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Including Others in the Implicit Self: Implicit Evaluation of Significant Others

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We argue that people include significant others in their implicit self-concepts. That is, people's implicit evaluations of their significant others are related to their own self-evaluations. Data from five different samples supported this idea by demonstrating that people's implicit self-esteem is related to their implicit evaluations of their close others (both implicit self-esteem and implicit evaluations of significant others were assessed using the name-letter measure). This finding held for parent–child, romantic, and sibling relationships as well as for friendships. This finding also held controlling for people's explicit self-esteem and how much people liked letters in general. These findings suggest that people include significant others in their implicit self-concepts, which appear to be distinct representations from people's explicit beliefs. The potential implications for relationship functioning are discussed.

Keywords: Implicit self-esteem; Implicit evaluations; Significant others; Sociometer.

The need to belong and feel accepted is a fundamental human motivation (Baumeister & Leary, 1995; Bowlby, 1982). Accordingly, the sociometer theory of self-esteem suggests that self-esteem is a consequence of people's perceived social standing (Leary, Tambor, Terdal, & Downs, 1995). Presumably, the interpersonal

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monitoring system continuously monitors acceptance by functioning preconsciously. Consistent with the sociometer theory, people's implicit (i.e., unconscious, automatic) self-esteem is related to the quality of early interactions with parents (DeHart, Pelham, & Tennen, 2006) and predicts social reconnection (and alcohol consumption) in response to negative interpersonal interactions (DeHart, Tennen, Armeli, Todd, & Mohr, 2009). However, to our knowledge, no research has specifically examined whether people's implicit self-evaluations are related to their implicit evaluations of significant others.

Several conceptualizations of people's evaluations of significant others underscore the importance of the self (e.g., Andersen & Chen, 2002; Aron, Aron, Tudor, & Nelson, 1991; Murray, Holmes, & Griffin, 1996; Singelis, 1994; Slotter & Gardner, 2009). Most of this research has focused on explicit (i.e., consciously considered, controlled) evaluations of self and other. For example, previous research has demonstrated that people often project aspects of themselves onto their perceptions of their significant others (Kenny & Acitelli, 2001; Lemay & Clark, 2008; Murray et al., 1996). Specifically, Murray et al. (1996) found that people projected their own positive or negative explicit self-evaluations onto their explicit views of their romantic partners. In addition, according to the dependency regulation model, perceptions of a partner's love and acceptance are a projection of people's own self-views (DeHart, Murray, Pelham, & Rose, 2003; Murray, Holmes, Griffin, 2000). A dependency regulation perspective provides a mechanism—perceived acceptance—that explains why models of self and other are so often related such that generosity to self and others goes hand in hand. Previous research has also shown that people are unaware that their explicit self-evaluations influence their explicit perceptions of significant others (e.g., Andersen & Chen, 2002; Aron et al., 1991; Murray et al., 1996).

There is some evidence in the close-relationships literature that people's beliefs about their relationship partners may become automatized (e.g., Andersen & Chen, 2002; Bowlby, 1982; DeHart, Pelham, & Murray, 2004; Mikulincer, Gillath, & Shaver, 2002). According to attachment theorists, caretakers' habitual responses to infants become internalized into infants' working mental models. Importantly, attachment theorists describe people's mental models as a set of both conscious and unconscious beliefs about the self in relation to other people (Bowlby, 1982). Consistent with this idea, interpersonal threat has been found to automatically activate representations of attachment figures (Mikulincer et al., 2002) and risk-regulation dynamics (Murray, Derrick, Leder, & Holmes, 2008). In addition, activating representations of attachment figures influences the accessibility of attachment-related goals, such as closeness and support seeking (Gillath et al., 2006). However, research has not assessed whether people's implicit beliefs about the self are related to their implicit perceptions of their close-relationship partners.

Previous research has also demonstrated that people's implicit beliefs about significant others are dynamic and change in response to current relationship events (DeHart et al., 2004). Specifically, the implicit evaluation of significant others for people with low explicit self-esteem was contingent on how things were currently going in their relationships. In contrast, the implicit evaluation of significant others for people with high explicit self-esteem was not contingent on how things were currently going in their relationships. However, this research did not examine the relation between people's implicit beliefs about the self and their implicit beliefs about significant others. The goal of the current research was to determine whether

people project their implicit beliefs about the self onto their implicit beliefs about their significant others, much like they do other aspects of the self (Kenny & Acitelli, 2001; Lemay & Clark, 2008; Murray et al., 1996).

We tested our hypothesis that people include significant others in their implicit self, and as a result project their implicit beliefs about the self onto their implicit beliefs about close others, in five different samples and across four different types of relationships. Previous research has demonstrated that name-letter preferences are one of the most widely used, reliable, and valid indicators of implicit self-esteem (see Koole & DeHart, 2007, for a review). Specifically, name-letter preferences have been linked to early childhood experiences (DeHart et al., 2006), reflect automatic self-evaluations (Koole, Dijksterhuis, & van Knippenberg, 2001), are conditioned by pairing self-related words with positively valenced words (Baccus, Baldwin, & Packer, 2004; Dijksterhuis, 2004), fluctuate in response to daily negative events (DeHart & Pelham, 2007), are related to self-evaluation and not just mere exposure effects (Jones, Pelham, Mirenberg, & Hetts, 2002) and are related to physical health (Shimizu & Pelham, 2004). In addition, previous research has demonstrated that the liking for the name-letter initials of significant others reflects the favorability of their implicit associations about these significant others (DeHart et al., 2004; LeBel & Campbell, 2009). We thus used the name-letter measure to assess implicit self and significant other evaluations.

Method

Participants were drawn from five samples in which paper and pencil measures of implicit evaluation of close others and implicit and explicit self-esteem were administered.

Participants

Sample 1. Participants were 309 students (190 women, 119 men), mean age 21.9 years ($SD = 3.9$) enrolled in an introductory social psychology course at the State University of New York at Buffalo. Participants received extra course credit for their participation.

Sample 2. Two hundred and seventeen mothers of the college students in Sample 1 (238 surveys were sent for a 91% response rate; see DeHart et al., 2006, for more details regarding the sample). Mothers' mean age was 48.4 ($SD = 6.6$).

Sample 3. Health-care workers (73 women and 26 men) enrolled in a continuing education workshop in Tallahassee or Panama City, FL, participated in a study of social attitudes. Data from 15 participants who reported not having romantic partners were excluded from our analyses, leaving 61 women and 23 men. The large majority of these participants (88.1%) reported being married, and the remainder reported either that they were seriously (9.5%) or casually (2.4%) dating. Mean age was 46.4 years ($SD = 11.3$).

Sample 4. Participants were 219 students (145 women, 74 men), mean age 21.3 years ($SD = 2.42$) enrolled in an introductory social psychology course at the State University of New York at Buffalo. Participants were asked to provide the first name initials of all their siblings (15 participants did not have any siblings).

We averaged participants first name letter liking for all of their siblings together. Participants received extra course credit for their participation.

Sample 5. Participants were 613 students (345 women, 182 men, 86 unreported), mean age 18.9 years ($SD = 2.8$) enrolled in an introductory psychology course at the State University of New York at Buffalo. Participants received extra course credit for their participation.

Measures

Implicit self-evaluation. Our measure of people's implicit evaluations of their significant others and self was based on research on the name-letter effect (DeHart et al., 2006; Kitayama & Karasawa, 1997; Koole et al., 2001; Nuttin, 1985, 1987). Specifically, we asked participants to report their preferences for each of the 26 letters of the alphabet. Presumably, these ratings were to be used to "develop stimuli for future studies of linguistic and pictorial preferences." Participants were asked to "*trust your intuitions, work quickly, and report your gut impressions*" (emphasis in original). Participants made their ratings using a 9-point scale (1 = *dislike very much*, 9 = *like very much*). Name-letter preferences are documented to the degree that people whose names contain specific letters evaluate those letters more favorably than do people whose names do not contain the same letters. Because past research has shown that name-letter preferences are most pronounced for people's initials, and because we wished to maintain people's confidentiality, we assessed only people's (and their relationship partners') first initials. We focused on first initials because last-name initials confounded self and significant other across a majority of our samples (see DeHart et al., 2006; Koole et al., 2001, for more details on scoring name-letter measure). People and their siblings, for example, almost always share the same surname.

Implicit evaluation of significant others. Consistent with past research on own name-letter preferences, our measure was the degree to which participants rated their significant other's first-name initial more favorably than did people whose own initials (or whose significant other's initials) did not include a specific letter (see DeHart et al., 2004, for more details on scoring significant other name-letter measures).

Explicit self-esteem. We used Rosenberg's (1965) 10-item self-esteem scale that taps global self-evaluations (e.g., "I feel that I have a number of good qualities"). Participants responded using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). Negative items were reverse-scored (all αs $> .90$).

Results

Table 1 contains results of six one-sample *t*-tests (students' evaluations of their moms and dads for Sample 1 and one relationship partner for each of the other samples). The first two columns show that people had positive biases toward themselves and significant others regardless of the type of close relationship. In fact, this bias in name-letter liking appeared bigger when relationships were normatively closer (e.g., mom's evaluation of child and evaluation of romantic partners). However, we

TABLE 1 Mean Own and Significant Other First Initial Preferences

Sample	Self	Significant other	Significant other (non-shared name-letter)
(1a) Kids (moms)	1.87 (1.57), $t(253) = 18.91$**	0.50 (2.19), $t(253) = 3.65$**	0.23 (2.20), $t(210) = 1.50$
(1b) Kids (dads)	1.87 (1.57), $t(253) = 18.91$**	0.58 (2.20), $t(250) = 4.14$**	0.25 (2.15), $t(200) = 1.63$
(2) Moms (children)	1.18 (1.68), $t(216) = 10.37$**	0.91 (2.06), $t(216) = 6.52$**	0.87 (2.08), $t(179) = 5.62$**
(3) Adults (romantic partners)	1.22 (1.66), $t(80) = 6.59$**	0.74 (2.07), $t(79) = 3.21$*	0.63 (2.10), $t(66) = 2.42$*
(4) Students (siblings)	1.81 (1.58), $t(213) = 16.74$**	0.64 (1.95), $t(197) = 4.65$**	0.33 (2.02), $t(176) = 2.14$**
(5) Students (friends)	1.96 (1.77), $t(583) = 26.84$**	0.41 (2.15), $t(521) = 4.37$**	0.21 (2.10), $t(450) = 2.11$*

Notes: Sample refers to raters (targets included in parenthesis). Standard deviations appear in parentheses after means. All *t*-tests are one-sample *t*-tests to determine whether first initial preferences are significantly greater than zero. *$p < .05$. **$p < .01$.

noticed that some people had the same first initials as their significant others, which could confound their liking for self and others. Column 3 shows that after excluding these participants, positive regard toward close others was significant for four out of six types of relationship. The two non-significant tests (adult children's rating of mothers and children's rating of fathers) yielded trends in the predicted direction.[1]

Are people's implicit evaluations of the self related to their implicit evaluations of significant others? To find out, we conducted six simultaneous multiple regression analyses (one for each sample). In each of these analyses the conceptual predictors of implicit evaluation of significant others were: (a) implicit self-esteem; and (b) explicit self-esteem. In addition, to help rule out method variance, we controlled for how much people liked letters in general. Column 1 of Table 2 shows that implicit self-esteem was consistently associated with implicit evaluation of close others (although not significantly so for kids' ratings of dads). In contrast, explicit self-esteem was not related to implicit evaluation of significant others in any of the analyses. Consistent with the findings for implicit other regard, the association between people's implicit self-evaluations and evaluations of close others appeared somewhat larger as relationships were normatively closer (e.g., mom's evaluation of a child and evaluation of romantic partners).

To determine whether the relation between people's implicit self and other evaluations were stronger the normatively closer the relationship was, we conducted *t*-tests (by calculating the pooled variance from our respective independent samples) to determine whether the differences across our samples were significant. These results revealed that the relation between participants implicit self-esteem and implicit ratings of their romantic partners ($B = .34$) was not significantly different than the relation between kids implicit self-esteem and implicit rating of their moms ($B = .33$), $t(270) = 1.03$, $p > .30$. In addition, the relation between participants implicit self-esteem and implicit ratings of their friends ($B = .16$) was not significantly

TABLE 2 Implicit Evaluation of Close Other as a Function of Implicit Self-esteem, Explicit Self-esteem, and Liking for Non-name Letters (for People They Don't Share Name-letter)

Sample	Implicit self-esteem	Explicit self-esteem	Letter liking
(1a) Kids (moms)	$\beta = .24$, $p < .001$	$\beta = .06$, $p = .35$	$\beta = .22$, $p < .01$
(1b) Kids (dads)	$\beta = .12$, $p = .11$	$\beta = .00$, $p = .96$	$\beta = .23$, $p < .01$
(2) Moms (children)	$\beta = .41$, $p < .05$	$\beta = -.04$, $p = .56$	$\beta = .24$, $p < .01$
(3) Adults (romantic partners)	$\beta = .26$, $p < .01$	$\beta = -.08$, $p = .52$	$\beta = .33$, $p < .01$
(4) Students (siblings)	$\beta = .18$, $p < .05$	$\beta = .11$, $p = .11$	$\beta = .31$, $p < .001$
(5) Students (friends)	$\beta = .13$, $p < .05$	$\beta = .02$, $p = .72$	$\beta = .29$, $p < .001$

Notes: Sample refers to raters (targets included in parenthesis). Standardized multiple regression coefficients are presented. Implicit self-esteem, explicit self-esteem and letter liking were centered (by subtracting the appropriate sample mean) prior to being simultaneously entered into the analyses.

different than the relation between kids implicit self-esteem and implicit rating of their dads ($B = .16$), $t(536) = 0.00$, $p > .90$. However, all of the other associations across our samples were significantly different from one another, all ts > 9.29, all dfs > 238, and all ps $< .01$. These findings suggest that people's implicit evaluations of close others are related to their implicit self-evaluations and it appears that the relation becomes stronger the normatively closer the relationship.

Discussion

This report summarizes the first attempts to assess whether people's implicit self-evaluations are related to their implicit evaluations of close others. Data from five distinct samples supported the idea that people include close others in their implicit self by demonstrating that people's implicit self-esteem is related to their implicit evaluations of their close others. This finding held for parent–child, romantic, sibling, and friendships. In fact, the relation appeared to get bigger when relationships were normatively closer (e.g., parents' evaluation of a child and romantic partners vs. sibling or friend). This finding also held controlling for people's explicit self-esteem and how much people liked letters in general.

The current results suggest that the association between people's representation of self and significant others occurs on an implicit (as well as an explicit) level. However, there are two additional issues to consider. First, in the current research we were only able to exclude participants who shared a first name initial with their significant others, which is consistent with previous research on implicit evaluations of people's significant others (DeHart et al., 2004; LeBel & Campbell, 2009). This leaves open the possibility that our results may reflect a liking for self (and not significant other) because participants may share other letters with their significant others.

Second, although the current results are consistent with the idea that people may project their implicit evaluations of the self onto their implicit evaluations of close others (see Kenny & Acitelli, 2001; Lemay & Clark, 2008; Murray et al., 1996, for projecting explicit evaluations), it is also possible that people's implicit evaluations of close others influence their own implicit self-evaluations. In fact, existing evidence

that has focused predominantly on explicit self-evaluations supports both causal accounts (e.g., Aron et al., 1991; Murray et al., 1996; Murray, Griffin, Rose & Bellavia, 2003). Experimental studies will be needed to determine the causal direction of the implicit effects observed in the current research.

The current findings contribute to our understanding of the cognitive representations of the self and close others. The current research suggests that we do not completely incorporate significant others into our implicit self. Presumably, the extent that people are included in the self depends on how close one is to that significant other. These findings are consistent with research on explicit self and close other representations suggesting that the degree which we treat others like the self is related to how close or how much we incorporate them into our sense of selves (Mashek, Aron, & Boncimino, 2003). Previous research has also demonstrated that the same self-protective dynamics that are elicited when people think about the self are also evident in people's implicit evaluation of close others after threat (DeHart et al., 2004).

To our knowledge, this is the first research linking people's implicit self-evaluations to their implicit evaluations of significant others. The current findings contribute to a growing body of research suggesting that there is an implicit sociometer that helps monitor people's standing with others (DeHart et al., 2006, 2009; Leary et al., 1995). The current findings also contribute to a growing body of literature examining people's automatic representations of close-relationship partners and relationship goals (Andersen & Chen, 2002; Bowlby, 1982; DeHart et al., 2004; Gillath et al., 2006; Mikulincer et al., 2002; Murray et al., 2008). In addition, recent research has found that people who reported higher implicit evaluations of their romantic partner (assessed via the name-letter measure) also report higher relationship satisfaction, which predicted whether couples were still dating 4 months later (LeBel & Campbell, 2009). These results combined with the current findings suggest that people's implicit evaluations of the self and their relationship partners play an important role in relationship functioning.

Note

1. We examined whether parental marital status impacted children's implicit regard for their parents. There was no significant difference in the implicit evaluation of mothers in children from intact ($M = 0.25$) versus divorced ($M = -0.01$) families, $t(183) = 0.68$, $p = .50$. In addition, there was no difference between intact ($M = 7.23$) and divorced families ($M = 6.88$) in ratings of closeness to mothers, $t(184) = 1.02$, $p = .31$. However, children from divorced families reported significantly lower fathers' first initial liking ($M = -0.52$) compared with children from intact families ($M = 0.33$), $t(171) = 2.21$, $p < .05$. Children in divorced families also reported feeling less close to their fathers ($M = 4.62$) compared with children from intact families ($M = 5.98$), $t(174) = 3.14$, $p < .01$. This pattern of results is consistent with the idea that children from divorced families are not including their fathers in their sense of self.

References

Andersen, S., & Chen, S. (2002). The relational self: An interpersonal social-cognitive theory. *Psychological Review*, *109*, 619–645.

Aron, A., Aron, E. N., Tudor, M., & Nelson, G. (1991). Close relationships as including other in the self. *Journal of Personality and Social Psychology*, *60*, 241–253.

Baccus, J. R., Baldwin, M. W., & Packer, D. J. (2004). Increasing implicit self-esteem through classical conditioning. *Psychological Science*, *15*, 498–502.

Baumeister, R. F., & Leary, M. E. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497–529.

Bowlby, J. (1982). *Attachment and loss. Vol. 1: Attachment*. London: Hogarth Press.

DeHart, T., Murray, S. L., Pelham, B. W., & Rose, P. (2003). The regulation of dependency in parent–child relationships. *Journal of Experimental Social Psychology*, *39*, 59–67.

DeHart, T., & Pelham, B. W. (2007). Fluctuations in state implicit self-esteem in response to daily negative events. *Journal of Experimental Social Psychology*, *43*, 157–165.

DeHart, T., Pelham, B. W., & Murray, S. L. (2004). Implicit dependency regulation: Self-esteem, relationship closeness, and implicit evaluation of close others. *Social Cognition*, *22*, 126–146.

DeHart, T., Pelham, B. W., & Tennen, H. (2006). What lies beneath: Parenting style and implicit self-esteem. *Journal of Experimental Social Psychology*, *42*, 1–17.

DeHart, T., Tennen, H., Armeli, S., Todd, M., & Mohr, C. (2009). A diary study of implicit self-esteem, interpersonal interactions, and alcohol consumption in college students. *Journal of Experimental Social Psychology*, *45*, 720–730.

Dijksterhuis, A. (2004). I like myself but I don't know why: Enhancing implicit self-esteem by subliminal evaluative conditioning. *Journal of Personality and Social Psychology*, *86*, 345–355.

Gillath, O., Mikulincer, M., Fitzsimons, G. M., Shaver, P. R., Schachner, D. A., & Bargh, J. A. (2006). Automatic activation of attachment-related goals. *Personality and Social Psychology Bulletin*, *32*, 1375–1388.

Jones, J. T., Pelham, B. W., Mirenberg, M. C., & Hetts, J. J. (2002). Name letter preferences are not merely mere exposure: Implicit egotism as self-regulation. *Journal of Experimental Social Psychology*, *38*, 170–177.

Kenny, D. A., & Acitelli, L. K. (2001). Accuracy and bias in the perception of the partner in a close relationship. *Journal of Personality and Social Psychology*, *80*, 439–448.

Kitayama, S., & Karasawa, M. (1997). Implicit self-esteem in Japan: Name letters and birthday numbers. *Personality and Social Psychology Bulletin*, *23*, 736–742.

Koole, S. L., & DeHart, T. (2007). Self-affection without self-reflection: Origins, models, and consequences of implicit self-esteem. In C. Sedikides & S. Spencer (Eds.), *The self in social psychology* (pp. 36–86). New York: Psychology Press.

Koole, S. L., Dijksterhuis, A., & van Knippenberg, A. (2001). What's in a name: Implicit self-esteem and the automatic self. *Journal of Personality and Social Psychology*, *80*, 669–685.

Leary, M. R., Tambor, E. S., Terdal, S. K., & Downs, D. L. (1995). Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology*, *68*, 518–530.

LeBel, E. P., & Campbell, L. (2009). Implicit partner affect, relationship satisfaction, and the prediction of romantic breakup. *Journal of Experimental Social Psychology*, *45*, 1291–1294.

Lemay, E. P., & Clark, M. S. (2008). How the head liberates the heart: Projection of communal responsiveness guides relationship promotion. *Journal of Personality and Social Psychology*, *94*, 647–671.

Mashek, D. J., Aron, A., & Boncimino, M. (2003). Confusions of self with close others. *Personality and Social Psychology Bulletin*, *29*, 382–392.

Mikulincer, M., Gillath, O., & Shaver, P. R. (2002). Activation of the attachment system in adulthood: Threat-related primes increase the accessibility of mental representations of attachment figures. *Journal of Personality and Social Psychology*, *83*, 881–895.

Murray, S. L., Derrick, J. L., Leder, S., & Homes, J. G. (2008). Balancing connectedness and self-protection goals in close relationships: A levels-of-processing perspective. *Journal of Personality and Social Psychology*, *94*, 429–459.

Murray, S. L., Griffin, D. W., Rose, P., & Bellavia, G. (2003). Calibrating the sociometer: The relational contingencies of self-esteem. *Journal of Personality and Social Psychology*, *85*, 63–84.

Murray, S. L., Holmes, J. G., & Griffin, D. (1996). The benefits of positive illusions: Idealization and the construction of satisfaction in close relationships. *Journal of Personality and Social Psychology*, *70*, 79–98.

Murray, S. L., Holmes, J. G., & Griffin, D. (2000). Self-esteem and the quest for felt security: How perceived regard regulates attachment processes. *Journal of Personality and Social Psychology*, *78*, 478–498.

Nuttin, J. M. (1985). Narcissism beyond Gestalt and awareness: The name letter effect. *European Journal of Social Psychology*, *15*, 353–361.

Nuttin, J. M. (1987). Affective consequences of mere ownership: The name letter effect in twelve European languages. *European Journal of Social Psychology*, *17*, 381–402.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Shimizu, M., & Pelham, B. W. (2004). The unconscious cost of good fortune: Implicit and explicit self-esteem, positive life events, and health. *Health Psychology*, *23*, 101–105.

Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin*, *20*, 580–591.

Slotter, E. B., & Gardner, W. L. (2009). Where do you end and I begin? Evidence for anticipatory, motivated self–other integration between relationship partners. *Journal of Personality and Social Psychology*, *96*, 1137–1151.