

A Distinct Association: Inclusion of Other in the Self and Self-Disclosure

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The current study examined the relationship between inclusion of other in the self (a theoretically distinct conceptualization of relationship closeness) and self-disclosure. These constructs were also examined in association with relationship outcomes of satisfaction and commitment. Analysis of the data indicated that inclusion of other in the self and self-disclosure in a relationship were each significantly positively correlated with both relationship satisfaction and commitment. However, there was no significant correlation between inclusion of other in the self and self-disclosure. Further analysis of the data revealed that self-disclosure moderated the relationship between inclusion of other in the self and relationship commitment. Implications for understanding inclusion of other in the self as a distinct theoretical perspective of relationship closeness are discussed.

A great deal of research has been conducted examining relationship closeness and self-disclosure, both separately and in relation to each other. Researchers have implicated self-disclosure in the structure, development, and prediction of closeness (Derlega, Metts, Pertonio, & Margulis, 1993; Laurenceau, Feldman Barret, & Pietromonaco, 1998; Lippert & Prager, 2001; Reis & Shaver, 1988; Schaefer & Olson, 1981; Waring, Tillmann, Frelick, Russell, & Weisz, 1980). Additionally, associations among closeness, self-disclosure, and relationship outcomes such as relationship satisfaction and commitment have also been explored (Aron, Aron, & Smollan, 1992; Hendrick, Hendrick, & Adler, 1988; Merves-Okin, Amidon, & Bernt, 1991; Morry, 2005; Oswald & Clark, 2003; Sprecher & Hendrick, 2004). However, theoretical differences exist among various conceptualizations of relationship closeness. The current study examined the nature of the association among inclusion of other in the self (a specific conceptualization of closeness), self-disclosure, and relationship satisfaction and commitment. Examination of the relationships among these constructs may help to better illuminate the distinct contribution of inclusion of other in the self to the understanding of relationship closeness as well as the broader patterns of association among inclusion of other in the self, self-disclosure, and the relationship outcomes of satisfaction and commitment.

Inclusion of Other in the Self as Closeness

Aron and Aron's (1986) self-expansion model of motivation and cognition in close relationships postulates that expanding one's self or sense of self-efficacy is a fundamental human motive and that one of the ways in which this is accomplished is through close relationships. In the context of a close relationship, it is proposed that an individual's self is expanded through a process called inclusion of other in the self, defined as the degree to which an individual's self-perception overlaps with his/her perception of a close other (Aron, Mashek & Aron, 2004).

Inclusion of other in the self develops as an individual is motivated to include the resources, perspectives, and identities of a relationship partner in order to achieve greater self-efficacy (Aron & Aron, 1986; Aron, Aron, & Norman, 2001). In this context,

resources refer to the material goods, knowledge, and social assets of the other that can be included in the self to help facilitate the achievement of goals. Resources are particularly important in self-concept expansion as perceiving another's resources as one's own leads the other's outcomes to be experienced as one's own as well. Inclusion of another's perspectives refers to experiencing the world from the other's point of view to some degree. The identity aspect refers to the inclusion of characteristics, memories, and other features of the other that distinguish the individual from other individuals and objects (Aron et al., 2004).

Aron et al. (2004) elaborate on how this process of inclusion of other in the self might unfold. First, as resources are central to motivation for other inclusion, an individual will initially include another in the self in order to gain the other's resources. As the relationship begins to form, the sharing of resources then becomes reciprocal between the individual and the other. This process of reciprocation then leads to cognitive reorganization that includes the other's resources in the individual's self-concept. In addition to these resources come the other's perspectives and identities. This, in turn, leads to the perpetuation of a continuous reciprocation of resources between the individual and the other that further strengthens the initial perception of inclusion of other in the self.

Importantly, Aron and colleagues propose that inclusion of other in the self is synonymous with relationship closeness. In this sense, one becomes close with their relationship partner as the partner becomes part of the self. The researchers provide two justifications for treating inclusion of other in the self as closeness. First, in contrast to other relationships, close relationships have been traditionally defined as those in which the individual feels a sense of possession and ownership of the relationship partner, incorporation of the partner into the self, and interdependence and communal identity with the partner. Second, close relationships have been traditionally defined as those in which the individual feels a greater sense of union, proximity, and interconnection with a relationship partner (see Aron et al., 2004).

In validating the Inclusion of Other in the Self (IOS) Scale, Aron et al. (1992) noted that different measures of closeness tap into different specific aspects of closeness that might be differentially

advantageous depending on particular areas of interest in research. Of particular relevance to the current study, the authors note that an advantage of the IOS is that it seems to account for cognitive and affective facets of closeness that other measures of closeness such as the Relationship Closeness Inventory (Berscheid, Snyder, & Omoto, 1989) do not take into account. In light of the distinct theoretical perspective represented by inclusion of other in the self, it may be useful to examine potentially atypical relationships among this conceptualization of closeness and other constructs. One particular construct that would be interesting to examine due to its established importance in the development and maintenance of close relationships and its potentially distinct relationship with inclusion of other in the self is self-disclosure.

Self-Disclosure

Self-disclosure can be defined as “any information about oneself that a person verbally communicates to another person” (Collins & Miller, 1994, pp.458). Self-disclosure is of central importance in the development of close relationships (Altman & Taylor, 1973; Derlega et al., 1993) and has commonly been considered by theorists to be a central factor in closeness/intimacy (Laurenceau, Rivera, Schaffer, & Pietromonaco, 2004). However, almost no research has directly explored the relationship between inclusion of other in the self and self-disclosure.

The most direct examination of the relationship between inclusion of other in the self and self-disclosure explored the role of the two constructs as mediators in the relationship between allocentrism and friendship satisfaction. Allocentrism is defined as an individual’s disposition toward emotional ties and dependence on others (Morry, 2005). It was found that greater levels of allocentrism predicted higher levels of self-disclosure which, in turn, predicted perceived disclosure of the friend. Perceived friend’s disclosure then predicted greater inclusion of other in the self, which predicted greater friendship satisfaction (Morry, 2005). The key sequence in this model, in relation to the current study, is the path from self-disclosure to perceived friend’s disclosure and then to inclusion of other in the self. It appears as though it is the reciprocation of self-disclosure between the self and other that leads to inclusion of other in the self. However, this does not imply that self-disclosure and inclusion of other in the self are directly related.

Many theories of closeness/intimacy have included self-disclosure as an integral part in the conceptualization of closeness. For example, Shaefer and Olson (1981) conceptualized intimacy as an experience derived from disclosure of intimate information and sharing intimate experiences. Reis and Shaver (1988) posited self-disclosure to be one of two central components of the interpersonal process of intimacy. Research has shown self-disclosure to be an important factor in the development of intimacy (Derlega et al., 1993) and predictive of intimacy in relationships (Laurenceau et al., 2004). Self-disclosure has also been commonly used as an index of closeness/intimacy in various measures (Laurenceau et al., 2004). For example, the Relationship Closeness Inventory (Berscheid et al., 1989) asks respondents to indicate whether they have “discussed things of a personal nature” with the other with whom their closeness is being assessed. Another commonly used measure of closeness, the Sternberg Intimacy Scale (Sternberg,

1988) also directly assesses self-disclosure as a component of closeness. For example, one item of the scale reads, “I share deeply personal information about myself with _____.”

In discussing the theoretical relevance of inclusion of other in the self, Aron and colleagues have also pointed to the significance of self-disclosure in the development of closeness, citing Reis and Shaver’s (1988) view of intimacy as a reciprocal process of exchanging self-disclosure in justifying inclusion of other in the self as a model of closeness (Aron & Aron, 1997; Aron, Aron, Tudor, & Nelson, 1991). However, in examining the differences between inclusion of other in the self and other conceptualizations and measures of closeness, it seems likely that inclusion of other in the self may show a distinct relationship with self-disclosure. Intimacy and self-disclosure are separate constructs. While self-disclosure is important in the development of intimacy, intimacy is widely held to be a complex construct reflecting more than simply self-disclosure (Reis & Patrick, 1996; Waring et al., 1980).

Inclusion of other in the self is a cognitive representation of closeness that seems to represent the process or stages of escalating closeness in a relationship. The cognitive restructuring of the self represented by inclusion of other in the self appears to be a more progressive view of closeness in the sense that as inclusion of other in the self increases, an individual’s actual representation of self is increasingly expanded to include their cognitive representation of the other. Closeness conceptualized in this progressive, stage-like way may relate distinctly to self-disclosure. This is not to say that self-disclosure is not involved in the process of including the other in one’s self. Self-disclosure has been identified as essential in the development of closeness (Altman & Taylor, 1973; Derlega et al., 1993). However, self-disclosure may be particularly instrumental in earlier stages of the development of the relationship. It seems reasonable that once the other has been included in the self to a substantial extent, much of the important self-disclosure that serves to foster greater inclusion of other in the self seems likely to have already taken place. In this way, self-disclosure may give way at this point in the relationship to other important forms of communication and interactions that are intended to maintain the established intimacy in the relationship.

Levels of self-disclosure change as the nature of the relationship changes. Archer (1987) found that while reciprocity of self-disclosure is especially important early in the development of a relationship, as the relationship grows, this reciprocity becomes less important. Huston, McHale, and Crouter (1986) found that disclosure decreased after one year of marriage, however, this decrease in self-disclosure was not associated with a decrease in relationship satisfaction. Hendrick (1981) found that while disclosure predicted marital satisfaction, it was negatively related to the number of years that the couple had been married. This suggests that self-disclosure becomes less important over time for satisfied married couples. Additionally, Gilbert (1976) reasoned that relationship partners become psychologically and emotionally connected over time and that this leads to sensitivity to painful disclosures. Gilbert further posited that this often leads to a curvilinear pattern of disclosure in which disclosure increases in the early stages of the relationship, but later decreases as the relationship develops.

Derlega et al. (1993) describe the interaction between

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self-disclosure and relationship development as “mutually transformative,” meaning that “sometimes self-disclosure changes the direction, definition, or intensity of a relationship, whereas sometimes the nature of the relationship changes the meaning or impact of self-disclosure” (pg. 9). In light of the aforementioned research examining levels of self-disclosure over time in relationships and given the progressive, stage-like nature of inclusion of other in the self, it seems reasonable to assume that the mutually transformative interaction between self-disclosure and relationship development may relate differently to inclusion of other in the self in contrast to other conceptualizations of closeness/intimacy. Over time, inclusion of other in the self may progressively increase as the relationship develops while self-disclosure decreases perhaps due to other forms of communication and interactions becoming more important in relationship maintenance. Additionally, applying Gilbert’s (1976) reasoning, greater inclusion of another in the self may also lead to increased sensitivity to painful disclosures due to increased psychological and emotional connection with the other. This may also lead to decreased disclosure. While the present study does not examine relationships longitudinally, the above research does suggest possible interactions between inclusion of other in the self and self-disclosure in their association with satisfaction and commitment.

The Investment Model

Two constructs in relationship development and maintenance that have been correlated with both self-disclosure and inclusion of other in the self are relationship satisfaction and commitment. Relationship satisfaction is defined as “positivity of affect or attraction to one’s relationship,” whereas relationship commitment is defined as “the tendency to maintain a relationship and feel psychologically attached to it” (Rusbult, Johnson, & Morrow, 1986, pp. 82). The Investment Model (Le & Agnew, 2003; Rusbult, 1980) has been widely researched and applied to many relationship related constructs. According to the model, satisfaction and commitment are two separate constructs. Satisfaction is a function of the rewards that an individual receives through their involvement in a relationship minus the costs that the relationship affords. Commitment is a function of an individual’s level of satisfaction in a relationship in addition to investments that the individual has in the relationship minus other relationship alternatives. Satisfaction and commitment have been identified to be crucial relationship factors as they are predictive of relationship maintenance (Le & Agnew, 2003; Rusbult et al., 1986). Both self-disclosure and inclusion of other in the self have been found to be significantly positively correlated with relationship commitment and satisfaction (Aron et al., 1992; Hendrick et al., 1988; Oswald & Clark, 2003; Sprecher & Hendrick, 2004). To clarify, while research has suggested that levels of self-disclosure decrease over time in relationships, it should be noted that the aforementioned correlations between self-disclosure and both relationship satisfaction and commitment were not examined longitudinally.

As satisfaction and commitment have been identified as important factors in relationship maintenance, examining associations among inclusion of other in the self, self-disclosure, satisfaction, and commitment may be useful in understanding the relationship between inclusion of other in the self and self-

disclosure. It is important to understand not only how inclusion of other in the self may have a distinct relationship with self-disclosure, but also how this relationship is associated with important outcomes in relationships. In line with aforementioned evidence and theorizing, self-disclosure may be differentially associated with greater satisfaction and commitment in relationships as a function of the extent of inclusion of other in the self. Although higher levels of both self-disclosure and inclusion of other in the self have been correlated with greater relationship commitment and satisfaction, these two factors may interact in predicting satisfaction and commitment. As previously noted, self-disclosure has been found to decrease over time in relationships, but this decrease in self-disclosure doesn’t appear to be accompanied by a decrease in relationship satisfaction (Hendrick, 1981; Huston et al., 1986). This relationship may be reflected in the stage-like progression of inclusion of other in the self. Perhaps when another is included in the self to a lesser extent, self-disclosure may play an important role in establishing commitment and satisfaction in the relationship. However, perhaps as another is included in the self to a greater extent, self-disclosure may serve a lesser role in establishing commitment and satisfaction. Again, other forms of communication and interactions may take greater precedence and sensitivity to painful disclosures may lead to aversion to self-disclosure in the later stages of the other-inclusion process.

Current Research

Based on the aforementioned research and theoretical reasoning, the predictions and research questions of the current study were as follows:

Hypothesis 1: Inclusion of other in the self and self-disclosure will each independently contribute to the prediction of relationship satisfaction.

Hypothesis 2: Inclusion of other in the self and self-disclosure will each independently contribute to the prediction of relationship commitment.

Research Question 1: Does a significant correlation exist between inclusion of other in the self and self-disclosure?

Should no significant correlation exist between inclusion of other in the self and self-disclosure, it is plausible that levels of inclusion of other in the self are independent of levels of self-disclosure. However, self-disclosure may moderate the relationship between inclusion of other in the self and relationship outcomes.

Research Question 2: Does self-disclosure moderate the relationship between inclusion of other in the self and relationship satisfaction and commitment (separately)?

Method

Participants

Participants were 160 undergraduate students recruited from the participant pool at a moderately sized university in the Midwestern United States. Participants received research participation credit for their participation. Five participants were excluded from data analysis in order to maintain a heterosexual sample. The final sample included in data analysis consisted of 36 male and 119 female participants. Ages ranged from 18 to 41, with a mean of 19.7 years ($SD = 2.2$). Among the participants, 82.6%

Table 1

Participant Demographics

	N	%
N=	155	100.0
Gender		
Male	36	23.2
Female	119	76.8
Age		
18 – 19	85	54.8
20 – 21	60	38.8
22 – 23	7	4.5
24 or older	3	1.8
Mean	19.7	
SD	2.2	
Race/Ethnicity		
Caucasian	128	82.6
African American	9	5.8
Asian	10	6.5
Hispanic	3	1.9
Bi-Racial	1	.6
Other	4	2.6

were Caucasian, 6.5% were Asian, 5.8% were African American, 2.6% were other, 1.9% were Hispanic, and .6% were bi-racial. See Table 1 for participant demographics.

Measures**Inclusion of Other in the Self Scale (IOS; Aron et al., 1992)**

Participants completed the IOS as a measure of their perception of their own inclusion of an important other in the self. The scale consists of a single pictorial item comprised of seven pairs of Venn diagram-like overlapping circles, each overlapping on a continuum from a greater to lesser degree. In each individual pair, one of the circles is labeled “self” while the other circle is labeled “other.” The degree of overlap depicted by each of the individual pairs represents a degree of interconnectedness. Individuals completing the scale are asked “Please circle the picture below which best describes your relationship”. The varying degree of overlap in relation to the other six pairs is then assessed to indicate the participant’s perception of inclusion of other in the self on a seven-point scale (Aron et al., 2004).

Wheless Revised Self-Disclosure Scale (RSDS; Wheless, 1976) Participants also completed the RSDS. The RSDS is a 31-item Likert-type scale consisting of seven-interval responses

(1 = strongly disagree, 7 = strongly agree) designed to measure an individual’s self-disclosure. Example items include, “I often discuss my feelings about myself,” and “I often disclose intimate, personal things about myself without hesitation.” The RSDS demonstrated adequate reliability in the current study ($\alpha = .75$). Self-disclosure scores using the RSDS can range from 31 to 217.

Investment Model Scale (Rusbult, Martz, & Agnew, 1998) In addition, participants completed the Satisfaction and Commitment subscales of the Investment Model Scale. The satisfaction subscale consists of five items and the commitment subscale consists of seven items. Both subscales are rated on nine-interval response scales (0 = do not agree at all, 8 = agree completely) and demonstrated adequate reliability (commitment, $\alpha = .92$; satisfaction, $\alpha = .91$). An example satisfaction subscale item is “My relationship is close to ideal.” An example commitment subscale item is “I want our relationship to last forever.”¹

See Table 2 for means and standard deviations of the measures in the current study.

Procedure

As part of a larger study, participants first completed a demographic questionnaire followed by the IOS Scale, Wheless

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Table 2

Means and Standard Deviations of Measures

	Mean	SD
IOS	4.67	1.48
Self-Disclosure	142.12	18.87
Satisfaction	6.39	1.25
Commitment	7.02	1.27

RSDS, and the satisfaction and commitment subscales of the Investment Model Scale. The order in which the scales were completed by the participants was counterbalanced such that all possible orders in which the scales could be administered were equally represented.

Results

In order to examine whether the current study would replicate previous research demonstrating that greater levels of self-other inclusion and self-disclosure were significantly positively correlated with greater relationship commitment and satisfaction (Aron et al., 1992; Hendrick et al., 1988; Oswald & Clark, 2003; Sprecher & Hendrick, 2004), satisfaction and commitment scores were correlated with inclusion of other in the self and self-disclosure scores. Replicating previous findings, inclusion of other in the self and self-disclosure were each significantly positively correlated with relationship commitment and satisfaction (see Table 3).

In order to assess Hypotheses 1 and 2, that inclusion of other in the self and self-disclosure would each independently contribute to the prediction of satisfaction and commitment, two simultaneous regression analyses were conducted. Table 3 shows that the independent variables inclusion of other in the self and overall self-disclosure were each significantly positively correlated with the dependent variable of satisfaction, indicating that as these

variables increased, so did satisfaction level. As shown in Table 4, the full model was statistically significant $F(2, 146) = 38.52, p < .001$, and explains 34.5% of the variance in satisfaction level. As can be seen, both inclusion of other in the self and self-disclosure were positively and individually predictive of satisfaction.

Similarly, Table 3 shows that the independent variables inclusion of other in the self and overall self-disclosure were each significantly positively correlated with the dependent variable of commitment, indicating that as these variables increased, so did commitment level. As shown in Table 5, the full model was statistically significant $F(2, 146) = 26.59, p < .001$, and explains 26.7% of the variance in commitment level. Examination of the standardized regression coefficients indicates that inclusion of other in the self and overall self-disclosure each positively and independently contribute to the prediction of satisfaction and commitment.

In examining Research Question 1, it was found that self-disclosure scores were not correlated with inclusion of other in the self scores ($r = .13, p > .05$) (see Table 3). As analysis revealed that no significant correlation is evident between inclusion of other in the self and self-disclosure, it is plausible that levels of inclusion of other in the self are independent of levels of self-disclosure. Thus, regression analyses were conducted examining Research Question 2: Does self-disclosure moderate the relationship between inclusion of other in the self and relationship satisfaction and commitment (separately)?

Table 3

Correlation Matrix

	IOS	Self-Disc	Satisfaction	Commitment
IOS		.13	.51**	.50**
Self-Disclosure			.38**	.23**
Satisfaction				.59**
Commitment				

** ($p < .01$)

Table 4

Inclusion of Other in the Self and Self-Disclosure Predicting Satisfaction

Variable	β (unstandardized)	β (standardized)	t stat
(constant)	1.89		3.02**
IOS	.36	.45	6.67***
Self-Disclosure	.02	.32	4.77***

** ($p < .01$) *** ($p < .001$)

$R^2 = .34$ R^2 Adjusted = .34, $F(2, 146) = 38.52^{***}$, *** ($p < .001$)

Table 5

Inclusion of Other in the Self and Self-Disclosure Predicting Commitment

Variable	β (unstandardized)	β (standardized)	t stat
(constant)	3.63		5.18***
IOS	.40	.47	6.55***
Self-Disclosure	.01	.17	2.32*

* ($p < .05$) *** ($p < .001$)

$R^2 = .27$ R^2 Adjusted = .26, $F(2, 146) = 26.59^{***}$, *** ($p < .001$)

In examining the potential moderating role of self-disclosure in the relationship between inclusion of other in the self and commitment, a hierarchical regression analysis was conducted. In the analysis, commitment was the dependent variable. Self-disclosure was entered in the first step, inclusion of other in the self was entered in the second step, and the interaction between self-disclosure and inclusion of other in the self was entered in the third step. Table 6 displays the results of the regression analysis. The first step revealed that self-disclosure predicted commitment, $F(1, 147) = 8.04$, $p < .01$. The second step revealed that self-disclosure and inclusion of other in the self predicted commitment, $F(2, 146) = 26.59$, $p < .001$. The third step revealed that self-disclosure, inclusion of other in the self, and the interaction between self-disclosure and inclusion of other in the self predicted commitment, $F(3, 145) = 19.92$, $p < .001$.

Simple slopes analysis plotting the interaction at 1 standard deviation greater than and 1 standard deviation less than the mean scores of self-disclosure and inclusion of other in the self indicates that the main effects of self-disclosure ($\beta = .64$, $p < .05$) and inclusion of other in the self ($\beta = 1.60$, $p < .01$) were qualified by the significant self-disclosure \times inclusion of other in the self interaction ($\beta = -1.29$, $p < .05$) in which participants low in inclusion of other in the self who were also low in self-disclosure demonstrated lower commitment scores. However, self-disclosure scores were not associated with commitment scores for individuals

higher in inclusion of other in the self who demonstrated higher commitment scores regardless of self-disclosure level (see Figure 1).

A similar hierarchical regression analysis was conducted examining the potential moderating role of self-disclosure ($\beta = .32$, $p < .001$) in the relationship between inclusion of other in the self ($\beta = .45$, $p < .001$) and satisfaction. The analysis revealed that self-disclosure and inclusion of other in the self each predicted satisfaction, however, the interaction between self-disclosure and inclusion of other in the self did not significantly predict satisfaction ($\beta = -.59$, $p > .05$).²

Discussion

The current study may be the first to directly examine the relationship between inclusion of other in the self and self-disclosure. Replicating previous findings (Aron et al., 1992; Hendrick et al., 1988; Oswald & Clark, 2003; Sprecher & Hendrick, 2004), greater levels of self-other inclusion and self-disclosure were each significantly positively correlated with greater relationship commitment and satisfaction. Additionally, confirming Hypotheses 1 and 2, regressions demonstrated inclusion of other in the self and self-disclosure to predict both satisfaction and commitment, jointly accounting for much of the variance in each of these separate dependent variables.

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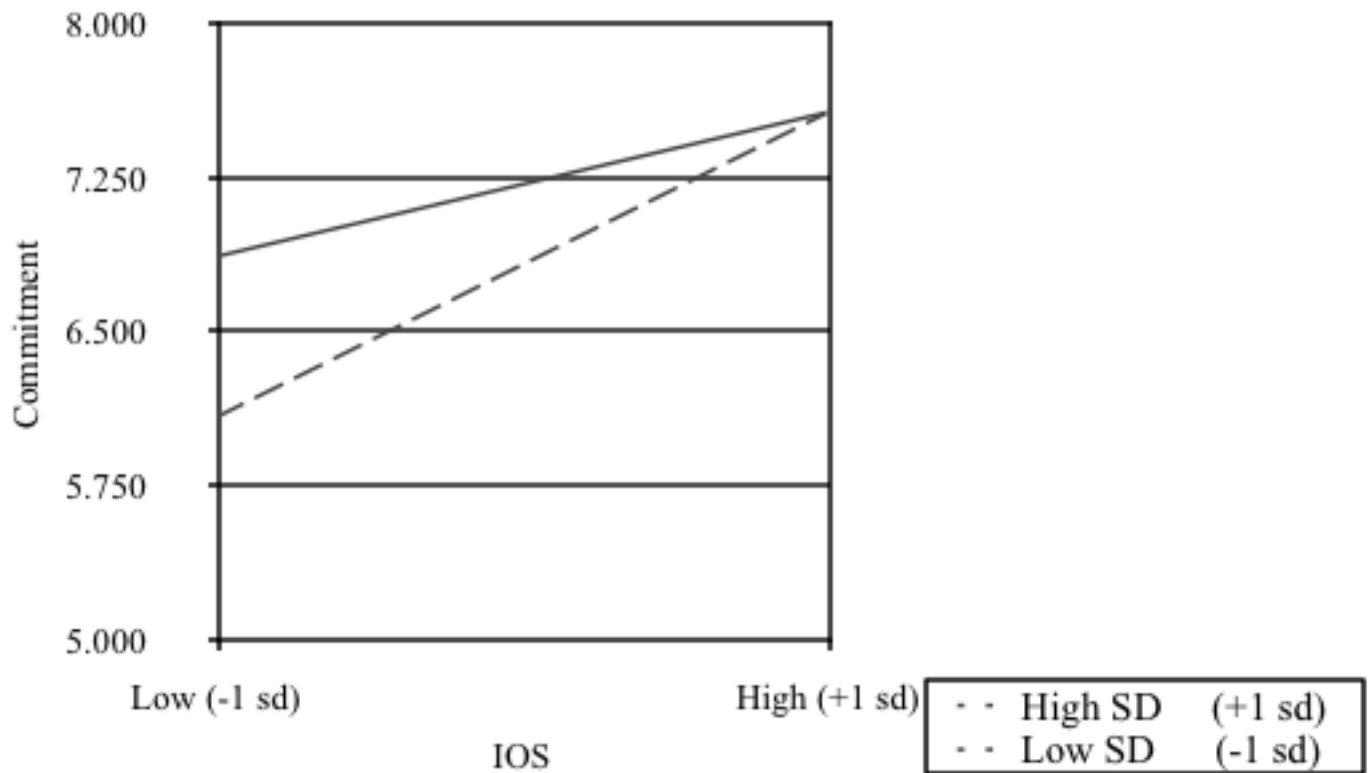
Table 6

Self-Disclosure Moderating Inclusion of Other in the Self and Commitment

Steps	R ²	β	t
1 Self-Disclosure	.05**	.23	2.84**
2 Self-Disclosure Inclusion of Other in Self	.27***	.17 .47	2.32* 6.55***
3 Self-Disclosure Inclusion of Other in Self Self-Disclosure x IOS	.29***	.64 1.60 -1.29	2.89** 3.16** -2.26*

* ($p < .05$) ** ($p < .01$) *** ($p < .001$)

Figure 1. Self-Disclosure Moderating Inclusion of Other in the Self and Commitment



This replication of previous findings and confirmation of Hypotheses 1 and 2 demonstrates that inclusion of other in the self and self-disclosure are each significantly positively correlated with and jointly predictive of both satisfaction and commitment. However, the results of the current study suggest that inclusion of other in the self, as a conceptualization of relationship closeness, relates distinctly to self-disclosure. The lack of a correlation between inclusion of other in the self and self-disclosure suggests that they are independent constructs. The findings in respect to Research Question 2 help to explain the distinct relationship between these two constructs. Exploration of the potential moderating role of self-disclosure in the relationship between inclusion of other in the self and commitment demonstrated that self-disclosure did indeed moderate this relationship. It appears as though in this moderation, it is with lower inclusion of other in the self scores in which the relationship between self-disclosure and commitment varies. For individuals lower in inclusion of other in the self it appears that lower self-disclosure scores are associated with lower commitment scores. However, the association between level of self-disclosure and commitment does not differ for individuals higher in inclusion of other in the self (see Figure 1).

Perhaps participants high in inclusion of other in the self have reached a high enough level of communication and have already engaged in a sufficient exchange of self-disclosure in their relationships such that self-disclosure, in particular, is no longer an important factor in commitment. Again, as previously speculated, this may be due to other forms and features of communication (for example, supportiveness or frequency of communication) taking precedence as important self-disclosures have already taken place. In order to include another in one's self to a greater extent, perhaps initial self-disclosure is important but once a high level of inclusion of other in the self is reached, that important information has already been disclosed and other forms of communication or different relationship maintenance behaviors take precedence. Additionally, the psychological and emotional connection established with an individual that is included in one's self to a greater extent may lead to sensitivity to painful disclosures, and thus, the avoidance of disclosure (Gilbert, 1976). This may also be contributing to the lesser impact of self-disclosure in predicting relationship commitment that is evident in the individuals with a high level of inclusion of other in the self. For participants low in inclusion of other in the self, however, self-disclosure appears to be particularly important in developing commitment. Those lower in inclusion of other in the self may not yet possess an exhaustive enough amount of disclosed information about the other in order to effectively include the other in their self to a greater degree.

The aforementioned explanation may help to account for the finding that inclusion of other in the self and self-disclosure were not correlated. The more extensive self-disclosure may be taking place at the earlier stages of inclusion of other in the self in order to facilitate greater inclusion of other in the self. Those high in inclusion of other in the self may have already disclosed to a sufficient degree that self-disclosure gives way to other important forms of communication and different maintenance behaviors that help to foster relationship commitment. This reasoning is congruent with previous research demonstrating the "mutually transformative" nature of the relationship between self-disclosure and relationship

development, meaning that "sometimes self-disclosure changes the direction, definition, or intensity of a relationship, whereas sometimes the nature of the relationship changes the meaning or impact of self-disclosure" (Derlega et al., 1993, pp. 9). Again, unlike other conceptualizations of closeness, inclusion of other in the self seems to cognitively represent the stage-like progression of relationship development, with escalating inclusion of another reflecting escalating closeness to the other. As previous research has demonstrated, self-disclosure appears to decrease and become less instrumental over the course of relationship development (Archer, 1987; Gilbert, 1976; Hendrick, 1981; Huston et al., 1986). Self-disclosure may help to initially increase inclusion of other in the self. However, as the relationship continues to develop, increased inclusion of other in the self may in turn decrease the importance of and need for disclosure with that other as sufficient disclosure has already been achieved.

Interestingly, this moderating role of self-disclosure was not found in the relationship between inclusion of other in the self and relationship satisfaction. This may be due to low variability in satisfaction levels among participants in the study. The mean satisfaction score (on a 7-point scale) was 6.39 with a standard deviation of 1.25, suggesting that there may have been a ceiling effect. Future research might also look at the potential moderating role of self-disclosure in the relationship between other measures of closeness that are more affectively based than the Inclusion of Other in the Self Scale and relationship satisfaction. For example, Sternberg's (1988) Intimacy Scale specifically focuses on affective components of the experience of intimacy or closeness. It may be the case that the progressive aspect of closeness represented by inclusion of other in the self is more closely tied to commitment to a relationship while the affective aspect of closeness represented by other measures is more closely tied to relationship satisfaction.

Limitations, Future Directions, and Conclusions

One potential limitation of the study was that the sample largely consisted of young adults (traditionally aged college students). Changes associated with age in inclusion of other in the self, self-disclosure, and relationship satisfaction and commitment may contribute to different patterns of results among different age groups. For example, the length of romantic relationships in a young adult population is typically relatively short in comparison to older populations. Additionally, traditionally aged college student participants are typically unmarried and often do not yet live with romantic partners. These differences may have significant effects on the relationships of interest in the current study. Future research might utilize a sample of older individuals in further exploring the associations of interest in the current research. However, it should be noted that utilizing a young adult sample was also advantageous in relation to the constructs of interest in the current study. As young adults are more commonly in earlier stages of relationships than older individuals, a young adult sample presents more variability than an older sample in terms of levels of inclusion of other in the self, self-disclosure and relationship commitment.

In addition to the restricted age of the sample in the current study, participants were predominantly Caucasian. Examination of associations among inclusion of other in the self, self-disclosure, and relationships satisfaction and commitment utilizing participants

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from varying cultural backgrounds may yield differing findings. For example, research has suggested that African-Americans self-disclose less than European Americans and may be particularly less inclined to self-disclose in the context of close relationships (Consedine, Sabag-Cohen, & Krivoshekova, 2007). Future research might reexamine the relationships of interest in the current study utilizing more diverse populations of interest. Another limitation of the current study is that it did not examine the perceptions of both individuals in the relationship. While the current study was primarily interested in the ways that these constructs are related in terms of individuals' subjective interpretations, differences between participants' and their romantic partners'/close friends' perspectives might yield interesting insights into the relationships among the constructs of interest in the study.

It should also be noted that the findings of the current research are correlational. While the aforementioned potential explanations for the distinct association between inclusion of other in the self and self-disclosure utilized previous research in proposing associations among the constructs of interest in the current study, concrete conclusions about these associations cannot be drawn. Future research might examine the associations among inclusion of other in the self, self-disclosure, and commitment longitudinally in further exploring causality in this relationship.

The findings of the current study present potential utility in generating new research specifically examining ways in which different definitions of closeness may be differentially related to important constructs in close relationships. The current study may be particularly beneficial in stimulating further research clarifying the specific way that inclusion of other in the self represents closeness. For example, future research might examine ways in which the IOS Scale might be expanded in order to more thoroughly assess separate aspects of closeness associated with inclusion of other in the self. Additionally, future research might longitudinally examine self-disclosure in relation to inclusion of other in the self in developing relationships in order to assess the relative importance of self-disclosure across time in the self-other inclusion process. Another avenue of research might further explore how inclusion of other in the self relates to more specific facets of self-disclosure. For example, research might examine how inclusion of other in the self relates to specific goals associated with self-disclosure. There are many types of goals that individuals attempt to achieve through self-disclosure (Derlega et al., 1993). The instrumentality of self-disclosure relative to specific goals may change as another becomes increasingly included in the self. Additionally, emotional self-disclosure has been associated with greater development of closeness than factual self-disclosure (Reis & Shaver, 1988). Research might examine the associations between these two distinct types of self-disclosure and inclusion of other in the self.

Lastly, the support for Hypotheses 1 and 2 generated by the current study further demonstrates the utility of the Investment Model as a powerful tool in understanding the ways that important aspects of close relationships relate to relationship quality and maintenance.

In conclusion, the current study generated new and interesting findings concerning the relationship between closeness (specifically defined as inclusion of other in the self) and self-disclosure as well

as the impact of these factors both separately and interactively on relationship satisfaction and commitment. Inclusion of other in the self presents a distinct perspective in understanding closeness. This understanding continues to grow as knowledge of the relative contributions of differing conceptualizations of closeness is brought to bear.

References

- Altman, I., & Taylor, D. A. (1973). *Social penetration: The development of interpersonal relationships*. New York: Holt, Rinehart, & Winston.
- Archer, R. L. (1987). Self-disclosure: A very useful behavior. In V. J. Derlega & J. H. Berg (Eds.), *Self-disclosure: Theory, research, and therapy* (pp. 329-342). New York: Plenum.
- Aron, A. & Aron, E. N. (1986). *Love as the expansion of self: Understanding attraction and satisfaction*. New York: Hemisphere.
- Aron, A. & Aron, E. N. (1997). Self-expansion motivation and including other in the self. In Duck, S. (Ed.), *Handbook of Personal Relationships*, 2nd edn. (pp.251-270). Hoboken, New Jersey: John Wiley & Sons Ltd.
- Aron, A., Aron, E. N., & Norman, C. (2001). The self expansion model of motivation and cognition in close relationships and beyond. In M. Clark & G. Fletcher (Eds.), *Blackwell Handbook in Social Psychology, Vol. 2: Interpersonal Processes* (pp. 478-501). Oxford, England: Blackwell.
- Aron, A., Aron, E., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, 63(4), 596-612. doi: 10.1037/0022-3514.63.4.596
- Aron, A., Aron, E., Tudor, M., & Nelson, G. (1991). Close relationships as including other in the self. *Journal of Personality and Social Psychology*, 60(2), 241-253. doi: 10.1037/0022-3514.60.2.241
- Aron, A. P., Mashek, D. J., Aron, E. N. (2004). Closeness as including other in the self. In Mashek, D. J., & Aron, A. (Eds.), *Handbook of Closeness and Intimacy* (pp. 27-42). Mahwah, New Jersey: Lawrence Erlbaum Associates Inc.
- Berscheid, E., Snyder, M., & Omoto, A. M. (1989). The relationship closeness inventory: Assessing the closeness of interpersonal relationships. *Journal of Personality and Social Psychology*, 57, 792-807. doi: 10.1037/0022-3514.57.5.792
- Collins, N. L. & Miller, L. C. (1994). Self-disclosure and liking: A meta-analytic review. *Psychological Bulletin*, 116(3), 457-475. doi: 10.1037/0033-2909.116.3.457
- Consedine, N. S., Sabag-Cohen, S., & Krivoshekova, Y. S. (2007). Ethnic and gender differences in patterns of self-disclosure: Who discloses what and to whom? *Cultural Diversity and Ethnic Minority Psychology*, 13(3), 254-263. doi: 10.1037/1099-9809.13.3.254
- Derlega, V. J., Metts, S., Petronio, S., & Margulis, S. T. (1993). *Self-Disclosure*. Newbury Park, California: Sage Publications Inc.
- Gilbert, S. J. (1976). Self disclosure, intimacy, and communication in families. *The Family Coordinator*, 25 (3), 221-231. doi: 10.2307/582335
- Hendrick, S. S. (1981). Self-disclosure and marital satisfaction.

- Journal of Personality and Social Psychology*, 40(6), 1150-1159. doi: 10.1037/0022-3514.40.6.1150
- Hendrick, S. S., Hendrick, C., & Adler, N. L. (1988). Romantic relationships: Love, satisfaction, and staying together. *Journal of Personality and Social Psychology*, 54(6), 980-988. doi: 10.1037/0022-3514.54.6.980
- Huston, T. L., McHale, S. M., & Crouter, A. C. (1986). When the honeymoon's over: Changes in the marriage relationship over the first year. In R. Gilmour & S. Duck (Eds.), *The emerging science of personal relationships* (pp. 109-132). Hillsdale, NJ: Lawrence Erlbaum.
- Laurenceau, J. P., Feldman Barrett, L., & Pietromonaco, P. R. (1998). Intimacy as an interpersonal process: The importance of self-disclosure, and perceived partner responsiveness in interpersonal exchanges. *Journal of Personality and Social Psychology*, 74, 1238-1251. doi: 10.1037/0022-3514.74.5.1238
- Laurenceau, J. P., Rivera, L. M., Schaffer, A. R., & Pietromonaco, P. R. (2004). Intimacy as an interpersonal process: Current status and future directions. In D.J. Mashek & A. Aron (Eds.), *Handbook of closeness and intimacy* (pp. 43-78). Mahwah, NJ: Lawrence Erlbaum.
- Le, B. & Agnew, C. R. (2003). Commitment and its theorized determinants: A meta-analysis of the investment model. *Personal Relationships*, 10, 37-57. doi: 10.1111/1475-6811.00035
- Lippert, T., & Prager, K. J. (2001). Daily experiences of intimacy: A study of couples. *Personal Relationships*, 8, 283-298. doi: 10.1111/j.1475-6811.2001.tb00041.x
- Merves-Okun, L., Amidon, E., & Bernt, F. (1991). Perceptions of intimacy in marriage: A study of married couples. *The American Journal of Family Therapy*, 19(2), 110-118. doi: 10.1080/01926189108250841
- Morry, M. M. (2005). Allocentrism and friendship satisfaction: The mediating roles of disclosure and closeness. *Canadian Journal of Behavioural Science*, 37(3), 211-222. doi: 10.1037/h0087258
- Oswald, D. L., & Clark, E. M. (2003). Best friends forever?: High school best friendships and the transition to college. *Personal Relationships*, 10, 187-196. doi: 10.1111/1475-6811.00045
- Reis, H. T., & Patrick, B. C. (1996). Attachment and Intimacy: Component Processes. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social Psychology: Handbook of basic principles* (pp. 523-563). New York: Guilford.
- Reis, H. T., & Shaver, P. (1988). Intimacy as interpersonal process. In S. Duck (Ed.), *Handbook of personal relationships: Theory, research, and interventions* (pp. 367-389). New York: Wiley.
- Rusbult, C. E. (1980). Commitment and satisfaction in romantic associations: A test of the Investment Model. *Journal of Experimental Social Psychology*, 16, 172-186. doi: 10.1016/0022-1031(80)90007-4
- Rusbult, C. E., Johnson, D. J., & Morrow, G. D. (1986). Predicting satisfaction and commitment in adult romantic involvements: An assessment of the generalizability of the Investment Model. *Social Psychology Quarterly*, 49(1), 81-89. doi: 10.2307/2786859
- Rusbult, C. E., Martz, J. M., & Agnew, C. R. (1998). The Investment Model Scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships*, 5, 357-391. doi: 10.1111/j.1475-6811.1998.tb00177.x
- Schaefer, M. T., & Olson, D. H. (1981). Assessing intimacy: The PAIR inventory. *Journal of Marital and Family Therapy*, 7, 47-60. doi: 10.1111/j.1752-0606.1981.tb01351.x
- Sprecher, S. & Hendrick, S. S. (2004). Self-disclosure in intimate relationships: Associations with individual and relationship characteristics over time. *Journal of Social and Clinical Psychology*, 23(6), 857-877. doi: 10.1521/jscp.23.6.857.54803
- Sternberg, R. J. (1988). Construct validation of a triangular theory of love. Unpublished manuscript, Yale University, Department of Psychology.
- Waring, E. M., Tillmann, M. P., Frelick, L., Russell, L., & Weisz, G. (1980). Concepts of intimacy in the general population. *Journal of Nervous and Mental Disease*, 168, 471-474. doi: 10.1097/00005053-198008000-00004
- Wheeless, L. R. (1976). Self-disclosure and interpersonal solidarity: Measurement, validation, and relationships. *Human Communication Research*, 3(1), 47-61. doi: 10.1111/j.1468-2958.1976.tb00503.x

INCLUSION OF OTHER IN THE SELF

Footnotes

¹As part of a larger study, participants were assigned to either report about a current romantic relationship or closest friendship. A revised version of the Investment Model subscales in which some of the items specific to romantic relationships (i.e. those pertaining to sexual aspects of romantic relationships) were altered or omitted was administered to participants reporting about their closest friendship. As analysis of the data revealed no significant differences among these relationship type conditions in relation to any of the constructs of interest in the current study, they will not be further discussed.

²Due to the low number of males in the total sample, each of the aforementioned analyses was also examined excluding male participants in order to determine whether different results might be evident in an exclusively female sample. As these analyses did not demonstrate any notably different patterns of results than the aforementioned analyses, they will not be further discussed.