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Should Birds of a Feather Flock Together? Understanding Self-Control Decisions in Dyads

HRISTINA DZHOGLEVA
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Can we rely on our high self-control friends to help us make better joint spending and diet decisions? The current research reports seven studies showing that in joint decisions, homogeneous high self-control pairs make less indulgent choices than both homogeneous low self-control and mixed pairs. However, there is no difference in the self-regulatory patterns of the latter two dyad types: having one high self-control partner in a dyad does not lead to more restraint than having none. The authors argue that this pattern exists because higher self-control individuals tend to prioritize prorelationship behaviors over their personal preference for restraint. Therefore, they assent to the lower self-control partner's more indulgent preferences. Consistent with this explanation, results suggest that interventions that change individuals' prorelationship motivation can alter this pattern. Given the range of decisions consumers may make in couples or pairs, this research has implications for consumers, marketers, and public-policy makers.

Despite the fact that consumers' ability to exercise self-control is recognized as partially socially determined (Battaglini, Bénabou, and Tirole 2005; Heatherton and Vohs 1998; Pachucki, Jacques, and Christakis 2011), the bulk of research in consumer behavior focuses on independent behaviors. For example, single individuals might be asked to allocate money between repaying debt and spending on immediate consumption (Haws, Bearden, and Nenkov 2011), choose menu items (Wilcox, Kramer, and Sen 2011), or determine how they will spend their time (Hung and Mu-

khopadhyay 2012). To the extent that individuals exhibit indulgence in these choices, we say that they possess low self-control and, with it, may fall prey to a wide range of pathologies—debt, obesity, or poor job performance (Tangney, Baumeister, and Boone 2004).

In reality, however, many decisions involving self-regulation are made in concert with others. That is, self-control is essentially a social enterprise (Finkel et al. 2006; Fitzsimons et al. 2005; Heatherton and Vohs 1998; Pachucki et al. 2011; VanDellen and Hoyle 2010). As such, one stream of research has focused on tasks performed independently that are influenced by the mere presence (Ackerman et al. 2009; Herman, Roth, and Polivy 2003; McFerran et al. 2010; VanDellen and Hoyle 2010) or thoughts of others (Martijn et al. 2007). However, little work considers decisions that are actively made as a collaborative process between two individuals. For example, a pair of friends may decide together whether to study for an upcoming exam or go to a movie. Similarly, a pair of workplace colleagues may decide together whether to order a healthy lunch from the vegan restaurant or opt for the wings-and-pizza combo. Furthermore, a couple may go grocery shopping together, create a monthly household budget together, or decide jointly whether to indulge on a luxurious vacation beyond their budget. We call such decisions *joint* self-control decisions: decisions in which the two partners in a couple provide input into the decision-making process, ultimately reach one de-

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cision, and experience the outcomes related to their decision together. Such joint self-control decisions fall under the category of “joint decision, joint consumption” in the typology proposed by Gorlin and Dhar (2012) or conjunctive tasks (i.e., tasks on which all members must succeed for the dyad to be successful) in the typology of Steiner (1966). Interestingly, little research has focused on how dyads perform on such decisions.

To address this gap in the literature, we examine the joint self-control decisions of three dyad types, formed on the basis of different combinations of partners’ trait self-control levels. Specifically, we study dyads containing two low self-control individuals (homogeneous low self-control), dyads composed of one low self-control and one high self-control individual (mixed self-control), and dyads containing two high self-control partners (homogeneous high self-control). Seven studies demonstrate that homogeneous high self-control dyads display more restraint in their joint self-control decisions than both homogeneous low self-control and mixed dyads. Importantly, though, despite the presence of a higher self-control partner, the mixed dyad’s joint decisions are no less indulgent than those of the homogeneous low self-control pair. Building on Finkel and Campbell (2001), we argue that this pattern exists because higher self-control individuals have higher ability and stronger motivation to engage in prorelationship behaviors than do lower self-control individuals. Thus, in a mixed dyad, higher self-control partners resolve conflict with a lower self-control partner’s preferences by assenting to their indulgent tendencies. Supporting this account, we show that increasing (decreasing) the prorelationship motivation of low self-control (high self-control) individuals in mixed dyads improves the mixed dyads’ joint self-control.

The current work contributes novel theoretical insights to prior research. First, although past research has studied dyadic decision making in a variety of contexts, including but not limited to negotiations (Ten Velden, Beersma, and De Dreu 2010), organizational dyadic relationships (Basu and Green 1995), and joint marital decisions (Corfman and Lehmann 1987; Ferber and Lee 1974; Park 1982; Rosen and Grandbois 1983; Su, Fern, and Ye 2003), to our knowledge, little work examines how dyads navigate self-control challenges together. Therefore, the current work responds to Fitzsimons and Finkel’s recent call (2010) for inquiries into the interplay of self and others’ self-regulation goals. Second, past research suggests that high self-control has generally positive outcomes, such as better job and academic performance, healthier interpersonal relationships, and greater physiological and psychological well-being (de Ridder et al. 2012; Tangney et al. 2004). Our work suggests that high self-control might be a double-edged sword in dyadic decisions, since the tendency to engage in prorelationship behaviors may in fact threaten long-term financial and health outcomes.

Finally, recent work on relationship quality and marital well-being (Rick, Small, and Finkel 2011; Vohs, Finkenauer, and Baumeister 2011) has focused on the effect of partners’

self-control levels or spending tendencies on relationship quality outcomes. We extend this work by examining how the different combinations of partners’ self-control scores affect their success at joint self-regulation tasks (e.g., joint spending, saving, and food decisions), which may have far-reaching consequences for both the relationship and the individual dyad members.

We next describe the theoretical framework for our predictions about self-control decisions in dyads. We then report seven studies involving lab, virtual, and real dyads in three different self-control domains, each of which robustly demonstrates our predicted pattern of effects. We close with a discussion of implications, limitations, and opportunities for future research.

THEORETICAL FRAMEWORK

When Tendencies Agree: Homogeneous Dyads

One way to approach the question of joint self-regulation is to consider the way that dyads may be composed. Individuals can be classified as chronically low or high at trait self-control on the basis of their responses to a validated measure of self-control (Baumeister 2002; Brief Self-Control Scale, Tangney et al. 2004). Trait self-control is an individual difference in the amount of self-regulatory resources one possesses that forms a stable aspect of personality (Baumeister 2002). Across different situations and time, some individuals are better than others at overriding their automatic urges and forgoing short-term temptations that would otherwise impede the accomplishment of long-term or higher-level goals (Ainslie and Haslam 1992; Baumeister 2002; Tangney et al. 2004; Thaler 1991; Trope and Fishbach 2000; Wertenbroch 1998). As a result, trait self-control has been shown to reliably predict a wide range of behaviors such as school and work performance, financial management, eating, addictive behavior, affect regulation, deviant behavior, interpersonal functioning, planning, and decision making (Baumeister et al. 1998; de Ridder et al. 2012; Muraven and Baumeister 2000; Tangney et al. 2004).

Given this understanding of trait self-control, consider the case of a homogeneous high self-control couple, which consists of two high self-control partners. We predict that when two high self-control individuals work together on a self-regulatory decision or task, they will jointly make decisions associated more with long-term goals than with immediate indulgence: they will choose healthier but likely less tasty foods, resist the temptation to incur debt to pursue indulgence, or persevere rather than give up at challenging tasks. By contrast, often despite stated beliefs that they care about long-term outcomes, lower self-control individuals are more likely to chronically pursue short-term indulgences (Poynor and Haws 2009). Thus, when two low self-control individuals are paired, we anticipate they will both lean toward more indulgent options than those selected by homogeneous high self-control dyads. Formally:

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H1: Homogeneous high self-control dyads will make less indulgent choices in joint self-regulation decisions than homogeneous low self-control dyads.

When Tendencies Conflict: Mixed Dyads and Prorelationship Behaviors

The more interesting case involves mixed dyads, where one member of the couple has high and the other one has low trait self-control. Understanding these dyads is particularly important in light of prior findings that in many marriages, “opposites attract”; that is, members of couples are likely to differ in their self-control (Vohs et al. 2011).

A number of possibilities exist for the exhibited self-control of mixed dyads. First, it is possible that the presence of a high self-control partner will create accountability in the dyad (Seeley and Gardner 2006; Tetlock 1983). Since virtues are usually more easily justified than vices (Okada 2005), an accountability mechanism would lead low self-control individuals to lean toward more virtuous options than they would on their own. It is also possible that high self-control individuals’ observable achievements will act as social proof, suggesting that the high self-control individual’s tendencies offer the surest route to success (VanDellen and Hoyle 2010). Such an effect would make the high self-control partner the more confident and trusted voice in the decision making. Further, higher self-control individuals’ ability to present themselves well or deal with difficult partners (Baumeister, Vohs, and Tice 2007; Vohs, Baumeister, and Ciarocco 2005) may raise their ability to persuade, prompting the low self-control individual to temporarily adopt their pursuit of long-term goals and agree to show restraint. If any of these mechanisms were at play in mixed dyads, we would see such pairs perform more like homogeneous high self-control than like homogeneous low self-control dyads.

However, we argue that the conflict of chronic inclinations created in mixed dyads leads to quite a different outcome than might be predicted by work focusing mostly on individual-level phenomena. This is because in a mixed dyad, high and low self-control partners’ chronic inclinations are likely to be in conflict: while the high self-control individual is likely to focus on long-term goals, the low self-control individual will be drawn to immediate gratification (Tangney et al. 2004).

To resolve the conflict arising from the incompatible inclinations of the partners in a mixed dyad, one partner will need to put aside his or her chronic choice tendencies in the interest of a more prorelationship behavior, such as avoiding conflict and maintaining the harmony in the interaction (Finkel and Campbell 2001; Finkel and Rusbult 2008; Kelley and Thibaut 1978). Whether one engages in prorelationship behaviors depends on both the motivation and the ability to do so (Finkel and Campbell 2001).

We propose that higher self-control individuals are likely to be both more able to engage in prorelationship behaviors and more motivated to do so than are their lower self-control

partners. Past work suggests that inhibiting one’s gut-level impulses to act in a self-interested manner in favor of more prorelationship behaviors tends to be associated with a higher chronic level of self-regulatory resources (Baumeister and Exline 1999, 2000; Yovetich and Rusbult 1994). Since high self-control individuals chronically possess more self-regulatory resources than low self-control individuals, they are better equipped to engage in prorelationship behaviors (Finkel and Campbell 2001). Further, past work suggests that high self-control individuals are more motivated to protect higher-level goals such as relationship harmony and success, even when doing so requires sacrifice on their part (Rawn and Vohs 2011; Tangney et al. 2004). Thus, high self-control individuals are more motivated to act in manners that preserve harmony such as accommodation in the face of relationship stressors (Finkel and Campbell 2001), forgiveness (Balliet, Li, and Joireman 2011; Pronk et al. 2010), promise keeping (Peetz and Kammrath 2010), less aggression (DeWall et al. 2007), and more empathy (Tangney et al. 2004).

What will a prorelationship behavior look like in a joint decision-making context? Given that low self-control individuals will be more drawn to indulgent, short-term outcomes, we propose that the prorelationship behavior of the high self-control partner will be evidenced by a compromise toward greater indulgence in the joint decision. By assenting to their low self-control partner’s preference, high self-control individuals avoid conflict that could arise from the differences in the partners’ chronic inclinations and thus preserve the harmony in the interaction and the relationship. Therefore, rather than being enhanced by the presence of a high self-control partner, a mixed dyad’s performance may instead be comparable to that of a homogeneous low self-control pair.

We note that our theory corroborates the view of individual self-control as being influenced by the person-situation interaction (Metcalf and Mischel 1999). Specifically, Metcalf and Mischel (1999) suggest that trait self-control may be displayed differently on the basis of contextual factors, such that such factors may lead higher self-control individuals to indulge or, conversely, may prompt lower self-control individuals to exhibit restraint. Thus, while the tendency of higher trait self-control individuals is to exhibit restraint in their individual decisions (Tangney et al. 2004), in the context of a mixed dyad joint self-control task, we predict that they will assent to the other person’s indulgent preferences in order to preserve the harmony in the interaction and the relationship.

We will refer to more indulgent or short-term gratification-oriented joint decisions as exhibiting less joint self-control, while joint outcomes that show more restraint or persistence are referred to as higher joint self-control decisions. We note that this is not to suggest that high trait self-control individuals demonstrate individual low self-control in this situation. Rather, given the lower self-control partner’s preference for indulgence or short-term gratification, the higher self-control partner’s prorelationship ten-

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dency may in fact lead to an indulgent decision, one that undermines both partners' ability to meet long-term goals such as saving money or eating a healthy diet, a pattern associated with low self-control in past literature (Baumeister 2002; de Ridder et al. 2012; Tangney et al. 2004).

Formally, we therefore predict that:

H2: While homogeneous high self-control dyads will exhibit better self-control than will mixed self-control dyads, there will be no significant difference in the restraint displayed by mixed and homogeneous low self-control dyads.

H3: As self-control rises, so do ability and motivation to behave in a prorelationship manner in joint decision-making contexts.

We test these hypotheses in seven studies (see table 1). Using arbitrarily created dyads in a lab setting, studies 1A and 1B support hypotheses 1 and 2 in both hypothetical (study 1A: selection of menu items) and real (study 1B: persistence on a difficult task) joint self-control tasks. In each study, homogeneous high self-control dyads exhibit more restraint than both homogeneous low self-control and mixed dyads; however, consistent with our predictions, there is no significant difference in the self-regulation of the latter two dyad types. Studies 2A and 2B reveal that actual married couples exhibit the same self-regulatory patterns as seen in the arbitrary lab pairings of individuals in studies 1A and 1B. Studies 3, 4A, and 4B examine the underlying mechanism driving these effects. Specifically, study 3 shows that higher self-control individuals possess greater motivation and greater ability to engage in prorelationship behaviors

than do lower self-control individuals. Building on this finding, study 4A reveals that externally raising the prorelationship motivation of low self-control individuals significantly improves the mixed dyad's joint restraint, while study 4B shows that externally decreasing the high self-control individuals' prorelationship motivation can also elevate the mixed dyad's joint self-control. Thus, in addition to providing process evidence via a moderation-of-process design (Spencer, Zanna, and Fong 2005), the last two studies identify simple, practical messages that could be used to improve consumer well-being.

STUDY 1: SELF-CONTROL IN LAB-CREATED DYADS

Studies 1A and 1B test hypotheses 1 and 2. In both studies, lab participants were paired with another participant in their session to form the three focal dyad types (homogeneous low self-control, mixed self-control, and homogeneous high self-control dyads). All dyads were then given an opportunity to make a joint self-control decision, involving either choices from a lunch menu (study 1A) or the length of time for which to persist at a challenging task (study 1B).

STUDY 1A

Method

Design and Participants. Study 1A used a 3 (dyad type: homogeneous low self-control, mixed, homogeneous high self-control) group design. A total of 74 individual partic-

TABLE 1
SUMMARY OF STUDIES

Study	Dyads creation procedure	Dyad type	Hypothesis	Dependent variable
1A	Participants were randomly paired in the lab. Dyads were classified post hoc as one of the three dyad types.	Lab created	H1, H2	Total grams of fat in selected menu
1B		Lab created	H1, H2	Persistence on an unsolvable anagram (in seconds)
2A	Dyads were married couples. One spouse rated the trait self-control of both partners. Couples were classified post hoc as one of the three dyad types.	Married couples	H1, H2	Frequency of eating fast food, joint saving habits, retirement income, household savings (in \$), joint spending habits, joint credit card debt (in \$), frequency of paying joint credit card balance in full, and frequency of paying overall obligations on schedule
2B	Dyads were married couples. Each spouse rated his or her own trait self-control individually. Couples were classified post hoc as one of the three dyad types.	Married couples	H1, H2	Willingness to incur credit card debt to purchase a luxurious vacation (in \$)
3 (process)	NA	NA	H3	Ability and motivation to engage in prorelationship behaviors
4A (process and intervention)	Virtual dyads were created by modeling nonrespondent spouses' preferences in ways consistent with respondent spouses' self-control ratings of their partner.	Virtual	H1, H2, H3	Preference for a \$50 groceries gift card relative to a \$50 restaurant gift card, likelihood of selecting each gift card, amount allocated to each gift certificate, gift card choice
4B (process and intervention)	Participants were randomly paired in the lab on the basis of their trait self-control to create mixed dyads.	Lab created	H1, H2, H3	Restaurant gift card preference

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ipants (61% males, $M_{\text{age}} = 20.5$ years) from an introductory marketing course at the University of Pittsburgh completed the study in exchange for course credit.

Procedure. First, all participants filled out the 13-item self-control scale designed to measure individual differences in trait self-control (Tangney et al. 2004). All respondents were then given a series of unrelated tasks to work on for approximately 15 minutes. While participants were working on these tasks, the lab administrator calculated each individual's trait self-control score and classified participants as low or high self-control depending on whether their score was below or above the average self-control in the population, determined by a separate pretest ($M = 4.20$, $SD = .63$). Then, the lab administrator paired each participant with a partner of either a different or a similar self-control level, in order to create the three types of self-control dyads: homogeneous low self-control ($n = 12$), mixed ($n = 19$), and homogeneous high self-control ($n = 6$). Participants in each dyad were then asked to work together on a subsequent menu selection task, with instructions intended to ensure that they treated the task as a joint task and did not select their own individual menus instead:

Now imagine that you and your partner in this study have decided to have lunch together at a small local restaurant located close to the school. The restaurant has an ongoing lunch promotion called "A Lunch Menu for 2 for Half the Price," which basically means that you will get a 50% discount off your bill if you both order the same meals. You and your partner decide to take advantage of this promotion. You both have the goal of staying in shape this semester. So you agree to try to balance your desire to choose something healthy—low in fat and calories—with something delicious that you'll both like.

Each pair was then given a lunch menu and asked to circle the foods they would like to order together. The menu contained a list of the available lunch options along with information about their caloric and fat content. After completion of the menu selection task, all participants provided their demographic information, were thanked for their participation, and were dismissed.

A separate group of participants ($n = 101$) was asked to read a description of this scenario and asked to indicate how realistic it is, as well as how realistic it is in general to share meals in order to take advantage of an available promotion at a restaurant. Results revealed that the scenario is realistic ($M = 5.21$, $SD = 1.53$, vs. 4 [scale midpoint]; $t(100) = 7.93$, $p < .0001$) and that it is realistic to decide to share meals to use an available promotion when eating out ($M = 6.08$, $SD = 1.25$, vs. 4 [scale midpoint]; $t(100) = 16.76$, $p < .0001$).

Analysis and Results

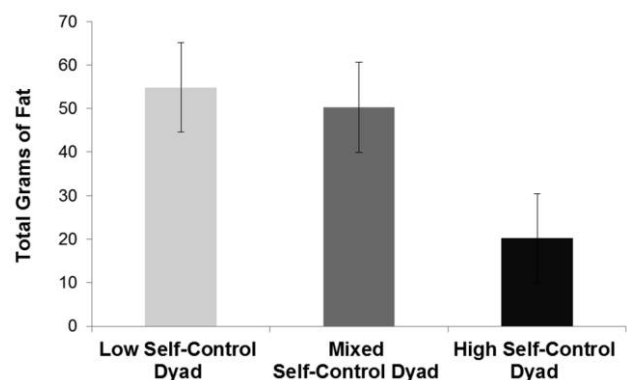
In all experiments partial data were provided by some respondents on some variables; where data are available, they are included in the analysis.

Partners' Self-Control Scores in the Three Dyad Types. We first checked to ensure that low self-control and high self-control individuals had equivalent self-control scores no matter whether they were placed in homogeneous or mixed dyads. As intended, the high self-control partners in the homogeneous high self-control and mixed dyads had significantly higher self-control scores than the low self-control partners in homogeneous low self-control and mixed dyads (all $p < .0001$). Furthermore, the mean self-control score of high self-control individuals placed in homogeneous dyads ($M = 4.67$, $SD = .30$) was not significantly different from that of high self-control individuals placed in mixed dyads ($M = 4.82$, $SD = .54$; $p = .37$); the mean self-control of low self-control partners in homogeneous dyads ($M = 3.83$, $SD = .61$) was slightly higher than that of low self-control partners in mixed dyads ($M = 3.49$, $SD = .48$; $p = .05$). To ensure that this inadvertent difference does not confound our results, we conducted the same analysis in all other studies; this issue did not arise in any of them.

Total Grams of Fat in Selected Menu. We used the total grams of fat in the selected menu as our measure of self-control, such that higher fat content signaled less self-control (Fujita and Han 2009; Giner-Sorolla 2001). To account for the unequal number of pairs in the three conditions resulting from the nature of the participants in the sessions, a weighted-means ANOVA was estimated (Keppel and Zedek 1989) using the total grams of fat in the selected menu as the dependent variable and the dyad type as the between-subjects factor. Results revealed a significant main effect of the dyad type on the total amount of fat ($F(2, 34) = 3.34$, $p < .05$; see fig. 1). As predicted in hypotheses 1 and 2, planned contrasts showed that the homogeneous high self-control dyads ($M = 20.17$, $SD = 6.13$) selected lunch menus that contained significantly less fat than did the homogeneous low self-control dyads ($M = 54.83$, $SD = 10.26$; $F(1, 34) = 5.65$, $p = .02$). The homogeneous high self-control dyads also chose less fatty menus than did the

FIGURE 1

STUDY 1A: TOTAL GRAMS OF FAT IN THE SELECTED MENUS



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mixed dyads ($M = 50.26$, $SD = 11.23$; $F(1, 34) = 4.26$, $p < .05$). However, the menus selected by homogeneous low self-control and mixed pairs did not differ significantly from each other in terms of their fat content ($p = .76$). We obtained the same results when we used the total amount of calories in the selected menu as the dependent variable; amount of calories and grams of fat in the chosen menu are highly correlated ($r = .97$, $p < .0001$).

STUDY 1B

Given the use of a hypothetical, scenario-based self-control measure, it might be argued that the observed differences in the self-regulation of the three dyad types in study 1A are due to differences in their lay theories about how they would behave in such situations. That is, higher self-control individuals might intuit that they would assent to their partner's preferences on such a choice but might show stronger adherence to self-regulation in an actual task. Therefore, we sought to replicate these effects using a real self-control behavior in study 1B. Furthermore, study 1B aims to replicate the effects using a larger sample size to account for the small cell sizes in study 1A.

Method

Design and Participants. Study 1B used a 3 cell (dyad type: homogeneous low self-control, mixed, homogeneous high self-control) design. Individual participants ($n = 240$, 57% males, $M_{\text{age}} = 20.4$ years) were students at the University of Pittsburgh who completed the study for course credit.

Procedure. Participants first filled out the Brief Self-Control Scale (Tangney et al. 2004), worked individually on several unrelated filler tasks taking approximately 25 minutes, and then were randomly paired with a partner from the same experimental session. All dyads were then asked to work together on an anagram-solving task, which contained four solvable and one unsolvable anagram. Following prior research (Muraven, Tice, and Baumeister 1998), we used the persistence of the dyads at attempting to solve the unsolvable anagram as a measure of their self-control. Persisting on a challenging task requires overriding an easy, appealing response (i.e., quitting) and hence constitutes a self-control task (Muraven et al. 1998). The experimenter was present in the lab session to ensure that both members of the dyads participated in the anagram task jointly and noted that in no cases did it appear that the task was simply delegated to one or the other member of the group. We note that this was a joint self-control task as both partners had to jointly decide whether to keep working on the anagrams or proceed with the study and ultimately leave the lab. It was not possible for one partner to proceed with the study and leave the lab without the other partner.

Analysis and Results

We excluded from the analysis seven pairs in which one or both of the partners did not provide responses to the self-control scale and thus could not be assigned to a condition, as well as 13 additional pairs that encountered logistical issues during the study administration (i.e., were interrupted or had computer problems during the anagram-solving task). For the remaining pairs, we used the average self-control in the sample ($M = 4.31$, $SD = .59$) to classify participants as low or high self-control individuals. Then, depending on each partner's classification, we classified each pair as one of the three dyad types under study—homogeneous low ($n = 30$), mixed ($n = 48$), and homogeneous high self-control dyads ($n = 22$).

Partners' Self-Control Scores in the Three Dyad Types. As in study 1A, we ensured that both low and high self-control individuals had comparable self-control scores irrespective of whether they were placed in homogeneous or mixed dyads (both $p > .35$). Moreover, high self-control partners in both homogeneous and mixed dyads had higher self-control than low self-control partners in homogeneous and mixed dyads (all $p < .0001$). The mean self-control levels of the partners in the three dyads were as follows: homogeneous low self-control dyads ($M = 3.85$, $SD = .33$), homogeneous high self-control dyads ($M = 4.78$, $SD = .34$), high self-control partners in mixed dyads ($M = 4.83$, $SD = .32$), and low self-control partners in mixed dyads ($M = 3.92$, $SD = .32$). The same analyses were conducted in all other studies; the results were similar and thus are not discussed further.

Persistence Time. We first note that there were no significant differences among the three dyads in the time spent on the four solvable anagrams (all $p > .23$). This result is not surprising given the fact that those anagrams were relatively easy and were thus solved by almost all dyads. Time spent working on the unsolvable anagram was significantly skewed (skewness = 1.13; Shapiro-Wilk's $W = .912$, $p < .0001$). We therefore conducted a one-way ANOVA on the log-transformed persistence time as a function of the dyad type condition. Results revealed a significant main effect of dyad type ($F(2, 97) = 6.10$, $p = .003$; see fig. 2). Homogeneous high self-control dyads persisted significantly longer (log-transformed $M = 4.61$, $SD = .48$; raw $M = 111.9$ seconds, $SD = 53.84$) at attempting to solve the unsolvable anagram than both the homogeneous low self-control (log-transformed $M = 4.06$, $SD = .54$; raw $M = 66.7$ seconds, $SD = 37.72$; $F(1, 97) = 11.98$, $p < .001$) and mixed dyads (log-transformed $M = 4.24$, $SD = .62$; raw $M = 82.3$ seconds, $SD = 48.78$; $F(1, 97) = 6.44$, $p = .01$). Again consistent with study 1A, there was no significant difference between the persistence of the latter two dyads ($p = .17$).

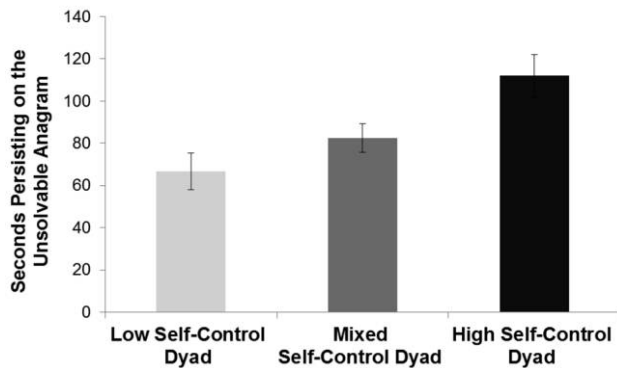
Discussion

Studies 1A and 1B provide support for hypotheses 1 and 2, showing that homogeneous high self-control dyads made

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FIGURE 2

STUDY 1B: PERSISTENCE TIME AT AN UNSOLVABLE ANAGRAM (IN SECONDS)



NOTE.—Although the analysis was conducted on the log-transformed persistence time, for exposition purposes, the average persistence time of each dyad type is depicted in seconds.

more healthy choices and showed greater persistence than did both homogeneous low self-control and mixed self-control pairs, as reflected in both hypothetical and actual joint self-control decisions. However, as predicted, there were no significant differences in the self-regulatory behaviors of the latter two types of dyads. Essentially, these results suggest that having one high self-control individual in the dyad might not be enough to ensure its successful self-control in joint endeavors.

The advantage of using lab-created dyads in the first two studies is that the manipulation of the dyad type eliminates any self-selection concerns. However, since the dyads in the first two studies were ad hoc pairings, it might be argued that the results might not persist or might be completely different in enduring relationships. Perhaps over the course of a longer relationship, high self-control individuals would enforce their standards on a low self-control partner, thus enhancing the overall performance of the dyad. Further, it could be argued that the decisions made in these studies, while requiring self-regulatory resources, were somewhat atypical and did not have long-term consequences for the dyads, making it less important for the higher self-control partners to preserve their chronic tendencies. Therefore, studies 2A and 2B test hypotheses 1 and 2 using actual married couples to see whether results persist when long-term patterns of behavior may lead to different life outcomes for both individuals. Furthermore, using married couples allows us to see whether our results hold in a situation in which the high self-control partner's observable achievements might act as social proof and thus could elevate the self-control performance of mixed dyads to that of homogeneous high self-control.

STUDY 2: SELF-CONTROL IN MARRIED COUPLES

STUDY 2A

Method

Participants. Married members of Amazon's Mechanical Turk panel ($n = 205$, 35% males, $M_{\text{age}} = 37.4$ years) completed the survey online in exchange for a small payment.

Procedure. Participants were first asked to rate their own trait self-control using the Brief Self-Control Scale (Tangney et al. 2004; $\alpha = .90$). After that, similar to in Righetti and Finkenauer (2011), respondents used a modified version of the same scale to rate their spouse's trait self-control ($\alpha = .88$; sample items: "my spouse is good at resisting temptation," "pleasure and fun sometimes keep my spouse from getting work done"). To assess participants' knowledge of their spouses and confidence in their ability to judge their partners' self-control, we asked them to answer the following questions: "How well do you know your spouse?" and "How confident are you in your ability to judge your spouse's self-control?" both measured on a 7-point scale anchored by 1 = "not at all" and 7 = "very much."

After a filler task designed to clear working memory, participants completed a set of measures of the couple's joint self-control success in the three self-control domains of interest (eating, saving, and spending): frequency of eating fast food, joint saving habits, retirement income, household savings (in \$), joint spending habits, joint credit card debt (in \$), frequency of paying joint credit card balance in full, and frequency of paying overall obligations on schedule. All measures were objective (rather than perceptions based) and can be found in table 2. Finally, we included a measure designed to identify individuals who did not pay attention carefully (Oppenheimer, Meyvis, and Davidenko 2009; as used by Nelson and Simmons 2009).

Analysis and Results

We excluded 12 participants who failed the instructional manipulation check (following Nelson and Simmons 2009). Including those individuals does not change the results.

Participants' Accuracy in the Assessment of Their Spouses' Trait Self-Control. We first assessed the extent to which participants felt they knew their spouse and were confident in their ability to judge their partner's self-control. Results revealed that participants felt they knew their spouses relatively well ($M = 6.63$, $SD = .62$, vs. 4.00 [scale midpoint]; $t(192) = 59.35$, $p < .0001$) and exhibited relatively high confidence in their ability to judge their spouses' self-control ($M = 6.13$, $SD = .91$, vs. 4.00 [scale midpoint]; $t(192) = 32.64$, $p < .0001$). To ensure that participants were indeed accurate in their assessments of the trait self-control of their spouses, we recontacted a subsample of our participants and

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TABLE 2

STUDY 2A: JOINT SELF-CONTROL OF MARRIED COUPLES (MEASURES, MEANS, AND STANDARD DEVIATIONS)

Self-control dependent variable	$M_{\text{hom LSC}}$	$M_{\text{mixed SC}}$	$M_{\text{hom HSC}}$
Joint self-control at eating: How often does your family eat fast food? Please enter a number below that indicates how many times per month your family eats fast food.	4.54 (3.78); $M_{\text{log}} = 1.52 (.64)$	4.66 (5.14); $M_{\text{log}} = 1.41 (.81)$	2.92 (2.85); $M_{\text{log}} = 1.17 (.64)$
Joint self-control at saving: How would you describe your and your spouse's joint saving habits? (a 7-point scale, 1 = we do not save at all, 7 = we save regularly by putting money aside each month)	4.05 (1.90)	4.39 (2.02)	5.59 (1.73)
How would you rate the retirement income you and your spouse receive (or expect to receive) from Social Security and job pensions? (a 7-point scale, 1 = totally inadequate, 4 = enough to maintain living standards, 7 = very satisfactory; modified from the FRB Survey of Consumer Finances)	3.05 (1.62)	3.24 (1.61)	3.79 (1.53)
At the household level, approximately how much money do you and your spouse have in saving and investment accounts (i.e., combined money in saving and investment accounts)?	\$66,340 (119,576); $M_{\text{log}} = 8.39 (3.99)$	\$80,372 (269,139); $M_{\text{log}} = 8.17 (3.78)$	\$110,956 (201,394); $M_{\text{log}} = 9.63 (3.15)$
Joint self-control at spending: How would you describe your and your spouse's joint spending habits? (a 7-point scale, 1 = usually spend more than our income, 4 = usually spend as much as our income, 7 = usually spend less than our income; modified from the FRB Survey of Consumer Finances)	4.41 (1.70)	4.83 (1.47)	5.58 (1.31)
Approximately how much joint credit card debt do you and your spouse currently have (i.e., combined credit card debt)?	\$5,201 (7,595); $M_{\text{log}} = 5.40 (4.18)$	\$5,986 (8,303); $M_{\text{log}} = 5.50 (4.30)$	\$3,227 (6,785); $M_{\text{log}} = 3.95 (4.16)$
How often do you and your spouse pay your joint credit card balances in full? Please write N/A below if you do not have joint credit cards. (a 7-point scale, 1 = never, we always carry a balance, 7 = we pay our entire balance every month; Nenkov, Inman, and Hulland 2007)	4.11 (2.33)	4.20 (2.47)	5.53 (1.99)
On average, are you paying off your overall debt ahead of schedule, behind schedule, or are the payments about on schedule? (a 7-point scale, 1 = behind schedule, 4 = about on schedule, 7 = ahead of schedule; modified from the FRB Survey of Consumer Finances)	4.30 (1.44)	4.41 (1.60)	5.26 (1.43)

NOTE.—hom = homogeneous; LSC = low self-control; HSC = high self-control; FRB = Federal Reserve Board. Standard deviations in parentheses.

asked them to have their spouse fill out a short questionnaire in exchange for a small monetary payment (a total of 84 participants were contacted, and 54 of them responded to our request, yielding a 64.3% response rate). In this survey, the spouses of our participants were asked to rate their own self-control using the Brief Self-Control Scale (Tangney et al. 2004). There was a high correlation between participants' assessments of their spouses' self-control and their spouses' self-reported self-control ($r = .72, p < .0001$). We note that these results are in line with previous work of Righetti and Finkenauer (2011), who also demonstrate that people in close relationships can detect their partner's trait self-control.

Couples' Joint Self-Control. We used participants' ratings of their own self-control and their spouse's self-control to classify the couples as one of the three dyad types (homogeneous low [$n = 56$], mixed [$n = 71$], and high self-control [$n = 66$] dyads) in the same way as in study 1B. Three of the couples' joint self-control outcome measures (times eating fast food per month, amount of savings, and amount of credit card debt) were significantly positively skewed and therefore were log transformed.

We conducted separate ANOVAs on the eight different joint self-control measures using the dyad type as the between-subjects factor. Results revealed a significant main effect on each of the outcomes of interest (see tables 2 and 3). Follow-up analysis showed that homogeneous high self-control couples eat fast food less frequently, had better saving and spending habits, had more satisfactory retirement income and more savings, owed significantly less money in joint credit card debt, paid their credit card balances in full more frequently, and were more likely to be ahead of schedule in paying down their overall obligations (mortgages, student and car loans, etc.) than both homogeneous low self-control and mixed couples. Importantly, though, consistent with hypothesis 2, there were no significant differences between the homogeneous low self-control and mixed couples on any of the joint self-control measures (all $p = \text{NS}$).

Discussion

Replicating the results of studies 1A and 1B, in study 2A homogeneous high self-control couples appeared to exhibit

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TABLE 3
STUDY 2A: ANOVA RESULTS

	Main effect of dyad type	Planned contrasts		
		Homogeneous LSC versus homogeneous HSC dyads	Mixed versus homogeneous HSC dyads	Homogeneous LSC versus mixed dyads
Times eating fast food per month	$F(2, 189) = 3.86, p = .02$	$F(1, 189) = 7.14, p < .01$	$F(1, 189) = 3.86, p = .05$	$F(1, 189) = .68, p = .41$
Joint savings habits	$F(2, 190) = 11.55, p < .0001$	$F(1, 190) = 20.07, p < .0001$	$F(1, 190) = 13.73, p < .001$	$F(1, 190) = 1.02, p = .31$
Retirement income	$F(2, 190) = 3.64, p = .03$	$F(1, 190) = 4.08, p = .04$	$F(1, 190) = 6.48, p = .01$	$F(1, 190) = .43, p = .51$
Amount of savings	$F(2, 187) = 3.01, p = .05$	$F(1, 187) = 5.33, p = .02$	$F(1, 187) = 3.45, p = .07$	$F(1, 187) = .11, p = .74$
Joint spending habits	$F(2, 190) = 9.66, p < .0001$	$F(1, 190) = 18.44, p = .0001$	$F(1, 190) = 8.51, p < .01$	$F(1, 190) = 2.48, p = .12$
Amount of credit card debt*	$F(2, 141) = 3.73, p = .03$	$F(1, 141) = 3.63, p = .06$	$F(1, 141) = 6.75, p = .01$	$F(1, 141) = .02, p = .90$
Frequency of paying credit card balances in full*	$F(2, 141) = 6.25, p < .01$	$F(1, 141) = 8.88, p < .01$	$F(1, 141) = 9.17, p < .01$	$F(1, 141) = .04, p = .85$
Frequency of paying overall debt on schedule	$F(2, 189) = 7.84, p < .001$	$F(1, 189) = 12.32, p < .001$	$F(1, 189) = 11.02, p < .01$	$F(1, 189) = .15, p = .70$

NOTE.—LSC = low self-control; HSC = high self-control. Partial data were provided by some respondents on some variables; where data are available, they are included in the analysis.

*Forty-nine participants indicated that they did not possess joint credit cards with their spouses. Therefore, the degrees of freedom are smaller than those for all other measures.

more self-control in spending, saving, and eating than did both homogeneous low self-control and mixed couples. However, as predicted and seen in our lab experiments, there were no differences between mixed and homogeneous low self-control dyads in any of the self-control domains considered. That is, married couples exhibited the same patterns of restraint and indulgence across a variety of important self-control domains as did our pairings of participants in the lab. Importantly, this study also ruled out the possibility that in the interactions of mixed dyads over extended periods of time, the higher self-control partners would become the more trusted voice in the decision making due to their observable achievements. Furthermore, in contrast to the one-shot behaviors examined in the first two studies, in this study all self-control measures were cumulative outcomes, which are the result of an aggregation of self-control behaviors across time and different situations and as such are more robust measures of self-control success (Haws et al. 2013).

Given the convergence between spouses' ratings revealed in the recontact evaluations and the previous work of Rightt and Finkenauer (2011), we have confidence that participants reported their spouses' trait self-control with a reasonable level of accuracy. However, since this study relied only on the responses/perceptions of one of the spouses in the couple, it would be ideal to obtain individual self-evaluations from both spouses. Thus, the next study demonstrates our effects again with married couples but in contexts in which both spouses report their own self-control and actively participate in an experimental decision-making process.

STUDY 2B

Method

Design and Participants. Study 2B followed a 3 (dyad type: homogeneous low self-control, mixed, homogeneous high self-control) group design. We recruited couples ($n = 63$, $M_{\text{wife age}} = 41$ years, $M_{\text{hus age}} = 43$ years) at church coffee hours, who completed the study in exchange for a payment of \$10.

Procedure. The couples were presented with an imagination task, in which they were asked to imagine as vividly as possible the following scenario:

Now please imagine that while looking for a quiet getaway destination for an upcoming weekend, you came across a good deal for an amazing 3-day vacation in the Bahamas. The price for an all-inclusive vacation for both of you ranges between \$1200 and \$2200, depending on how luxurious a package you choose. The amount of money you have allocated for this weekend totals \$1000. If you decide to book the 3-day vacation in the Bahamas, you would need to put any amount above this (ranging from \$200 to \$1200) on your credit card.

At the end of the scenario, participants were asked to make a joint decision and indicate how much money they were willing to charge on their credit cards in order to purchase the 3-day vacation in the Bahamas. The amount of money that participants were willing to put on their credit cards (between \$0 and \$1,200; hereafter referred to as the debt amount) was used as a measure of the couple's joint self-

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control (following Mansfield, Pinto, and Parente [2003] and Meier and Sprenger [2010]). After completing approximately two pages of other attitudinal measures, filler questions, and demographics, the spouses were separated and privately responded to the Brief Self-Control Scale (Tangney et al. 2004).

Analysis and Results

We classified the couples post hoc as one of the three dyad types in the same way as in prior experiments—homogeneous low self-control ($n = 15$), mixed ($n = 35$), and homogeneous high self-control ($n = 13$) couples. To account for the excess number of zeros on the dependent variable and its skewed distribution (skewness = 1.10; Shapiro-Wilk's $W = .848$, $p < .0001$), a zero-inflated Poisson regression (Lambert 1992) was run in which the couple's debt amount was predicted by the dyad type. The results of the regression model indicated a significant main effect of the dyad type ($\chi^2(2) = 103.15$, $p < .0001$; the change in the log likelihood between the null and the full models). Results further demonstrated that the homogeneous low self-control and the mixed couples were both willing to charge about 1.3 times more money on their credit cards in order to book the indulgent vacation than were the homogeneous high self-control couples ($b = .26$, $\exp(b) = 1.30$, Wald $\chi^2(1) = 149.02$, $p < .0001$; and $b = .23$, $\exp(b) = 1.26$, Wald $\chi^2(1) = 167.29$, $p < .0001$, respectively). Finally, there were no significant differences between the homogeneous low self-control and the mixed couples in the amount of debt they were willing to incur ($p = .16$).

Discussion

Study 2B replicated the findings from the first three studies and provided additional support for hypotheses 1 and 2. In contrast to study 2A in which we relied on the responses of only one of the spouses, in this study we collected data from both spouses working together at the same time. Furthermore, similar to studies 1A and 1B, in this study we used an observable, close-ended, one-shot decision as a measure of the couples' joint self-control, which complements our use of cumulative outcomes in study 2A. Again, we observe convergent patterns. When presented with a hypothetical situation in which the couple had to incur debt in order to purchase an indulgent vacation, homogeneous high self-control couples were willing to charge significantly less money to their credit cards than homogeneous low self-control and mixed couples. However, as predicted, there was no significant difference in the self-regulation exhibited by the latter two types of dyads.

The next three studies attempt to elucidate the mechanism driving these effects. Specifically, study 3 aims to provide support for hypothesis 3 and demonstrate that higher self-control individuals possess greater ability and motivation to engage in prorelationship behaviors when making joint decisions with other people. Building on this finding, studies 4A and 4B provide additional process evidence using a mod-

eration-of-process design and show that the self-control behaviors of mixed dyads can be altered predictably by manipulating the motivation component of the tendency to engage in prorelationship behaviors.

STUDY 3: TRAIT SELF-CONTROL AND PRORELATIONSHIP BEHAVIORS

Method

Design and Participants. Participants ($n = 192$, 48% males, $M_{\text{age}} = 30.7$ years) were recruited through Amazon's Mechanical Turk and asked to complete a short survey online in exchange for a small payment.

Procedure. Participants were first asked to imagine that they are making a joint decision with someone else (i.e., their spouse, a friend of theirs, or a colleague). Following Ryan and Deci (2000), to capture participants' motivation to act in a prorelationship manner, we asked them to indicate how much they valued each of seven prorelationship behaviors—"avoiding conflict between me and my partner," "keeping things smooth between me and my partner," "maintaining harmony between me and my partner," "getting along with my partner," "avoiding tension between me and my partner," "reaching a decision that my partner is happy about," and "acting in a way that would be beneficial to the relationship with my partner"—on a 7-point scale, anchored by 1 = "not important at all" and 7 = "extremely important." To assess participants' ability to act in a prorelationship manner, we asked them to think about their past experiences in making joint decisions and indicate how able they usually were to exhibit each of the above seven behaviors in such situations using a 7-point scale, where 1 = "not at all" and 7 = "very much." Finally, participants completed a filler task (i.e., rated their enjoyment of different pictures), responded to the Brief Self-Control Scale (Tangney et al. 2004), and provided their demographic information.

Analysis and Results

An explanatory factor analysis with a varimax rotation conducted on the 14 motivation- and ability-related items revealed a two-factor structure; all motivation-related items loaded significantly on one factor (factor loadings ranging from .70 to .91), while the ability-related items loaded significantly on a second factor (factor loadings ranging from .73 to .92). We averaged the items that loaded on each of the two factors to create the following composite indexes: a seven-item scale measuring motivation to engage in prorelationship behaviors ($\alpha = .94$) and a seven-item scale measuring ability to engage in prorelationship behaviors ($\alpha = .95$). Two simple regressions revealed that trait self-control was a significant positive predictor of both participants' motivation ($b = .15$, $t(190) = 2.42$, $p = .02$) and ability to engage in prorelationship behaviors ($b = .37$, $t(190) = 5.20$, $p < .0001$).

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Discussion

Study 3 provided support for hypothesis 3, revealing that high self-control is associated with greater motivation and greater ability to act in a prorelationship manner. This means that in a mixed dyad (in which the chronic inclinations of the two partners are in conflict), the high self-control partner will be more likely to assent to their lower self-control partner's preferences—a proclivity that may help explain relationship success (Tangney et al. 2004) but that leads to suboptimal joint self-regulatory outcomes. In the next two studies we build on these correlational findings experimentally.

STUDY 4: PROCESS AND INTERVENTIONS

The objective of the next two studies was to provide more robust process evidence using a moderation-of-process design (Spencer et al. 2005), as well as to test two interventions that could improve the self-control of mixed dyads. Our theory and findings so far suggest that low self-control individuals are less likely to compromise in mixed dyads because they possess lower motivation and lower ability to engage in prorelationship behaviors than high self-control individuals. In the next two studies, we provide process evidence by manipulating the motivation component of the tendency to engage prorelationship behaviors.

STUDY 4A

In study 4A we gave an intervention designed to increase motivation to engage in prorelationship behaviors to one of the partners in the mixed dyad (either the low or the high self-control partner) or none of the partners. We argue that externally increasing the low self-control partners' motivation to act in a prorelationship manner should prompt them to yield to the beneficial influence of their high self-control partner. If the low self-control partner shows willingness to compromise, the high self-control partner no longer needs to. As a result, the joint self-control of mixed dyads in which the low self-control partner receives the intervention should improve relative to homogeneous low self-control and no-intervention mixed dyads and be comparable to that of homogeneous high self-control dyads. In contrast, if our prorelationship account holds, externally increasing the high self-control partner's motivation to engage in prorelationship behaviors should not make a difference—the joint self-control of mixed dyads in which the high self-control partner receives the intervention should be similar to that of homogeneous low and no-intervention mixed dyads and significantly lower than that of homogeneous high self-control dyads.

Method

Design and Participants. Married participants ($n = 398$, 51% males, $M_{\text{age}} = 35.4$ years) were recruited through Am-

azon's Mechanical Turk and completed the study online in exchange for a small payment. Study 4A followed a 5 group design. Three cells should replicate our prior effects: (homogeneous low self-control dyad [$n = 95$], no-intervention mixed dyads [$n = 100$], homogeneous high self-control dyad [$n = 100$]). However, we also added two cells in which we would test for moderation of prior patterns: mixed dyads in which the low self-control partner received the high prorelationship motivation intervention ($n = 55$) and mixed dyads in which the high self-control partner received the high prorelationship motivation intervention ($n = 48$).

Procedure. First, as in study 2A, participants rated their own and their spouse's self-control using the Brief Self-Control Scale (Tangney et al. 2004). The trait self-control ratings were used to classify both the participant and spouse as either low or high self-control individuals as in previous studies and identify the type of dyad they were in (homogeneous low self-control, mixed, or homogeneous high self-control). The nonparticipant spouses' trait self-control rating was also used to infer their behavior in the experimental situation, as described below. After completing a series of filler tasks, participants were told that in the following task they would have to imagine themselves making several joint decisions with their spouse and asked to enter their spouse's name.

Then before proceeding to the joint decisions, participants who were in a mixed couple were randomly assigned to either a *high prorelationship motivation intervention* or *no-intervention* condition. Respondents in the high prorelationship motivation intervention condition were asked to read the following paragraph before proceeding to the joint decision:

Past research has shown that you perform significantly better if you put more emphasis on maintaining harmony and keeping things smooth between you and your partner rather than coming to a joint decision that you would personally really enjoy in the short run. It is better to avoid conflict and tension, such that your partner is happy with your joint decision. Getting along is more important than making a decision that would be pleasant for you in the short run.

Note that the paragraph was created using the exact wording of the items used to measure this construct in study 3. Respondents in the no-intervention condition were not given such instructions.

After that, all participants were told that one randomly selected couple would receive a \$50 gift card of their choice. They were asked to imagine that they had to decide together with their spouse which gift card to select (similar to Wilcox et al. 2011) and that their spouse had given them one of two recommendations (i.e., a recommendation to indulge or a recommendation to restrain). We used the nonparticipant spouses' self-control ratings taken earlier in the session to realistically represent their behavior in this situation. We thus assigned participants a recommendation consistent with their spouse's self-control rating (i.e., a recommendation to indulge if the participant's spouse was a low self-control

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individual or a recommendation to restrain if the participant's spouse was a high self-control individual).

For instance, first consider low self-control respondents who rated their spouse as low in self-control. This would be classified as a homogeneous low self-control dyad. In the experimental scenario, the participants would be asked to imagine that they are making the decisions together with their spouse, and their spouse says: "I really want us to go out for dinner. Let's indulge ourselves and choose the restaurant gift certificate." In other words, the low self-control partner's behavior in this situation would be exhibited in his or her preference for indulgence. Similarly, consider a homogeneous high self-control dyad consisting of a high self-control participant and a high self-control spouse. Participants in such dyads were asked to imagine that their spouse made a recommendation to restrain, saying, "I really think that we should use the money for groceries. Let's be prudent and choose the groceries gift certificate." Finally, a mixed dyad could be composed in one of two ways. Low self-control participants could have rated their spouse as high self-control. In this case, the spouse's preference would be virtually represented by a recommendation to restrain and choose the grocery gift card. Alternately, high self-control participants might have rated their spouse as low in self-control. In this case, the nonparticipant spouse would express a recommendation to choose the more indulgent restaurant gift card. Thus, these recommendations allowed us to model the virtual presence of the spouses in the decision making using their trait self-control.

Participants then indicated the preference they had for the two gift cards in the joint decision on a 7-point scale, anchored by 1 = "strongly prefer the \$50 restaurant gift certificate" and 7 = "strongly prefer the \$50 groceries gift certificate," and the likelihood of the pair selecting each gift card on a 7-point scale, where 1 = "very unlikely" and 7 = "very likely." Further, we asked participants to select which certificate the couple would like to receive if they were the winner of the lottery. Participants were also given the option to allocate their shared \$50 award between the two gift certificates.

At the end of the study, participants rated both the restaurant and the groceries gift card on a 7-point scale, anchored by 1 = "complete necessity—we have to buy them" and 7 = "complete luxury—nice to have but not necessary at all" (used as manipulation checks). They also reported how realistic the recommendation given by their spouse was ("if you and your spouse were actually making the gift cards decisions together, how likely is he/she to give the same recommendation as in this study?" on a 7-point scale, where 1 = "very unlikely" and 7 = "very likely") and provided their demographic information.

Analysis and Results

Participants' Accuracy and Manipulation Checks. Similar to study 2A, in order to ensure that participants were indeed accurate in their assessments of the trait self-control of their spouses, we recontacted a subsample of our participants and

asked them to have their spouse fill out the Brief Self-Control Scale (Tangney et al. 2004) in exchange for small monetary payment (a total of 123 participants were contacted, and 66 of them responded to our request, thus yielding a 53.7% response rate). Correlational analysis revealed that there was a high correlation between participants' assessments of their spouses' self-control and their spouses' actual self-control ($r = .58, p < .0001$), thus confirming that our participants were indeed accurate in their judgments of their spouses' self-control and that the use of their assessments as proxies of their partners' actual self-control was warranted. We also examined participants' ratings of how realistic the recommendation they were assigned was. Results reveal that the assigned recommendations given in the experimental scenario were realistic ($M = 5.40, SD = 1.92, vs. 4$ [scale midpoint]; $t(397) = 14.56, p < .0001$), which suggests that using the spouses' trait self-control to model their virtual presence was also warranted.

In addition we checked whether our respondents perceived the restaurant gift card as a luxury and the groceries gift card as a necessity. Results revealed that the restaurant gift card was considered by our participants to be a luxury ($M = 6.18, SD = .99, vs. 4$ [scale midpoint]; $t(397) = 43.94, p < .0001$); in contrast, the groceries gift card was viewed as more of a necessity ($M = 1.39, SD = .89, vs. 4$ [scale midpoint]; $t(397) = -58.24, p < .0001$).

Gift Certificates Preferences and Allocation Decisions. We conducted a one-way MANOVA to account for the significant correlations among the five outcomes of interest (all $p < .0001$). We found that all results supported our predictions (see table 4).

Replicating prior effects, planned contrasts revealed that homogeneous high self-control dyads showed significantly greater self-control than both homogeneous low self-control and no-intervention mixed dyads on all outcome variables; there was no significant difference between the latter two dyad types. However, as predicted, the intervention mixed dyads in which the low self-control partner received the high prorelationship motivation intervention showed significantly higher self-control than homogeneous low self-control and no-intervention mixed dyads, intervention mixed dyads in which the high self-control partner received the intervention, and even in some cases the homogeneous high self-control dyads. Conversely, the intervention mixed dyads in which the high self-control partner was targeted with the high prorelationship motivation intervention exhibited self-control similar to that of homogeneous low and mixed dyads and significantly lower self-control than that of homogeneous high self-control dyads. All means and standard deviations are indicated in table 5.

Gift Certificate Choice. A logistic regression on participants gift certificate choice (coded as 1 = groceries gift card selected and 0 = restaurant gift card selected) also revealed a significant main effect of the dyad type (Wald $\chi^2(4) = 46.34, p < .0001$). The percentages of dyads choosing the groceries gift card in each condition are displayed

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TABLE 4
STUDY 4A: MANOVA RESULTS

	Overall effect		Gift card preference <i>F</i> -value	Likelihood of choosing		Gift card amount	
	Wilks's lambda	<i>F</i> -value		Restaurant card	Groceries card	Restaurant	Groceries
			<i>F</i> -value	<i>F</i> -value	<i>F</i> -value	<i>F</i> -value	
Main effect of dyad type	.81	5.46***	19.98***	14.18***	8.49***	13.18***	13.18***
Planned contrasts:							
Homogeneous LSC versus no-intervention mixed dyads	1.00	.34	.78	1.10	.21	.20	.20
Homogeneous LSC versus homogeneous HSC	.92	8.99***	30.75***	18.34***	5.08*	16.67***	16.67***
No-intervention mixed versus homogeneous HSC dyads	.94	6.62***	22.17***	10.67**	3.28 (<i>p</i> = .07)	13.46**	13.46**
Homogeneous LSC versus mixed dyads (intervention to LSC)	.89	11.47***	42.54***	33.52***	23.03***	28.48***	28.48***
No-intervention mixed versus mixed dyads (intervention to LSC)	.91	9.07***	33.84***	24.39**	19.73***	24.91***	24.91***
Homogeneous HSC versus mixed dyads (intervention to LSC)	.98	2.36	3.42	4.79*	8.53**	3.62	3.62
Homogeneous LSC versus mixed dyads (intervention to HSC)	1.00	.31	.79	.93	.81	1.00	1.00
No-intervention mixed versus mixed dyads (prorelationship intervention to HSC)	.99	.89	2.61	3.33	1.65	1.89	1.89
Homogeneous HSC versus mixed dyads (intervention to HSC)	.92	8.22***	29.37***	19.94***	7.56**	18.83***	18.83***
Mixed dyads (intervention to LSC) versus mixed dyads (intervention to HSC)	.90	11.34***	40.84***	33.99***	24.26***	29.96***	29.96***

NOTE.—LSC = low self-control; HSC = high self-control; intervention = high prorelationship motivation intervention.

**p* < .05.

***p* < .01.

****p* < .0001.

in figure 3. Homogeneous high self-control dyads were more likely to select the groceries gift card than were homogeneous low self-control dyads (*b* = 1.27, *exp*(*b*) = 3.56; Wald $\chi^2(1) = 17.22, p < .0001$) and no-intervention mixed dyads (*b* = 1.07, *exp*(*b*) = 2.93; Wald $\chi^2(1) = 12.72, p < .001$); no significant difference existed in the choices of the latter two dyads (*p* = .50). Moreover, the intervention mixed dyads in which the low self-control partner received the high prorelationship motivation intervention were more likely to choose the groceries gift card than were homogeneous low self-control dyads (*b* = 2.20, *exp*(*b*) = 9.03; Wald $\chi^2(1) = 23.44, p < .0001$), no-intervention mixed dyads (*b* = 2.01, *exp*(*b*) = 7.43; Wald $\chi^2(1) = 19.74, p < .0001$), intervention mixed dyads in which the high self-control partner received the intervention (*b* = 2.62, *exp*(*b*) = 13.71; Wald $\chi^2(1) = 26.63, p < .0001$), and even homogeneous high self-control dyads (*b* = .93, *exp*(*b*) = 2.54; Wald $\chi^2(1) = 4.04, p = .04$). Finally, in line with our theory, there was not a significant difference in the self-control of intervention mixed dyads in which the high self-control person received the intervention and homogeneous low self-control dyads (*p* = .26) and no-intervention mixed dyads (*p* = .09).

Discussion

Study 4A replicated our previous findings using a consequential decision as a measure of participants' self-control

in a joint decision. Most importantly, study 4A provided additional process evidence for our findings. In line with our theory, results showed that increasing the motivation of the low self-control partner in a mixed dyad to engage in prorelationship behaviors led to significantly higher self-control than both homogeneous low self-control and no-intervention mixed pairs. In contrast, externally increasing the higher self-control partner's motivation to act in a prorelationship manner did not lead to a significant change in the indulgence of the joint decision. This suggests that even without intervention, higher self-control individuals already possess a strong prorelationship motivation, consistent with the results of study 3 and our theoretical account. However, we do note a marginal increase in indulgence in such cases. This implies that in situations in which prorelationship motivation is fostered, we may in fact see even more assent given to lower self-control partners' indulgent preferences. Finally, in addition to providing support for the prorelationship theoretical account, study 4A highlighted one possible intervention that could be implemented on the low self-control partner in the mixed dyad to elevate joint self-control.

One limitation of study 4A was that it was conducted with dyads where the virtual presence of one of the partners (i.e., his or her behavior in this situation) was modeled using his or her trait self-control. While taking trait self-control as a proxy for an individual decision tendency is supported

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TABLE 5
STUDY 4A: GIFT CARD PREFERENCES OF THE FIVE DYAD TYPES

	Gift card preference	Likelihood of choosing		Gift card amount	
		Restaurant card	Groceries card	Restaurant	Groceries
Homogeneous LSC dyad	3.66 (2.09)	5.24 (1.63)	4.88 (1.71)	\$26.26 (16.03)	\$23.74 (16.03)
No-intervention mixed dyad	3.93 (2.34)	4.96 (1.99)	5.00 (1.86)	\$25.21 (16.61)	\$24.79 (16.61)
Homogeneous HSC dyad	5.33 (1.99)	4.09 (1.99)	5.45 (1.83)	\$16.80 (17.15)	\$33.20 (17.15)
Mixed dyad (prorelationship intervention to LSC)	5.98 (1.79)	3.40 (2.07)	6.31 (1.23)	\$11.64 (14.56)	\$38.36 (14.56)
Mixed dyad (prorelationship intervention to HSC)	3.33 (2.15)	5.56 (1.61)	4.60 (1.93)	\$29.13 (15.15)	\$20.89 (15.15)

NOTE.—LSC = low self-control; HSC = high self-control. Standard deviations in parentheses.

by a large body of research, which demonstrates that low self-control individuals tend to lean toward indulgent options in most cases and high self-control individuals tend to exhibit better restraint in general (Baumeister et al. 1998; de Ridder et al. 2012; Muraven and Baumeister 2000; Poy-nor and Haws 2009; Tangney et al. 2004), it is important to also provide process evidence using real, in-person dyads.

In study 4B we designed an intervention focused on decreasing one's motivation to behave in a prorelationship manner. We expect that decreasing the prorelationship motivation of the high self-control partners in a mixed dyad should encourage them to reduce their tendency to assent to the lower self-control partner's preferences, thus improving the joint self-control of mixed dyads. However, decreasing the prorelationship motivation of the low self-control partner should lead to self-control similar to that of no-intervention mixed dyads.

STUDY 4B

Method

Design and Participants. Given that the pattern of results observed in homogeneous dyads has been reliably seen across all studies, study 4B focused only on changing the joint decision behavior of mixed dyads. As such, we used a 3 group design: (no-intervention mixed dyads, mixed dyads with the high self-control partner receiving the low prorelationship motivation intervention, and mixed dyads with the low self-control partner receiving the low prorelationship intervention). We note that we did not give the low prorelationship motivation intervention to both partners in the mixed dyad simultaneously because we did not expect that this would lead to any different joint self-control than that observed in no-intervention mixed dyads (i.e., externally reducing the prorelationship motivation of both partners would lead to the higher self-control partner still having higher prorelationship motivation than the low self-control partner) and as such would not have been useful in testing the prorelationship account. Participants ($n = 78$, 44% males, $M_{\text{age}} = 20.7$ years) were students at the University of Pittsburgh recruited through a paid-subjects pool and paid \$5 for their participation in the study.

Procedure. All participants were contacted approximately 1 week before the study and asked to complete online the Brief Self-Control Scale (Tangney et al. 2004) and a set of demographic questions. This allowed us to classify participants as either low or high self-control as in the previous studies before the study began. Thus, upon arrival in the lab, participants could be assigned to a partner who had trait self-control opposite to theirs to create mixed dyads. During the first task all mixed dyads were randomly assigned to one of three conditions: (1) dyads in which the high self-control partner read a low prorelationship intervention article, while the low self-control partner read a neutral article ($n = 15$); (2) dyads in which the low self-control partner read the low prorelationship intervention article, while the high self-control partner read a neutral article ($n = 12$); (3) dyads in which both partners read the neutral article ($n = 12$).

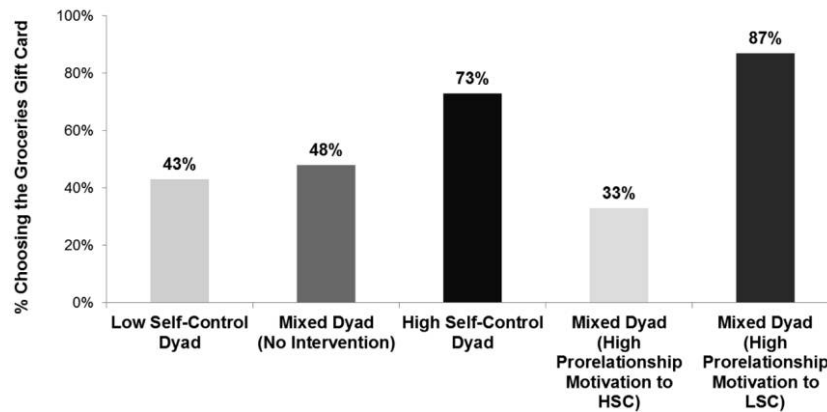
The low prorelationship motivation article was patterned after Gershoff and Johar (2006) and used excerpts from several online articles. Here, prorelationship motivation was lowered by stressing the importance of becoming an independent person while in college and learning to stand one's ground. The article described how learning to say no is one of the most useful and important skills students can develop in college, especially when it comes to living a more productive and healthy life. Furthermore, it emphasized that if one wants to gain others' respect, it is better to displease them by always standing for and doing what one believes is right than to please them by agreeing to do what is wrong. By contrast, the neutral article talked about the importance of exploring the city while in college (as in Gershoff and Johar 2006). The article discussed the various places that students can visit and the numerous activities that they can do while being in college. The exact texts of the articles are available from the authors on request.

Then, during the second task all dyads were asked to make a joint self-control decision. Specifically, all dyads were told that one randomly selected pair would receive a \$25 gift card to a restaurant in the area. Moreover, they were told that gift cards were available for several different restaurants, some of which offer mainly healthy but not so tasty food options, while the others offer primarily delicious but more unhealthy options. The dyads were asked to indicate

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FIGURE 3

STUDY 4A: GIFT CARD CHOICE



NOTE.—LSC = low self-control; HSC = high self-control.

what type of a restaurant they would like to receive a gift card for if they were the selected winner on a 7-point scale, anchored by 1 = “very unhealthy but very tasty restaurant” and 7 = “very healthy but not so tasty restaurant.” The dyads’ restaurant selection was used as a measure of their joint self-control. Finally, all dyads were paid for their participation and dismissed.

Analysis and Results

Articles Pretest. To ensure that the low prorelationship motivation article did, in fact, lower prorelationship motivations, we conducted a pretest with a separate group of participants ($n = 64$, 63% males, $M_{age} = 20.3$ years), who were randomly assigned to read one of the two articles used in study 4B and rate it on several dimensions (e.g., interesting, convincing, informative). Then as a separate task, participants were asked to imagine that they were making a joint decision and respond to a set of items designed to measure their motivation to engage in prorelationship behaviors (the same items as in study 3; $\alpha = .89$). As anticipated, individuals who read the low prorelationship motivation article had lower motivation to engage in prorelationship behaviors ($M = 5.41$, $SD = .81$) than those who read the neutral article ($M = 5.85$, $SD = .59$; $F(1, 62) = 6.40$, $p = .01$).

Restaurant Preference. A one-way ANOVA predicting dyads’ restaurant preferences revealed a significant main effect of the dyad type ($F(2, 36) = 3.51$, $p = .04$), as shown in figure 4. Importantly, mixed dyads in which the high self-control partner received the low prorelationship motivation intervention selected a healthier restaurant ($M = 4.07$, $SD = 1.22$) than both the no-intervention mixed dyads ($M = 3.17$, $SD = 1.03$; $F(1, 36) = 4.17$, $p = .05$) and mixed dyads in which the low self-control partner received

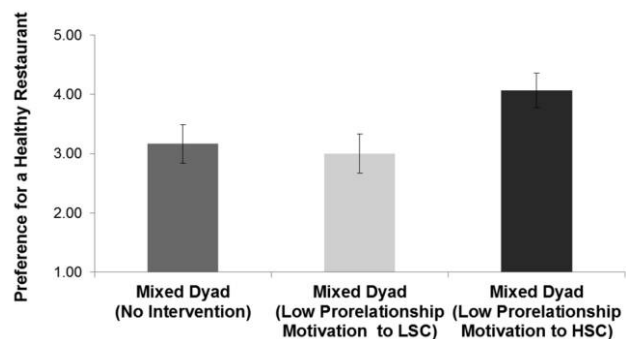
the low prorelationship motivation intervention ($M = 3.00$, $SD = 1.13$; $F(1, 36) = 5.86$, $p = .02$). There was no difference in the self-control of the latter two dyad types ($p = .72$).

Discussion

Study 4B provided further evidence of the mechanism driving the indulgent choices of mixed pairs. Specifically, the findings showed that decreasing the motivation of the high self-control partners to act in a prorelationship manner led to more restraint in the dyad than in the no-intervention mixed dyads. However, decreasing the prorelationship mo-

FIGURE 4

STUDY 4B: RESTAURANT PREFERENCE



NOTE.—LSC = low self-control; HSC = high self-control.

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tivation of the low self-control partners in mixed dyads did not make a difference, such that those dyads made as indulgent choices as the no-intervention mixed dyads. While the small sample size in this study is a concern, taken together studies 4A and 4B provide process evidence in support of the prorelationship account. Finally, we note that in the last two studies we used relatively strong interventions to change individuals' prorelationship motivation and to establish the prorelationship account. Future research could examine whether the mixed dyads' joint self-control could be improved through more subtle interventions, that is, "nudges," such as graphic communications or social norm cues. Identifying such interventions may be very useful for marketers (e.g., in marketing materials such as financial planning brochures or advertisements).

GENERAL DISCUSSION

Seven studies using real and hypothetical self-regulation behaviors, lab-created and virtual dyads, as well as actual married couples, all provided convergent patterns of results related to dyads' joint self-control decisions. Homogeneous high self-control dyads exhibited better self-control than both homogeneous low self-control and mixed self-control dyads. However, in all studies mixed dyads made choices consistent with poorer self-regulation than observed in homogeneous high self-control pairs and no better than that seen in homogeneous low self-control pairs. Furthermore, moderation study results suggest that when in a mixed dyad, the higher self-control individuals' motivation to act in a prorelationship manner leads them to assent to their lower self-control partner's indulgent preferences. Consistent with this mechanism, we demonstrate that increasing (decreasing) the prorelationship motivation of the lower (higher) self-control partner in a mixed dyad leads the mixed dyad to make less indulgent choices.

Thus, we can answer the question in our title: the safest route to success for higher self-control individuals is to partner with others of the same capacity, whether on short-term tasks or long-term life projects. However, higher self-control individuals should be wary of partnering with low self-control individuals. The likelihood is that their tendency to engage in prorelationship behaviors may negate their innate advantages in pursuing long-term goals. However, if lower self-control partners in such mixed pairs are externally motivated to act in prorelationship manners and compromise with their more assiduous partners, they can gain the advantages of being paired with someone who possesses a high degree of self-regulatory ability. Similarly, external interventions that decrease the higher self-control partners' prorelationship motivation by stressing the importance of standing one's ground can also be successfully applied to improve the joint self-control of mixed pairs.

This may come as a surprise to many consumers. A separate study (data available from the authors on request) revealed that consumers have inaccurate intuitions about the self-control performance of the three different dyads. Specifically, the majority of participants in this study (80%)

incorrectly believed that the self-regulation of mixed pairs will be better than that of homogeneous low self-control pairs. Furthermore, when asked about the types of behaviors that would occur in the interactions of mixed dyads, participants inaccurately predicted that the high self-control partner will persuade the low self-control partner to avoid short-term temptations and tenaciously pursue long-term goals, while the low self-control persons will in turn give in to the beneficial influence of their high self-control partner. Such inaccurate intuitions might lead consumers to form suboptimal dyadic arrangements, which could be detrimental rather than beneficial (as consumers expect) to the well-being of both partners.

Theoretical Contributions and Practical Implications

The current research makes a number of theoretical contributions. First, our work contributes to the self-control literature by examining the self-regulation patterns of dyads rather than individuals in isolation. To the best of our knowledge, this is the first work that studies the joint self-control of pairs. Furthermore, our findings suggest that the tendency for high self-control individuals to have better, more harmonious, more empathetic, and more cohesive interpersonal relationships (Tangney et al. 2004), as well as their higher likelihood to engage in prorelationship behaviors (Finkel and Campbell 2001; Pronk et al. 2010), may be a double-edged sword. Specifically, the tendency of higher self-control individuals in mixed dyads to assent rather than exert more persuasion or model good behavior could ultimately impair the dyad's joint self-regulation performance.

Our research also builds directly on recent papers focusing on relationship quality and marital well-being (Rick et al. 2011; Vohs et al. 2011). Vohs et al. (2011) suggested that relationship quality was better when partners' self-control sums were highest. Our work takes a slightly different approach and focuses on different outcomes, parsing this "sum" into individuals' distinct contribution to the dyad's self-regulation decisions. Perhaps because our focal outcomes are different, the sum model does not consistently predict our results. However, it is reasonable that relationship quality might be related to joint regulatory decisions. Thus, future research may explore the components that make the determinants of marital happiness differ from those directly related to self-regulatory decisions. In a related vein, Rick et al. (2011) demonstrate that a tendency toward tightwad/spendthrift (i.e., chronic over- or underspending) combinations in marriage leads to conflict and marital unhappiness. The current research differs from and at the same time builds on the findings of Rick et al. (2011) in two important ways. First, we use trait self-control, which is a distinct individual difference variable from the tightwad/spendthrift tendency (Rick, Cryder, and Loewenstein 2008), to classify the dyads. Second, we generalize their investigation beyond marriage-related outcomes and demonstrate that such mixed pairs are also suboptimal for the joint self-

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control of dyads and their pursuit of long-term goals. Moreover, unlike both Rick et al. (2011) and Vohs et al. (2011), we demonstrate our outcomes with even arbitrary pairings, which increases the practical relevance of our theoretical insights.

Our research also offers a variety of promising practical implications, which could improve consumers' well-being in different aspects of their lives. For instance, many individuals who struggle with self-control place themselves in groups or "accountability pairs" in an effort to improve their behaviors. Similarly, commercial programs designed to help consumers overcome various self-control problems also often rely on accountability pairs: Weight Watchers encourages individuals to sign up in a "buddy system," and Alcoholics Anonymous pairs recovering individuals with those who have already completed treatment. However, our work suggests that such "social solutions" for self-control problems might in some cases lead to suboptimal results unless they include external interventions for the suboptimally constructed mixed dyads, such as reminders to the low self-control partners in these pairs to focus on harmony and the success of the relationship or the high self-control partners to stand their ground.

Furthermore, in a variety of occupations, people are encouraged to work in pairs to maximize their performance outcomes. For example, a popular software development practice called "pair programming" requires two programmers to work together with the intention to produce better programs with fewer bugs. Our findings suggest that such arrangements might not be effective in cases in which the partners' self-control levels are combined in a suboptimal fashion (i.e., could lead to more procrastination in the case of programming pairs of mixed self-control levels) and high-light external interventions that could be used to improve performance.

In addition, our findings have implications for the well-being and joint self-control of married couples who often make joint decisions regarding the family spending, savings, and food choices. Understanding how the combination of two spouses' self-control levels affects joint decision making should help couples make better decisions with regard to their spending, saving, and eating and thus improve their overall well-being and marriage quality. For instance, about 80% of divorced couples point to financial problems as the primary cause for their divorces (Carr 2003). Common wisdom also suggests the financial struggles that couples encounter are often the acid test for the stability and quality of their relationships. Given that such financial issues often occur because of the couples' inability to exercise self-control, overcoming joint financial self-control challenges successfully could reduce the financial problems that couples encounter, helping improve marriage longevity and well-being.

Our work also offers interesting practical implications for marketers. For example, financial planners who assist married couples with their retirement decisions should also be aware of our findings. Taking into consideration the spouse's

trait self-control levels should be helpful to financial planners as they decide how to best help couples make wise retirement decisions. For example, in the case of a mixed couple, it might be better to cede control over the retirement decisions to the higher self-control partner instead of encouraging joint decision making. Furthermore, our findings highlight that marketers should be careful with using "bring-a-friend" marketing campaigns especially for products targeting consumers' self-control problems, such as gym subscriptions. For instance, if a high self-control individual decides to bring a low self-control friend and starts working jointly with him/her, this might ultimately lead to failure to achieve the desired fitness goals and cancellation of the subscription.

Limitations and Future Research

Finally, we note that our research is not without limitations. First, although we obtain results consistent with our predicted pattern in all studies, the small cell sizes in studies 1A and 4A are a concern. As the smallest cell in study 1A was the homogeneous high self-control cell, in which responses offer perhaps the least novel finding, and as the results replicate across contexts and decision types, we hope that these results converge to form a convincing picture. However, with access to a greater number of dyads, a larger-scale replication would be valuable and might allow exploration of additional moderators that our analysis lacks the power to identify.

Further, we note that in all of our studies we classified participants as low or high self-control depending on whether their trait self-control was below or above the mean to identify the dyads/couples as one of the three types. This was necessary to create the independent variable—dyad type (homogeneous low, mixed, or high self-control), which was the focus of our research. It might be argued that a different handling of data would have been more appropriate, such as summing partner's self-control scores and using this variable to predict the dyad's joint self-control. However, this would have imposed an additive relationship between the trait self-control of the two partners, and we did not feel that we can confidently make this assumption. In addition, it might be proposed that we treat the partners' trait self-control levels as continuous variables, using these two measures to conduct a regression model in which the dyad's self-control is predicted by both partners' self-control and their interaction. The interaction term in the above-described analysis would tell us whether the effect of one partner's self-control on the dyad's joint self-control is dependent on the other partner's self-control. While interesting, this is a different question than the one explored in the current work, where we take the dyad as the unit of analysis. Future work may adopt such an interactive approach and may shed additional light on social influence effects in self-control.

Another option would be to consider classifying individuals in a dyad on the basis of their relative self-control within the dyad—the higher partner would be partner 1 and the lower, partner 2. This would take us away from our research

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question, as it would lead to a design only composed of mixed dyads (it is highly unlikely that two partners would have exactly equal self-control). Further, a partner that might be “lower” in one dyad (e.g., if two people had self-control scores of 7 and 6.5) might actually be “high” in the data as a whole, where the mean might be 4.

A fourth option would be to use the Actor-Partner Interdependence Model (APIM), which has been increasingly used in the social sciences (e.g., Simpson, Griskevicius, and Rothman 2012). While this might have appeal, we note that it is not appropriate for our case. In the APIM, the dyad is the highest unit of analysis, and the individual members are nested within the dyad. Using the APIM, one could estimate the effect of a dyad member’s independent variable on his own outcome variable (known as an actor effect), as well as on his partner’s outcome variable (known as a partner effect; Kenny and Cook 1999). Thus, the APIM is only appropriate for analyzing dyadic data in situations when both dyad members respond to the dependent variable individually, with the model accounting for the nonindependence between the two observations due to the dyadic relationship. However, Kenny and Cook (1999) note that the APIM cannot be estimated for outcome variables that are measured at the couple level, as is the case with couple’s joint self-control in our work. That is, the APIM is the appropriate analytical tool for the so-called “single decisions, joint consumption” situations in Gorlin and Dhar’s joint decisions typology (2012), as opposed to our “joint decisions, joint consumption” context. Thus, using the mean trait self-control scores for the sake of classification was both methodologically and conceptually our most appropriate option. Future work may explore means of combining dyadic, or even group, self-control levels, in ways that preserve the theoretical meaningfulness of each individual’s contribution while also being statistically appropriate for joint decisions.

We also focused only on comparing the self-control of dyads to other dyads. It would be interesting to examine the self-control of the three different dyad types to that of individual decision makers. For instance, it could be argued that the homogeneous low self-control pairs will exhibit better (worse) self-control than one low self-control individual due to accountability (social contagion). Moreover, although in this research we focused only on conjunctive joint tasks and decisions, future research could also explore how different combinations of partners’ trait self-control affect performance on other dyadic tasks, such as additive, compensatory, disjunctive, and complementary tasks (Steiner 1966).

Furthermore, married couples often differ in the extent to which they make mutual decisions. Some couples discuss and make all decisions together as a team, while others prefer to separate their responsibilities with each spouse taking individual decisions in their areas of expertise (e.g., the wife manages the household eating decisions, while the husbands takes care of the finances). Understanding why some couples engage in more collaborative decision making than others, as well as under what circumstances each relationship model

(joint decision making or ceding control of certain decisions to one of the spouses) will be more effective for the couple’s long-term well-being, could yield important insights.

Finally, studying the dynamics of self-control in larger groups than dyads is also a promising future research direction. Given the prevalence and importance of support groups for helping consumers overcome many self-control related problems (e.g., smoking cessation support groups, weight loss and dieting groups), it would be interesting to study the processes through which such groups are successful in facilitating consumers’ self-control.

DATA COLLECTION INFORMATION

The data for studies 1A and 1B were collected by the first author at the Behavioral Lab in the University of Pittsburgh in fall 2011 and spring 2012, respectively. The data for studies 2A, 3, and 4A were collected on Amazon’s Mechanical Turk in spring and summer 2013. The data for study 2B were collected by both authors at a church in Mt. Lebanon, PA, in December 2011. The data for study 4B were collected by the first author in the Pittsburgh Experimental Economics Lab in fall 2013. All data were analyzed by the first author under the supervision of the second author.

REFERENCES

- Ackerman, Joshua M., Noah J. Goldstein, Jenessa R. Shapiro, and John A. Bargh (2009), “You Wear Me Out: The Vicarious Depletion of Self-Control,” *Psychological Science*, 20 (3), 326–32.
- Ainslie, George, and Nick Haslam (1992), “Hyperbolic Discounting,” in *Choice over Time*, ed. G. Loewenstein and J. Elster, New York: Russell Sage, 57–92.
- Balliet, Danielm, Norman Li, and Jeff Joireman (2011), “Relating Trait Self-Control and Forgiveness within Prosocials and Proselfs: Compensatory versus Synergistic Models,” *Journal of Personality and Social Psychology*, 101 (5), 1090–1105.
- Basu, Raja, and Stephen G. Green (1995), “Subordinate Performance, Leader-Subordinate Compatibility, and Exchange Quality in Leader-Member Dyads: A Field Study,” *Journal of Applied Social Psychology*, 25 (1), 77–92.
- Battaglini, Marco, Roland Bénabou, and Jean Tirole (2005), “Self-Control in Peer Groups,” *Journal of Economic Theory*, 123 (2), 105–34.
- Baumeister, Roy F. (2002), “Yielding to Temptation: Self-Control Failure, Impulsive Purchasing, and Consumer Behavior,” *Journal of Consumer Research*, 28 (4), 670–76.
- Baumeister, Roy F., Ellen Bratslavsky, Mark Muraven, and Dianne M. Tice (1998), “Ego Depletion: Is the Active Self a Limited Resource?” *Journal of Personality and Social Psychology*, 74 (5), 1252–65.
- Baumeister, Roy F., and Julie Juola Exline (1999), “Virtue, Personality, and Social Relations: Self-Control as the Moral Muscle,” *Journal of Personality*, 67 (6), 1165–94.
- (2000), “Self-Control, Morality, and Human Strength,” *Journal of Social and Clinical Psychology*, 19 (1), 29–42.
- Baumeister, Roy F., Kathleen D. Vohs, and Dianne M. Tice (2007), “The Strength Model of Self-Control,” *Current Directions in Psychological Science*, 16 (6), 351–55.

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- Carr, Damon (2003), "Until 'Debt' Do Us Part: Don't Let Money Destroy Your Marriage," *Dollar Stretcher*, November 24.
- Corfman, Kim P., and Donald R. Lehmann (1987), "Models of Cooperative Group Decision-Making and Relative Influence: An Experimental Investigation of Family Purchase Decisions," *Journal of Consumer Research*, 14 (1), 1–13.
- de Ridder, Denise T. D., Gerty Lensvelt-Mulders, Catrin Finkenauer, F. Marijn Stok, and Roy F. Baumeister (2012), "Taking Stock of Self-Control: A Meta-analysis of How Trait Self-Control Relates to a Wide Range of Behaviors," *Personality and Social Psychology Review*, 16 (1), 76–99.
- DeWall, C. Nathan, Roy F. Baumeister, Tyler F. Stillman, and Matthew T. Gailliot (2007), "Violence Restrained: Effects of Self-Regulation and Its Depletion on Aggression," *Journal of Experimental Social Psychology*, 43 (1), 62–76.
- Ferber, Robert, and Lucy Chao Lee (1974), "Husband-Wife Influence in Family Purchasing Behavior," *Journal of Consumer Research*, 1 (1), 43–50.
- Finkel, Eli J., and W. Keith Campbell (2001), "Self-Control and Accommodation in Close Relationships: An Interdependence Analysis," *Journal of Personality and Social Psychology*, 81 (2), 263–77.
- Finkel, Eli J., W. Keith Campbell, Amy B. Brunell, Amy N. Dalton, Sarah J. Scarbeck, and Tanya L. Chartrand (2006), "High-Maintenance Interaction: Inefficient Social Coordination Impairs Self-Regulation," *Journal of Personality and Social Psychology*, 91 (3), 456–75.
- Finkel, Eli J., and Caryl E. Rusbult (2008), "Prorelationship Motivation: An Interdependence Theory Analysis of Situations with Conflicting Interests," in *Handbook of Motivation Science*, ed. James Y. Shah and Wendi L. Gardner, New York: Guilford, 547–60.
- Fitzsimons, Gráinne M., and Eli J. Finkel (2010), "Interpersonal Influences on Self-Regulation," *Current Directions in Psychological Science*, 19 (2), 101–5.
- Fitzsimons, Gráinne M., James Y. Shah, Tanya L. Chartrand, and John A. Bargh (2005), "Goals and Labors, Friends and Neighbors: Self-Regulation and Interpersonal Relationships," in *Interpersonal Cognition*, ed. Mark W. Baldwin, New York: Guilford, 103–25.
- Fujita, Kentaro, and H. Anna Han (2009), "Moving beyond Deliberative Control of Impulses: The Effect of Construal Levels on Evaluative Associations in Self-Control Conflicts," *Psychological Science*, 20 (7), 799–804.
- Gershoff, Andrew D., and Gita Venkataramani Johar (2006), "Do You Know Me? Consumer Calibration of Friends' Knowledge," *Journal of Consumer Research*, 32 (4), 496–503.
- Giner-Sorolla, Roger (2001), "Guilty Pleasures and Grim Necessities: Affective Attitudes in Dilemmas of Self-Control," *Journal of Personality and Social Psychology*, 80 (2), 206–21.
- Gorlin, Margarita, and Ravi Dhar (2012), "Bridging the Gap between Joint and Individual Decisions: Deconstructing Preferences in Relationships," *Journal of Consumer Psychology*, 22 (3), 320–23.
- Haws, Kelly L., William O. Bearden, and Gergana Y. Nenkov (2011), "Consumer Spending, Self-Control Effectiveness, and Outcome Elaboration Prompts," *Journal of the Academy of Marketing Science*, 40 (5), 695–710.
- Haws, Kelly L., Utpal M. Dholakia, Scott W. Davis, and Yeosun Yoon (2013), "Control over What? A Prospectus for Conceptualizing and Measuring Individual Differences in General versus Eating and Spending Self-Control," Working Paper, Vanderbilt University.
- Heatheron, Todd F., and Kathleen D. Vohs (1998), "Why Is It So Difficult to Inhibit Behavior?" *Psychological Inquiry*, 9 (3), 212–15.
- Herman, C. Peter, Deborah A. Roth, and Janet Polivy (2003), "Effects of the Presence of Others on Food Intake: A Normative Interpretation," *Psychological Bulletin*, 129 (6), 873–86.
- Hung, Iris W., and Anirban Mukhopadhyay (2012), "Lenses of the Heart: How Actors' and Observers' Perspectives Influence Emotional Experiences," *Journal of Consumer Research*, 38 (6), 1103–15.
- Kelley, Harold H., and John W. Thibaut (1978), *Interpersonal Relations: A Theory of Interdependence*, New York: Wiley.
- Kenny, David A., and William Cook (1999), "Partner Effects in Relationship Research: Conceptual Issues, Analytic Difficulties, and Illustrations," *Personal Relationships*, 6 (4), 433–48.
- Keppel, Geoffrey, and Sheldon Zedeck (1989), *Data Analysis for Research Designs: Analysis of Variance and Multiple Regression/Correlation Approaches*, New York: Macmillan.
- Lambert, Diane (1992), "Zero-Inflated Poisson Regression, with an Application to Defects in Manufacturing," *Technometrics*, 34 (1), 1–14.
- Mansfield, Phylis M., Mary Beth Pinto, and Diane H. Parente (2003), "Self-Control and Credit-Card Use among College Students," *Psychological Reports*, 92 (3), 1067–78.
- Martijn, Carolien, Hugo J. E. M. Alberts, Harald Merckelbach, Remco Havermans, Annemiek Huijts, and Nanne K. De Vries (2007), "Overcoming Ego Depletion: The Influence of Exemplar Priming on Self-Control Performance," *European Journal of Social Psychology*, 37 (2), 1–38.
- McFerran, Brent, Darren W. Dahl, Gavan J. Fitzsimons, and Andrea C. Morales (2010), "I'll Have What She's Having: Effects of Social Influence and Body Type on the Food Choices of Others," *Journal of Consumer Research*, 36 (6), 915–29.
- Meier, Stephan, and Charles Sprenger (2010), "Present-Biased Preferences and Credit Card Borrowing," *American Economic Journal: Applied Economics*, 2 (1), 193–210.
- Metcalf, Janet, and Walter Mischel (1999), "A Hot/Cool-System Analysis of Delay of Gratification: Dynamics of Willpower," *Psychological Review*, 106 (1), 3–19.
- Muraven, Mark, and Roy F. Baumeister (2000), "Self-Regulation and Depletion of Limited Resources: Does Self-Control Resemble a Muscle?" *Psychological Bulletin*, 126 (2), 247–59.
- Muraven, Mark, Dianne M. Tice, and Roy F. Baumeister (1998), "Self-Control as a Limited Resource: Regulatory Depletion Patterns," *Journal of Personality and Social Psychology*, 74 (3), 774–89.
- Nelson, Leif D., and Joseph P. Simmons (2009), "On Southbound Ease and Northbound Fees: Literal Consequences of the Metaphoric Link between Vertical Position and Cardinal Direction," *Journal of Marketing Research*, 46 (6), 715–24.
- Nenkov, Gergana, J. Jeffrey Inman, and John Hulland (2007), "Considering the Future: The Conceptualization and Measurement of Elaboration on Potential Outcomes," *Journal of Consumer Research*, 35 (1), 126–41.
- Okada, Erica M. (2005), "Justification Effects on Consumer Choice of Hedonic and Utilitarian Goods," *Journal of Marketing Research*, 42 (1), 43–53.
- Oppenheimer, Daniel M., Tom Meyvis, and Nicolas Davidenko (2009), "Instructional Manipulation Checks: Detecting Satisficing to Increase Statistical Power," *Journal of Experimental Social Psychology*, 45 (4), 867–72.
- Pachucki, Mark A., Paul F. Jacques, and Nicholas A. Christakis

Please use DOI when citing. Page numbers are not final.

- (2011), "Social Network Concordance in Food Choice among Spouses, Friends, and Siblings," *American Journal of Public Health*, 101 (11), 2170–77.
- Park, C. Whan (1982), "Joint Decisions in Home Purchasing: A Muddling-Through Process," *Journal of Consumer Research*, 9 (2), 151–62.
- Peetz, Johanna, and Lara Kammrath (2010), "Only because I Love You: Why People Make and Why They Break Promises in Romantic Relationships," *Journal of Personality and Social Psychology*, 100 (5), 887–904.
- Poynor, Cait, and Kelly L. Haws (2009), "Lines in the Sand: Implementation Intentions, Categorization, and Choice in Pursuit of Self-Control Goals," *Journal of Consumer Research*, 35 (5), 772–87.
- Pronk, Tila M., Johan C. Karremans, Geertjan Overbeek, Ad A. Vermulst, and Daniël H. J. Wigboldus (2010), "What It Takes to Forgive: When and Why Executive Functioning Facilitates Forgiveness," *Journal of Personality and Social Psychology*, 98 (1), 119–31.
- Rawn, Catherine D., and Kathleen D. Vohs (2011), "People Use Self-Control to Risk Personal Harm: An Intra-interpersonal Dilemma," *Personality and Social Psychology Review*, 15 (3), 267–89.
- Rick, Scott I., Cynthia E. Cryder, and George Loewenstein (2008), "Tightwads and Spendthrifts," *Journal of Consumer Research*, 34 (6), 767–82.
- Rick, Scott I., Deborah A. Small, and Eli J. Finkel (2011), "Fatal (Fiscal) Attraction: Spendthrifts and Tightwads in Marriage," *Journal of Marketing Research*, 48 (2), 228–37.
- Righetti, Francesca, and Catrin Finkenauer (2011), "If You Are Able to Control Yourself, I Will Trust You: The Role of Perceived Self-Control in Interpersonal Trust," *Journal of Personality and Social Psychology*, 100 (5), 874–86.
- Rosen, Dennis L., and Donald H. Grandbois (1983), "Determinants of Role Structure in Family Financial Management," *Journal of Consumer Research*, 10 (2), 253–58.
- Ryan, Richard M., and Edward L. Deci (2000), "Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being," *American Psychologist*, 55 (1), 68–78.
- Seeley, Elizabeth A., and Wendi L. Gardner (2006), "Succeeding at Self-Control through a Focus on Others: The Roles of Social Practice and Accountability in Self-Regulation," in *Self and Relationships: Connecting Intrapersonal and Interpersonal Processes*, ed. Kathleen D. Vohs and Eli J. Finkel, New York: Guilford, 407–25.
- Simpson, Jeffrey A., Vladas Griskevicius, and Alexander Rothman (2012), "Consumer Decisions in Relationships," *Journal of Consumer Psychology*, 22 (3), 304–14.
- Spencer, Steven J., Mark P. Zanna, and Geoffrey T. Fong (2005), "Establishing a Causal Chain: Why Experiments Are Often More Effective than Mediation Analyses in Examining Psychological Processes," *Journal of Personality and Social Psychology*, 89 (6), 845–51.
- Steiner, Ivan D. (1966), "Models for Inferring Relationships between Group Size and Potential Group Productivity," *Behavioral Science*, 11 (4), 273–83.
- Su, Chenting, Edward F. Kern, and Keying Ye (2003), "A Temporal Dynamic Model of Spousal Family Purchase-Decision Behavior," *Journal of Marketing Research*, 40 (3), 268–81.
- Tangney, June P., Roy F. Baumeister, and Angie Luzio Boone (2004), "High Self-Control Predicts Good Adjustment, Less Pathology, Better Grades, and Interpersonal Success," *Journal of Personality*, 72 (2), 271–324.
- Ten Velden, Femke S., Bianca Beersma, and Carsten K. W. De Dreu (2010), "It Takes One to Tango: The Effects of Dyads' Epistemic Motivation Composition in Negotiation," *Personality and Social Psychology Bulletin*, 36 (11), 1454–66.
- Tetlock, Philip E. (1983), "Accountability and the Complexity of Thought," *Journal of Personality and Social Psychology*, 45 (1), 74–83.
- Thaler, Richard H. (1991), *Quasi Rational Economics*, New York: Russell Sage.
- Trope, Yaacov, and Ayelet Fishbach (2000), "Counteractive Self-Control in Overcoming Temptation," *Journal of Personality and Social Psychology*, 79 (4), 493–506.
- VanDellen, Michelle R., and Rick H. Hoyle (2010), "Regulatory Accessibility and Social Influences on State Self-Control," *Personality and Social Psychology Bulletin*, 36 (2), 251–63.
- Vohs, Kathleen D., Roy F. Baumeister, and Natalie J. Ciarocco (2005), "Self-Regulation and Self-Representation: Regulatory Resource Depletion Impairs Impression Management and Effortful Self-Representation Depletes Regulatory Resources," *Journal of Personality and Social Psychology*, 88 (4), 632–57.
- Vohs, Kathleen D., Catrin Finkenauer, and Roy F. Baumeister (2011), "The Sum of Friends' and Lovers' Self-Control Scores Predicts Relationship Quality," *Social Psychological and Personality Science*, 2 (2), 138–45.
- Wertenbroch, Klaus (1998), "Consumption Self-Control by Rationing Purchase Quantities of Virtue and Vice," *Marketing Science*, 17 (4), 317–37.
- Wilcox, Keith, Thomas Kramer, and Sankar Sen (2011), "Indulgence or Self-Control: A Dual Process Model of the Effect of Incidental Pride on Indulgent Choice," *Journal of Consumer Research*, 38 (1), 151–63.
- Yovetich, Nancy A., and Caryl E. Rusbult (1994), "Accommodative Behavior in Close Relationships: Exploring Transformation of Motivation," *Journal of Experimental Social Psychology*, 30 (2), 138–64.

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