Studies 3a&b

Overview

In Studies 3a&b, we utilized a well-validated recollection paradigm to examine the causal impact of time-saving purchases on relationship satisfaction (e.g., Chen & Mogilner, 2017; VanBoven & Gilovich, 2003). In both studies, MTurk participants completed this experiment in exchange for \$0.80 USD. Participants qualified to complete these studies if they were married or in a marriage-like relationship, if they lived together with their partner, and if they reported being

employed at least part-time. In Studies 3a&b, participants first reported on their overall relationship satisfaction. Next, participants were randomly assigned to the *material purchase condition* or to the *time-saving purchase condition* (described below). Participants then completed post-purchase relationship satisfaction measures and various other demographic questions. The methods of Study 3a&b were identical, except that Study 3a was exploratory and Study 3b was confirmatory; we pre-registered Study 3b through the OSF.

Measures and Manipulations

Relationship Satisfaction (T1). Across both studies, participants reported their overall relationship satisfaction, using the identical five-item measure from Study 2 ($\alpha = 0.92$).

Condition Assignment. After completing the T1 relationship satisfaction measures, participants were randomly assigned to the material or time-saving purchase condition. In the *material-purchase condition*, respondents were asked to reflect on and write about the most recent time they had spent approximately \$40 on a material purchase together with their partner. Specifically, participants were asked to recall the last time themselves and their partner had spent \$40 together “with the primary intention of acquiring a material good: a tangible object that is kept in one’s possession.” The items and the wording of this prompt were identical to previously published research (e.g., VanBoven & Gilovich, 2003; Whillans et al., 2017), except that our recollection paradigm involved asking participants to reflect on a time that they had spent money on a material purchase together with their partner to remain consistent with Studies 1-2.

In the *time-saving purchase condition*, respondents were asked to reflect and to write about a time in which they had spent approx. \$40 on a time-saving purchase. Participants were asked to recall the last time that themselves and their partner had spent approximately \$40 “with the primary intention of acquiring free time: a purchase that allowed you and your partner to

have more free time.” Again, the wording of the prompt and of the examples were identical to recently published research (Whillans et al., 2017), except that this prompt required participants to reflect on a time-saving purchase that they had made together with their partner.

Relationship Closeness (T2). After reflecting and writing about a time-saving or material purchase, participants completed several post-relationship satisfaction measures. Participants reported how much the purchase affected their relationship with their romantic partner on a scale from -5 = *Weakened the Relationship Significantly* to +5 = *Strengthened the Relationship Significantly* (Chan & Mogilner, 2017). Participants then reported how satisfied the purchase made them feel with their partner on a five-item scale that was adapted from previous research (Rusbult, 1980). Participants reported the extent to which the purchase that they reflected on made them feel close to their partner, connected to their partner, appreciative of their partner, grateful for their partner, and supported by their partner. Participants responded to these items on a scale from 1 = *Strongly Disagree* to 7 = *Strongly Agree*.

Quality Time/Work Life. We then asked participants to report the extent to which the purchase helped them to “deal with the demands of work and life” and “enable my partner and I to spend more quality time together” from 1 = *Strongly Disagree* to 7 = *Strongly Agree*.

Manipulation Check. As a manipulation check, we asked participants to report on how much time the purchases cost or saved (-3 = *Cost a lot of time overall* to +3 = *Saved a lot of time overall*; Whillans et al., 2017).

Purchase Differences. Purchases can differ on many characteristics, including how ordinary or extraordinary they are (Sussman & Alter, 2012). Most people, and especially younger individuals, derive greater happiness from extraordinary purchases than from ordinary purchases (Bhattacharjee & Mogilner, 2014). In Study 3a, we therefore controlled for whether

the benefits of time-saving purchases were due to their exceptionality. Another factor that might account for the benefits of time-saving purchases is enhanced social status. People often look to their actions to assess how they feel about themselves (Swann & Read, 1981; Swann, 2011). To the extent that buying time signals that one's time is more valuable than others, time-saving services could enhance feelings of social status. Thus, we also examined whether the benefits of time-saving purchases held controlling for feelings of social status. It is also possible that time-saving purchases might differ in other ways that promote relationship satisfaction. For example, typical time-saving purchases such as hiring a housecleaner might be perceived as more practical and less fun than typical material purchases such as buying kitchen appliances. We also examined whether any effects of time-saving purchases held controlling for differences in utility or fun (Whillans et al., 2017). Lastly, we controlled for whether participants considered the time-saving and material purchases to be "money well-spent," and the extent to which the purchases were considered one-time expenses unlikely to re-occur. We adapted these measures from previously published research (Sussman, Sharma & Alter, 2015; Whillans et al., 2017).

Demographics. Participants then reported their age, whether they had children, their family's total household income, how many hours they worked per week, and their gender.

Study 3a Results

Overview and demographic characteristics. In Study 3a, we targeted 300 respondents and successfully recruited $N = 289$ participants to complete the study (Table 1).

Manipulation Check. As predicted, participants who were randomly assigned to the time-saving purchase condition reported that these purchases saved them significantly more time ($M = 1.71$, $SD = 1.30$) as compared to participants who were randomly assigned to the material

purchase condition ($M = 0.24$, $SD = 1.26$), $F(1, 288) = 94.78$, $p < 0.001$. See Table 8a for other differences between the material and time-saving purchase conditions.

T1 Relationship Satisfaction. There were no between condition differences on T1 relationship satisfaction ($p = 0.739$) suggesting that random assignment was successful.

T2 Relationship Satisfaction. We standardized and combined the first six relationship items to form a post-purchase relationship closeness composite ($\alpha = 0.93$). In this study, there was no overall effect of condition on post-purchase feelings of relationship closeness, $p = 0.877$.

Quality Time Spent Together. Participants who were randomly assigned to the time-purchase condition were significantly more likely to report that the purchase enabled them to spend quality time together with their partner ($M = 5.64$, $SD = 1.25$) as compared to participants who were assigned to the material purchase condition ($M = 4.93$, $SD = 1.37$), $F(1, 288) = 21.10$, $p < 0.001$. Building on these results, we examined whether there was an indirect effect, such that time-saving purchases promoted relationship satisfaction through quality time spent with one's partner. Consistent with this hypothesis, there was a significant indirect effect, such that the extent to which time-saving (vs. material) purchases enabled partners to spend more quality time together, these purchases in turn promoted T2 relationship satisfaction, *Indirect Effect* = 0.29 (0.07), 95%CI [0.16, 0.45]. These results held controlling for T1 relationship satisfaction, *Indirect Effect* = 0.25 (0.06), 95%CI [0.15, 0.38] and when controlling for differences between purchases (i.e., variables reported in Table 6a), *Indirect Effect* = 0.19 (0.04), 95%CI [0.12, 0.27].

Deal with Work and Life Demands. Participants who were randomly assigned to the time-saving purchase condition were also more likely to report that the purchase enabled them to deal with the demands of work and life ($M = 5.68$, $SD = 1.17$) as compared to participants assigned to the material purchase condition ($M = 4.71$, $SD = 1.59$), $F(1, 288) = 34.78$, $p < 0.001$.

Following from these results, we examined whether there was an indirect effect, such that time-saving purchases promoted relationship satisfaction by helping partners deal with the demands of work and life. Consistent with this hypothesis, there was a significant indirect effect, such that the extent to which time-saving (vs. material) purchases enabled partners to deal with the demands of work and life, these purchases in turn promoted T2 relationship satisfaction, *Indirect Effect* = 0.22 (0.06), 95%CI [0.11, 0.37]. Once again, these results held controlling for T1 relationship satisfaction, *Indirect Effect* = 0.18 (0.05), 95%CI [0.09, 0.30] and when controlling for differences between the purchases, *Indirect Effect* = 0.08 (0.04), 95%CI [0.02, 0.15].

Study 3b Results

Overview and demographic characteristics. In Study 3b, we increased our sample size to $N = 600$, to ensure that we would have at least 80% power to detect between condition differences of at least $d = 0.20$, using one-tailed tests (G*Power, 2013).

Manipulation Check. Consistent with the findings of Study 3b, participants who were randomly assigned to the time-saving purchase condition reported that these purchases saved them significantly more time ($M = 1.71$, $SD = 1.29$) as compared to participants who were assigned to the material purchase condition ($M = 0.21$, $SD = 1.22$), $F(1, 598) = 215.06$, $p < 0.001$. See Table 6b for other purchase differences.

T1 Relationship Satisfaction. There were no between condition differences on T1 relationship satisfaction ($p = 0.117$) suggesting that random assignment was successful.

T2 Relationship Satisfaction. We standardized and combined the first six relationship items to form an overall relationship composite ($\alpha = 0.94$). Consistent with the results of Study 3a, there was no main effect of condition to predict T2 relationship satisfaction, $p = 0.671$.

Quality Time Spent Together. Participants who were randomly assigned to the time-purchase condition were more likely to report that the purchase enabled them to spend quality time together with their partner ($M = 5.58$, $SD = 1.23$) as compared to participants who were assigned to the material purchase condition ($M = 4.99$, $SD = 1.42$), $F(1, 598) = 28.82$, $p < 0.001$. Consistent with the results of Study 3a, there was a significant indirect effect, such that the extent to which time-saving (vs. material) purchases enabled partners to spend more quality time together, these purchases promoted greater T2 relationship satisfaction, *Indirect Effect* = 0.23 (0.05), 95%CI [0.15, 0.33]. These results held controlling for T1 relationship satisfaction, *Indirect Effect* = 0.24 (0.04), 95%CI [0.16, 0.32] and for the differences between material and time-saving purchases reported in Table 8b, *Indirect Effect* = 0.23 (0.05), 95%CI [0.15, 0.33].

Deal with Work and Life Demands. Participants who were randomly assigned to the time-saving purchase condition were more likely to report that the purchase enabled them to deal with the demands of work and life ($M = 5.69$, $SD = 1.23$) as compared to participants assigned to the material purchase condition ($M = 4.37$, $SD = 1.56$), $F(1, 598) = 131.76$, $p < 0.001$. Consistent with the results of Study 3a, there was a significant indirect effect, such that the extent to which time-saving purchases enabled partners to deal with the demands of work and life, these purchases in turn promoted T2 relationship satisfaction, *Indirect Effect* = 0.31 (0.04), 95%CI [0.23, 0.41]. Once again, these results held controlling for T1 relationship satisfaction, *Indirect Effect* = 0.29 (0.04), 95%CI [0.22, 0.38] and for differences between the purchases (e.g., how fun or high in status the purchases were), *Indirect Effect* = 0.29 (0.04), 95%CI [0.22, 0.38].

Discussion for Study 3a&b

Across two experimental studies utilizing a well-established recollection paradigm, we found consistent evidence that time-saving (vs. material) purchases increased the amount of

quality time that partners were able to spend together and helped couples more adeptly deal with their daily demands, promoting post-purchase relationship closeness. These relationship benefits were not explained by differences in T1 relationship satisfaction or by purchase differences, such as how high in status, fun, or useful the purchases were. These studies provide evidence that time-saving purchases enable couples to spend more quality time together, and more adeptly deal with the demands of work and life, inciting post-purchase closeness. It is worth noting that we did not observe a direct effect of time-saving purchases on post purchase relationship closeness. As suggested by these studies, the benefits of buying time may critically depend on whether these purchases enable couples to spend more time together or deal with a pressing concern. Following from these results, we examined whether time-saving purchases increase relationship closeness only when these purchases enable couples to spend more quality time together (Study 3c). We also examined whether time-saving purchases were most likely to promote relationship closeness when these purchases helped couples deal with controllable stressors (Studies 4a-c).

Study 3c

Overview

In Study 3c, we recruited participants from MTurk for \$0.80USD and used the identical recollection paradigm from Studies 3a&b. After reporting on overall relationship satisfaction, participants were randomly assigned to a *shared* or *non-shared* time-saving purchase condition (described below). Participants completed the identical post-purchase relationship closeness measures and demographics from Studies 3a&b. We preregistered Study 3c through the OSF.

Measures and Manipulations

Relationship Satisfaction (T1). Consistent with Studies 3a&b, participants reported their overall relationship satisfaction, using the identical five-item measure from Study 2 ($\alpha = 0.92$).

Condition Assignment. Participants were assigned to a *shared* or *non-shared* time-saving purchase condition. In the *shared condition*, respondents were asked to reflect and write about the most recent time they had spent approximately \$40 on a time-saving purchase with their partner that “enabled you to spend quality time together.” In the *non-shared* condition, respondents were asked to write and reflect about the most recent time in which they had spent approximately \$40 on a time-saving purchase with their partner where “you did not spend your extra time together.”

Relationship Closeness (T2). After reflecting and writing about their most recent time-saving purchase, participants reported how much the purchase had affected their relationship on a scale from -5 = *Weakened the Relationship Significantly* to +5 = *Strengthened the Relationship Significantly* (Chan & Mogilner, 2017). Participants then reported how satisfied the purchase made them feel with their partner on the identical five-item measure from Studies 3a&b.

Manipulation Checks. As a manipulation check, we asked participants to report the extent to which the purchase helped them to “spend more quality time with their partner.”

Demographics. Participants then reported their age, whether they had children, their family’s total household income, how many hours they worked per week, and their gender.

Study 3c Results

Overview and demographic characteristics. In Study 3c, we targeted and successfully recruited $N = 400$ participants (Table 1).

Manipulation Check. As expected, participants who were randomly assigned to the shared purchase condition reported that these purchases enabled their partner and themselves to spend more quality time together ($M = 6.10$, $SD = 1.01$) as compared to participants who were

randomly assigned to the non-shared purchase condition ($M = 4.29$, $SD = 1.70$), $F(1, 399) = 170.12$, $p < 0.001$. See Table 9 for all differences between the two purchase conditions.

T1 Relationship Satisfaction. There was no difference between condition on T1 relationship satisfaction, $p = 0.814$, suggesting that random assignment was successful.

T2 Relationship Satisfaction. As predicted, respondents who were randomly assigned to the shared time-saving purchase condition reported greater post-purchase relationship satisfaction ($M = 0.30$, $SD = 0.68$) as compared to respondents who were randomly assigned to the non-shared condition ($M = -0.31$, $SD = 0.93$), $F(1, 399) = 56.15$, $p < 0.001$. These results held controlling for T1 relationship satisfaction, $F(1, 399) = 61.79$, $p < 0.001$ and for differences between the shared and non-shared purchases reported in Table 9, $F(1, 399) = 30.01$, $p < 0.001$.

Study 3c Discussion

The results of Study 3c provide causal evidence that time-saving purchases are most likely to promote relationship closeness when they enable partners to spend quality time together. In Studies 4a&b, we delve further into boundary conditions by examining whether time-saving purchases are most beneficial when couples are faced with controllable (vs. uncontrollable) stressors. This is important to examine because appraisals of controllability have been found to play a key role in the effectiveness of coping responses. Consistent with the Goodness-of-Fit hypothesis, problem-focused coping tends to be more effective when stressors are more controllable, whereas emotion-focused coping tends to be more effective when stressors are less controllable. Making time-saving purchases has a lot in common with problem-focused coping – buying time is likely to help people solve problems and get things done. In contrast, making experiential purchases has a lot in common with emotion-focused coping. For example, going out to dinner may help people take a step away from the situation, distract

themselves, and talk about the problem. Therefore, time-saving purchases should be most likely to promote relationship satisfaction when couples are dealing with more controllable stressors, such as having too many tasks at home to complete and not enough time to do them. In contrast, experiential purchases should be most likely to be effective when couples are dealing with uncontrollable stressors, such as an illness of a friend or family and loved one. To test these hypotheses, we conducted two studies to examine the relative efficacy of material, experiential and time-saving purchases in response to controllable and uncontrollable stressors. These studies follow from the results of Study 3a-c and enable us to better understand when time-saving purchases are most likely to enhance relationship closeness and satisfaction.

In Study 4a&b, our decision to include an experiential purchase condition allows us to provide a more stringent test of when time-saving purchases promote satisfaction (VanBoven & Gilovich, 2003). While experiential purchases may promote greater satisfaction compared to time-saving purchases (Chan & Mogilner, 2017), time-saving purchases should be more likely to promote satisfaction when partners are dealing with a greater number of controllable (vs. uncontrollable) stressors. Thus, this comparison allows us to examine when time-saving purchases—which buy couples *out of negative experiences*—may provide similar post-purchase closeness as compared to experiential purchases—which buy couples *into positive experiences*.

In Study 4a, we assigned participants to a time-saving, experiential, or material purchase condition. We asked participants to complete the identical T1 and T2 relationship satisfaction measures from Study 3a-c. We also asked participants to provide reports on a number of common stressors experienced 7 days prior to making their purchase and how controllable they perceived these stressors to be prior to making their purchases. In Study 4a, we included

material, experiential, and time-saving purchase conditions. In Study 4b, we included only an experiential and time-saving condition, and we pre-registered the study through the OSF.

Study 4a

Methods

Overview and demographic characteristics. To examine whether and how time-saving purchases promoted greater relationship satisfaction as compared to experiential and material purchases, we recruited $N = 473$ participants from MTurk who were paid \$0.80. We targeted 150 respondents per cell ($N = 450$) and we slightly over-recruited this *a priori* stopping rule.

Relationship Satisfaction (T1). In this study, participants reported on their overall relationship satisfaction using the identical five-item measure from Studies 2, 3a&b ($\alpha = 0.95$).

Condition Assignment. Participants were then randomly assigned to a *material purchase, time-saving purchase, or experiential purchase condition*. The material and time-saving purchase conditions were identical to Studies 3a&b. The experiential purchase condition was adapted from past research (VanBoven & Gilovich, 1999). Participants recalled the last time that they and their partner spent approx. \$40 together with the primary intention of “acquiring a life experience: an event or series of events that you personally encounter or live through.”

Relationship Satisfaction (T2). After reflecting and writing about their most recent material, time-saving, or experiential purchase, participants reported on their T2 post-purchase relationship closeness using the identical measures from Studies 3-c ($\alpha = 0.98$).

Reporting on Recent Stressors. Prior to completing the study, we asked participants to report the number of stressors that they had experienced 7 days prior to making the purchase. Stressor frequency was assessed using a measure adapted from previous research that was developed based on participant reports of common everyday stressors (Bolger, DeLongis,

Kessler & Schilling, 1989). We asked participants to report whether they experienced any of the following events in the 7 days prior to making the purchase: (1) overload at home, (2) overload at work, (3) family demands, (4) other demands, e.g., demands from relatives, friends, or neighbors, (5) transportation problems, (6) financial problems, (7) interpersonal problems or tensions with one's spouse, (8) interpersonal problems or tensions with one's child, (9) or interpersonal problems or tensions with another person/persons, or (10) another stressor. Participants were asked to report the extent to which they experienced each of these stressors on a scale from 1=*Not at all*, 2=*A little*, 3=*Some*, 4=*Quite a bit*, 5=*A lot*, 6=*NA*.

Demographics. Participants then completed several demographic questions, including their age, the number of children with their current relationship partner, their family's total household income, how many hours per week they currently worked at this job, and their gender.

Results

Manipulation Check. There was an overall effect of condition on the amount of time that the purchases saved, $F(2, 471) = 100.40, p < 0.001$. Participants assigned to the time-saving purchase condition reported that the purchases saved more time ($M = 1.53, SD = 1.18$) compared to the experiential ($M = -0.37, SD = 1.20$) and material purchase conditions ($M = 0.09, SD = 1.31$), $ps < 0.001$. See Table 10 for other differences in the purchases across condition.

T1 Relationship Satisfaction. There was no difference between condition on T1 relationship satisfaction ($p = 0.878$) suggesting that random assignment was successful.

T2 Relationship Satisfaction. We standardized and combined the post purchase relationship items to form a composite ($\alpha = 0.95$). Consistent with the results of Study 3a&b, there was no significant difference in T2 relationship satisfaction between participants assigned to the material purchase condition ($M = -0.21, SD = 0.80$) and participants assigned to the time-

saving purchase condition ($M = -0.17$, $SD = 0.84$), $p = 0.654$. Consistent with recent research (Chan & Mogilner, 2017), participants assigned to the experiential purchase condition reported greater T2 relationship satisfaction ($M = 0.37$, $SD = 0.06$) compared to participants assigned to the time-saving purchase condition ($M = -0.17$, $SD = 1.05$) and material condition ($M = -0.21$, $SD = 0.06$), $ps < 0.001$.

Stressor Controllability. Although experiential purchases were more likely to promote post-purchase satisfaction, we wanted to explore *when* time-saving purchases promoted relationship closeness. We examined whether time-saving vs. experiential purchases were more likely to promote relationship satisfaction when respondents were experiencing stressors that were *more controllable*. To examine this hypothesis, we entered condition (1 = time-saving, 0 = experiential), controllability, and controllability X purchase interaction into a regression to predict T2 relationship satisfaction. As predicted, there was a significant interaction, $B = 0.18$ (0.09), $\beta = 0.15$, $t(303) = 2.12$, $p = 0.035$. This result held controlling for T1 relationship satisfaction, $B = 0.19$ (0.08), $\beta = 0.16$, $t(303) = 2.35$, $p = 0.020$ and for the purchases differences reported in Table 7a, $B = 0.11$ (0.04), $\beta = 0.15$, $t(302) = 2.92$, $p = 0.004$.

Decomposing this interaction, among participants assigned to the experiential purchase condition, there was a non-significant, negative association between stressor controllability and post-purchase relationship closeness, $B = -0.05$ (0.06), $\beta = 0.07$, $t(152) = 0.81$, $p = 0.419$. In contrast, among participants who were assigned to the time-saving purchase condition, there was a significant positive association between stressor controllability and post-purchase relationship closeness, $B = 0.28$ (0.07), $\beta = 0.33$, $t(150) = 4.25$, $p < 0.001$. These results suggest that time-saving purchases were most effective when couples were faced with controllable stressors. These results also provide suggestive evidence that experiential purchases were most effective when

couples were faced with uncontrollable stressors. There was no interaction between condition and number of stressors to predict post-purchase relationship closeness in this study.

Study 4a Discussion

In Study 4a, we examined whether time-saving vs. experiential purchases promoted greater relationship satisfaction as compared to material purchases. Consistent with recently published research (Chan & Mogilner, 2017), reflecting on experiential purchases resulted in greater post-purchase relationship closeness as compared to reflecting on time-saving purchases. Furthermore, both experiential and time-saving purchases resulted in greater post-purchase relationship closeness compared to material purchases. However, in this study, we found significant differences in *when* time-saving purchases promoted greater relationship satisfaction. Time-saving (vs. experiential) purchases were more likely to promote greater post-purchase relationship satisfaction when couples were faced with more controllable stressors. In contrast, experiential purchases promoted greater post-purchase relationship satisfaction compared to time-saving purchases when couples were faced with more uncontrollable stressors. These findings suggest that the benefits of time-saving and experiential purchases operate in a way that is consistent with the Goodness-of-Fit hypothesis: Time-saving purchases were more effective at promoting closeness when couples were undergoing controllable stress. In Study 4b, we sought to replicate these results. In Study 4b, we only explored the differences between experiential and time-saving purchases given that stressor controllability was our key variable of interest.

Study 4b

Overview

We recruited $N = 503$ participants on Amazon's Mechanical Turk in exchange for \$0.80 USD using the recruitment criteria from Study 4a. We pre-registered this study through the OSF.

Measures

Relationship Satisfaction. Participants reported on relationship satisfaction using the identical five-item measure from Studies 2-4a. After reflecting on a time-saving or experiential purchase, participants reported post-purchase relationship closeness using the measures from Studies 3a-4a. Participants completed the identical manipulation check from Studies 3a&b.

Stressors. Participants reported on the stressors that they faced 7 days prior to making the purchase using the identical measures from Study 4a. We then asked participants to report on the extent to which these stressors were controllable in the 7 days prior to making the purchase on a scale from 1 = *Not at all*, to 5 = *extremely*.

Demographics. Again, participants completed several demographic questions: age, whether they had children with their current partner, their family's total household income, how many hours per week they currently worked at this job, and their gender.

Study 4b Results

Manipulation Check. Consistent with our previous studies, participants assigned to the time-saving purchase condition reported that these purchases saved more time ($M = 1.64$, $SD = 1.19$) as compared to the experiential purchase condition ($M = -0.50$, $SD = 1.18$), $F(1, 502) = 414.13$, $p < 0.001$. See Table 7b for other differences in the purchases across condition.

T1 Relationship Satisfaction. There was no difference between conditions on T1 relationship satisfaction ($p = 0.298$) suggesting that random assignment was successful.

T2 Relationship Satisfaction. We standardized and combined the relationship items to form a T2 relationship composite ($\alpha = 0.95$). Consistent with the results of Study 4a, participants who reflected on experiential purchases reported higher T2 post-purchase relationship satisfaction ($M = 0.24$, $SD = 0.65$) as compared to time-saving purchases ($M = -0.20$, $SD =$

0.85), $F(1, 502) = 41.60, p < 0.001$. These results held controlling for T1 relationship satisfaction, $F(1, 502) = 44.38, p < 0.003$. These results also held controlling for differences between the time-saving and experiential purchases (Table 11), $F(1, 502) = 18.54, p < 0.001$.

Controllability of the Stressor. As per our pre-registration, we examined whether time-saving vs. experiential purchases were more likely to promote relationship satisfaction when respondents' stressors were *more controllable*. To examine this hypothesis, we entered condition ($1 = \text{time-saving}, 0 = \text{experiential}$), controllability, and controllability X purchase interaction into a regression to predict post-purchase relationship satisfaction. As predicted, there was a significant interaction, $B = 0.28 (0.07), \beta = 0.23, t(492) = 3.93, p < 0.001$. This interaction held controlling for T1 relationship satisfaction, $B = 0.26 (0.07), \beta = 0.21, t(492) = 3.97, p < 0.001$ as well as for purchase characteristics, $B = 0.24 (0.06), \beta = 0.20, t(492) = 4.27, p < 0.001$.

Decomposing this interaction, among participants who were assigned to the experiential purchase condition, there was a small, negative association between stressor controllability and post-purchase relationship closeness, $B = -0.09 (0.04), \beta = 0.13, t(245) = 2.06, p = 0.040$. In contrast, among participants who were assigned to the time-saving purchase condition, there was a significant positive association between stressor controllability and post-purchase relationship closeness, $B = 0.19 (0.06), \beta = 0.21, t(246) = 3.31, p = 0.001$. These results suggest that time-saving purchases were most effective when couples were faced with controllable stressors. These results also provide evidence that experiential purchases were most effective when couples were faced with uncontrollable stressors. Consistent with Study 4a, there was no interaction between condition and number of stressors to predict post-purchase relationship closeness in this study.

Study 4b Discussion

In Study 4b, we examined whether time-saving vs. experiential purchases promoted greater relationship satisfaction. Consistent with the results of Study 4a, we found evidence that experiential purchases were more likely to promote greater relationship satisfaction overall. However, most importantly, we found significant differences in *when* time-saving purchases promoted greater relationship closeness: time-saving (vs. experiential) purchases were more likely to promote post-purchase relationship satisfaction when couples were faced with controllable stressors. In contrast, experiential (vs. time-saving) purchases were more likely to promote relationship satisfaction when couples were faced with less controllable stressors.

Meta-Analysis of Study 4a&b

To more accurately estimate the effect sizes observed in Studies 4a&b, we meta-analyzed the results of these studies ($N = 953$). Across studies, there was a significant interaction between purchase type (time-saving vs. experiential) and stressor controllability to predict post-purchase relationship satisfaction, $B = 0.24$ (0.06), $Z = 4.39$, $p < 0.001$, 95%CI[0.13, 0.35]. Decomposing this interaction, for participants who were assigned to the experiential purchase condition, there was a negative association between stressor controllability and post purchase relationship satisfaction, $B = -0.08$ (0.03), $Z = 2.33$, $p = 0.0198$, 95% [-0.14, -0.01]. In contrast, for participants assigned to the time-saving purchase condition, there was a significant positive association between stressor controllability and post purchase relationship satisfaction, $B = 0.23$ (0.05), $Z = 5.01$, $p < 0.001$, 95% CI [0.14, 0.32]. A Fisher r-to-z transformation confirmed that these beta-coefficients were significantly different from one another, $Z = 5.19$, $p < 0.001$. These results provide evidence that time-saving purchases are more likely to promote relationship satisfaction when people are faced with controllable stressors. In contrast, experiential purchases are more likely to promote relationship satisfaction when faced with uncontrollable stressors.

Study 4c

Overview

In Study 4c, we sought to provide an externally valid test of the idea that time-saving purchases are most likely to predict relationship satisfaction when couples are faced with controllable stressors by honing in on one ubiquitous, controllable stressor that nearly all couples in serious relationships will face: planning for an upcoming wedding. Indeed, couples who are faced with planning a wedding must confront many errands: Purchasing their attire, viewing venues, tasting cakes, researching caterers. They must also make many decisions: who will be in the wedding party? Will there *be* a wedding party? What color should the napkins be? Generally, these kinds of events are likely to be experienced as relatively more controllable compared to times when couples have to deal with major illnesses and interpersonal conflict. Thus, to explore whether time-saving purchases protected individuals from the stress of wedding planning, we recruited $N=810$ respondents in committed relationships through the survey company Qualtrics. In this study, $N=326$ respondents were going to be married in the upcoming year whereas $N=483$ respondents had been married in the previous year. These data therefore allowed us to examine whether time-saving purchases were more likely to promote relationship satisfaction when couples dealt with a specific, important, and *controllable* event—wedding planning.

Measures

Relationship Satisfaction. Participants reported on their relationship satisfaction using an abbreviated 3-item version of the relationship satisfaction measure from Studies 1a-2 ($\alpha = 0.85$). E.g., “In the past four weeks, how satisfied have you been with your partner.”

Time Saving Purchases. Participants reported whether they had made time-saving purchases with their partner in the past month using the identical measure from Study 1-3.

Stressors. Participants also reported on the extent to which they felt that they and their partner had been able to deal with daily demands in the past month. Participants reported their agreement with 3-items adapted from the perceived stress scale from 1 = *Not at all*, to 5 = *Extremely* ($\alpha = 0.85$). E.g., “In the past four weeks, how often have you felt that you and your partner were effectively coping with important changes that were occurring in your life?”

Demographics. Participants completed several demographic questions: age, their family’s total household income, and their gender. See Table 1 for demographic characteristics.

Other Measures. Because we collected these data as part of a larger study examining decision making among newly-weds or wedding planners, participants completed several measures tangential to the present hypothesis (see OSF for other measures completed).

Results

Time-Saving Purchases. In this study, 65.1% of respondents spent money on time-saving purchases with their partner in a typical month. Respondents who were getting married in the upcoming year were more likely to have spent money on time-saving purchases in the previous month (71.5%) compared to respondents who had been married in the previous year (55.7%), $X^2 = 21.53$, $p < 0.001$. These findings are consistent with the proposition that couples may turn more to the sharing economy for support when faced with controllable stressors.

Relationship Satisfaction. Consistent with Studies 1a&b, we combined the relationship satisfaction measures to form a relationship satisfaction composite ($\alpha = 0.97$). In this study, time-saving purchases did not significantly predict relationship satisfaction, $\beta = -0.03$, $B = -0.07$ (0.10), $p = 0.482$. These results were statistically consistent when we separately examined respondents who were married in the past year, $\beta = 0.007$, $B = 0.02$ (0.15), $p = 0.880$ and respondents who would be married in the upcoming year, $\beta = -0.14$, $B = -0.05$ (0.14), $p = 0.327$.

Consistent with the results of Study 1a-2, respondents who made time-saving purchases also reported significantly higher stress levels, $\beta = 0.85$, $B = 2.19$ (0.05), $p < 0.001$. This was true among respondents who had been married in the previous year, $\beta = 0.16$, $B = 0.42$ (0.11), $p < 0.001$) and among respondents who were about to be married, $\beta = 0.16$, $B = 0.42$ (0.11), $p < 0.001$. Thus, we examined whether stress suppressed the association between time-saving purchases and relationship satisfaction. Replicating the results of Study 1a-2, after controlling for stress, time-saving purchases significantly predicted relationship satisfaction $\beta = 0.46$, $B = 1.32$ (0.18), $p < 0.001$. These results held for our key demographic characteristics (See Table 12).

Next, we examined whether time-saving purchases protected respondents from the negative impact of stress on relationship satisfaction. Most critically, we examined whether these results were specific to respondents who were experiencing a controllable stressor—that is, for respondents who were currently planning an upcoming wedding. To test our first prediction, we entered time-saving purchases (1=yes), a centered perceived stress variable, and a time-saving purchase X stress interaction term into a regression model to predict relationship satisfaction. Consistent with Studies 1a-c, there was a marginally significant interaction between time-saving purchases and stress to predict relationship satisfaction, $\beta = 0.10$, $B = 0.21$ (0.12), $p = 0.076$.

The interaction between time-saving purchases and stress was significant only among respondents who were faced with a controllable stressor—i.e., respondents who reported that they were getting married in the upcoming year, $\beta = 0.21$, $B = 0.44$ (0.17), $p = 0.009$. These results held controlling for the covariates listed in Table 12, $\beta = 0.23$, $B = 0.48$ (0.17), $p = 0.006$. Decomposing this interaction, among respondents who reported that they spent money on time-saving purchases with their partner in a typical month ($n = 181$), there was a small, negative association between stress and relationship satisfaction, $\beta = -0.24$, $B = -0.41$ (0.12), $p = 0.001$.

However, for respondents who did not spend any money on time-saving purchases with their partner in a typical month ($n = 144$), there was a strong, negative association between relationship conflict and relationship satisfaction, $\beta = -0.56$, $B = -0.85$ (0.11), $p < 0.001$. See Figure 1 for a visual illustration of this interaction. For respondents who were married in the previous year, there was no significant interaction between time-saving purchases and stress to promote relationship satisfaction $\beta = 0.04$, $B = 0.08$ (0.17), $p = 0.656$.

These results provide additional evidence that time-saving purchases are beneficial for relationship satisfaction when individuals are faced with controllable stressors in daily life.

General Discussion

Across nine studies with over 4,000 respondents in committed romantic relationships, we found consistent evidence that spending money on time-saving purchases was linked to greater relationship satisfaction. As predicted, the benefits of time saving purchases emerged in part because time-saving purchases enabled couples to spend more time together and protected couples from the negative impact of relationship conflict (Studies 1a-Study 2, Study 3a-c). Time-saving purchases also substituted for social support among respondents who were in less supportive relationships (Study 2). Additionally, time-saving purchases were more likely to promote relationship satisfaction when couples were faced with controllable stressors as compared to stressors that were uncontrollable (Study 4a&b). Providing an ecologically valid test of these relationships, time-saving purchases were most likely to protect respondents from the negative impact of stress on relationship satisfaction when respondents were faced with a controllable stressor (like planning for an upcoming wedding – Study 4c). These studies help to shed light on whether, when, and how time-saving purchases promote relationship satisfaction.

Although most research in this area has focused on the impact of daily purchase decisions for individual happiness (Aknin et al., 2012; Dunn, Aknin & Norton, 2008; Dunn, Aknin & Norton, 2014; Matz, Gladstone & Stillwell, 2016; Mogilner, Whillans & Norton, 2018), the current research suggests that daily purchases also significantly shape the satisfaction that individuals derive from their romantic relationships. In doing so, this research adds to a growing body of research documenting the conditions whereby spending promotes happiness (Dunn, Aknin & Norton, 2008; Whillans et al., 2017). Importantly, this work points to a previously unexamined daily action that promotes relationship satisfaction: spending money to save time.

By conceptualizing time-saving purchases as a form of problem-focused support, we were able to draw on central ideas from the literature on coping with stress to understand when these purchases might be most beneficial (Bodenmann et al., 2006; Cohen & Wills, 1985; Cutrona & Suhr, 1990; Folkman & Lazarus, 1980; 1985). We found evidence that making time-saving purchases functioned in a similar way to social support availability—our results indicate that time-saving purchases mitigate the otherwise negative effects of relationship conflict on perceived relationship satisfaction (i.e., in line with the Buffering Hypothesis; Cohen & Wills, 1985). This finding is consistent with previous research indicating that time-saving purchases can be stress-buffering for personal well-being (Whillans et al., 2017). It also adds to the growing body of research indicating that support from outside of the intimate relationship can be invaluable for couples experiencing high levels of conflict (Walen & Lachman, 2000).

Following from the social support literature, it would be worthwhile to examine benefits of time-saving purchases other than on satisfaction and stress. To the extent that time-saving purchases help couples deal with the demands of daily life, these purchases might also protect people from the negative effects of stress on physical health. Consistent with previous research

documenting the stress buffering effects of support receipt and provision (Poulin et al., 2013; Whillans et al., 2016), couples who make time-saving purchases might experience less detrimental effects of stress on cardiovascular health as a result of gaining greater support. Future work should explore the benefits of time-saving purchases beyond marital satisfaction.

This research also indicates that time-saving purchases can be protective for relationship satisfaction for those who perceive a lack of social support from their intimate partner. These results have important implications for social support research. Several studies have found a robust link between the support available from one's partner and higher relationship satisfaction (Hilpert et al., 2016). Yet, there may be some contexts when support is not available from the partner, for example, when the partner is working long hours, studying for an important upcoming exam, or out of town. In these situations, time-saving purchases may be particularly helpful because both couples are experiencing stress and time-saving purchases provide relief from these stressors. This argument fits with a growing literature suggesting that the happiest couples might not turn only to their partners for instrumental social support (Finkel et al., 2016).

Also following from the social support literature, future research should examine whether time-saving purchase availability—in the absence of actually spending money on time-saving purchases—can promote relationship satisfaction. This hypothesis fits with research suggesting that reminders of partners' support in the absence of receiving instrumental social support can promote subjective well-being and reduce stress (Creaven & Hughes, 2012; Hofer, Collins, Whillans & Chen, 2018). Individuals might gain satisfaction from simply knowing that their partners would be supportive of these purchases if they decided to make them.

To provide an initial test of this idea, we conducted a pilot study asking respondents in romantic relationships whether they felt as if their partner would support them to make time-

saving purchases if they wanted to make them ($N = 196$). Even in the absence of spending money on time-saving purchases, respondents who endorsed greater agreement with statements about time-saving purchase availability within their relationships (e.g., “I feel that it is possible for me to spend money to free up more time in my life” and “If wanted to make this/these purchases, my partner would be supportive of this/these purchase/s.”) reported higher relationship satisfaction. Additional research should explore why and how the mere perception of time-saving purchase availability and support from one’s partner is linked to greater relationship satisfaction.

Time saving purchases were most likely to enhance relationship happiness when couples were faced with more controllable stressors. In contrast, experiential purchases were most likely to enhance relationship happiness when couples were faced with relatively uncontrollable stressors. These findings are consistent with and extend recent research showing that spending decisions are most likely to promote happiness when they fit with the consumer’s personality (Matz, Gladstone & Stillwell, 2016). Moving beyond individual-level decision-making, these results suggest that couples might benefit the most if they are mindful of the extent to which stressors are controllable and match their consumption behaviors with their daily demands.

Relatedly, research indicates that stress can fluctuate substantially over relatively short periods of time (e.g., Folkman & Lazarus, 1985; Pow, King, Stephenson, & DeLongis, 2017). Thus, individuals and couples might want to consider making *on-demand* time-saving purchases to help themselves immediately deal with controllable stressors that suddenly arise. More broadly, future research should explore the efficacy of encouraging more couples to spend money on time-saving purchases. This is important in light of the fact that individuals often overlook the benefits of buying time. In another exploratory study, we asked individuals in committed relationships to report how they would spend a windfall of \$40 to promote their own

and their partners' happiness. Only 3 respondents of out 300 reported that they would make a purchase with the explicit purpose of acquiring more free time. In contrast, the majority of respondents reported that they would buy a material purchase for their partner (60%). These data, along with other recent research (Whillans, Dunn & Norton, 2018), emphasizes the fact that there are psychological barriers that might prevent couples from making time-saving purchases.

We find evidence for a potential barrier in our own data: across studies, respondents who spent money on time-saving purchases with their partner in a typical month also reported experiencing more interpersonal conflict. This finding is perhaps unsurprising—respondents who spent money on time-saving purchases are likely the same respondents who fight more about chores with their partner. Because interpersonal conflict can be uncomfortable and anxiety provoking (Falconier et al., 2015)—couples might opt out of proactively engaging in discussions about the housework. However, these anxiety-provoking discussions might be the very conversations that help couples come to the conclusion that they should buy time. Future work is needed to delineate the complex causal processes that encourage time-saving purchases.

One unexplored lever to encourage people to buy time is gifting employees with time-saving services as part of their workplace compensation. Initial research suggests that rewarding employees with vouchers for time-saving services—such as meal delivery and housecleaning—improves work-life balance and reduces turn-over (Fassiotto et al., 2018). Building on the insights from this research, companies might want to consider providing employees with time-saving vouchers that employees can give to their *partners* during work trips or during seasonally busy times at work. This practice could help employees provide social support to their spouses while they are unavailable to provide support themselves—it would also be a helpful way of testing when time-saving purchases might promote relationship

satisfaction even when couples are unable to spend the newly acquired free time together.

Given that the popularity of the sharing economy is on the rise, understanding when the benefits of time-saving purchases are likely to emerge is increasingly important. In 2015, the Pew Research Centre found that seven-in-ten Americans had used some type of online or shared economy service. With US families increasingly likely to live apart, the tasks that were previously completed by family members are now being completed by members outside of the family (Oishi, 2010). It will therefore be of increasing consequence to understand when the services acquired through the market economy are likely to promote vs. undermine happiness.

The findings documented here make conceptual and practical contributions to the literature. On a conceptual level, these findings suggest that psychological principles that help to explain the psychology of receiving and providing social support in close relationships can shed light on the psychology of the support purchased in the market economy. This research also illuminates whether, when, and why time-saving purchases promote relationship satisfaction. To our knowledge, this is the first study to position consumer behaviors within stress and coping theory. In doing so, these findings add to the large stress literature by indicating that consumer behaviors can be conceptualized as coping responses with implications for relationship well-being. On a practical level, these findings could help organizations improve the health and well-being of their employees and their families by providing time-saving vouchers to staff *and* their significant others.

Overall, these results suggest that an underutilized path to better relationships is to support our partners not just through our actions and words, but also through our purchases.

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Table 1
Demographic Characteristics Across Studies

	Study								
	1a	1b	2	3a	3b	3c	4a	4b	4c
<i>N</i>	424	624	193 dyads	289	600	400	473	503	816
% buying time (1=yes)	26.4%	45.0%	36.0%	--	--	--	--	--	65.1%
% female	51.0%	54.7%	--	53.3%	53.9%	49.1%	51.0%	56.9%	74.0%
Md, age	25-34	35-44	35-44	35-44	35-44	35-44	35-44	25-34	32.53 (9.29)
Md, family annual income	\$60K-\$74K	\$75K-\$99K	\$75-\$99K	\$60K-\$69K	\$60K-\$69K	\$60K-\$69K	\$60K-\$69K	\$60K-\$69K	\$60K-\$69K
Md (range) # of children	0 (0-6+)	1 (0-6+)	1 (0-6+)	1 (0-6+)	1 (0-6+)	0 (0-6+)	1 (0-6+)	1 (0-6+)	NA
Md # of work hours/wk	40+ hours	40+ hours	40+ hours	40+ hours	40+ hours	40+ hours	40+ hours	40+ hours	NA
Md # of work hours/wk (partner)	40+ hours	40+ hours	40+ hours	--	--	--	--	--	NA

Table 2
Correlation Table of All Variables Assessed in Study 1a

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Time-saving (1=Yes)												
2. Rel. Satisfaction	0.09*											
3. Relationship Conflict	0.01	-0.49**										
4. Financial Conflict	0.08+	-0.38**	0.31**									
5. Work Life Conflict	0.08+	-0.17**	-0.02	0.24**								
6. Number of Chores	-0.11*	0.15**	0.12**	-0.09+	0.03							
7. Age	-0.05	-0.03	0.06	-0.07	0.10*	0.08+						
8. Gender (1=female)	-0.08+	-0.13**	-0.04	0.11*	-0.004	0.09*	0.09+					
9. # of Kids at Home	-0.10*	-0.03	0.01	0.11*	-0.05	0.11*	0.25**	0.11*				
10. HH Income	0.04	0.16**	0.22**	-0.20**	-0.06	0.13**	0.23**	-0.03	0.11*			
11. FTE (1=Yes)	-0.05	0.04	0.01	-0.09*	-0.04	0.06	-0.02	-0.09+	-0.13*	0.12*		
12. Experiences (1=Yes)	-0.004	0.20**	0.27**	-0.17**	0.07	0.09+	0.09+	-0.07	-0.13**	0.33**	0.07	
13. Material (1=Yes)	-0.12*	0.21**	0.27**	-0.13**	0.05	0.18**	0.18**	0.13*	0.04	0.20**	0.09+	0.43**

Note: + $p \leq 0.10$; * $p \leq 0.05$; ** $p \leq 0.01$

Table 3

Time-saving purchases are associated with higher relationship satisfaction

	β	B	SE	P value for predictor	F value for model	P value for model	R^2
Time-saving	0.10	0.26	0.13	0.042			
Age	-0.09	-0.10	0.06	0.090			
Gender (1=Female)	-0.14	-0.32	0.11	0.004			
Number of Kids Living at Home	0.01	0.01	0.05	0.869			
Household Income	0.10	0.04	0.02	0.053			
Hours/Week (1=40+ hours)	-0.01	-0.02	0.12	0.894			
Experiential Purchases (1=Yes)	0.08	0.20	0.13	0.142			
Material Purchases (1=Yes)	0.21	0.59	0.15	<0.001			
					$F(8, 416) = 6.10$	<0.001	0.11

Table 4
Correlation table between all the variables in Study 1b

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Time-Saving (1=Yes)												
2. Rel. Satisfaction	0.14**											
3. Relationship Conflict	0.19**	-0.19**										
4. Financial Conflict	0.10**	-0.24**	0.20**									
5. Work Life Conflict	0.44**	0.03	0.45**	0.17**								
6. Number of Chores	-0.18**	-0.07+	0.09*	0.03	0.17**							
7. Age	-0.21**	-0.12**	-0.16**	0.11**	-0.26**	0.09*						
8. Gender (1=female)	-0.27**	-0.14**	-0.04	0.06	-0.19**	0.15*	-0.01					
9. # of Kids at Home	0.01	-0.06	0.05	-0.02	0.03	0.10*	0.17**	-0.06				
10. HH Income	0.09*	0.02	-0.11**	0.03	0.02	0.09*	0.17**	-0.08*	0.07			
11. FTE (1=Yes)	-0.03	-0.05	-0.07+	0.04	-0.09*	0.06	0.06	-0.06	-0.01	0.02		
12. Experiences (1=Yes)	0.33**	0.07	0.07	0.01	0.14**	-0.03	-0.11**	-0.09*	-0.10*	0.12**	0.01	
13. Material (1=Yes)	0.06	-0.01	0.05	0.05	0.01	0.11**	-0.03	0.10*	0.08*	-0.005	0.03	0.37**

Note: + $p \leq 0.10$; * $p \leq 0.05$; ** $p \leq 0.01$

Table 5
Time-saving purchases are associated with higher relationship satisfaction

	β	<i>B</i>	<i>SE</i>	<i>P value for predictor</i>	<i>F value for model</i>	<i>P value for model</i>	<i>R</i> ²
Time-Saving	0.11	0.29	0.12	0.015			
Age	-0.06	-0.08	0.05	0.136			
Gender (1=Female)	-0.11	-0.28	0.11	0.014			
Number of Kids Living at Home	-0.06	-0.15	0.11	0.163			
Household Income	0.02	0.01	0.02	0.700			
Hours/Week (1=40+ hours)	-0.06	-0.15	0.11	0.163			
Experiential Purchases (1=Yes)	0.01	0.02	0.16	0.883			
Material Purchases (1=Yes)	0.01	0.03	0.13	0.802			
					<i>F</i> (8, 601) = 3.45	= 0.001	0.04

Table 6
Correlations of all Study 2 variables

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
1. Time-saving (1=Yes)	0.54 ***	0.18*	-0.09	0.09	0.17*	-0.10	0.18*	-0.05	-0.08	-0.26***	-0.03	0.22**	0.02	0.12	-0.10
2. Relationship Satisfaction	0.08	0.74 ***	0.42***	-0.17*	-0.09	0.05	0.39***	0.58***	0.43***	-0.02	-0.03	0.03	0.07	0.21**	0.07
3. Relationship Conflict	-0.10	0.38***	0.69 ***	-0.17*	-0.27***	0.14	0.18*	0.49***	0.34***	0.09	0.03	-0.07	-0.00	-0.06	0.09
4. Financial Conflict	0.17*	-0.19**	-0.33***	0.51 ***	0.48***	-0.06	0.01	-0.22**	-0.24**	-0.22**	-0.03	-0.06	-0.04	0.06	0.08
5. Work-Life Conflict	0.22**	-0.08	-0.30***	.42***	0.57 ***	-0.21**	-0.11	-0.34***	-0.31***	-0.24**	-0.01	-0.02	0.05	-0.09	-0.14
6. Number of Chores	0.06	0.09	0.08	-0.02	-0.12	0.59 ***	0.01	0.15*	0.16*	0.09	0.10	0.06	0.07	0.01	0.11
7. Quality Time	0.17*	0.40***	0.19**	0.01	-0.09	-0.02	0.65 ***	0.34*	0.32***	0.09	0.10	0.12	0.10	0.23**	0.12
8. Support Receipt	0.04	0.58***	0.51***	-.27***	-0.34***	0.16*	0.39***	0.53 ***	0.65***	0.22**	-0.02	0.05	0.07	0.08	0.14
9. Support Provision	-0.02	0.39***	0.44***	-.25***	-0.23**	0.09	0.20**	0.53***	0.42 ***	0.23**	-0.03	0.03	0.17*	0.12	0.13
10. Age	-0.21**	0.02	0.17*	-.15*	-0.24**	-0.07	0.00	0.26***	0.14	0.83 ***	0.16*	0.03	0.03	-0.08	-0.00
11. # of Kids Living at Home	-0.04	-0.05	-0.11	-0.01	0.04	0.11	-0.08	-0.03	-0.12	0.08	0.90 ***	0.03	-0.08	0.08	0.02
12. HH Income	0.13	0.07	0.04	-0.08	-0.08	0.02	0.04	0.04	0.02	0.08	0.01	0.83 ***	0.11	0.01	-0.10
13. FTE (1=Yes)	-0.03	0.02	-0.02	-0.02	0.06	0.16*	-0.15*	0.03	0.01	-0.02	0.07	-0.01	0.26 ***	-0.12	-0.02
14. Experiences (1=Yes)	0.18*	0.23**	0.02	-0.11	-0.02	0.16*	0.17*	0.13	0.12	-0.10	-0.00	0.04	-0.06	0.55 ***	0.40***
15. Material (1=Yes)	0.11	0.10	0.08	-0.11	-0.16*	0.28***	0.07	0.14	0.16*	-0.04	0.02	-0.02	0.01	0.34***	0.62 ***

Note. Correlations for the female partner reports are above the diagonal, correlations for the male partner reports are below the diagonal, and cross-partner correlations are presented on the diagonal. High scores on the relationship conflict measure reflect lower relationship conflict.

Note: + $p \leq 0.10$; * $p \leq 0.05$; ** $p \leq 0.01$

0.07

Study 2: Time-saving purchases are associated with higher relationship satisfaction

Fixed effects	β	<i>B</i>	<i>SE</i>	<i>p</i>
Couple-Level Variables				
Intercept	0.00	5.75	0.08	< 0.001
Time-saving (1=Yes)	0.13	0.39	0.16	0.016
Number of Kids Living at Home	-0.05	-0.04	0.04	0.405
Household Income	0.01	0.00	0.03	0.863
Experiential Purchases (1=Yes)	0.24	0.69	0.21	0.002
Material Purchases (1=Yes)	-0.01	-0.04	0.28	0.896
Individual-Level Variables				
Age	0.05	0.06	0.07	0.367
Hours/Week (1=40+ hours)	0.04	0.10	0.09	0.278
Variances			<i>Variance</i>	<i>p</i>
Intercept			1.07	< 0.001
Error			0.43	

Note: All couple-level variables calculated by averaged across partners' responses.

Table 8a

Study 3a: Differences between purchases reflected on in each condition

	<i>Material Purchase</i>	<i>Time-saving Purchase</i>	<i>t-value</i>
<i>These purchases were:</i>			
One-time expense	5.69 (2.67)	4.32 (2.74)	$t(287) = 4.30, p < 0.001$
Better spent on something else	3.06 (2.14)	3.56 (2.33)	$t(285.84) = 1.92, p = 0.056$
Money well-spent	7.67 (1.53)	7.25 (1.82)	$t(280.94) = 2.11, p = 0.035$
Helpful	5.09 (1.63)	4.52 (1.66)	$t(285) = 2.93, p = 0.004$
Fun	5.78 (1.19)	5.99 (1.02)	$t(287) = 1.56, p = 0.119$
High in social status	3.31 (1.60)	3.22 (1.54)	$t(285) = 0.46, p = 0.645$

Table 8b

Study 3b: Differences between purchases reflected on in each condition

	<i>Material Purchase</i>	<i>Time-saving Purchase</i>	<i>t-value</i>
One-time expense	5.57 (2.62)	4.52 (2.68)	$t(597) = 4.88, p < 0.001$
Better spent on something else	3.17 (1.98)	3.60 (2.30)	$t(583.42) = 2.40, p = 0.017$
Money well-spent	7.30 (1.73)	6.74 (6.42)	$t(597) = 1.46, p = 0.145$
Helpful	5.92 (0.96)	5.68 (1.15)	$t(580.00) = 2.77, p = 0.006$
Fun	4.94 (1.53)	4.45 (1.69)	$t(590.99) = 3.66, p < 0.001$
High in social status	3.23 (1.50)	3.50 (1.54)	$t(597) = 2.18, p = 0.029$

Table 9
Study 3c: Differences between purchases reflected on in each condition

	<i>Non-Shared Time-saving Purchase</i>	<i>Shared Time-saving Purchase</i>	<i>t-value</i>
One-time expense	5.06 (2.58)	4.66 (2.69)	$t(399) = 1.51, p = 0.132$
Better spent on something else	4.59 (2.56)	3.47 (2.27)	$t(388.75) = 4.62, p < 0.001$
Money well-spent	6.52 (2.00)	7.58 (1.56)	$t(368.18) = 5.90, p < 0.001$
Helpful	5.44 (1.26)	5.91 (0.95)	$t(363.23) = 4.15, p < 0.001$
Fun	4.37 (1.61)	5.07 (1.53)	$t(399) = 4.44, p < 0.001$
High in social status	3.76 (1.72)	4.09 (1.53)	$t(388.56) = 2.04, p = 0.042$

Table 10
Between condition differences in Study 4a

	<i>Experiential Purchase</i>	<i>Time-Saving Purchase</i>	<i>Material Purchase</i>	<i>F-value</i>
<i>These purchases were:</i>				
One-time expense	3.86 (1.91) ^a	3.90 (2.04) ^a	4.40 (1.86) ^b	$F(2, 472) = 3.85, p = 0.022$
Money well-spent	5.79 (1.08)	5.74 (1.27)	5.87 (1.20)	$F(2, 472) = 0.46, p = 0.632$
Helpful	5.06 (1.25) ^a	5.83 (1.04) ^b	5.63 (1.23) ^b	$F(2, 472) = 17.94, p < 0.001$
Fun	6.12 (1.10) ^a	4.62 (1.50) ^b	4.85 (1.50) ^b	$F(2, 472) = 54.01, p < 0.001$
High in social status	3.98 (1.58) ^a	3.55 (1.57) ^b	3.09 (1.51) ^c	$F(2, 472) = 12.78, p < 0.001$

Note. Different subscripts denote condition differences that are statistically significant, $p < 0.05$.

Table 11
Between condition differences in Study 4b

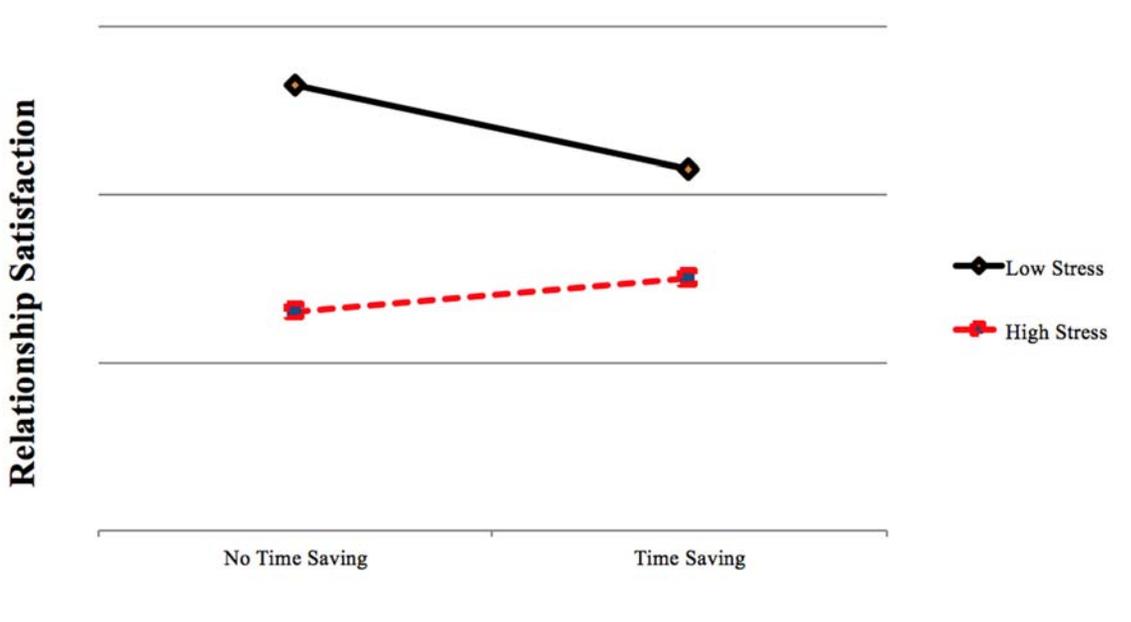
	<i>Experiential Purchase</i>	<i>Time-Saving Purchase</i>	<i>t-test</i>
<i>These purchases were:</i>			
One-time expense	3.82 (1.84)	3.80 (2.00)	$t(501) = 0.08, p = 0.934$
Money well-spent	5.82 (1.33)	5.79 (1.26)	$t(501) = 0.26, p = 0.794$
Helpful	5.14 (1.26)	5.97 (0.97)	$t(473.92) = 8.28, p < 0.001$
Fun	6.15 (1.05)	4.95 (1.62)	$t(427.42) = 9.86, p < 0.001$
High in social status	4.03 (1.51)	3.84 (1.60)	$t(501) = 1.38, p = 0.168$

Table 12

Time-saving purchases are associated with higher relationship satisfaction controlling for stress

	β	B	SE	P value for predictor	F value for model	P value for model	R^2
Time-Saving (1=Yes)	0.46	1.32	0.18	< 0.001			
Age	0.02	0.004	0.005	0.482			
Gender (1=Female)	-0.01	-0.03	0.11	0.755			
Perceived Stress	-0.56	-0.64	0.07	< 0.001			
					$F(4, 810) = 20.69$	< 0.001	0.089

Figure 1. Interaction depicting the association between stress and relationship satisfaction among couples who were about to be married and spent money on time-saving purchases.



Supplemental Information

Additional Measures in Studies 1a&b

In Studies 1a&b, if participants reported that they spent money on time-saving purchases together with their partner in a typical month, we proceeded to ask them a series of questions about these time-saving purchases. We asked respondents how much time they saved through these purchases in a typical month (*ranging from 0 minutes to 50 hours or more*) and we asked respondents how much money they spent on these purchases in a typical month (*ranging from \$0 to More than \$2500*). We also asked participants to report the percentage of time from these purchases that saved themselves time and not their partner, that saved their partner time and not themselves, and which saved both themselves and their partner time (responses to these three questions were required to add up to 100%). Participants then reported the percentage of purchases in a typical month that were made by their partner for their own benefit, the percentage of purchases that were made for themselves for their own benefit, and the percentage of purchases that were purchased by themselves for their partners' benefit. Once again, the responses to these questions were required to add up to 100%. Lastly, participants were asked whether they made these time-saving purchases together (1=*made these purchases separately*, 7=*made these purchases together*) and whether they agreed with their partner about what time-saving purchases to buy (1=*Completely Disagree* to 7=*Completely Agree*).

Additional Results from Studies 1a&b

Across both Studies 1a&b, we examined the correlations between the variables described above and our key overall relationship satisfaction outcome measure. Across studies, we found consistent evidence that time-saving purchases was linked to greater relationship satisfaction most when couples made these purchases together with their partner, and when couples agreed

on which of these time-saving purchases to make each month (Table S1a&S2a). In Study 1a, there was tentative evidence that these results were strongest when couples reported that the purchases benefitted both themselves and their partner (vs. only benefitting the respondent). In Study 1b, there was tentative evidence that these results were weaker when respondents reported that their partner purchased these purchases for their benefit (Study 2a). However, these set of results were not replicated across studies and were relatively weak statistically and therefore these results should be interpreted with caution. We also examined whether there were gender differences in any of these associations. As indicated in Table 1b&1c and Table 2b&c, there were no gender differences in these associations.

Table S1a

Association between amount spent on time-saving purchases and relationship satisfaction across studies.

Study	<i>N</i>	Study	Time-saving purchases (Amount)	Time-saving purchases (Amount) with covariates	Time-saving purchases (Amount) Squared ^b	Time-saving purchases (Amount) Squared with covariates
1a	424	US MTurkers	$B=0.01 (0.04)$, $p=0.843$	$B=-0.01 (0.04)$, $p=0.770$	$B=0.01 (0.02)$, $p=0.614$	$0.01 (0.02)$, $0.02 p=0.953$
1b	625	US Qualtrics	$B=0.01 (0.02)$, $p=0.716$	$B=-0.02 (0.03)$, $p=0.465$	$B=0.004 (0.005)$, $p=0.472$	$B=0.03 (0.01)$, $p=0.605$

Table S1b

Moderation regression analyses with time-saving services and household income predicting life satisfaction in Studies 1-7

Study	Study	Time-saving purchases X income on SWL	Time-saving purchases X income/wealth on SWL with covariates
1	US MTurkers	$B=-0.02 (0.04)$, $p=0.611$	$B=-0.02 (0.04)$, $p=0.657$
1b	US Qualtrics	$B=0.06 (0.05)$, $p=0.206$	$B=0.05 (0.05)$, $p=0.291$
<i>N</i>			

Table S2a

Follow-up questions asked for respondents who reported buying time in Study 1a (N = 105)

Relationship Satisfaction	B (SE)	<i>f</i> -Value of model	<i>p</i> -value	<i>R</i> ²
1. Do you typically make these purchases on the weekend? (1=Yes)	-0.13 (0.20)	<i>F</i> (1, 111)=0.42	0.517	0.004
2. How much time do these purchases save per month?	-0.01 (0.04)	<i>F</i> (1, 111)=0.03	0.858	0.001
3. How much money do you spend on these purchases per month?	0.01 (0.04)	<i>F</i> (1, 105)=0.04	0.843	0.001
4. <u>What % of this time saves YOU time and not your partner?</u>	<u>-0.01 (0.003)</u>	<u><i>F</i>(1, 105)=5.46</u>	<u>0.021</u>	<u>0.050</u>
5. What % of this time saves YOUR PARTNER time and not you?	-0.001 (0.004)	<i>F</i> (1,105)=0.05	0.826	0.001
6. <u>What % of this time saves BOTH YOU and YOUR PARTNER?</u>	<u>0.01 (0.003)</u>	<u><i>F</i>(1, 105)=3.79</u>	<u>0.054</u>	<u>0.035</u>
7. What % of these purchases are purchased by you for your own benefit?	-0.003 (0.004)	<i>F</i> (1, 105)=0.45	0.505	0.004
8. What % of these purchases are purchased by your partner for your benefit?	-0.004 (0.004)	<i>F</i> (1, 105)=0.79	0.375	0.008
9. What % of these purchases are purchased by you for your partners benefit?	0.004 (0.003)	<i>F</i> (1, 105)=1.54	0.218	0.015
10. <u>To what extent do you make these purchase decisions together with your partner?</u>	<u>0.16 (0.065)</u>	<u><i>F</i>(1, 105)=6.31</u>	<u>0.014</u>	<u>0.057</u>
11. <u>To what extent do you and your partner agree about making these purchases?</u>	<u>0.26 (0.07)</u>	<u><i>F</i>(1, 105)=13.96</u>	<u>≥0.001</u>	<u>0.118</u>

Table S2b

Follow-up questions asked for respondents who reported buying time in Study 1a, **Women** ($N = 48$)

Relationship Satisfaction	B (SE)	<i>f</i> -Value of model	<i>p</i> -value	R^2
1. Do you typically make these purchases on the weekend? (1=Yes)	-0.25 (0.28)	$F(1, 62)=0.84$	0.363	0.010
2. How much time do these purchases save per month?	-0.08 (0.05)	$F(1,56)=2.58$	0.114	0.045
3. How much money do you spend on these purchases per month?	0.002 (0.05)	$F(1,56)=0.001$	0.972	0.001
4. What % of this time saves YOU time and not your partner?	-0.01 (0.005)	$F(1,56)=2.60$	0.112	0.045
5. What % of this time saves YOUR PARTNER time and not you?	0.003 (0.01)	$F(1,56)=0.42$	0.521	0.008
6. What % of this time saves BOTH YOU and YOUR PARTNER?	0.003 (0.004)	$F(1,56)=0.56$	0.456	0.010
7. What % of these purchases are purchased by you for your own benefit?	0.002 (0.006)	$F(1,56)=0.07$	0.791	0.001
8. What % of these purchases are purchased by your partner for your benefit?	-0.005 (0.006)	$F(1,56)=0.56$	0.457	0.010
9. What % of these purchases are purchased by you for your partners benefit?	0.002 (0.005)	$F(1,56)=0.12$	0.731	0.002
10. <u>To what extent do you make these purchase decisions together with your partner?</u>	0.13 (0.11)	$F(1,56)=1.49$	0.228	0.026
11. <u>To what extent do you and your partner agree about making these purchases?</u>	0.24 (0.10)	$F(1,56)=5.91$	0.018	0.097

Table S2c

Follow-up questions asked for respondents who reported buying time in Study 1a, **Men** ($N = 62$)

Relationship Satisfaction	B (SE)	<i>f</i>-Value of model	<i>p</i>-value	R^2
1. Do you typically make these purchases on the weekend? (1=Yes)	0.05 (0.28)	$F(1, 48)=0.03$	0.867	0.001
2. How much time do these purchases save per month?	0.10 (0.05)	$F(1,48)=3.87$	0.055	0.076
3. How much money do you spend on these purchases per month?	0.02 (0.06)	$F(1,48)=0.07$	0.797	0.001
4. What % of this time saves YOU time and not your partner?	-0.01 (0.004)	$F(1,48)=2.81$	0.100	0.056
5. What % of this time saves YOUR PARTNER time and not you?	-0.01 (0.005)	$F(1,48)=1.74$	0.193	0.036
6. What % of this time saves BOTH YOU and YOUR PARTNER?	0.01 (0.003)	$F(1,48)=4.88$	0.032	0.094
7. What % of these purchases are purchased by you for your own benefit?	0.01 (0.005)	$F(1,48)=2.12$	0.144	0.045
8. What % of these purchases are purchased by your partner for your benefit?	-0.003 (0.006)	$F(1,48)=0.23$	0.634	0.005
9. What % of these purchases are purchased by you for your partners benefit?	0.01 (0.004)	$F(1,48)=2.46$	0.123	0.050
10. <u>To what extent do you make these purchase decisions together with your partner?</u>	<u>0.20 (0.08)</u>	<u>$F(1,48)=6.26$</u>	<u>0.016</u>	<u>0.118</u>
11. <u>To what extent do you and your partner agree about making these purchases?</u>	<u>0.29 (0.09)</u>	<u>$F(1,48)=9.24$</u>	<u>0.004</u>	<u>0.164</u>

Table S3a
 Follow-up questions asked for respondents who reported buying time in Study 1b (N = 279)

Relationship Satisfaction	B (SE)	f-Value of model	p-value	R ²
12. Do you typically make these purchases on the weekend? (1=Yes)	0.21 (0.15)	F(1, 278)=1.99	0.149	0.01
13. How much time do these purchases save per month?	0.25 (0.02)	F(1, 271)=0.75	0.387	0.01
14. How much money do you spend on these purchases per month?	0.01 (0.02)	F(1, 271)=0.19	0.667	0.01
15. What % of this time saves YOU time and not your partner?	0.001 (0.01)	F(1, 271)=0.02	0.900	0.001
16. What % of this time saves YOUR PARTNER time and not you?	-0.01 (0.01)	F(1, 271)=1.52	0.219	0.01
17. What % of this time saves BOTH YOU and YOUR PARTNER?	0.003 (0.003)	F(1, 271)=1.11	0.293	0.001
18. What % of these purchases are purchased by you for your own benefit?	0.01 (0.003)	F(1, 271)=2.60	0.108	0.01
19. <u>What % of these purchases are purchased by your partner for your benefit?</u>	<u>-0.01 (0.003)</u>	<u>F(1, 271)=3.57</u>	<u>0.060</u>	<u>0.01</u>
20. What % of these purchases are purchased by you for your partners benefit?	0.001 (0.003)	F(1, 271)=0.001	0.995	0.004
21. <i>To what extent do you make these purchase decisions together with your partner?</i>	0.26 (0.05)	F(1, 271)=26.25	<0.001	0.09
22. <i>To what extent do you and your partner agree about making these purchases?</i>	0.31 (0.07)	F(1, 271)=22.29	<0.001	0.07

Table S3b

Follow-up questions asked for respondents who reported buying time in Study 1b, Women (N = 110)

Relationship Satisfaction	B (SE)	<i>f</i>-Value of model	<i>p</i>-value	<i>R</i>²
12. Do you typically make these purchases on the weekend? (1=Yes)	-0.07 (0.28)	$F(1, 110)=0.05$	0.818	0.001
13. How much time do these purchases save per month?	-0.01 (0.05)	$F(1, 103)=0.03$	0.862	-0.01
14. How much money do you spend on these purchases per month?	-0.07 (0.06)	$F(1, 103)=1.52$	0.220	0.005
15. What % of this time saves YOU time and not your partner?	0.01 (0.01)	$F(1, 103)=1.71$	0.194	0.01
16. What % of this time saves YOUR PARTNER time and not you?	-0.01 (0.01)	$F(1, 103)=0.94$	0.335	0.001
17. What % of this time saves BOTH YOU and YOUR PARTNER?	-0.002 (0.01)	$F(1, 103)=0.13$	0.720	0.01
18. What % of these purchases are purchased by you for your own benefit?	-0.002 (0.01)	$F(1, 103)=0.13$	0.717	0.001
19. What % of these purchases are purchased by your partner for your benefit?	-0.001 (0.01)	$F(1, 103)=0.03$	0.859	-0.01
20. What % of these purchases are purchased by you for your partners benefit?	0.003 (0.01)	$F(1, 103)=0.29$	0.592	-0.01
21. To what extent do you make these purchase decisions together with your partner?	0.22 (0.09)	$F(1, 103)=5.29$	0.023	0.04
22. To what extent do you and your partner agree about making these purchases?	0.32 (0.12)	$F(1, 103)=7.57$	0.007	0.06

Table S3c

Follow-up questions asked for respondents who reported buying time in Study 1b, Men (N = 166).

Relationship Satisfaction	B (SE)	f-Value of model	p-value	R²
12. Do you typically make these purchases on the weekend? (1=Yes)	0.39 (0.16)	$F(1, 166)=0.53$	0.818	0.001
13. How much time do these purchases save per month?	0.01 (0.02)	$F(1, 166)=0.47$	0.495	0.003
14. How much money do you spend on these purchases per month?	0.02 (0.02)	$F(1, 166)=0.38$	0.538	0.002
15. What % of this time saves YOU time and not your partner?	-0.01 (0.01)	$F(1, 166)=3.76$	0.054	0.02
16. What % of this time saves YOUR PARTNER time and not you?	-0.001 (0.01)	$F(1, 166)=0.001$	0.971	-0.01
17. What % of this time saves BOTH YOU and YOUR PARTNER?	0.01 (0.003)	$F(1, 166)=3.35$	0.069	0.014
18. What % of these purchases are purchased by you for your own benefit?	-0.01 (0.004)	$F(1, 166)=4.79$	0.030	0.028
19. What % of these purchases are purchased by your partner for your benefit?	0.01 (0.003)	$F(1, 166)=4.59$	0.034	0.021
20. What % of these purchases are purchased by you for your partners benefit?	-0.002 (0.003)	$F(1, 166)=0.212$	0.646	0.001
21. To what extent do you make these purchase decisions together with your partner?	0.27 (0.06)	$F(1, 166)=20.41$	<0.001	0.11
22. To what extent do you and your partner agree about making these purchases?	0.29 (0.08)	$F(1, 166)=14.53$	<0.001	0.08

Table S4a

Study 2: Relationship satisfaction in both partners as a function of female report of couple-level variables and actor report of individual-level study variables.

Fixed effects	$\beta =$	B	SE	p
Couple-Level Variables				
Intercept	0.00	5.75	0.08	< 0.001
Time-saving (1=Yes)	0.18	0.49	0.16	0.002
Number of Kids Living at Home	-0.04	-0.03	0.04	0.502
Household Income	-0.02	-0.01	0.03	0.726
Experiential Purchases (1=Yes)	0.20	0.51	0.20	0.011
Material Purchases (1=Yes)	-0.02	-0.06	0.27	0.810
Individual-Level Variables				
Age	0.05	0.06	0.07	0.343
Hours/Week (1=40+ hours)	0.04	0.09	0.09	0.321
Variances				
Intercept	1.09	< 0.001		
Error	0.43			

Table S4b

Study 2: Relationship satisfaction in both partners as a function of male report of couple-level variables and actor report of individual-level variables.

Fixed effects	$\beta =$	<i>B</i>	<i>SE</i>	<i>p</i>
Couple-Level Variables				
Intercept	0.00	5.75	0.08	< 0.001
Time-saving (1=Yes)	0.07	0.18	0.16	0.265
Number of Kids Living at Home	-0.05	-0.04	0.04	0.394
Household Income	0.04	0.02	0.03	0.436
Experiential Purchases (1=Yes)	0.23	0.58	0.17	0.001
Material Purchases (1=Yes)	0.03	0.09	0.24	0.724
Individual-Level Variables				
Age	0.03	0.04	0.07	0.537
Hours/Week (1=40+ hours)	0.04	0.10	0.09	0.292
Variances				
Intercept	1.09	< 0.001		
Error	0.43			