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**Running Head: MOTIVATION AND SELF-OTHER OVERLAP**

**Self-Determined Self-Other Overlap: Interacting Effects on Partners' Perceptions of Support and Well-Being in Close Relationships**

Netta Weinstein, Cardiff University<sup>a</sup>

Lindsey M. Rodriguez, University of Houston<sup>b</sup>

C. Raymond Knee, University of Houston<sup>b</sup>

Madoka Kumashiro, Goldsmiths, University of London<sup>c</sup>

<sup>a</sup>School of Psychology  
Cardiff University  
70 Park Place  
Cardiff, Wales, CF10 3AT  
WeinsteinN@cardiff.ac.uk

<sup>b</sup>The University of Houston  
3695 Cullen Boulevard  
Houston, TX 77204 USA

<sup>c</sup>Psychology Department  
Goldsmiths, University of London  
New Cross, London SE14 6NW  
UK

### Abstract

Self-other overlap, an important dimension of interpersonal closeness, is linked to positive interpersonal and well-being outcomes in relationships with romantic partners and friends. Three studies applied principles from self-determination theory to examine whether individual differences in self-determined motivation moderate the effects of higher self-other overlap on partner outcomes. Studies were cross-sectional and longitudinal, and examined personality and relationship-specific self-determination in friends (Study 1) and romantic partners (all studies); all were comprised of dyads to examine partner effects. Results suggested that as self-determined individuals reported greater self-other overlap, their partners also reported receiving more positive motivational support as well as enhanced commitment. On the other hand, when individuals were low in self-determination, partners did not benefit from greater self-other overlap.

**Keywords:** motivation; self-determination theory; self-other overlap; autonomy support; relationships

### **Self-determined self-other overlap: Interacting effects on partners' perceptions of support and well-being in close relationships**

In the present paper, we integrate self-determination theory (SDT; Deci & Ryan, 1985, 2008; Ryan & Deci, 2000) with self-expansion theory to better understand and predict relational and well-being outcomes for one's partner, assuming that healthy relational processes translate to more positive partner outcomes. Research informed by self-expansion theory (Aron & Fraley, 1999; Aron, Aron, Tudor, & Nelson, 1991) has shown that individuals in close relationships such as those with romantic partners or best friends tend to experience higher cognitive interdependence with partners, reflecting a blending of identity from "I" to "we"; many studies cite this as one important aspect of interpersonal closeness that is partly responsible for shared intimacy (e.g., Aron & Fraley, 1999; Oriña, Wood, & Simpson, 2002; Weidler & Clark, 2011). As an important component of relationships, this *self-other overlap* has been linked to generally positive outcomes for the relationship, impacting both self and partner (Amodio & Shower, 2005; Murray, Holmes, Bellavia, Griffin, & Dolderman, 2002; Murray, Holmes, & Griffin, 2000), although individuals may find high self-other overlap to be undesirable at times (Frost & Forrester, 2013; Mashek, Le, Israel, & Aron, 2011). Though the literature largely identifies positive outcomes of self-other overlap, we reasoned that increases in self-other overlap may have different implications for relationship quality, and that the associations between increases in self-other overlap and relational outcomes depend on self-determination, or those who are motivated by a sense of choice and personal valuing.

While those who are self-determined might be inclined to embrace and invest in those with whom they experience high self-other overlap – becoming more emotionally available, responsive, and attuned to partners – those who are low in self-determination are more defensive in close relationships, particularly during important or emotional interactions (e.g.,

Knee, Hadden, Porter, & Rodriguez, 2013; Knee, Patrick, Vietor, Nanayakkara, & Neighbors, 2002). This work suggests that self-determined individuals engage partners in more relationally and motivationally supportive ways, and here we explore, for the first time, the idea that this might happen to a greater extent as individuals experience increasing self-other overlap. This body of literature also suggests that, on the other hand, individuals low in self-determination respond to closeness with defensive behaviors, and here we test whether their partners experience relationships in more negative ways with increasing closeness. In this paper we thus test the expectation that partners of self-determined individuals experience more need-supportive climates and have a positive view toward their relationship, experiencing greater relationship commitment.

### **Self-Determination**

A key aspect of SDT is the distinction made between parts of the self that are regulated by extrinsic incentives, inner pressures, expectations, and demands and those that are regulated by intrinsic interests, awareness of needs, and genuine core-self involvement. According to SDT, being self-determined means that one's actions are relatively volitional, freely chosen, and fully endorsed by the individual. This definition stresses authenticity of choices and behaviors that are congruent with one's needs (Ryan & Deci, 2004; Weinstein, Przybylski, & Ryan, 2012), rather than being influenced by controlling forms of motivation that represent internalized pressures and contingencies.

Self-determined involvement promotes openness rather than defensiveness and facilitates perspective-taking, flexibility, honesty and authenticity, awareness of needs and support of close others, and relational well-being (Hodgins et al., 2010; Knee, Lonsbary, Canevello, & Patrick, 2005; Knee et al., 2013; Weinstein, Hodgins, & Ryan, 2010). Self-determination has been studied in relationship contexts, specifically, and tends to predict a less defensive style of interacting with partners that is felt as being more authentically and

consistently supportive (see Knee et al., 2013 for review). Most critical to individuals' experiences with autonomous partners is research suggesting that individuals with high self-determination typically report more honest explanations for social offenses, higher empathy and perspective taking in times of stress, as well as more adaptive coping strategies and conflict-resolution behaviors during romantic relationship conflict (Hodgins & Liebeskind, 2003; Hodgins, Liebeskind, & Schwartz, 1996; Hodgins, Yacko, Gottlieb, Goodwin, & Rath, 2002; Knee et al., 2002); these interpersonal indicators are thought to reflect lower levels of defensive responding. For example, Knee et al. (2002) videotaped couples in a semi-structured interview and found that self-determined orientations were associated with more relationship-maintaining coping strategies and positive behaviors and lower levels of denial and negative emotions. Although we see from this past research that self-determined individuals are more likely to engage others in more supportive ways, we have very little understanding of the quality of these relationships as individuals feel increasing self-other overlap with others. Presumably, with increasing self-other overlap, individuals also act more in line with their natural inclinations and tendencies to be either supportive, or otherwise, controlling and undermining, based on their own motivation orientations (e.g., Knee et al., 2013). As relationships become more intimate and intense, this process can become more impactful on partners (Knobloch & Solomon, 2002; Teismann & Mosher, 1978).

### **Levels of Self-Determination**

Self-determination has been defined at levels of generality vertically organized from global to context-specific (Vallerand, 1997, 2007; Vallerand & Lalande, 2011; Vallerand & Ratelle, 2002). The most global level reflects an individual difference that is broadly transferred across domains and relationships, including close relationships. More context-specific are motivational qualities that drive individuals to engage a given relationship. Individuals who are generally more self-determined are more likely to show enduring self-

determined motivation in their close relationships and in any particular interaction, all other things being equal. Thus, these levels of analysis are intimately linked, but all are important in influencing relationships and are expected to do so in comparable ways (Vallerand & Lalande, 2011). Although the levels of analysis may be important for understanding partner outcomes, few research programs have tested whether models would replicate across both personality and relationship-specific levels; we aimed to do so in the present research.

### **Motivational Supports in a Relationship**

When in relationships, individuals may use motivational strategies with their partners that likely influence their partners' relational and personal experiences. Autonomy support is one relational process recognized to be motivationally and personally relevant, and it can be more specifically operationalized by two types of partner perceptions, those of non-conditional regard and of perceived autonomy need satisfaction. Partners can support individuals' autonomy by encouraging behaviors that are in accord with their true selves, or 'who people really are.' Satisfaction of the need for autonomy in close relationships has been linked to trust and emotional reliance (La Guardia, Ryan, Couchman, & Deci, 2000; Ryan, La Guardia, Solky-Butzel, Chirkov, & Kim, 2005), individual and relationship well-being (Patrick et al., 2007), healthy psychological development (Deci & Ryan, 2008; Joussemet et al. 2008), and higher social adjustment (Soenens & Vansteenkiste, 2010). Close others can also support autonomy needs by providing unconditional positive regard, which is characterized by love and affection that is not dependent on partners' behaviors. In contrast, negative conditional regard is characterized by love that is withdrawn when partners are believed to engage in undesired behaviors (Assor, Roth, & Deci, 2004; Grolnick & Ryan, 1989; Roth et al., 2009). Conditional regard has been associated negatively with relational and psychological well-being (Assor et al., 2004; Assor, Kaplan, Kanat-Maymon, & Roth, 2005; Cramer, 2003; Deci, Eghrari, Patrick, & Leone, 1994; Grolnick & Ryan, 1987; Kanat-

Maymon, Roth, Assor, & Reizer, 2013; Murray et al., 2002; Roth et al., 2009; Vansteenkiste, Zhou, Lens, & Soenens, 2005). In the current research, we propose that these motivational supports are communicated more effectively as highly self-determined individuals experience greater self-other overlap in close relationships.

### **Present Study: Integrating Motivation and Self-Other Overlap**

Self-other overlap has been interpreted as an index of interconnectedness between one's self and a close other, which is usually associated with positive relationship outcomes. Although self-expansion theory suggests that people desire to expand their self-concept, it does not distinguish between more and less self-determined expansion (Knee et al., 2013). The present paper employed an SDT perspective to understand the implications for partners as individuals experience higher self-other overlap. We argue that greater closeness is not always good for partners; rather, the association between individual self-other overlap and partner well-being may depend on individuals' self-determination. Let us consider examples of partners who are high and low on self-determination and reason how this might predict well-being as self-other overlap increases. First, consider Amy and Joe. Amy is high in self-determination and is in the relationship for autonomous reasons. She behaves authentically and genuinely desires to grow closer to Joe because she cares deeply for him. When concerns arise, Amy listens nondefensively, responds reflectively, and allows Joe an emotional climate to express himself and feel supported. Joe receives Amy's openness positively and believes that she supports his autonomy in return. Second, consider Kathy and Peter. Kathy is low in self-determination. As she feels more emotionally invested in her relationship with Peter over time, her natural emotions and relationship patterns become more pronounced. She responds defensively when concerns arise in their relationship, responding reactively, and with haste, as she fears rejection, a hurt sense of self-esteem, or that she will appear to be a bad person to herself or Peter. Rather than listening to Peter's true concerns and values, she hastily imposes

her own onto him and distances herself when he does not comply. As a result, Peter does not believe he can express his true self around Kathy and reports higher levels of negative outcomes such as perceived conditional regard from Kathy. In the case of Kathy and Peter, self-other overlap resulted in more opportunities for conflict and threats, and intensified Kathy's tendency to respond defensively and non-supportively, at Peter's expense. Yet those same opportunities promoted intimacy and support in Amy and Joe's self-determined relationship.

An aim of the current research is to test the notion that not all motivations for including the other into the self relate equally to the the relational climate. We explored how increasing interconnectedness might be differentially associated with relational outcomes based on whether the individual is motivated by self-determination. Specifically, we tested whether the behavior of self-determined individuals, upon experiencing higher self-other overlap, would be positively linked to perceptions by their partners that they are supporting their autonomy or as providing less conditional regard. Conceptually, we expected that this would emerge in our models with actor self-determined motivation and actor self-other overlap interacting to predict partner personal and relational outcomes. Moreover, we took into account different levels of Vallerand's hierarchical model (personality and relationship-specific, Vallerand, 1997) when exploring this question.

To test these hypotheses, we conducted three dyadic studies aimed at understanding partners' perceived experiences in a relationship, which presumably reflected the quality of interactions between self-other overlap and a self-determined orientation. Study 1 sampled friends and romantic partners using a cross-sectional design to link to individual differences in self-determined orientation to partners' perceived motivational supports of autonomy and less conditional regard. To further understand the relational impacts of our two predictors, in Study 2 we examined how the relationship-specific levels of self-determination, which are

more context specific applications of the orientation toward self-determination, relate to a less proximal interpersonal outcome, namely relationship commitment in romantic dyads. Thus, in these two studies we were able to explore our model using two levels of self-determination and two types of relational outcomes. However, both studies provided single time-point ‘snapshots’ of relationships. Accordingly, in a final study, we sampled romantic couples who were followed for two years to understand partners’ experiences of being autonomy supported over time, as a function of individual differences in self-determination. Analyses of reciprocal dyadic relationships employed the Actor-Partner Interdependence Model (APIM; Kashy & Kenny, 2000; Kenny, Kashy, & Cook, 2006) to account for bi-directionality of partner effects. While controlling for actor effects, our primary interest was in partner effects, or the relation between one's partner’s report of self-other overlap and motivation and one's own reported outcome. By using the APIM, we were able to account for the possibility that partner effects could be driven by one's own self-perceptions of motivation and self-other overlap. These studies take a new approach to understanding the role of self-determination in close relationships in that they are the first to explore how feeling close benefits partners under specific motivational conditions.

### **Study 1**

Study 1 tested the extent to which individuals’ personality-level self-determination and self-other overlap interacted in predicting partners’ perceived autonomy support and conditional regard. To do this, we conducted a dyadic study focused on two types of reciprocal close relationships: friends and romantic partners. This approach allowed a test of generalizability across relationship types, and by obtaining data from both partners in a dyad, we were able to discriminate between actor and partner effects.

### ***Method***

#### **Participants and Procedure**

Participants were 98 students and community members (49 dyads; aged 15-55,  $M = 27.9$ ,  $SD = 10.12$ ) who volunteered to take part in the study. Dyads were comprised of two groups: pairs of best friends (24 couples) and paired partners in a romantic relationship (25 couples), who were in a relationship for an average of 6.06 years ( $SD = 6.99$ ). In this sample, all romantic dyads were heterosexual and all best friends were same-sex. Selection of participants into one of these two groups was semi-random – if participants were not in a relationship, they took part in the ‘best friend’ study; otherwise they were selected into groups on a random basis. Providing they met relationship status criteria, no participants were excluded from this study. Paired volunteers completed surveys assessing self-determination, self-other overlap, and perceived relationship processes. They were instructed to complete forms in separate rooms and without consulting one another. Data were collected through the school semester; we did not recruit for a second semester having achieved power of .93 for a modest effect size of .30 with this sample.

## **Materials**

**Self-determination.** Self-determined motivation was assessed using the 15-item Index of Autonomous Functioning (Weinstein et al., 2012), which measures motivation from subscales of susceptibility to control (r), interest-taking, and congruence/authorship. In previous work, these subscales loaded onto a combined factor (Weinstein et al., 2012). Items include “My decisions represent my most important values and feelings,” “I often pressure myself,” (r) and “I am interested in why I act the way I do,” paired with a 5-point scale ranging from 1 (*not at all true*) to 5 (*completely true*) ( $\alpha = .66$ ).

**Self-other overlap.** Self-other overlap was assessed with the Inclusion of Other in the Self scale (IOS; Aron, Aron, & Smollan, 1992), which uses three scales asking: “...how close do you feel to your partner,” “you and your partner’s goals,” and “you and your partner’s resources.” In both romantic and friend pairings, the word ‘partner’ was first defined for

participants in accord with the relationship type. Each item consisted of seven sets of increasingly overlapping circles, with the circles being labeled “me” and “partner.”

Participants selected the picture that best described their relationship with their partner. The three items were averaged to form a composite ( $\alpha = .84$ ).

**Perceived autonomy support.** Perceived autonomy support (Ilardi, Leone, Kasser, & Ryan, 1993) was measured with seven items assessing participants’ experiences when they are with their partners: choiceful, pressured (r), coerced (r), free to be who I am, low in self-determination, pressured to be certain ways (r), able to express myself. These items were paired with a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*very much*) ( $\alpha = .71$ ).

**Conditional regard.** State conditional regard (Assor & Roth, 2005) was assessed with ten items, beginning with “when I did something my partner didn’t like, he or she...” Example items include “ignores me for a while,” “is less affectionate to me than usual,” and “expresses less warmth toward me than usual.” These items were paired with a five-point scale ranging from 1 (*not at all*) to 5 (*very much*) ( $\alpha = .75$ ).

### *Results*

**Analytic strategy.** Hierarchical linear modeling (HLM; Bryk & Raudenbush, 1992; Raudenbush & Bryk, 2002) was used to test individuals’ self-determination, self-other overlap, and their interaction as predictors of partner perceived autonomy support and conditional regard. HLM accounted for nesting of partners within dyads and permitted a test of actor-partner effects. Primary models included actor and partner motivation and self-other overlap. Actor and partner effects were always simultaneously entered to control for each other. Relationship type was included as a level-2 predictor and moderator. Thus, the primary analyses included actor and partner motivation, actor and partner self-other overlap, and the interaction between partner motivation and partner self-other overlap in predicting actor perceived autonomy support and actor perceived conditional regard. Predictors were centered

at the grand mean level. Descriptive statistics and correlation analyses for the data are presented in Table 1. Preliminary analyses for gender showed no effect of gender on any of the outcomes of interest,  $bs < .12$ ,  $ts < 1.58$ ,  $ps > .12$ . Given this, we tested primary models across gender.

**Perceived autonomy support.** At level 2, there were no differences between friends and romantic partners in perceived autonomy support,  $b = 0.10$ , 95% CI [-.19, .40],  $t(47) = 0.65$ ,  $p = .52$ . There were no actor effects for self-determination,  $b = 0.02$ , 95% CI [-.25, .29],  $t(89) = 0.14$ ,  $p = .89$ , or self-other overlap,  $b = 0.02$ , 95% CI [-.14, .18],  $t(89) = 0.24$ ,  $p = .81$ . In addition, there were no main partner effects, self-determination:  $b = -0.03$ , 95% CI [-.15, .09],  $t(89) = -0.47$ ,  $p = .64$ ; IOS,  $b = 0.17$ , 95% CI [-.08, .42],  $t(89) = 1.33$ ,  $p = .19$ . Main effects and interactions between self-other overlap and self-determination for this and all future studies are summarized in Table 4.

As hypothesized, an interaction emerged between one's partner's self-determination and self-other overlap in predicting one's own perceived autonomy support,  $b = .18$ , 95% CI [.06, .30],  $t(89) = 3.11$ ,  $p = .003$ . Tests of simple slopes examined the association between one's partner's self-other overlap and one's own perceived autonomy support at high and low levels of the partner's self-determined motivation. Simple slopes analyses indicated that for individuals whose partners were high in self-determination, as self-other overlap increased, they reported more autonomy support,  $b = .39$ , 95% CI [.27, .51],  $t(46) = 5.04$ ,  $p < .001$ . However, there were no benefits of self-other overlap for those whose partners were low in self-determination,  $b = .01$ , 95% CI [-.11, .13],  $t(46) = 0.09$ ,  $p = .93$ .

**Perceived conditional regard.** A second model predicted perceived negative conditional regard. At Level 2, there were no differences between groups in conditional regard,  $b = -.39$ , 95% CI [-.84, .06],  $t(47) = -1.73$ ,  $p = .09$ . There was no effect of one's own self-other overlap on one's own perceived conditional regard (actor effect),  $b = -.04$ , 95% CI

[-.33, .25],  $t(87) = -0.24, p = .23$ , although more self-determined individuals perceived less conditional regard from their partners,  $b = -1.49, 95\% \text{ CI} [-1.89, -1.08], t(87) = -7.18, p < .001$ . Controlling for this, results for partner effects showed no relation between one's partner's self-other overlap and one's own conditional regard,  $b = -0.18, 95\% \text{ CI} [-.55, .19], t(87) = -0.95, p = .34$ , although autonomous individuals tended to have partners who perceived lower conditional regard,  $b = -0.35, 95\% \text{ CI} [-.48, -.22], t(87) = -4.89, p < .001$ . Moreover, this was qualified by a significant interaction between the partner's self-other overlap and motivation in predicting one's own perceived conditional regard,  $b = -0.17, 95\% \text{ CI} [-.25, -.09], t(87) = -4.05, p < .001$ . Tests of simple slopes showed that although there was no benefit of increasing self-other overlap for individuals whose partners were high in self-determination,  $b = 0.03, 95\% \text{ CI} [-.05, .11], t(46) = 0.08, p = .94$ , for those whose partners were low in self-determination, higher self-other overlap was related to higher perceptions that they were conditionally regarded,  $b = 0.42, 95\% \text{ CI} [.34, .50], t(46) = 3.00, p = .005$ .

### ***Conclusions***

Study 1 results indicated that one's partner's self-determination and self-other overlap interacted to predict one's own relational experience. Dyadic analyses in romantic couples and best friends showed that in both types of relationships, partners' lower self-determination was associated with one's own perceived negative conditional regard, which has been found to undermine autonomy support in previous research (Assor et al., 2004; Assor & Roth, 2005). In addition, when individuals' partners were high in self-determination, greater self-other overlap was linked to one's own reports of higher perceived autonomy support. Although friendships and romantic relationships are inherently different in some ways (e.g., gender heterogeneity in this sample, sexual experiences), the way that one person's self-determination and closeness influences the other person's perception of autonomy support emerged consistently across relationship types. This attests to the generalizability of the

findings. This study examined associations between self-determination and self-other overlap in predicting proximal, motivationally-relevant relational outcomes. In Study 2, we turned to romantic relationship experiences and tested the interaction between self-determination and self-other overlap predicting romantic dyads' relationship commitment.

## **Study 2**

### ***Method***

#### **Participants and Procedure**

Participants included 78 romantic dyads who were in committed romantic relationships for at least three months. At least one participant was a psychology student, but no students were excluded from the study or analyses providing they were in a committed romantic relationship. Participants ranged in age from 21 to 55 years ( $M = 25.02$  years,  $SD = 5.88$  years), and average relationship length was 3.38 years ( $SD = 4.08$  years). Data were collected through the school semester; We did not recruit for a second semester having achieved power of .87 for a modest effect size of .30 with this sample.

#### **Materials**

**Relationship self-determination.** The Couple Motivation Questionnaire (Blais et al., 1990) assesses self-determination in terms of one's reasons for being in the relationship. The questionnaire begins with the stem, "Why are you in the relationship?" Each of the 18 items provides a reason for being in the relationship (e.g., "because I would feel guilty if I separated from my partner," "because I love the many fun and crazy times I share with my partner"). Participants indicated how much each item corresponded to their reasons for relationship involvement using a 1 (*not at all true*) to 7 (*very true*) scale. The CMQ contains six subscales that reflect self-determination to varying degrees. An index of relationship autonomy is computed by weighting each subscale according to where it fits along the

motivation continuum. Higher scores reflect more self-determination for maintaining the relationship (Gaine & La Guardia, 2009).

**Self-other overlap.** Self-other overlap was measured with overlapping circles as in Study 1, with one IOS-type item paired with the instructions, “Which of the following pictures best describes your relationship with your romantic partner?” Participants could select from seven options for the relationship between ‘self’ and ‘other.’

**Relationship commitment.** Commitment was assessed with seven items from the Investment Model Scale (IMS; Rusbult, Martz, & Agnew, 1998). Example items include, “I am committed to maintaining my relationship with my partner,” and “I want our relationship to last forever.” Individuals responded from 0 (*do not agree at all*) to 8 (*agree completely*), with higher scores indicating greater commitment ( $\alpha = .89$ ).

### *Results*

**Analytic strategy.** Similar to Studies 1 and 2, actor-partner interdependence models were utilized to examine the effect of one’s own self-determination and self-other overlap in predicting one’s partner’s relationship commitment. Descriptive statistics and correlations are presented in Table 2 with significance tests and effect sizes in Table 4. A preliminary model with gender effects revealed that gender did not influence any study variables,  $bs < .12$ ,  $ts > 1.35$ ,  $ps < .18$ .

**Primary results.** Main effects were entered in step 1 and the interaction between self-determination and self-other overlap was entered in step 2. Self-determined individuals reported higher levels of relationship commitment,  $b = .09$ , 95% CI [.07, .11],  $t(126) = 9.48$ ,  $p < .001$ . Moreover, individuals with higher self-other overlap also reported higher levels of commitment,  $b = .28$ , 95% CI [.15, .40],  $t(114) = 4.40$ ,  $p < .001$ . Neither partner self-determination nor self-other overlap was associated with one's own commitment levels,  $bs < .04$ , 95% CI [-.09, .14],  $ts < 1.25$ ,  $ps > .20$ . However, as expected, an interaction emerged

between partner self-determination and self-other overlap in predicting one's own relationship commitment,  $b = .01$ , 95% CI [.01, .02],  $t(126) = 2.18$ ,  $p = .03$ . Tests of simple slopes revealed that for those whose partners were high in self-determination, as self-other overlap increased, their commitment also marginally increased,  $b = .13$ , 95% CI [-.03, .27],  $t(127) = 1.66$ ,  $p = .09$ . For those whose partners were low in self-determination, however, there was no association between self-other overlap and their commitment,  $b = -.07$ , 95% CI [-.21, .07],  $t(123) = -1.00$ ,  $p = .32$ . Figure 1 graphically depicts this interaction.

### *Conclusions*

Study 2 evaluated whether the relationship between partners' self-other overlap and self-determination interacted to predict one's own relationship commitment. Consistent with expectations and with results from the other studies, increases in partner self-other overlap were linked with one's own higher relationship commitment when one's partner had higher (but not lower) levels of self-determined motivation. The trends observed in the first two studies have implications for the quality of relationships at a single point in the relationship. In this final study, we sought to apply this model to developing relationships by testing the associations of initial individual differences in partner self-determination and self-other overlap on one's own perceived autonomy support over two years, allowing us to test whether our model predicts how motivational supports develop or diminish over time.

## **Study 3**

### *Method*

#### **Participants and Procedure**

Participants were both partners of romantic couples who took part in a five-wave longitudinal study. To take part, couples were required to have begun cohabitating, become engaged or married within the previous year, or be planning to do so during the upcoming year; Providing they met these criteria, no couples were excluded from participating in this

study. At Time 1, 187 couples took part in the project (183 heterosexual couples, 4 lesbian couples), with the number of couples dropping to 160, 139, 115, and 98 at each of the remaining waves. At Time 1, participants were 26.47 years old ( $SD = 4.62$  years), with an average relationship length of  $M = 4.25$  years,  $SD = 3.10$  years. Couples took part in project activities once every six months. At Times 1, 3, and 5, couples were brought into the lab, completed self-report questionnaires, and engaged in additional tasks (e.g., videotaped conversations) that are not relevant to this study. At Times 2 and 4, participants were mailed questionnaires and were asked to mail them back separately. At all time points, couples were asked not to consult each other or look over each other's responses. Data from this study have been published elsewhere, but none relevant to self-determination (Molden, Lucas, Finkel, Kumashiro, & Rusbult, 2009; Rusbult, Kumashiro, Kubacka, & Finkel, 2009). Ninety-eight couples provided complete data through the end of the study, for an achieved power of .93 for a modest effect size of .30, although participants who provided incomplete data were still included in analyses.

## Materials

**Self-determination.** Self-determination was assessed at Time 1 with a version of the Basic Psychological Needs scale (Ryan & Deci, 2000) designed to measure general levels of self-determination, with instructions reading: "Read each of the following items carefully, thinking about how each one relates to your life, and then indicate the degree to which you agree with it." Seven items including "I feel like I am free to decide for myself how to live my life" were paired with a 9-point scale ranging from 0 (*do not agree at all*) to 8 (*agree completely*) ( $\alpha = .67$ ).

**Self-other overlap.** Self-overlap was measured with an image of increasingly overlapping circles as in Study 2.

**Perceived partner autonomy support.** Perceived autonomy support from one's partner was measured repeatedly over the two-year duration of the study (Times 1- 5) with three items adapted from La Guardia, Ryan, Couchman, and Deci (2000). An example item is, "When I am with my partner, I feel controlled and pressured to be certain ways" (*r*). Items were paired with a 9-point scale ranging from 0 (*do not agree at all*) to 8 (*agree completely*). Reliabilities across the five time-points were .71, .78, .77, .72, and .77, respectively.

### ***Results***

**Analytic strategy.** Analyses employed HLM using the actor-partner interdependence model as in Study 1. In this analysis, the within-participant variable (time across two years) was defined at level 1, and the between-participant and within-couple constructs (gender, self-other overlap, self-determination) were defined at level 2. In other words, partner self-determination and self-other overlap at time 1 predicted actor perceived autonomy support throughout a period of two years, controlling for time 1 effects (and including actor effects). We hypothesized that for individuals whose partners were self-determined, high self-other overlap would predict one's own greater autonomy support over time, whereas this would not be the case for those whose partners had high self-other overlap but low self-determination. Descriptive analyses and correlations are presented in Table 3. A preliminary hierarchical linear model with gender effects was tested and showed that own and partner gender did not influence perceived autonomy support,  $b_s < .00$ ,  $t_s < 1.13$ ,  $p_s > .25$ . Preliminary t-tests indicated no main effect of gender on perceived autonomy support,  $t = -1.52$ ,  $p = .13$ .

**Perceived autonomy support over time.** Main effects of self-other overlap and self-determined motivation for both actors and partners were controlled for at level 2. Findings showed that gender,  $b = .12$ , 95% CI [.08, .16],  $t(362) = 2.34$ ,  $p = .02$ , and one's own (actor effect) self-determination were linked to perceived autonomy support at time 1,  $b = .93$ , 95%

CI [.89, .96],  $t(362) = 7.08$ ,  $p < .001$ . Other predictors were not significant at the intercept,  $bs < .02$ , 95% CI [-.08, .12],  $ts(362) < 0.96$ ,  $ps > .34$ .

Looking at changes over time (specified at level 1), perceived autonomy support did not change over the two-year period of the study,  $b = 0.01$ , 95% CI [-.05, .06],  $t(821) = 0.10$ ,  $p = .92$ . The model specified that actor and partner effects at level 2 interacted with time. Participants did not perceive changes in autonomy support over time as a function of their own self-determination (actor effects),  $b = -0.10$ , 95% CI [-.28, .08],  $t(821) = 1.56$ ,  $p = .15$ , or their own self-other overlap,  $b = -0.02$ , 95% CI [-.06, .02],  $t(821) = 1.10$ ,  $p = .27$ .

To test our hypotheses, we examined whether both partner self-determination and self-other overlap interacted with time, and then also the three-way interaction among partner self-determination, self-other overlap, and time in predicting one's own perceived autonomy support. Partner self-determination interacted with time, such that partners of self-determined individuals reported higher levels of perceived autonomy support over time (partner effects),  $b = 0.20$ , 95% CI [.15, .25],  $t(821) = 8.57$ ,  $p < .001$ , though there was no relation between partner self-other overlap and time predicting perceived autonomy support,  $b = -0.02$ , 95% CI [-.06, .02],  $t(821) = -1.10$ ,  $p = .27$ . As hypothesized, a three-way interaction emerged between partner self-other overlap, self-determination, and time,  $b = 0.03$ , 95% CI [.01, .05],  $t(821) = 2.04$ ,  $p = .04$ . Simple slope analyses showed that partner self-other overlap was associated with higher levels of one's own perceived autonomy support over time, but only among those whose partners were self-determined at the start of the study,  $b = 0.03$ , 95% CI [.01, .05],  $t = 2.07$ ,  $p = .01$ . When the partner was low in self-determination at the start of the study, there was no association between self-other overlap and one's own perceived autonomy support,  $b = 0.02$ , 95% CI [-.02, .06],  $t = 0.44$ ,  $p = .66$ .

### *Conclusions*

Study 3 was part of a two-year longitudinal study that followed romantic couples after a turning point in their relationship. In general, individuals perceived no changes in autonomy support from their partners over time. However, these trends across time differed as a function of partners' self-determination and self-other overlap at the beginning of the two years. When individuals were generally self-determined and reported greater self-other overlap, their partners perceived more autonomy support.

### **General Discussion**

This research is among the first to apply self-determination theory (Deci & Ryan, 1985) to understanding interpersonal closeness through the lens of self-expansion theory (e.g., Aron & Fraley, 1999; Aron et al., 1991). Based on these two literatures, we expected that self-determined individuals would engage in more relationally enriching and motivationally supportive ways with their partners as they experienced increasing self-other overlap. Specifically, we believed that individuals who were higher in self-determination would be more likely to provide need-supportive relational climates, and that this would be recognized by their partners. We expected that this would not be the case for individuals low in self-determination; instead, these individuals may respond to increasing closeness with more defensive behaviors. Results across three studies supported this expectation, showing that, generally, those who were more self-determined tended to provide a more need supportive context for their partners, as indicated by their partners' perceptions of autonomy support, whereas partners of those who were low in self-determination did not benefit relationally from their partners' higher self-other overlap, and in fact were perceived as more conditionally regarding with increasing self-other overlap. Indeed, studies found these effects in both friends and romantic partners (Study 1), and longitudinally (Study 3), and we were able to explore more proximal relational correlates of self-determination (namely, perceived motivational climates; Studies 1 and 3), as well as a more distal one, relationship

commitment (Study 2). In addition to this, we tested self-determination as an individual difference that occurs across contexts but generalizes to relationships in two studies (Studies 1 and 3), and in a relationship-specific context in Study 2.

These findings were largely consistent across the three studies, which may have been powered differently. Study 1 tested our model with smaller sample sizes, and found strong (and likely inflated) effects averaging  $d = .72$ . However, the interaction effects were replicated in more robust Studies 2 and 3 with effect sizes averaging  $d = .27$ , indicating small but significant effects. To contextualize these different effects we meta-analytically computed a weighted average effect (Cummings, 2014) of  $\overline{ES} = .373$ , with 95% CI from .365 to .381. Taking into account results from these diverse methodological approaches suggests that the interaction between IOS and self-determination is small to medium, but present for different relationship constructs and relationship types.

Contextualizing the findings for autonomy support would suggest that with increasing self-other overlap, highly self-determined individuals facilitate their partners' well-being (Patrick et al., 2007), healthy psychological development (Deci & Ryan, 2008), higher social adjustment (Soenens & Vansteenkiste, 2010), and lower defensiveness (Roth et al., 2009). As such, our finding that self-other overlap only facilitates these relational outcomes under certain motivational conditions has implications for a range of well-being and behavioral outcomes.

Our preliminary correlations showing that self-determination is associated with more self-other overlap also inform the self-determination theory literature. Indeed, some previous work has argued that the two constructs are incompatible in that as one becomes more self-determined he or she is more independent and therefore less close to others (e.g., Blos, 1979; Damon, 1983; Peterson & Taylor, 1980). Yet, this confuses the definition of autonomy with independence, whereas in SDT, it actually refers to authenticity. Indeed, more recent work

suggests that those who are self-determined may be *more*, not less, likely to seek out closeness with others (e.g., Hodgins, Koesner, & Duncan, 1996; Weinstein et al., 2010). The present findings support this latter view.

Consistent with these literatures, in Study 2 need supportive relational climates translated to more relationship commitment among romantic partners. Previous research has shown that individuals high or low in self-determination introduce their particular self-determination to important life tasks, including close relationships (Blais et al., 1990). Yet, until now, research has not examined whether applying one's motivation to relationships impacts the natural process of developing intimacy in positive or negative ways. This finding suggests that self-determined individuals were better able to fully engage the relational process in a way that benefited their partners; it may be that as self-determined individuals perceived more investment in the relationship, indicated by self-other overlap, they became more emotionally available, increasingly responsive, and more attuned to partners – all relational experiences that may have contributed to more perceived partner autonomy support, with implications for other positive outcomes. Future research may examine whether these relational indicators, assessed with observation or self-reports, mediate the effects of self-determined individuals' self-other overlap on partner outcomes.

These findings inform the literature on interpersonal closeness in important relationships with friends and romantic partners. Previous research has indicated that as important relationships develop, partners increasingly experience cognitive interdependence in which perceptions shift from “I” into “we” (Agnew, 2006; Slotter & Gardner, 2009). This sense of overlap predicts relationship satisfaction (Murray et al., 2000) and in the best cases encourages more responsive and intimate relational processes that help to maintain close relationships in the long term (Aron et al., 1992). Our results suggest that this benefit occurs only from a partner who feels close or intimate if the partner is also self-determined, and

therefore generally inclined to approach relationships fully and authentically, from their own values and interests rather than driven by pressures and externally or internally imposed controls. Such a finding help explain previous studies showing that sometimes partners seek less, not more closeness (Mashek et al., 2011).

Self-determination has been defined at levels of generality from global to context-specific (Vallerand, 1997), and findings were consistent across trait-level, and relationship-specific motivations, for both friends (Study 1) and romantic relationships (all studies). Individuals who are generally more self-determined are more likely to show enduring self-determined motivation in their close relationships and in any particular interaction. These levels of operationalization are intimately linked, but all are important in influencing relationships and are expected to do so in comparable ways (Vallerand & Lalande, 2011). We found consistent support for one's self-determination and self-other overlap interacting to predict one's partner's outcomes, and this support emerged when self-determination was operationalized as an individual difference, and a relationship-specific motivation, in a close relationship context.

The literature on motivational orientations has underscored the importance of self-determination for positive interactions with friends and romantic partners (see Weinstein, 2014, for review). This work has assumed that motivation has a similar effect on relationship quality independent of the specific characteristics of the relationship. The current work suggests that there may be additional explanatory power to understanding the social context in which motivation takes place; in this case, motivation appeared to have a stronger influence on partners with whom one felt a sense of closeness. Even in less close relationships, such as those with bosses, coaches, and others, motivation may be more important for shaping healthy interactions as individuals place importance on the context and on outcomes (e.g., performance outcomes) that arise from collaborative efforts. In these

cases, involved bosses who are self-determined may be more effective at eliciting a positive working climate for their workers, whereas involvement may have no outcomes, or even negative outcomes, when bosses are low in self-determination. Similarly, parents' self-determination may affect relationships with children more when interacting around important or meaningful activities (e.g., education) than in contexts less important to parents.

These effects may also shape relationships in the long-term. Study 3 examined the relational effects of motivation and self-other overlap over a two-year period, and indicated cumulative benefits of self-determination paired with initial interpersonal closeness. Results of this study indicated that partners of autonomous individuals with high self-other overlap experienced autonomy support increasingly across the two-year period, suggesting that autonomous individuals may be capable of building more supportive long-term relationships that develop in positive ways over a longer period of time. Such research has implications for relationship success across an even longer span of time than that tested in the present study, and might even relate to likelihood of divorce.

**Limitations and future directions.** The present studies demonstrated the importance of both self-other overlap and self-determined motivation for partners' positive relational and personal experiences in friends and romantic partners. Several limitations can be acknowledged. First, the correlational designs did not permit causal interpretations and relied on self-reported data, although we used longitudinal as well as cross-sectional designs and dyadic data that more conservatively estimated partners' perceptions of receiving support. It may be the case that partners' perceptions were biased by a third factor, for example dispositional optimism (Carver, Scheier, & Segerstrom, 2010), or social value orientation (Van Lange, Agnew, Harinck, Steemers, 1997), which may be responsible for individuals' higher self-determination, self-other overlap, and adaptive relational behavior. Future research should replicate these findings using lab or diary methods with manipulations of

both self-other overlap and self-determination, and with measurements of partner behavior or physiological responding. Additionally, although partners of individuals low in self-determination did not benefit from increasing self-other overlap, they also did not consistently suffer detriments as self-other overlap increased, as we had initially anticipated. Third, the three studies presented above used varied measures of self-determination and studied a number of relationship outcomes; while this approach allowed greater generalizability to the findings, additional work closely replicating these measures in an integrative way, for example, including both relationship and individual difference measures of self-determination, and including both perceived autonomy-support and commitment, would be helpful for a full understanding of these processes. Finally, our samples were all volunteers from the US and UK, and thus results may not generalize to other populations or to couples under situations of high conflict. In daily lives, partners may be challenged to resolve problems or disagreements together in healthy ways (e.g., Argyle & Furnham, 1983). Research suggests that interpersonal closeness moderates the patterns of conflicts, such that increased closeness promotes positive conflict resolution (e.g., Jensen-Campbell & Graziano, 2006); presumably, motivation may moderate these effects, but it is unclear at this point whether the current findings would extend to interpersonally challenging or tense interactions.

In conclusion, the present studies utilized dyadic data from best friends and romantic partners, and employed cross-sectional and longitudinal designs to identify a clear pattern: only self-determined individuals were able to engage interpersonal closeness in a way that benefited their partners, both relationally and personally.

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Table 1

*Descriptive and Correlation Analyses for Study Variables Tested in Study 1 Models*

	<i>M</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
1. Age	27.90	10.12							
2. Sex	--	--	.15						
3. Actor IOS	4.94	1.72	.14	-.04					
4. Partner IOS	4.93	1.72	.11	-.03	.93**				
5. Actor Self-Determination	3.55	0.43	-.04	.07	.16	.11			
6. Partner Self-Determination	3.55	0.43	-.10	-.09	.13	.11	.29**		
7. Partner Autonomy Support	3.91	0.94	.04	.03	.44**	.34**	.06	.06	
8. Partner Conditional Regard	1.29	1.04	-.17	-.05	.26**	.28**	-.36**	-.38**	-.36**

Note: The zero-order correlations presented here do not account for nonindependence due to the dyad and are for descriptive purposes. \*\*  $p < .01$

Table 2

*Descriptive and Correlation Analyses for Study Variables Tested in Study 2 Models*

	<i>M</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
1. Sex	--	--					
2. Actor IOS	5.17	1.56	.04				
3. Partner IOS	5.17	1.56	-.04	.39**			
4. Actor Self-determination	21.13	10.60	-.03	.41**	.30**		
5. Partner Self-determination	21.13	10.60	.03	.30**	.41**	.30**	
6. Actor Relationship Commitment	6.94	1.54	.06	.52**	.35**	.72**	.36**

Note: \*\*  $p < .01$

Table 3

*Descriptive and Correlation Analyses for Study Variables Tested in Study 3 Models*

	<i>M(SD)t1</i>	<i>M(SD)t3</i>	<i>M(SD)t5</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
1. Sex	--	--	--				
2. Actor Autonomy	5.68(1.02)	5.50(1.04)	5.81(1.04)	-.11			
3. Actor IOS	5.34(1.10)	5.07(1.04)	5.32(1.08)	.00	.14**		
4. Partner IOS	5.34(1.11)	5.07(1.03)	5.32(1.11)	.01	.15**	.40**	
5. Partner Perceived Autonomy	5.68(1.02)	5.51(1.03)	5.82(1.07)	.15**	.20**	.15**	.14**

Note: The zero-order correlations presented here do not account for nonindependence due to the dyad and are for descriptive purposes.

t1 = time 1 (start of study), t3 = time 3, t5 = time5 (end of study).

\*\*  $p < .01$

Table 4

*Partner Main, Interacting, and Simple Main Effects for the Three Studies*

	Autonomy Support			Other Indicators		
	<i>t</i>	<i>d</i>	<i>r</i>	<i>t</i>	<i>d</i>	<i>r</i>
<b>Partner effects</b>						
<b>Study 1</b>				Conditional Regard		
Self-other overlap	1.33	.28	.14	-0.95	.20	.10
Self-determination	-0.47	-.10	-.05	-4.89**	1.04	.46
Interaction	3.11**	.66	.31	4.05**	.86	.40
High self-determination	<b>5.04**</b>	1.07	.59	<b>0.08</b>	.02	.01
Low self-determination	<b>0.09</b>	.02	.01	<b>3.00**</b>	.88	.41
<b>Study 2</b>				Commitment		
Time*self-other overlap	--		--	0.50	.09	.05
Time*self-determination	--		--	1.24	.22	.11
Time*Interaction	--		--	2.18*	.39	.19
High self-determination	--		--	<b>1.66</b>	.30	.15
Low self-determination	--		--	<b>-1.00</b>	.18	.09
<b>Study 3</b>						
Self-other overlap	-1.10	.08	.04	--	--	
Self-determination	8.57**	.60	.29	--	--	
Interaction	2.04*	.14	.07	--	--	
High self-determination	<b>2.07*</b>	.21	.07	--	--	
Low self-determination	<b>0.44</b>	.05	.02	--	--	

Note. \* $p < .05$ , \*\* $p < .01$ . Cohen's  $d$  and  $r$  reflect effect sizes.

Figure 1. Study 2 interaction between self-determination and self-other overlap predicting relationship commitment.

