

 $\ \odot$  2018 American Psychological Association 0022-3514/18/\$12.00

2018, Vol. 115, No. 5, 805–824 http://dx.doi.org/10.1037/pspi0000139

# INTERPERSONAL RELATIONS AND GROUP PROCESSES

# How Interdependent Are Stay/Leave Decisions? On Staying in the Relationship for the Sake of the Romantic Partner

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The decision to end a romantic relationship can have a life-changing impact on the partner as well as the self. Research on close relationships has thus far focused on self-interested reasons why people choose to stay in their relationship versus leave. However, a growing body of research on decision-making and prosociality shows that when people make decisions that impact others, they take those others' feelings and perspectives into consideration. In the present research, we tested the prediction that people make stay/leave decisions prosocially, such that consideration for their romantic partner's feelings can discourage people from ending their relationships. In Study 1, a total of 1,348 participants in romantic relationships were tracked over a 10-week period. Study 2 was a preregistered replication and extension of Study 1, in which 500 participants contemplating a breakup were followed over a 2-month period. Both studies showed that the more dependent people believed their partner was on the relationship, the less likely they were to initiate a breakup. These findings held above and beyond a variety of self-focused variables (e.g., investment model components; Rusbult, Martz, & Agnew, 1998). These results suggest that people can be motivated to stay in relatively unfulfilling relationships for the sake of their romantic partner.

Keywords: breakups, decision making, dissolution, prosocial motivation, romantic relationships

Supplemental materials: http://dx.doi.org/10.1037/pspi0000139.supp

Why would a person choose to stay in a romantic relationship that leaves them unhappy and unfulfilled? Research has focused on two key reasons why this phenomenon occurs (e.g., Rusbult, 1980, 1983). The first is that the person feels that they have already invested a great deal into the relationship such as emotions, time, and other resources, all of which they would lose if the relationship

were to end. The second is that they feel that the alternatives to the relationship such as other potential dating partners or being single are less appealing than their current relationship. Both of these motivations are self-focused in nature in that they capture the costs that breaking up would have for the *self*.

But could people be motivated to stay in relationships for the sake of their partner? Research on decision making suggests that people are intrinsically motivated to consider the needs of other people, even anonymous strangers (e.g., Kunda & Schwartz, 1983; Rand, Greene, & Nowak, 2012; Yamagishi, Li, Takagishi, Matsumoto, & Kiyonari, 2014). Further, the notion that people might make relationship decisions with their partner's needs in mind is consistent with one of the most prominent theories in the field of close relationships: interdependence theory (Rusbult & Van Lange, 2003, 2008; Thibaut & Kelley, 1959). In the current paper, we explore the possibility that when people decide whether or not to end a romantic relationship, they consider not only how much *they* want and need the relationship to continue, but also how much they think their *partner* wants and needs the relationship to continue. In other

This article was published Online First July 23, 2018.

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This work was supported by doctoral fellowships from the Social Sciences and Humanities Research Council (SSHRC) awarded to Samantha Joel and Stephanie Spielmann, an SSHRC postdoctoral fellowship awarded to Samantha Joel, and SSHRC grants awarded to Emily Impett and Geoff MacDonald.

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words, we argue that stay/leave decisions are not based solely on one's own dependence on the relationship, but also on the partner's perceived dependence on the relationship. Taking a more interdependent approach to understanding stay/leave decisions highlights a novel factor that may help us to understand why unsatisfying relationships exist and persist. Specifically, we propose that even when a person has few self-interested reasons for wanting a relationship to continue, they may nevertheless choose to stay in the relationship for the sake of their romantic partner.

#### **Prosocial Decision Making**

Individualistic cultures have been argued to hold a norm of self-interest: a pervasive assumption that people's actions are guided by self-interested motivations (Miller, 1999). Indeed, the field of economics has traditionally used the *Homo economicus* as a model for human decision making, where the *Homo economicus* is a person who makes consistently rational choices by maximizing benefits and minimizing costs to the self. However, as economic decision models have become increasingly influenced by behavioral research, it has become clear that people who maximize self-interest even to the detriment of others are in fact the exception rather than the rule. For example, in one economic game study of 446 individuals, only 7% of respondents met the behavioral definition of Homo economicus, consistently keeping all of the money for themselves instead of allocating it to others (Yamagishi et al., 2014). In another pair of studies, people were willing to pay more money to reduce the amount of painful electric shocks given to others compared with themselves, suggesting that people may value other people's pain more than their own pain (Crockett, Kurth-Nelson, Siegel, Dayan, & Dolan, 2014).

Growing evidence suggests that these human prosocial tendencies are inherent. For example, one series of economic game studies showed that people were more cooperative with anonymous strangers when they were given less time to make their decisions rather than more, suggesting that their automatic inclinations were toward cooperation rather than competition (Rand et al., 2012). These prosocial tendencies may emerge early in life: one experiment found that toddlers who played a reward-based game consistently chose a prosocial option (where both the self and the partner benefit) over a selfish option (where only the self benefits), even when their adult interaction partner consistently chose the selfish option (Sebastián-Enesco, Hernández-Lloreda, & Colmenares, 2013).

Contrary to the idea that people only act to benefit others in exchange for personal incentives, research has shown that people actually tend to feel less prosocial when they are incentivized. For example, in one experiment, participants asked to record a text for a blind student felt less morally compelled to help when they were paid for the service compared with when they were not paid (Kunda & Schwartz, 1983). This overjustification effect has even been replicated among 20-month-olds, suggesting that intrinsic motivation to be prosocial can be undermined by external rewards even at a very early age (Warneken & Tomasello, 2008). Indeed, research suggests that people are most prosocial when they have high levels of agency, or control, over the decision-making situation (Choshen-Hillel & Yaniv, 2011), and when they feel autonomous—that is, when they do not feel coerced or pressured—but

are rather acting in line with their intrinsic and authentic preferences (e.g., Gagné, 2003; Pavey, Greitemeyer, & Sparks, 2012). In sum, there is a compelling body of research suggesting that most people do not make decisions that maximize their own interests to the detriment of others. Instead, people have intrinsic inclinations to consider the interests of others.

# **Interdependence Theory**

The notion that people make relationship choices with their partner's needs in mind is also consistent with interdependence theory: an integrative theory on how people make choices that involve other people. Interdependence theory represents the idea that social and relational phenomena can be examined through a situation-based lens (e.g., Kelley & Thibaut, 1978; Rusbult & Van Lange, 2003, 2008; Thibaut & Kelley, 1959). When two people interact, it is not just the traits and perspectives of each person that influence the outcome of that interaction, but also the emergent, situational features of the experience that they share. The whole is worth more than the sum of its parts: each person's needs, goals, and motivations must be considered in relation to those of the partner, rather than in isolation, to properly predict the outcome of an interpersonal exchange. For example, imagine that Fred is planning a vacation with Wilma. According to interdependence theory, Fred's suggestions for what they could see and do will not just be based on his own preferences, but also on what he perceives Wilma's preferences to be, as well as previous travel experiences that they have shared. This integrative approach has had an enormous impact on the field of close relationships (e.g., Aron & Aron, 2010; Arriaga, 2013; Holmes, 2002; Murray & Holmes, 2009; Rusbult & Van Lange, 2003) because it allows researchers to study nuanced and complex interpersonal processes that are overlooked when considering each individual in isolation.

Interdependence theory posits that for each interaction, each person has the option to act in a manner that maximizes their given outcomes: the direct and immediate impact that the interaction will have on the self. Interdependence theorists have labeled these outcomes as "given" because "they describe immediate effects on the individual, ignoring the partner's interests and ignoring longterm interaction- or relationship-relevant concerns" (Rusbult & Van Lange, 2003; p. 358). In order for a close relationship to function harmoniously, each person's focus on the given outcomes of the situation must be "transformed" into a focus on the effective outcomes of the situation, which include broader considerations such as the needs of the partner or the needs of the relationship (Kelley & Thibaut, 1978). Thus, in order for a person to make a decision with their partner's needs in mind, they must move away from a focus on immediate self-interest to a focus on broader, more prosocial concerns. For example, in one study, participants in romantic relationships were asked to describe previous instances in which their dating partner had behaved badly (Yovetich & Rusbult, 1994). For each incident, participants were asked to recall the behaviors they *considered* enacting in response to their partner's behavior, as well as the behaviors they actually enacted in response to their partner's behavior. Results showed that people considered enacting significantly more destructive behaviors than they actually enacted toward their partner, suggesting that although participants were initially inclined to react poorly to their partner's destructive acts, they were able to at least partially transform those self-focused motivations into more prorelationship responses.

How does this transformation process occur? Interdependence theory posits that transformation of motivation occurs when people adopt rules for how to govern their interactions: rules that take broader considerations into account besides the direct and immediate impact of the interaction on the self (Kelley & Thibaut, 1978). Any number of rules can be adopted, some of which are more prosocial than others. For example, a person might adopt the rule of altruism, in which their goal is to maximize their partner's outcomes; they might adopt the rule of cooperation, in which their goal is to maximize their own and their partner's combined outcomes; or they might adopt the rule of individualism, in which their goal is to maximize their own outcomes irrespective of the partner (Rusbult & Van Lange, 2003). Thus, interdependence theory posits that people can and do act out of concern for their partner's needs as long as they adopt a relatively prosocial rule that includes the partner's needs.

In support of these ideas, a growing body of research suggests that people do tend to be motivated to meet their romantic partner's needs. For example, long-term romantic relationships tend to be highly communal in nature. That is, not only do people tend to be highly concerned about their romantic partner's welfare, but they tend to be motivated to meet their partner's needs noncontingently, or with little concern as to what they will receive in return (Clark & Mils, 1993; Mills, Clark, Ford, & Johnson, 2004). Communal norms can be contrasted with exchange norms, which stipulate that people should give to their partner with an expectation of direct reciprocation. In one sample of engaged and newlywed couples, participants reported that their relationships operated on communal norms more than exchange norms by a mean difference of more than three points on a 6-point scale (Clark, Lemay, Graham, Pataki, & Finkel, 2010). People who hold communal norms are then more likely to experience rewards for the self than are people who are less communally motivated (Le, Impett, Kogan, Webster, & Cheng, 2013; Le, Impett, Lemay, Muise, & Tskhay, 2018). For example, a daily experience study demonstrated that the more communally motivated people are, the more they tend to enjoy making sacrifices for their romantic partners (Kogan et al., 2010). The researchers found that communally motivated individuals experienced more positive emotions and felt greater relationship satisfaction on days when they made sacrifices for their romantic partner in comparison to those who were less communal, in part because they felt that their sacrifices were an authentic reflection of their "true" selves.

#### Stay/Leave Relationship Decisions: A Story of the Self

Overall, the idea that people care about their romantic partners' feelings and needs is consistent with decision making theory and interdependence theory, and has been supported by empirical research on communal motivation. However, no research has tested whether prosocial concern for the romantic partner can influence romantic stay/leave decisions. That is, when people are considering whether to end a romantic relationship, do they consider the impact that this decision would have on their romantic partner?

It is a particularly strong test of prosocial motivation to suggest that people take their partner's feelings into consideration even in the context of breakup decisions. When a person wishes to remain in a relationship, the success of the relationship is aligned with their own best interests. It is strategic for a person in an intact relationship to prioritize their partner's needs because doing so will help them to continue to enjoy the benefits of maintaining that relationship and avoid the costs of losing that relationship (see Hui, Finkel, Fitzsimons, Kumashiro, & Hofmann, 2014, for discussion). However, for a person whose relationship is failing to meet their needs to the point that they are considering a breakup, refraining from ending the relationship for the sake of the partner offers little clear benefit to the self. Not surprisingly, then, researchers have not considered the possibility that people may take their partner's needs and feelings into consideration when deciding whether or not to end a romantic relationship.

Most research on relationship stay/leave decisions, particularly in the context of dating relationships, has drawn from the investment model (Rusbult, 1980, 1983). The investment model posits that people choose to stay in a romantic relationship when they feel sufficiently dependent on the relationship for the fulfillment of important needs (see also Agnew, Van Lange, Rusbult, & Langston, 1998; Rusbult et al., 1998; Rusbult & Van Lange, 1996). The investment model offers three distinct routes through which people can become dependent on, and thus committed to, their romantic relationships: satisfaction, investment, and quality of alternatives (Rusbult, 1980, 1983). Relationship satisfaction is the global sense that the rewards of the relationship outweigh the costs of the relationship. Investments are resources placed into the relationship over time, such as emotions, time, shared experiences, and tangible assets, all of which the person would lose if the relationship were to end. Finally, quality of alternatives represents the extent to which a person believes that their needs could be fulfilled *outside* of the relationship. A person has low quality of alternatives to the extent that they feel that life without their current partner would not be as fulfilling or satisfying as life with their current partner. All three of these motivations to remain in a relationship are self-focused: they represent routes through which the self can become dependent on the relationship. However, the model does not account for the possibility that stay/leave decisions may also be influenced by perceptions of the partner's dependence on the relationship.

In the past 30 years, a great deal of research has tested the investment model components as well as a wide variety of other potential predictors of stay/leave decisions. However, this research has consistently overlooked the possibility that people might choose to stay in their romantic relationships for partner-focused reasons. For example, a recent meta-analysis examined predictors of nonmarital breakups across 137 studies (Le, Dove, Agnew, Korn, & Mutso, 2010). Significant predictors of breakups identified in the meta-analysis included positive illusions (Murray & Holmes, 1997; Murray, Holmes, & Griffin, 1996), relationship closeness (e.g., Aron, Aron, & Smollan, 1992; Berscheid, Snyder, & Omoto, 1989), and social network support (e.g., Etcheverry & Agnew, 2004), among others. However, none of the predictors identified—not even the nonsignificant predictors—was explicitly partner-focused in nature (e.g., partner's satisfaction, partner's commitment, partner's distress in the event of a breakup).

The one exception is research that has investigated the role of perceptions of the partner's commitment in motivating relationship dissolution. Two longitudinal studies show that relationships are more likely to dissolve when people perceive their partner's commitment levels to fluctuate (and especially, to wane) over time, compared with when they perceive their partner to be consistently committed to the relationship (Arriaga, Reed, Goodfriend, & Agnew, 2006). Most importantly, these effects emerged over and above own commitment to the relationship as well as own satisfaction with the relationship. The authors provided a self-interested explanation for these effects: people feel more secure in their relationship when they are certain of their partner's commitment to them. However, the partner's commitment could also be construed as representing the partner's desire or need for the relationship to continue. The more committed the partner is to the relationship, the costlier a breakup would be for the partner. It is therefore possible—but not yet tested—that people may be motivated to remain with highly committed partners for the sake of the partner, rather than for the sake of the self.

Another line of research has considered possible moral motivations to refrain from ending romantic relationships. Although moral obligation is not necessarily partner-focused, it is a step away from the perspective that stay/leave decisions are motivated by self-interest alone. Several researchers have theorized that commitment can have a morality-based component, particularly in the context of marriage. For example, Stanley and Markman (1992) proposed that people often feel morally obligated to stay married to their spouses, which the researchers labeled "Morality of Divorce." Building on this research, Adams and Jones (1997) showed across a number of samples that items representing moral commitment, such as "I believe that marriage is for life regardless of what happens," formed their own factor that was distinct from other types of relationship constraints (e.g., lack of romantic alternatives). Johnson, Caughlin, and Huston (1999) broadened the definition of moral commitment beyond commitment to the *institution* of marriage; in particular, they argued that people can also feel obligated to maintain a marriage for the sake of the romantic

Together, this research is moving toward a more prosocial—or, at least, less self-interested-perspective on why people might choose to remain in dissatisfying relationships. Unfortunately, these theoretical ideas lack empirical validation. Only one study has examined the longitudinal effects of moral commitment to see if moral commitment predicts stay/leave decisions over time (Lydon, Pierce, & O'Regan, 1997). This study showed that among a sample of participants in long-distance relationships, moral commitment predicted a lower likelihood of breaking up over time. However, two of the four items used to capture moral commitment in this study were general commitment items (feeling "committed to your relationship right now" and feeling "attached to your dating partner right now"). These two items seem likely to capture self-interested reasons for wanting to remain in the relationship, meaning that moral obligation and self-interest were not teased apart with this measure. Thus, even this study does not provide a clear test of whether people stay in relationships for reasons other than self-interest.

Overall, no research on relationship stay/leave decisions has directly tested whether people might choose to stay in their romantic relationships for partner-focused reasons. Relative to people in stable, ongoing relationships, people who would prefer to end their relationships are likely to derive considerably less personal benefit from acting in the interests of their partner. Thus, evidence that people do indeed choose to stay in relationships

primarily for the sake of their partner would provide particularly strong evidence that prosocial motives play a role in relationship decisions.

#### **Overview of the Current Research**

In the present paper, we test the hypothesis that people take their partner's needs into consideration when they are deciding whether or not to end their romantic relationship. Specifically, we conducted two well-powered, prospective breakup studies in which we recruited people currently in a relationship, measured self- and partner-focused motivations to maintain the relationship, and then tracked their relationship status over the next two months. We predicted that even when a person's self-interested reasons for wanting to maintain a relationship are relatively low (e.g., low satisfaction, low investment, high quality of alternatives, low commitment), prosocial motivation will compel them to nevertheless be concerned about their partner's well-being. Thus, we expected that when making decisions about whether or not to end a relationship, people will consider their partner's needs in addition to their own. How committed is my partner to this relationship? How much would my partner lose if this relationship were to end? To what extent does my partner want and need for this relationship to continue? Stay/leave decisions are then made not solely based on one's own dependence on the relationship, but also based on people's perceptions of their partner's dependence on the relationship. If a person believes that their partner is highly dependent on the relationship, that perception may discourage them from ending the relationship even if they have few self-interested reasons to stay.

Syntax, materials, and data are available at https://osf.io/bntpf/. Because breakups are a sensitive research topic, variables not required to reproduce key analyses (e.g., most individual items, uncentered variables, and demographic information) have been removed to better protect participant confidentiality (Joel, Eastwick, & Finkel, 2018).

#### Study 1

Study 1 was a large-scale, two-part longitudinal study of participants in romantic relationships. In Part 1, participants completed a survey with questions about their current romantic relationship, as well as demographic characteristics and personality measures. In Part 2 of the study, participants responded to weekly emails to indicate whether or not they were still in a romantic relationship with their partner. Participants who broke up indicated which partner had ended the relationship. This prospective design allowed us to examine how people's perceptions of their relationships predicted their real-life breakup decisions.

We operationalized perceptions of a partner's dependence on the relationship in two ways in this study. First, we included a measure of perceptions of the partner's commitment (Arriaga et al., 2006). Based on the premise that dependence on the relationship is experienced psychologically as commitment to the relationship (Rusbult & Buunk, 1993), perceived partner commitment should represent the extent to which a person believes that their partner needs the relationship to continue. As an alternative operationalization, we also measured how much distress participants anticipated that their partner would experience in the event of a

breakup. In other words, how aversive would a breakup be for the partner? We predicted that participants who believed that their partner was highly committed to the relationship, as well as those who believed that their partner would experience considerable distress in the event of a breakup, would be less likely to choose to end their relationship.

#### **Initiator Status**

We sought to rule out two alternative explanations—other than prosocial decision making—for why a partner's dependence may predict relationship stability. The first is methodological. It is common in the field of romantic relationships to record breakups as a single binary outcome: the relationship is either intact or it has dissolved (see Le et al., 2010 for discussion). As Le and colleagues have noted, "Most past studies have failed to account for responsibility for the breakup" (Le et al., 2010; p. 388). However, to study breakups as a relationship decision, it is crucial to know who actually "decided" to break-up with whom. This is particularly important in the context of the present work. Without knowing which member of each dissolved couple was the decision-maker, it cannot be determined whether people independently make stay/ leave decisions based on their own feelings, or whether they take their partner's feelings into consideration as well. Do effects of the partner's commitment mean that people are taking their partner's commitment into account, or simply that the partner is taking their own commitment into account? To rule out this alternative hypothesis in the present (nondyadic) study, we documented who chose to end the relationship on a 5-point Likert scale (1 = entirely mydecision, 3 = mutual decision, 5 = entirely my partner's decision). We then excluded from analyses the individuals who provided a "4" or "5" rating; those who reported that they had little to no agency in the decision to break up. This allows for greater confidence that any effects of partner-focused variables are due to the partner-focused variable predicting the participant's own decision, rather than the partner-focused variable predicting the partner's decision.

# **Felt Security**

A second alternative explanation we sought to rule out in Study 1 is that people might be more dedicated to a highly dependent partner not out of concern for the partner, but because the partner's dependence leads people to feel more secure in the relationship. Risk regulation theory posits that the partner's dependence serves as an important cue that the partner values oneself and the relationship, and will thus continue to be responsive to one's needs (e.g., Murray, Leder, et al., 2009; Murray, Aloni, et al., 2009). In line with this research, it follows that people should be less likely to break up with a highly dependent romantic partner compared with a less dependent partner because the partner's dependence makes them feel valued and loved, contributing to their own relationship quality. To directly account for this alternative explanation in the present study, we examined the extent to which people feel appreciated by their partner. When a person feels appreciated, they feel regarded and valued by their partner on a global level (Gordon, Impett, Kogan, Oveis, & Keltner, 2012). We predicted that people would be less likely to break up with a highly dependent partner even if they do not feel particularly appreciated

by their partner, signifying that they do not feel particularly valued or confident in their partner's regard for them. These results would suggest that people are taking their partner's feelings into consideration for reasons beyond their own feelings of relationship security.

#### **Communal Strength**

We also explored the potential role of communal motivation in stay/leave decisions. As previously discussed, romantic partners tend to have relatively high levels of communal motivation to meet each other's needs (e.g., Clark et al., 2010). However, the degree of communal motivation varies across relationships and across individuals. The stronger a person's communal motivation in the context of a particular relationship (referred to as communal strength) the more concerned they are about their partner's welfare and the more motivated they are to meet their partner's needs noncontingently (Clark & Mils, 1993; Mills et al., 2004). Based on this research, we expected that the motivation to meet a partner's needs in the context of stay/leave decisions would similarly vary across relationships. Specifically, we predicted that our hypothesized effects would be particularly pronounced for individuals high in communal strength, who are particularly motivated to meet their partner's needs. However, we did not expect that our predicted results could be explained by communal motivation alone. Drawing on decision making research suggesting that humans have inherently prosocial tendencies (e.g., Rand et al., 2012), we expected that even individuals relatively low in communal strength may nevertheless take their partner's feelings into account when making stay/leave decisions.

In sum, Study 1 tested whether perceptions of the partner's dependence on the relationship (perceived partner commitment, anticipated partner distress) predict a lower likelihood of breaking up with the partner over a 10-week period. We tested our predicted effects controlling for a number of self-focused motivations to remain in the relationship (i.e., own satisfaction, own investment, own quality of alternatives, own commitment, and own feelings of being appreciated by the partner), and we also tested for moderations by these variables. We expected that our predicted effects would hold when controlling for these variables, and we expected that our effects would extend even to individuals who were relatively low on these facets of relationship quality. These results would suggest that people are willing to stay in a relationship for the sake of the partner even when doing so is not particularly beneficial to the self. Finally, we expected that these effects would be particularly strong for individuals high in communal strength those individuals who feel particularly responsible for their partner's welfare. These results would provide further evidence that a partner's dependence discourages breakup decisions at least in part out of a communal motivation to meet the partner's needs.

# Method

**Participants.** We recruited 4,105 participants (3,827 recruited from Amazon's Mechanical Turk; 278 from our introductory psychology participant pool) to participate in Part 1 of the study. Participants were required to be in romantic relationships; 147 participants not currently in romantic relationships were excluded. An additional six participants were excluded for being under the

age of 18. The final Part 1 sample consisted of 3,952 participants (2,309 women, 916 men, 727 not reported), with an average age of 26 (Range=18 to 68, SD=7.45 years), and an average relationship length of 22 months (Range= less than one month to 40 years, SD=30 months). A total of 2,325 participants were exclusively dating, 311 participants were casually dating, 281 were in open relationships, 46 were engaged, 258 were common-law, and 22 were married (709 not reported).

**Part 1: Procedure and measures.** At the time of recruitment, participants completed a large package of questionnaires with several measures relevant to the current study.

Perceived partner commitment was measured with four items: "My partner is committed to maintaining our relationship," "My partner intends to stay in this relationship," "My partner feels very attached to our relationship—strongly linked to me," and "My partner is oriented toward the long-term future of our relationship (for example, imagines being with me several years from now)"  $(M=5.61, SD=1.41, \alpha=.94; Arriaga et al., 2006)$ , on a 7-point scale  $(1=completely\ disagree\ to\ 7=completely\ agree)$ .

Anticipated partner distress was measured with the item, "Overall, how distressing do you think it would be *for your partner* if you and your romantic partner were to break up?" (M = 5.48, SD = 1.59), which participants rated on a 7-point scale (1 = not at all distressing to 7 = extremely distressing).

Investment model components were measured with the standard 22-item scale (Rusbult et al., 1998). Three 5-item subscales captured *own satisfaction* (e.g., "My relationship is close to ideal," M = 6.65, SD = 1.84,  $\alpha = .94$ ), *own investment* (e.g., "I feel very involved in our relationship—like I have put a great deal into it," M = 6.10, SD = 1.74,  $\alpha = .86$ ), and *own quality of alternatives* (e.g., "My needs for intimacy, companionship, etc., could easily be fulfilled in an alternative relationship," M = 4.65, SD = 1.85,  $\alpha = .88$ ), and a 7-item subscale captured *own commitment* (e.g., "I want our relationship to last a very long time;" M = 6.84, SD = 1.74,  $\alpha = .89$ ) on a 9-point scale ( $1 = disagree\ completely$ ) to  $9 = agree\ completely$ ).

Feeling appreciated by the partner was measured with a 7-item scale (Gordon et al., 2012), with items such as, "My partner makes me feel special" (M = 5.00, SD = 1.20,  $\alpha = .85$ ) on a 7-point scale ( $1 = strongly\ disagree$  to  $7 = strongly\ agree$ ).

Communal strength was measured with a 10-item scale (Mills et al., 2004). With their romantic partner in mind, participants rated items such as, "How high a priority for you is meeting the needs of your partner?" (M = 8.13, SD = 1.66,  $\alpha = .77$ ) on an 11-point scale ( $0 = not \ at \ all \ to \ 10 = extremely$ ).

**Part 2: Procedure and measures.** After completing Part 1, participants were invited to participate in Part 2 of our study in which they would respond to weekly emails regarding their relationship. Each week, interested participants responded with a simple "yes" or "no" to the question: "Are you and your romantic partner still together?" Participants who indicated "no" also answered a follow-up question: "If you are no longer in your romantic relationship, please also indicate who initiated the breakup, by providing a number from the following scale" (1 = entirely my decision, 3 = mutual decision, 5 = entirely my partner's decision). Every 12 weeks, participants who had responded to at least 80% of emails during that time period were entered into a \$100 gift card draw. Participants were removed from the e-mail list upon request. A total of 1,348 individuals (33% of the Part 1 sample) participated

in our weekly e-mail follow-up, and they responded to our emails for an average of 10 weeks (Range = 1 to 29 weeks).<sup>1,2</sup>

Of the participants who responded to our weekly e-mails, 241 participants (18% of the Part 2 sample) reported breaking up in Part 2 of our study, whereas 1,107 (82%) remained in their relationship for the duration of their participation. This rate of breakup is consistent with previous studies that have examined termination of nonmarital relationships (e.g., Impett, Gable, & Peplau, 2005; Le et al., 2010). To examine breakup decisions specifically in the present study, we excluded 67 participants (28% of breakups) who responded to the initiator status question with a "4" or a "5," indicating that they had little to no decision-making power with regard to ending the relationship.

The final sample included 1,281 participants (828 women, 437 men, 16 not reported) with an average age of 26 (Range = 18 to 68, SD = 7.94 years), and an average relationship length of 23 months (Range = 1 month to 40 years, SD = 30 months). A total of 976 participants were exclusively dating, 88 participants were casually dating, 87 were in open relationships, 11 were engaged, 98 were common-law, and 12 were married (9 not reported). A total of 174 of these participants experienced a breakup over the course of the study (14%); 57 of these participants indicated that the breakup was entirely their decision, 28 indicated that the breakup was mostly their decision, and 64 indicated that the breakup was a mutual decision (25 did not indicate who initiated the breakup). This final sample of 1,281 participants provides 89% power to predict breakups using Cox regression, assuming a hazard ratio of .75 and a squared multiple correlation coefficient of .30 between the predictor of interest and the other covariates in the model. This power analysis was calculated with the "powerEpi-Cont.default" function from the "powerSurvEpi" package in R.

#### **Results**

The primary goal of Study 1 was to test the prediction that the more dependent people believed their partner was on the relationship (i.e., high perceived partner commitment, high anticipated partner distress in the event of a breakup), the less likely people would be to break up with their partner over the course of the study. We predicted that this effect would hold regardless of people's self-interested reasons to stay in the relationship (satisfaction, investment, quality of alternatives, own commitment, and feelings of being appreciated by the partner).

Intercorrelations among all variables are shown in Table 1. We used Cox regression to predict breakup decisions over the course

<sup>&</sup>lt;sup>1</sup> This sample was also reported in Study 3 of Spielmann et al., 2013. However, none of the present associations were previously reported.

<sup>&</sup>lt;sup>2</sup> Independent samples t tests showed that participants who chose to participate in the follow-up surveys were more dedicated to their relationships on average compared with participants who declined to participate. Specifically, the participants who answered at least one follow-up email were significantly more committed (Cohen's d = .33), more satisfied (d = .24), and more invested (d = .09), they had fewer quality of alternatives (d = .16), they perceived their partner to be more committed (d = .34), they anticipated that their partner would be more distressed in the event of a breakup (d = .25), they felt more appreciated by their partner (d = .25), and they felt more communal toward their partner (d = .39). For investment, p = .01; all other ps < .001. These differences suggest that participating in the present research was more appealing to participants whose relationships were of higher quality.

Table 1 Correlations Among All Variables in Study 1

Variable	Perceived partner commitment	Own satisfaction	Own alternatives	Own investment	Own commitment	Feeling appreciated	Communal strength
Anticipated partner distress Perceived partner commitment	.61	.44 .67	13 16	.39 .42	.41 .61	.41 .60	.41 .56
Own satisfaction		.07	19	.48	.66	.67	.58
Own alternatives Own investment				17	41 .53	21 .26	33 .48
Own commitment					.55	.51	.72
Feeling appreciated							.50

*Note.* All correlations are significant at p < .001.

of the study using the "Surv" package in R. The number of weeks that participants responded to our weekly emails (either until they broke up or until they stopped responding) was used in conjunction with the relationship status variable—broke up versus stayed together—to create a Survival object, which represents how long each relationship "survived" (the key dependent measure). All predictor variables were standardized. All confidence intervals are reported at 95%.

We first examined the predictive power of each of the two partner-focused variables alone, without any control variables. In the first model, we found that perceived partner commitment predicted a lower likelihood of choosing to break up, b = -.56, SE = .06, p < .001, hazard ratio = .57, 95% CI [.51, .64]. Forhazard ratios below one, one minus the hazard ratio represents how much less likely a participant is to break up at a given time point if they score one standard deviation above the mean on the predictor variable, relative to mean levels. Thus, compared with a participant with mean perceived partner commitment levels, a participant who perceived their partner to be committed at one standard deviation above the mean was 43% less likely to initiate a breakup at any particular time during the study. The second model revealed that anticipated partner distress similarly predicted a lower likelihood of choosing to break up, b = -.50, SE = .07, p < .001, hazard ratio = .61, CI [.53, .69]. A participant who anticipated that a breakup would distress their partner at one standard deviation above the mean was 39% less likely to initiate a breakup at any particular time during the study, compared with a participant with mean anticipated partner distress levels.

We next tested whether these partner-focused variables would predict breakup decisions above and beyond five established self-focused indicators of relationship quality and predictors of relationship stability: satisfaction, quality of alternatives, investment, commitment, and feeling appreciated by one's partner. Results are shown in Table 2. Both perceived partner commitment (b = -.27, p = .002, hazard ratio = .76, CI [.64, .91]) and anticipated partner distress (b = -.33, p < .001, hazard ratio = .72, CI [.62, .83]) remained strong predictors of breakup decisions. Specifically, above and beyond all four components of the investment model as well as feelings of being appreciated by the partner, participants were 24% less likely to break up at any particular point in the study for each standard deviation increase in perceived partner commitment, and 28% less likely to break up for each standard deviation increase in anticipated partner distress.

What happens when self-interest is low? The results suggest that people are less likely to choose to end their relationship when

they believe that their partner is highly dependent on the relationship. We next sought to test whether these results extend even to individuals who have relatively few self-interested reasons to continue the relationship.

We conducted a series of cox regression analyses testing for possible moderations of the association between perceived partner commitment and breakup decisions. In each model, we entered perceived partner commitment, satisfaction, investment, quality of alternatives, commitment, and feeling appreciated, as well as a two-way interaction term between perceived partner commitment and one of the five other variables. We tested five possible moderators in total, each in a separate model (see Table 3).3 The only interaction to reach significance was the interaction between perceived partner commitment and own commitment. Simple effects tests at one standard deviation above and below the mean (Aiken & West, 1991) revealed that perceived partner commitment was a significant predictor of breakup decisions both when own commitment was relatively high, b = -.55, SE = .17, p < .001, hazard ratio = .58, CI [.42, .80], and when own commitment was relatively low, b = -.31, SE = .09, p < .001, hazard ratio = .73, CI [.61, .87]. Together, these results suggest that when people perceived their partner to be highly committed, they were less likely to break up with their partner even when their own satisfaction, quality of alternatives, investment, commitment or the extent to which they felt appreciated was relatively low.

We next tested for potential moderators of the association between anticipated partner distress and breakup decisions. Each model included anticipated partner distress, satisfaction, investment, quality of alternatives, commitment, and feeling appreciated as predictors, as well as a two-way interaction term between anticipated partner distress and one of the five other variables. None of the tested interactions were significant (see Table 4). As with the effects of perceived partner commitment, these results suggest that when people anticipated that a breakup would greatly distress their partner, they were less likely to break up with their partner regardless of their own satisfaction, quality of alternatives, investment, commitment or feelings of being appreciated by their partner. That is, people were less

<sup>&</sup>lt;sup>3</sup> The interaction between perceived partner commitment and investment was marginal, b=-.13, p=.10 (Table 3). We conducted simple effects analyses for this interaction at one standard deviation above and below the mean in investment (Aiken & West, 1991). Perceived partner commitment predicted fewer breakup decisions both for those with low levels of investment into their relationships, b=-.25, SE=.09, p=.004, and for those with high levels of investment into their relationships, b=-.43, SE=.12, p<.001.

Table 2
Partner's Dependence Predicts Breakup Decisions Over and Above Satisfaction, Investment,
Quality of Alternatives, Commitment, and Feeling Appreciated in Study 1

Predictor	b	SE	p	Hazard ratio	CI
Model 1					
Perceived partner commitment	27	.08	.002	.76	[.64, .91]
Satisfaction	14	.12	.23	.87	[.69, 1.09]
Alternatives	.17	.09	.06	1.18	[.99, 1.41]
Investment	05	.09	.57	.95	[.79, 1.14]
Commitment	37	.12	.002	.69	[.55, .87]
Feeling appreciated	.07	.11	.49	1.08	[.88, 1.32]
Model 2					
Anticipated partner distress	33	.08	<.001	.72	[.62, .83]
Satisfaction	21	.13	.11	.81	[.63, 1.05]
Alternatives	.16	.10	.09	1.18	[.98, 1.42]
Investment	08	.10	.39	.92	[.76, 1.11]
Commitment	49	.12	<.001	.61	[.48, .77]
Feeling appreciated	.09	.12	.42	1.10	[.87, 1.39]

likely to break up with a highly dependent partner even if they had relatively few self-interested reasons for maintaining the relationship.

Communal concern. Another goal of the current study was to test our prediction that these effects would be magnified for individuals who are highly communally motivated to meet their partner's needs (i.e., those high in communal strength). That is, although we expected that high partner dependence would predict fewer breakup decisions for participants both low and high in communal strength, we predicted that highly communal people would be particularly likely to take their partner's feelings into consideration when making breakup decisions. To test this hypothesis, we conducted two Cox regression analyses: one for each of the two partner-focused variables. Each model included the respective partner-focused variable, communal strength, and the five other control variables (satisfaction, alternatives, investment, commitment, and feeling appreciated), as well as an interaction term between the partner-focused variable and communal strength.

Results are shown in Table 5. Our hypothesis was partially supported: a significant interaction emerged between communal strength and perceived partner commitment predicting breakup

decisions (Model 1). Simple effects tests revealed that perceived partner commitment predicted a particularly lower likelihood of breaking up for individuals high on communal strength, b = -.64, SE = .15, p < .001, hazard ratio = .53, CI [.39, .71]. However, the association between perceived partner commitment and breakup decisions was also significant, albeit attenuated, for individuals lower in communal strength, b = -.26, SE = .09, p = .003, hazard ratio = .77, CI [.65, .91]. No interaction emerged between communal strength and anticipated partner distress (Model 2).

### Additional analyses.

**Gender.** To ensure that these effects were not specific to either men or women, we tested for moderations by gender. For each of the partner-focused variables, we tested a cox regression model in which relationship satisfaction, investment, quality of alternatives, commitment, feeling appreciated, gender, and the respective partner-focused variable were entered as predictors, as well as a model in which an interaction term between the partner-focused variable and gender were added as predictors. The effects of perceived partner commitment on breakup decisions remained significant controlling for gender, b = -.27, SE = .09, p = .002,

Table 3

Potential Moderators of the Association Between Perceived Partner Commitment and Breakup

Decisions in Study 1

Predictor	b	SE	p	Hazard ratio	CI
Model 1					
Perceived partner commitment * Satisfaction	02	.05	.71	.98	[.88, 1.09]
Model 2					
Perceived partner commitment * Alternatives	.02	.06	.77	1.02	[.83, 1.01]
Model 3					
Perceived partner commitment * Investment	09	.05	.07	.91	[.91, 1.14]
Model 4					
Perceived Partner commitment * Commitment	12	.06	.05	.89	[.79, 1.00]
Model 5					
Perceived partner commitment * Feeling appreciated	01	.05	.84	.99	[.89, 1.10]

Note. Each model also included perceived partner commitment, satisfaction, investment, quality of alternatives, commitment, and feeling appreciated as predictors.

Table 4

Potential Moderators of the Association Between Anticipated Partner Distress and Breakup Decisions in Study 1

		ision			
Predictor	b	SE	p	Hazard ratio	CI
Model 1 Anticipated partner distress * Satisfaction	.04	.05	.46	1.04	[.94, 1.15]
Model 2 Anticipated partner distress * Alternatives	05	.07	.50	.96	[.84, 1.09]
Model 3 Anticipated partner distress * Investment	.06	.06	.30	1.07	[.94, 1.20]
Model 4 Anticipated partner distress * Commitment	004	.06	.96	.996	[.88, 1.13]
Model 5 Anticipated partner distress * Feeling appreciated	01	.06	.85	.99	[.88, 1.10]

*Note.* Each model also included anticipated partner distress, satisfaction, investment, quality of alternatives, commitment, and feeling appreciated as predictors.

hazard ratio = .76, CI [.64, .91], and were not significantly moderated by gender, b = -.21, SE = .13, p = .11, hazard ratio = .81, CI [.63, 1.05]. Similarly, the effects of anticipated partner distress on breakup decisions held controlling for gender, b = -.34, SE = .07, p < .001, hazard ratio = .71, CI [.61, .82], and were not moderated by gender, b = -.07, SE = .15, p = .65, hazard ratio = .93, CI [.69, 1.26].

Relationship length. We next tested for moderations by relationship length. Again, for each partner-focused variable, we tested a model with satisfaction, investment, quality of alternatives, commitment, feeling appreciated, the relevant partner-focused variable, and relationship length as predictors, as well as a model that included an interaction term between the partner-focused variable and relationship length. The effects of perceived partner commitment on breakup decisions held controlling for relationship length, b = -.27 SE = .09, p = .003, hazard ratio = .76, CI [.64, .91],and were not moderated by relationship length, b = .009, SE = .009.11, p = .93, hazard ratio = 1.01, CI [.81, 1.26]. Similarly, the effects of anticipated partner distress on breakup decisions held controlling for relationship length, b = -.33, SE = .08, p < .001, hazard ratio = .72, CI [.62, .84] and were not moderated by relationship length, b = .02, SE = .13, p = .87, hazard ratio = 1.02, CI [.79, 1.32].

Relative strength of partner-focused measures. So far, we have treated perceived partner commitment and anticipated partner distress as different operationalizations of the same construct—perceptions of the partner's dependence on the relationship—and have tested them in separate models. We tested a model in which perceived partner commitment and anticipated partner distress

were both entered as predictors to determine what happens when these variables are allowed to compete for variance within the same model. Perceived partner commitment remained a significant predictor of breakup decisions, b = -.54, SE = .09, p < .001, hazard ratio = .58, CI [.49, .69], whereas anticipated partner distress did not, b = -.15, SE = .09, p = .10, hazard ratio = .86, CI [.72, 1.03]. We also tested a model in which satisfaction, investment, quality of alternatives, commitment, and feeling appreciated were added as predictors, in addition to the two partner-focused measures. In this model, perceived partner commitment remained a significant predictor of breakup decisions, b = -.24, SE = .11, p = .04, hazard ratio = .79, CI [.63, .98], as did anticipated partner distress, b = -.23, SE = .09, p = .01, hazard ratio = .80, CI [.67, .96].

# Study 1 Discussion

The results of Study 1 suggest that when people consider whether to remain in a dating relationship, they take their partner's feelings into account. In a well-powered study (N = 1,281), we found that people were less likely to break up with their dating partners over the course of 10 weeks if they believed that their partner was highly committed to the relationship, or if they believed that their partner would be highly distressed in the event of a breakup. These effects held controlling for the four investment model components as well as feelings of being appreciated by the partner. Further, the effects generally were not moderated by these self-focused variables, suggesting that people are more likely to stay in relationships with highly dependent partners compared with

Table 5
The Potential Moderating Role of Communal Strength in Study 1

		Breakup decision				
Predictor	b	SE	p	Hazard ratio	CI	
Model 1 Perceived partner commitment * Communal strength	34	.12	.005	.71	[.72, .94]	
Model 2 Anticipated partner distress * Communal strength	06	.06	.34	.94	[.84, 1.06]	

less dependent partners even if their own relationship quality and dependence were low. Notably, the effects of perceived partner commitment were moderated by communal strength, such that the highly communal people took the partner's commitment into account to a greater extent than those low on communal strength.

# Study 2

Study 2 was a preregistered replication of Study 1. In addition to confirming the key results from Study 1, we sought to address several limitations to Study 1, as well as to probe further into the mechanisms through which prosocial concern operates in the context of stay/leave decisions.

Stay/leave decisions offer a particularly strong test of prosociality when one partner wants the relationship to continue while the other does not, as that is when the two partners' interests are most at odds. Yet, in Study 1, most participants were relatively satisfied with their relationships, with mean satisfaction and commitment levels near 7 on a 9-point scale. Further, participants were particularly likely to respond to weekly emails if they were satisfied with their relationships (see Footnote 2). To what extent do prosocial motives compel people to remain in truly unfulfilling relationships? To better answer this question in Study 2, we targeted people who were currently questioning their commitment to their romantic partners. We expected that even among people who were unsure that they wanted to remain in their relationships, the partner's dependence on the relationship would dissuade people from initiating a breakup.

In Study 2, we also examined three additional, more extrinsic explanations for why people would be reluctant to break up with highly dependent partners. First, people may anticipate that they would feel guilty if they were to break up with a highly dependent partner. If people are choosing to remain in their relationships with the goal of avoiding negative emotions, rather than the goal of benefitting the partner per se, then these decisions are not truly partner-focused (see Batson, Duncan, Ackerman, Buckley, & Birch, 1981 for a related discussion). Second, it was suggested by a reviewer (and we agree) that people with highly dependent partners may be concerned that their partner will retaliate against them in some way in the event of a breakup (e.g., become angry or aggressive; try to harm their reputation). Finally, drawing on research on the costs of a breakup for the initiator (Perilloux & Buss, 2008), we reasoned that people may be concerned about negative judgment from friends and family if they were to break up with a highly dependent partner. To examine these alternative explanations, we constructed new scales capturing anticipated guilt, retaliation, and negative judgment in the event of a breakup (see online supplemental File 1). We predicted that one or more of these constructs may predict breakup decisions, but that the partner's dependence on the relationship would remain a significant predictor of breakups above and beyond these variables.

A more exploratory goal of Study 2 was to examine what specific kinds of partner-focused concerns may have driven the effects observed in Study 1. Study 1 included only a single item capturing perceived consequences of the breakup for the partner (anticipated distress), and so we were not able to unpack the specific partner-focused reasons that may have been compelling people to remain in their relationships. People can choose to make sacrifices for both approach- and avoidance-based reasons (e.g.,

Impett et al., 2005; Impett & Gordon, 2010). Thus, people may be motivated to remain in an unfulfilling relationship because of the avoidance-based goal of sparing their partner the costs of a breakup, or because of the approach-based goal of allowing their partner to continue to enjoy the benefits of remaining in the relationship. Further, these costs and benefits to the partner can be both short-term or long-term in nature. In Study 2, we created and validated an 11-item measure of partner-focused reasons to continue the relationship, which captured both short- and long-term costs that a breakup might have for the partner (e.g., "My partner couldn't handle a breakup right now," "A breakup would be damaging for my partner in the long-run"), as well as short- and long-term benefits that keeping the relationship intact might have for the partner (e.g., "Staying together is what my partner needs right now," "Staying with my partner is the best way for my partner to achieve their long-term goals"). An equivalent selffocused reasons measure was also constructed. Pilot data for the construction of these measures are presented in online supplemental File 1. We did not have any specific hypotheses about which types of consequences (approach vs. avoidance; short- vs. longterm) would be particularly relevant for people contemplating a breakup.

In sum, Study 2 was a 2-month longitudinal study of people currently contemplating a breakup, with the goal of examining how partner-focused concerns might dissuade people from ending their relationships. The study was preregistered on June 17, 2016. The frozen preregistration can be viewed at https://osf.io/grj9w/.

#### Method

Participants. Participants who were currently questioning their relationships were invited to participate in the study with ads placed on websites such as Facebook, Twitter, Reddit, and Psychology Today. Interested participants were directed to a screening questionnaire to determine eligibility. Initially, participants could not proceed to the survey unless they were at least 18 years of age, in a dating relationship (not single, engaged, common-law, or married), and currently, actively contemplating a breakup. However, we later relaxed the criteria to allow participants who were engaged and/or common-law as well as participants who were not actively contemplating a breakup (12% of the final sample) to participate. See the update document posted on December 1, 2016 at https://osf.io/hybc3/. Relatedly, although our original target sample was 1,200 participants, we subsequently lowered our target to 500 participants to allow for more timely completion of the study. See the second update document posted on March 21, 2017.

On August 20, 2017, the target final sample was met and recruitment was closed. A total of 4,106 participants attempted to participate. Of these participants, 1,881 met our eligibility criteria and proceeded to the Time 1 survey, 1,037 completed the survey and provided their contact information for Time 2, 901 participants were emailed the Time 2 survey, 4 and 536 participants completed

 $<sup>^4</sup>$  The data presented in this paper were downloaded when the final target sample size (N=500) was achieved and recruitment for the study was closed.

the Time 2 survey (40% attrition),<sup>5</sup> of whom 36 reported that their partners ended the relationship and were excluded. Participants were compensated for their participation with entry into \$100 Amazon.com gift card draws.

The final sample included 500 participants (408 women, 85 men, 7 nonbinary) with a mean age of 32 years (range = 18 to 76). All participants indicated in response to our criteria check question that they were indeed in a romantic relationship. Participants' mean relationship length was 38 months (range = 1 week to 40 years); 51 were casually dating, 353 were seriously dating, 26 were engaged, and 69 were common-law or married. A total of 442 participants (88%) reported during prescreening that they were currently thinking about breaking up with their partner. By Time 2, 145 participants (29%) had experienced a breakup, which was either entirely their decision (N = 72), mostly their decision (N = 72) 30), or a mutual decision that they made with their partner (N =35; seven participants did not answer). This sample of 500 participants gives us 82.5% power to detect a breakup effect using Cox regression, assuming a hazard ratio of .75 and a squared multiple correlation coefficient of .30 between the predictor of interest and the other covariates in the model. This analysis was calculated with the "powerEpiCont.default" function from the "powerSurvEpi" package in R.

**Time 1 measures.** Perceived partner commitment was measured with the same four items used in Study 1 (e.g., "My partner is committed to maintaining our relationship," Arriaga et al., 2006; M = 5.15, SD = 1.64,  $\alpha = 91$ ).

Investment model components were measured as in Study 1 (Rusbult et al., 1998), with 5-item subscales capturing *own satisfaction* (e.g., "My relationship is close to ideal," M = 3.74, SD = 1.35,  $\alpha = .89$ ), *own investment* (e.g., "I feel very involved in our relationship—like I have put a great deal into it," M = 4.40, SD = 1.27,  $\alpha = .76$ ), and *own quality of alternatives* (e.g., "My needs for intimacy, companionship, etc., could easily be fulfilled in an alternative relationship," M = 3.84, SD = 1.37,  $\alpha = .83$ ), as well as 7 items capturing *own commitment* (e.g., "I want our relationship to last a very long time," M = 4.83, SD = 1.37,  $\alpha = .87$ ).

Partner-focused reasons for continuing the relationship were measured with 11 items as described in online supplemental File 1 (e.g., "Staying together would make my partner happy," "My partner couldn't handle a breakup right now," M = 4.46, SD = 1.41,  $\alpha = 91$ ). The equivalent *self-focused reasons for continuing the relationship* were measured with the same 11 items, phrased to be about the self (e.g., "Staying together would make me happy," M = 3.96, SD = 1.21,  $\alpha = .88$ ).

Extrinsic reasons for continuing the relationship were measured with nine items, as described in online supplemental File 1. Three items captured *guilt* (e.g., "I would feel guilty about letting my partner down," M = 5.35, SD = 1.67,  $\alpha = .89$ ), three items captured *retaliation* (e.g., "My partner might say or do hurtful things," M = 3.38, SD = 1.91,  $\alpha = .86$ ), and three items captured *negative judgment* (e.g., People might judge me for ending my relationship," M = 3.12, SD = 1.93,  $\alpha = .92$ ).

Communal strength was measured again measured with 10 items (e.g., "How high a priority for you is meeting the needs of your partner?" Mills et al., 2004; M = 7.34, SD = 1.68,  $\alpha = .86$ ) on an 11-point scale ( $0 = not \ at \ all \ to \ 10 = extremely$ ).

All constructs were measured on a 1–7 Likert scale. In sum, the Time 1 questionnaire package included all measures as reported in

the preregistration document except for a 7-item measure of feeling appreciated (e.g., "My partner makes me feel special," Gordon et al., 2012). Because of an administrative error, this scale was not included in the Time 1 survey—as can be seen in the Qualtrics pdf included in the preregistration package—and was thus not included in any analyses.

**Time 2 measures.** Participants were emailed a brief follow-up survey two months after Part 1 survey completion. Relationship status was measured with the item, "Two months ago, you participated in our study about dating experiences. At that time, you were in a dating relationship. Are you and that romantic partner still together?" Participants could select "Yes, I am still in that relationship" (N = 355), or "No that relationship has ended" (N =145). For participants whose relationships ended, breakup initiator was measured with the item, "Whose decision was it to end the relationship?" (1 = Entirely my decision, 3 = Mutual decision, 5 = Entirely my partner's decision). Finally, time since breakup was measured with the item, "When did the breakup occur? Please give your best estimate." Participants indicated the day, month, and year on which the relationship ended. Breakup date estimates were rounded to the nearest week. For participants who specified a month and year but not the day, the 15th of the month was used for calculation purposes.

We had preregistered that we would exclude participants who provided implausible breakup dates, which we defined in the document as dates "that occurred either before their initial survey completion date or after their follow-up survey completion date (i.e., an implausible response)." However, an unexpectedly high number of reported breakup estimates technically fell before initial survey dates (N=23). Most of these dates were within days of each other, suggesting that the participant broke up shortly after participation and then, two months later, misreported their breakup date. A total of five participants provided a breakup date that was truly implausible (over a month before initial survey completion). These participants can be identified in the Study 2 dataset shared on OSF with a value of "1" in the column "implausible\_date." Results hold with them excluded.

**Summary of deviations from preregistration.** Our final reported sample and analyses deviate from the preregistered plan in three ways. First, because recruitment was more challenging than initially anticipated, we reduced our target *N* from 1,200 to 500. Second—and relatedly—we broadened our inclusion and exclusion criteria (i.e., we allowed engaged and common-law participants; we did not exclude participants who reported a breakup date from before their initial survey date) to ensure a well-powered sample. Finally, we did not measure one of the planned covariates (feeling appreciated) due to an administrative error.

 $<sup>^5</sup>$  Independent samples t tests showed that participants who chose to complete the follow-up survey did not tend to differ from those who declined to participate. Specifically, participants in the final sample were not significantly more or less satisfied, committed, invested, or communal toward their partner, nor did they perceive significantly more or fewer quality of alternative to their relationship, all Cohen's ds < .10, all ps > .09. One exception emerged: participants in the final sample perceived their partners to be significantly more committed to their relationships compared with those who declined to complete the follow-up (d = .13, p = .03).

Table 6
Correlations Among Key Variables in Study 2

Variable	Partner-focused reasons	Perceived partner commit	Own sat	Own alt	Own invest	Own commit	Guilt	Retaliation	Judgement
Partner-focused reasons Partner-focused reasons Perceived partner commitment Own satisfaction Own alternatives Own investment Own commitment Guilt retaliation	.18***	.13** .67***	.33*** .16*** .37***	37*** .13** .19*** 07+	.47**** .28**** .19**** .16***09*	.62***04 .02 .42***45*** .40***	.15** .44*** .44*** .18*** .11* .21*** 02	07 .21*** .02 25*** .21*** .07 20***	.19*** .29*** .16***02 .14** .25***09+ .28*** .24***

#### **Results**

Correlations can be seen in Table 6. Notably, partner-versus self-focused measures shared less variance in the Study 2 breakup contemplation sample compared with in Study 1, making it easier to disentangle related constructs in this sample (e.g., own commitment vs. perceived partner commitment).

**Perceived partner commitment.** We first sought to replicate the association between perceived partner commitment and the decision to stay with one's partner. All models can be seen in Table 7. In Model 1, perceived partner commitment was entered as the sole predictor, with relationship survival as the dependent variable. As predicted, people were significantly less likely to break up with their partner if they perceived their partner to be highly committed to the relationship. As can be seen in Model 2, perceived partner commitment predicted relationship survival over and above own commitment, satisfaction, investment, and quality of alternatives. Finally, Model 3 shows that this association holds controlling for three extrinsic reasons to care about a partner's feelings: guilt, retaliation, and negative judgment. None of these extrinsic factors were significant predictors of relationship survival (ps > .10). Overall, and as hypothesized at preregistration, perceived partner commitment emerged as a robust predictor of stay/leave decisions.

Partner-focused reasons to continue the relationship. We next tested whether the new partner-focused reasons scale also

predicts the decision to stay with one's partner. The 11 items capturing partner-focused reasons to continue the relationship were averaged and standardized, and tested as a predictor of stay/leave decisions in a series of models: See Table 8. As expected, people were significantly less likely to break up with their partner over the course of the study if they perceived that the partner had strong reasons for wanting to continue the relationship. The effect of partner-focused reasons on relationship survival was marginal over and above the investment model components (satisfaction, investment, alternatives, and commitment; Model 2), significant over and above extrinsic reasons to care about the partner's feelings (guilt, retaliation, and judgment; Model 3), and marginal over and above the equivalent self-focused reasons (Model 4). Thus, although partner-focused reasons were associated with breakup decisions in the hypothesized direction, they were not as robust a predictor as expected at the outset of the study.

**Exploratory analyses examining mechanism.** We next conducted a series of exploratory analyses probing the underlying mechanisms for the effect. Which aspects of a partner's dependence might matter most to a person contemplating a breakup?

**Partner-focused subscales.** We examined the subscales that comprised the partner-focused reasons scale. The 11 items in this scale included approach-based and avoidance-based reasons why the partner might not wish to break up as well as short-term versus long-term reasons. We divided this scale into three sets of sub-

Table 7
Confirmatory Models With Perceived Partner Commitment in Study 2

Predictor	b	SE	p	Hazard ratio	CI
Model 1					
Perceived partner commitment	27	.08	<.001	.76	[.65, .89]
Model 2					
Perceived partner commitment	25	.09	.007	.78	[.65, .94]
Satisfaction	07	.11	.50	.93	[.76, 1.15]
Alternatives	.12	.10	.27	1.12	[.92, 1.38]
Investment	24	.09	.008	.78	[.65, .94]
Commitment	28	.11	.01	.75	[.60, .94]
Model 3					
Perceived partner commitment	30	.09	<.001	.74	[.62, .88]
Guilt	.10	.09	.30	1.10	[.92, 1.33]
Retaliation	.13	.09	.14	1.13	[.96, 1.34]
Judgment	10	.09	.29	.91	[.76, 1.09]

Table 8
Confirmatory Models With Partner-Focused Reasons in Study 2

Predictor	b	SE	p	Hazard ratio	CI
Model 1					
Partner-focused reasons	21	.09	.01	.81	[.68, .96]
Model 2					
Partner-focused reasons	17	.09	.07	.84	[.70, 1.01]
Satisfaction	15	.10	.15	.86	[.71, 1.05]
Alternatives	.08	.10	.41	1.09	[.89, 1.33]
Investment	22	.10	.02	.80	[.66, .97]
Commitment	29	.11	.01	.75	[.60, .94]
Model 3					
Partner-focused reasons	26	.10	.007	.77	[.64, .93]
Guilt	.08	.10	.43	1.08	[.89, 1.30]
Retaliation	.17	.09	.05	1.19	[1.00, 1.41]
Judgment	07	.09	.45	.93	[.78, 1.12]
Model 4					
Partner-focused reasons	14	.09	.10	.87	[.73, 1.03]
Self-focused reasons	45	.09	<.001	.64	[.53, .76]

scales: approach- versus avoidance-based items (two subscales), short- versus long-term items (two subscales), and approach-based short-term, approach-based long-term, avoidance-based short-term, and avoidance-based long-term reasons (four subscales). Note that the avoidance-based short-term items represent the immediate emotional costs of a breakup to the partner (i.e., preventing a partner's distress), and are thus an equivalent construct to our original "perceived partner distress" item used in Study 1. The rest of the subscales represent a broad range of other reasons why a partner may not want the relationship to end. Correlations between self- and partner-focused subscales and relevant constructs can be seen in Table S5 in the supplemental materials.

We conducted three exploratory models allowing each of these sets of subscales to compete for variance: see Table 9. Results of Model 2 suggest that a partner's short-term reasons for wanting the relationship to remain intact (e.g., "A breakup would be incredibly painful for my partner") may play a bigger role in people's stay/leave decisions compared with long-term reasons (e.g., "A breakup would interfere with my partner's plans for the future"). The only subscale that reached significance was the short-term

subscale (approach- and avoidance-based items combined); however, the short-term, avoidance-focused subscale was marginally significant. These results tentatively suggest that people who stay in relationships for the sake of their partner's feelings may be particularly concerned about the short-term consequences that stay/leave decisions have for their partner, particularly the short-term costs of a breakup (i.e., distress). This possibility may be worth exploring further in subsequent research.

Relative strength of partner-focused measures. As in Study 1, we wanted to explore the relative predictive power of our different operationalizations of the partner's dependence on the relationship. We conducted three additional combined cox regression models: one with perceived partner commitment and partner-focused reasons included as simultaneous predictors, one with the four investment model components added as control variables (six predictors total), and one with the four investment model components and three extrinsic reasons measures included as controls (nine predictors total). Perceived partner commitment was a significant predictor of breakup decisions in all three models ( $bs \le -.23$ ,  $SEs \le .12$ ,  $ps \le .05$ ). Partner-focused reasons was not a significant predictor in any of these

Table 9
Exploratory Analyses Probing Partner-Focused Subscales in Study 2

Predictor	b	SE	p	Hazard ratio	CI
Model 1					
Long-term approach (Partner)	11	.12	.36	.90	[.71, 1.13]
Long-term avoidance (Partner)	04	.12	.74	.96	[.76, 1.22]
Short-term approach (Partner)	.12	.13	.33	1.13	[.88, 1.46]
Short-term avoidance (Partner)	24	.13	.07	.79	[.61, 1.02]
Model 2					
Long-term (Partner)	07	.10	.44	.93	[.70, .99]
Short-term (Partner)	18	.09	.04	.83	[.77, 1.12]
Model 3					
Approach-based (Partner)	13	.09	.16	.88	[.74, 1.06]
Avoidance-based (Partner)	10	.10	.31	.91	[.75, 1.09]

models in which perceived partner commitment was included ( $bs \ge -.05$ ,  $SEs \ge .11$ ,  $ps \ge .67$ ). The same pattern of results was found when the full partner-focused reasons scale was replaced with the short-term avoidance subscale (the best-performing subscale). These results suggest that overall perceptions of the partner's commitment to the relationship are a better predictor of stay/leave decisions than any specific consequences that the decision is anticipated to have for the partner.

**Examining the robustness of prosocial effects with interactions.** We next probed the robustness of the links between the partner's dependence on the relationship and stay/leave decisions via a series of exploratory interactions.

What happens when self-interest is low? We tested for potential moderations between each measure of partner dependence (perceived partner commitment and partner-focused reasons) and each investment model component (satisfaction, investment, quality of alternatives, and commitment) predicting breakup decisions. Each survival model included a partner dependence variable and the four investment model variables as predictors, as well as a partner dependence\*investment model interaction term. We tested eight interactions, each in a separate model (Table S6 in the online supplemental materials). No significant interactions emerged, suggesting that people were less likely to break up with highly dependent partners regardless of their own levels of relationship dependence and relationship quality.

Communal concern. We again examined whether people who were highly communally motivated to meet their partner's needs would be particularly likely to take their partner's dependence into consideration when making stay/leave decisions. We tested two survival models in which the four investment model components, one of the two partner dependence variables, and communal strength were entered as predictors, as well as an interaction between the partner dependence variable and communal strength. Communal strength significantly moderated the impact of perceived partner commitment on stay/leave decisions, b = -.17, SE = .09, p = .05, hazard ratio = .84, CI [.71, 1.00]. Simpleeffects tests indicated that people high in communal strength were significantly less likely to end their relationships when they believed that their partner was highly committed to the relationship, b = -.43, SE = .13, p < .001, hazard ratio = .65, CI [.50, .84]. However, the partner's commitment did not predict breakup decisions for those low on communal strength, b = -.09, SE = .12, p = .46, hazard ratio = .91, CI [.72, 1.16]. The interaction term for partner-focused reasons was trending in the same direction, b = -.13, SE = .09, p = .14, hazard ratio = .88, CI [.74, 1.04], although it was not significant.

**Gender.** We next tested for moderations by gender. For each partner dependence measure, we tested a survival model in which relationship satisfaction, investment, quality of alternatives, commitment, the respective partner dependence variable, and gender were entered as predictors, as well as a model that included an interaction term between the partner dependence variable and gender. Perceived partner commitment remained a significant predictor of breakup decisions above and beyond gender, b = -.23, SE = .09, p = .01, hazard ratio = .80, CI [.66, .96], although partner-focused reasons did not, b = -.15, SE = .09, p = .11, hazard ratio = .86, CI [.72, 1.03]. Gender did not moderate the impact of perceived partner commitment, b = .10, SE = .23, p = .23

.66, hazard ratio = 1.10, CI [.71, 1.72], or partner-focused reasons, b = .07, SE = .26, p = .78, hazard ratio = 1.08, CI [.65, 1.79]. Notably, the present sample had a relatively small number of men (n = 85), which may have left us underpowered to detect moderations by gender. However, these null gender effects in the present sample are consistent with the results of Study 1.

**Relationship length.** Finally, we tested for moderations by relationship length. Again, for each measure of partner dependence, we tested a model with satisfaction, investment, quality of alternatives, commitment, the relevant partner dependence variable, and relationship length as predictors, as well as a model that included an interaction term between the partner dependence variable and relationship length. As with gender, perceived partner commitment remained a significant predictor of breakup decisions above and beyond relationship length, b = -.22, SE = .09, p = .02, hazard ratio = .80, CI [.67, .96], although partner-focused reasons did not, b = -.13, SE = .09, p = .15, hazard ratio = .87, CI [.73, 1.05]. Relationship length did not moderate the impact of perceived partner commitment, b = .12, SE = .14, p = .41, hazard ratio = 1.12, CI [.85, 1.49], or partner-focused reasons on breakup decisions, b = -.06, SE = .16, p = .72, hazard ratio = .94 CI [.69, 1.29].

Examining the robustness of prosocial effects with structural equation models. Thus far, we have tested the robustness of perceived partner commitment as a predictor of stay/ leave decisions via a series of cox regression models. However, recent findings suggest that statistically controlling for confounds in multiple regression models yields an unsatisfactorily high Type I error rate (Westfall & Yarkoni, 2016). Because regression models do not account for measurement reliability, odds of rejecting the null hypothesis become artificially inflated as measurement error increases. In contrast, structural equation models (SEM) do account for measurement reliability, such that rejecting the null hypothesis becomes harder as measurement error increases. Considering these findings, and particularly given that people tend to project their own feelings onto their romantic partners (e.g., Clark, Von Culin, Clark-Polner, & Lemay, 2017; Lemay, Clark, & Feeney, 2007), it remained plausible that perceived partner commitment predicts breakups because it captures some aspect of relationship quality. Thus, we next tested whether perceived partner commitment is distinguishable from own satisfaction and commitment as a predictor of breakups using SEM as recommended by Westfall and Yarkoni (2016). All analyses were conducted using the "lavaan" package in R. These analyses were not preregistered and should be considered exploratory.

We tested a model in which perceived partner commitment, own commitment, and own satisfaction were represented as separate latent factors predicting a dichotomous breakup variable (0 = stayed together, 1 = broke up). The latent variables representing own commitment, b = -.06, SE = .02, p < .001, and perceived partner commitment, b = -.04, SE = .02, p = .02, each predicted a significantly lower likelihood of breaking up, whereas a latent variable representing satisfaction did not, b = -.02, SE = .02, p = .49. This model with three latent predictors had adequate fit, RMSEA = .08,  $CI_{95\%}$  [.07,.08], CFI = .94,  $\chi^2(114) = 441.44$ , p < .001 (see Figure 1).

We also tested three simpler models in which perceived partner commitment was combined with one or both other variables. A model with only two latent variables—perceived

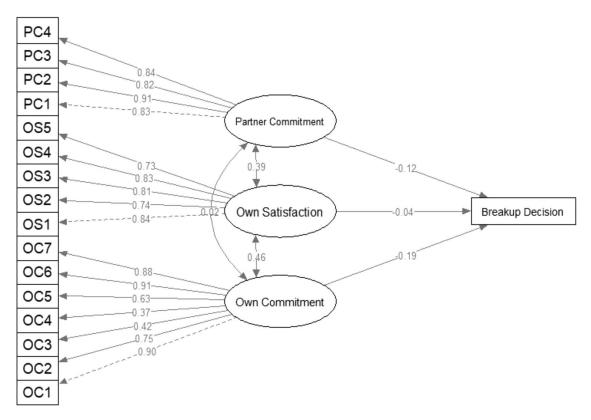


Figure 1. Latent representations of own satisfaction, own commitment, and perceived partner commitment predicting breakup decisions.

partner commitment and own commitment combined, and own satisfaction—did not fit the data well, RMSEA = .17, CI<sub>95%</sub> [.17,.18], CFI = .66,  $\chi^2(117)$  = 1857.71, p < .001. An Analysis of Variance showed that the three-variable model, df = 114, AIC = 27,063, was a significantly better fit for the data compared with a two-variable model, df = 117, AIC = 28,473,  $\chi^2(2) = 1416.30$ , p < .001. An alternative model testing only two latent variables-satisfaction and perceived partner commitment combined, and own commitment— also did not fit the data well, RMSEA = .16,  $CI_{95\%}$  [.15,.17], CFI = .71,  $\chi^{2}(117) = 1574.35, p < .001$ . An Analysis of Variance showed that the three-variable model, df = 114, AIC = 27,063, was again a significantly better fit compared with this two-variable model, df = 117, AIC = 28,190,  $\chi^2(2) = 1132.90$ , p < .001. Finally, a model testing only a single latent variable—satisfaction, perceived partner commitment, and own commitment combined—fit the data particularly poorly, RMSEA = .22,  $\text{CI}_{95\%}$  [.21,.22], CFI = .45,  $\chi^2(119)$  = 2875.98, p < .001. Together, these structural equation models provide additional evidence that perceived partner commitment is a separate construct—and a separate predictor of breakups—from these well-established indicators of relationship quality.

# Study 2 Discussion

Our preregistered hypotheses were largely confirmed. Replicating key findings from Study 1, we found that people were less likely to break up with a partner over a two-month period if they

perceived that their partner was highly committed to the relationship, as well as if they believed that staying in the relationship was in the best interests of their partner (partner-focused reasons). Extending Study 1, we obtained these effects in a sample of participants who were considering ending their relationships at the time they were recruited. Further, we found that these effects could not be attributed to extrinsic reasons to care about a partner's feelings, such as feelings of guilt, fears of retaliation from the partner, or concern about negative judgment from one's friends and family. These results give us greater confidence that the effects are truly prosocial in nature.

We found that the tendency to remain in relationships with highly dependent partners was generally robust, in that the effect was not moderated by gender, relationship length, or indicators of own relationship quality (e.g., own investment, own satisfaction). Replicating Study 1, the one exception uncovered was a moderation of the effects of perceived partner commitment by communal strength. Perceptions of the partner's commitment predicted remaining in the relationship very strongly for individuals high in communal strength, whereas perceived partner commitment did not predict stay/leave decisions for those low in communal strength. These results provide further evidence that the impact of the partner's dependence on stay/leave decisions is prosocial in nature. Further, they suggest a potential boundary condition to the effect, whereby not everyone who contemplates a breakup necessarily considers their partner's feelings.

Study 2 did not identify any specific mechanisms through which perceived partner commitment motivates people to remain in their relationships. Exploratory analyses on partner-focused reasons subscales revealed that short-term reasons were the strongest predictors of remaining in a relationship, particularly short-term avoidance reasons; that is, the partner's immediate distress in the aftermath of a breakup. However, these effects (and the effects of the partner-focused reasons scale more generally) disappeared when controlling for perceptions of the partner's overall commitment to the relationship. That is, the impact of the partner's dependence on motivation to maintain the relationship could not be explained by any specific kind of consequence that the stay/leave decision is anticipated to have on the partner.

Why would a global assessment of a partner's commitment be a more proximal predictor of stay/leave decisions than specific partner-focused concerns? One possibility is that people first consider specific reasons why the partner may wish to remain in the relationship (partner-focused reasons), and then aggregate those concrete reasons into a more global assessment of how much their partner wants the relationship to continue (perceived partner commitment). This overall assessment is what people then draw from when making stay/leave decisions, rather than drawing from specific consequences directly. This hypothesis is consistent with self-focused theorizing on stay/leave decision processes: specific facets of the relationship (e.g., satisfaction, investment, alternatives) are aggregated into an overall feeling of dependence on the relationship (commitment), which in turn is a strong predictor of stay/leave decisions (e.g., Rusbult, 1983; Le & Agnew, 2003).

A related possibility is that people generally lack insight into the specific reasons that a partner may have for wanting to maintain the relationship. People may instead first generate an overall impression of how much their partner wants the relationship to continue (perceived partner commitment), and then infer the partner's specific stay/leave motives from that more global judgment. Both of these hypotheses are consistent with the present findings and with the notion that, in much the same way that own commitment is the best psychological indicator of whether continuing the relationship is best for the self, PPC might be the best psychological indicator of whether continuing the relationship is perceived to be best the partner. Future research is needed—ideally studies that measure partner-focused perceptions and motives across multiple time points—to better understand the processes through which the partner's dependence impacts stay/leave decisions.

# **General Discussion**

The current pair of studies is the first in the close relationships literature to directly test the idea that people take their partners' feelings into consideration when making stay/leave decisions. Using longitudinal designs, we examined whether people are less likely to break up with romantic partners who are highly dependent on the relationship: partners who strongly want and need their relationship to continue. We operationalized perceived partner dependence in two ways across two studies: people's beliefs about (1) how committed their partner is to the relationship, and (2) how distressing a breakup would be for the partner. We found that each of these variables predicted a lower likelihood of choosing to end the relationship over the course of the study. Importantly, these variables generally held above and beyond a variety of self-

focused variables, including all four investment model components (Studies 1 and 2), feelings of being appreciated by the partner (Study 1), and concerns about guilt, retaliation, and negative judgment in the event of a breakup (Study 2).

The present findings have important implications for understanding prosociality in the context of romantic relationships. Much of the research on prosocial acts in romantic relationships has focused on the role of commitment, demonstrating that commitment greatly facilitates a person's willingness to prioritize the partner and the relationship ahead of immediate self-interest. For example, the more committed a person is to their relationship, the more likely they are to respond constructively to the partner's destructive acts (Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991), sacrifice for their partner (Righetti & Impett, 2017; Van Lange et al., 1997), and forgive their partner for transgressions (Finkel, Rusbult, Kumashiro, & Hannon, 2002). However, it is unclear whether these decisions are intended to benefit the partner, per se, rather than the relationship (Hui et al., 2014). Are committed individuals truly more prosocial toward their partners, or are they ultimately trying to achieve the self-interested goal of maintaining a relationship that they value? Indeed, Hui et al. (2014) found that when the needs of the partner are pitted against the needs of the relationship, highly committed people prioritize the relationship, sometimes even to the detriment of the partner. Together, this body of research leaves open the question of whether people are ever truly prosocial in the context of romantic relationships, or whether efforts to benefit the partner are ultimately part of a long-term, self-interested strategy to maintain a valued relationship.

Breakup decisions offer a unique context in which to explore this question. In the context of breakup decisions, the relationship already offers too few benefits and/or too many costs to the point that the decision-maker is thinking about exiting the relationship altogether. Thus, this decision context disentangles prosocial motivation to benefit the partner from self-interested motivation to preserve the relationship in a way that many other relationship decisions do not. As such, breakup decisions represent a particularly strong test of people's willingness to act prosocially toward romantic partners. In the present research, we consistently found that people took their partner's feelings into consideration—such that they were less likely to end a relationship with a highly dependent partner—regardless of their own commitment, satisfaction, investment, and quality of alternatives. These effects emerged even in a sample in which most participants were actively contemplating a breakup (Study 2). These results suggest that people care about their partner's feelings even when they are not currently dependent on the relationship to meet their own needs.

#### Just How Prosocial Are Stay/Leave Decisions?

One important question raised by the present work is *why* do people care about their partner's needs in the context of stay/leave decisions? We have argued that the mechanism most consistent with the present data is basic prosocial tendencies: people genuinely care about the welfare of their romantic partner, and thus feel motivated to act in ways that benefit the partner. However, there are two key alternative reasons why a person may care about their partner's needs, which we have taken a number of steps to rule out in the present research.

The most viable alternative explanation is that people care about their partner's dependence not for the sake of the partner, but for the sake of the self. According to risk regulation theory, a highly dependent partner is a more desirable partner because one can feel more confident about their acceptance and positive regard (e.g., Murray, Bellavia, Rose, & Griffin, 2003; Murray, Holmes, & Griffin, 2000; Murray, Holmes, Griffin, Bellavia, & Rose, 2001). Thus, people may be less likely to break up with a highly dependent romantic partner not because they are concerned about their partner's needs, but because the partner's dependence helps to satisfy their own need to feel accepted and secure within the relationship. To rule out this alternative explanation in the present research, we tested for moderations by a number of indicators of relationship quality. In Study 1, we measured how appreciated people felt by their partner, which represents people's intuitive sense of their partner's positive regard for them (Gordon et al., 2012). We found that our effects were not moderated by feelings of being appreciated, suggesting that even people who felt less appreciated or relatively more taken for granted by their partner still took their partner's feelings into account when making stay/ leave decisions. Across both studies, we did not find moderations by satisfaction, investment, quality of alternatives, or commitment. These results suggest that people are less likely to break up with a romantic partner who is highly dependent on the relationship even if the relationship is not doing a particularly good job of meeting their own needs.

We further sought to rule out a methodological explanation for our findings. Relationship breakups are typically treated as a relationshiplevel event, rather than as an individual choice. Ironically, this interdependent conceptualization of breakups makes it impossible to determine just how interdependent breakup decisions are. If Fred's relationship is more likely to last when Wilma is highly dependent on the relationship, is it because Fred takes Wilma's dependence into consideration when deciding whether to stay in the relationship? Or, is it merely that Wilma takes her *own* dependence into consideration when she decides whether to stay in the relationship? To account for this confound in the present research, we excluded individuals who were broken up with so that our results would reflect the participants' own decisions about whether to stay in the relationship, rather than their partner's decision. In both studies, the expected results emerged despite this exclusion, suggesting that people are indeed taking their partner's feelings into account when making their own stay/leave decisions.

Altogether, the present research suggests that indeed, when people make choices about whether to stay in their relationship or leave, they consider their partner's feelings and needs in addition to their own. This novel finding in the domain of stay/leave decisions adds to a growing body of work suggesting that people generally take their partners' feelings into consideration when making important relationship decisions (e.g., Joel, Teper, & Mac-Donald, 2014; Joel, Gordon, Impett, MacDonald, & Keltner, 2013). Although these findings contradict the traditional economic model of human beings as self-interested decision makers, they are entirely consistent with modern behavioral research showing that even economic decisions are made with other people's interests in mind (e.g., Rand et al., 2012; Yamagishi et al., 2014). Not only are these findings evidence of the similarity between romantic relationships and other, more traditional decision-making domains (Joel, MacDonald, & Plaks, 2013), but they also highlight the importance of continuous crosstalk between the two research areas of close relationships and decision making.

## Is Prosocial Relationship Decision Making Beneficial?

An important related question raised by the present work is what the downstream consequences of making relationship stay/leave decisions with the partner's feelings in mind might be. To what extent is it a good thing that are people are willing to stay in a relationship for the sake of the partner? It seems likely that prosocial motivation might be a double-edged sword when it comes to stay/leave decisions. On the one hand, relationship quality tends to ebb and flow over time (e.g., Knee, Canevello, Bush, & Cook, 2008). For people who are already paired with a compatible romantic partner, partner-focused motives may help them to ride out temporary rough patches in their relationship, ultimately enabling them to maintain a more stable bond over the long term. On the other hand, partner-focused motives may also motivate people to remain in a chronically unfulfilling relationship, perhaps with a romantic partner with whom they are not compatible. Future research is needed to understand the contexts in which prosocial relationship decision making might ultimately be of benefit versus detriment to the decision maker.

Beyond the implications of partner-focused decision making for the decision maker, it is unclear what the implications of partner-focused decision making might be for the partner. One limitation of the present study is that we surveyed individuals rather than couples, and so we do not know how people's perceptions of their partner's dependence map onto the partner's actual feelings of dependence. They may in fact be quite inaccurate. For example, given that people tend to overestimate how painful a breakup would be for themselves (Eastwick, Finkel, Krishnamurti, & Loewenstein, 2008), it seems possible that they might also overestimate how painful a breakup would be for their partner. We believe that this is unproblematic for our interpretation of the main findings, which focus on one's own stay/leave decisions. Decision makers can only make use of the information that they have, and so perception is more relevant than reality when predicting relationship decisions (see Joel et al., 2013, for further discussion). However, the partner's actual feelings become more relevant when considering the *consequences* of those decisions. For example, imagine that Wilma and Fred both find themselves feeling unfulfilled in their relationship with one another, and are contemplating ending the relationship. Fred may (inaccurately) perceive that a breakup would devastate Wilma, meanwhile Wilma may (inaccurately) perceive that a breakup would devastate Fred. They may each choose to continue to maintain the relationship with their partner's feelings in mind. In this situation, the choice to continue the relationship is clearly benefiting no one, as both partners wish for the relationship to end. This is an extreme example, but it helps to illustrate why further research is needed to determine whether and when it might be beneficial versus detrimental to remain in an unfulfilling relationship for the sake of the partner.

Even in cases where the partner does wish to maintain the relationship, it is still not clear whether maintaining the relationship for the sake of the partner is actually in that partner's best interests in the long-term. A large body of research shows that it is crucial for people to feel valued and accepted by their romantic partners (see Murray, Holmes, & Collins, 2006; Murray & Holmes, 2009 for reviews). Insecurities and doubts about the partner's regard can be quite damaging for both the self and the relationship (e.g., Lemay & Clark,

2008; Murray et al., 2001, 2003). Based on this work, a person who chooses to maintain an unfulfilling relationship may actually be doing their partner a disservice, as the partner may pick up on the fact that the decision maker does not genuinely want to be with them and consequently feel worse about themselves. These consequences may be especially likely if the decision maker chooses to maintain the relationship for avoidance-based motives (e.g., to avoid hurting the partner) rather than approach-based motives (e.g., to please the partner; see Impett et al., 2005, for discussion). That is, in such cases where a person is deciding whether to begrudgingly maintain a less-than-ideal relationship for the sake of the partner, freeing the partner to pursue other romantic opportunities may actually be the more prosocial thing to do.

# What Are the Limits of Prosociality in the Context of Stay/Leave Decisions?

Just how far are people willing to go to meet a romantic partner's needs? It is worth noting that although partner-focused measures consistently predicted stay/leave decisions in the present research, these effects did not eliminate the impact of self-focused variables. That is, people still took their own feelings into consideration in addition to their partner's feelings, such that variables such as own commitment remained robust predictors of stay/leave decisions. These effects suggest that there are limits to the impact of prosociality on stay/leave decisions: it may be that people will only stay in a relationship that is so unfulfilling, for so long, for the sake of the partner. Future research should examine the mechanisms by which people weigh their own interests against those of their partner in the context of stay/leave decisions, as well as the time course over which people tend to make these decisions. There may be a particular tipping point at which most people will exit a relationship, regardless of how strongly their partner wishes for the relationship to be maintained.

Relatedly, we uncovered a potential boundary condition to the effect in Study 2, whereby individuals particularly low on communal strength did not take their partners' feelings into consideration when deciding whether to remain in the relationship. This finding suggests that the present effects may not extend to individuals who are particularly self-focused or self-interested. Future research should examine how related individual differences (e.g., narcissism, Machiavellianism) might shape people's willingness to remain in low-quality relationships for the sake of the partner.

Further, the present studies have limitations that may constrain the generalizability of the findings. First, attrition rates were undesirably high in both studies (67% in Study 1, 40% in Study 2), which may have led to the current samples being biased or unrepresentative in unidentified ways. Second, both samples consisted of individuals in relatively new relationships, with an average relationship length of two years in Study 1 and three years in Study 2. It is yet unclear how prosocial concerns shape decisions to exit longer-term relationships, which are more likely to involve concrete barriers to dissolution (e.g., children, shared finances; Joel, MacDonald, & Page-Gould, 2017). Finally, all participants in the current studies were from North America, and most lived in the United States, where individualism powerfully shapes people's perspective-taking tendencies (Wu & Keysar, 2007) and the extent to which close others have been integrated into the self-concept (Markus & Kitayama, 1991). Future research should test the present effects in more collectivistic contexts, where partner-focused decision-making may operate somewhat differently.

#### **Conclusions**

The present research shows that people take their partner's feelings into consideration even when making the potentially life-changing decision of whether to end a romantic relationship. Even when people are not particularly satisfied with their relationship, concern for their partner's feelings can discourage them from ending the relationship. This work adds to a growing body of research suggesting that human decision making is more prosocially motivated than previously thought. However, further research is needed to determine just how beneficial versus detrimental it is to stay in a romantic relationship for the sake of a partner.

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Received February 20, 2018
Revision received March 22, 2018
Accepted March 24, 2018

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