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Implicit Self-Importance in an Interpersonal Pronoun Categorization Task

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Abstract

Object relations theories emphasize the manner in which the salience/importance of implicit representations of self and other guide interpersonal functioning. Two studies and a pilot test (total $N = 304$) sought to model such representations. In dyadic contexts, the self is a “you” and the other is a “me”, as verified in a pilot test. Study 1 then used a simple categorization task and found evidence for implicit self-importance: The pronoun “you” was categorized more quickly and accurately when presented in a larger font size, whereas the pronoun “me” was categorized more quickly and accurately when presented in a smaller font size. Study 2 showed that this pattern possesses value in understanding individual differences in interpersonal functioning. As predicted, arrogant people scored higher in implicit self-importance in the paradigm. Findings are discussed from the perspective of dyadic interpersonal dynamics.

KEYWORDS: Object Relations, Self, Other, Interpersonal, Implicit, Size, Metaphor

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Freud (1920) conceptualized interpersonal tendencies in terms of stages of psychosexual fixation. Along these lines, he suggested that narcissistic individuals were fixated at a phallic stage of development, within which self-gratification trumps mutual regard. Subsequent psychodynamic theorists disagreed and offered an account of narcissistic tendencies that involved more social, less biological factors (e.g., Klein, 1952; Horney, 1945). Of particular interest is Kohut's (1966; 1971) analysis of narcissism, which may be viewed as social cognitive in nature. The narcissistic patient's behaviors suggested an unconscious mind in which the self was dominantly represented and important others (parents, spouses, the therapist, etc.) were not. Given such over-weighting of self-representations in the unconscious, relative to views of significant others, such a patient would be expected to act in a selfish, perhaps even arrogant interpersonal manner. Behaviors that benefit the self, but not the other, would generally be evident and psychotherapy progress would be difficult (also see Akhtar, 2003).

Kohut's (1966; 1971) analysis of narcissism is part of a broader post-Freudian movement known as *object relations theory* (Greenberg & Mitchell, 1983). Rather than focusing on biological instincts, object relations theorists instead focused on social experiences and cognitive factors (e.g., Bowlby, 1960). Following Piaget (1960) in part, the young child is seen as essentially self-centric. With love and support, the child becomes interested in other-objects (i.e., significant others) and learns to appreciate them as independent beings with their own needs, wishes, and plans. To the extent that bad parenting occurs, the child may remain overly invested in the self with a correspondingly impoverished view of others. Through such processes, with admitted variants proposed by different theorists (Greenberg & Mitchell, 1983), early social

experiences can shape object (i.e., person) representations and in turn influence an individual's way of relating to others throughout adulthood (Huprich & Greenberg, 2003).

Theory and data can remain alarmingly disconnected in the area of psychodynamic ideas (Bornstein, 2006; Erdelyi, 1985). Yet, it is also true that object relations perspectives have been empirically generative in understanding attachment styles (e.g., Mikulincer, Shaver, Bar-On, & Ein-Dor, 2010) and how people respond to significant other primes (e.g., Baldwin, Carrell, & Lopez, 1990). Somewhat surprisingly, though, experimental paradigms in this area have not focused on a self/other comparison of unconscious (in modern terms, implicit: Fazio & Olson, 2003) object representations. What we know here comes from a literature using the Implicit Association Test or IAT (Greenwald & Farnham, 2000). When categorizing both self versus other and pleasant versus unpleasant words simultaneously, people are often faster in a self/pleasant block than in an other/pleasant block. This IAT score is thought to reflect implicit self-esteem (Bosson et al., 2008).

The role of the “other” object in the IAT has rarely been fleshed out. Certainly, the IAT was not designed to test dyadic representations or self-other transactions. Of more relevance for present purposes, Kohut's (1966; 1971) object relations view of interpersonal functioning does not implicate valence-based associations to the self versus to another. Rather, it implicates an arguably more fundamental tendency to view the self as a more salient and/or important entity than a dyadic other. It was this tendency toward what we term *implicit self-importance* that we sought to investigate. A novel implicit paradigm was created to accomplish this aim.

Metaphorically, what is important is large (e.g., “a big date”), a seemingly universal mapping (Lakoff & Johnson, 1999). To assess implicit self-importance, then, we used a manipulation of smaller versus larger font sizes. Previous studies manipulating font sizes have

shown that objects deemed more important by the individual are categorized faster when their size is larger than smaller (Fetterman, Robinson, & Ode, 2013; Meier, Robinson, & Caven, 2008). Accordingly, implicit self-importance of an object relations type would occur to the extent that a self-object is categorized more quickly when larger and an other-object is categorized more quickly when smaller. Prior to the studies proper, we conducted a pilot test to choose pronouns for the implicit self-importance task.

Pilot Test

To model implicit self-importance in a cognitive task, it was important that computers be used. Fortunately, a literature has shown that people implicitly view their computers as potential interaction partners (Nass & Moon, 2000). This is not too surprising in that people interact with computers, do so as a type of dyadic exchange, and a computer can sometimes seem to have a mind of its own. In dyadic transactions, furthermore, the self is a “you” and the dyadic other is a “me”, whether in spoken conversations, letters, phone calls, or emails (Mortenson, 2008). Accordingly, when presenting the pronouns “me” and “you” on computer, the personal pronoun “you” should be viewed as referring to the self (interacting with the computer) and the personal pronoun “me” should be viewed as referring to the computer, in turn setting up the necessary conditions for assessing implicit self-importance in a computerized cognitive manner.

To verify such logic, we asked 86 (52 female) undergraduates two questions through an E-Prime software program. One question asked what pronoun a computer would display when referring to itself. There was consensus among participants that the computer would use the word ME rather than YOU (% choosing ME = 68.60%), $\chi^2 = 11.91$, $p < .01$. The other question asked what pronoun a computer would display when referring to the individual operating it. There was consensus that, in this case, the computer would display the word YOU rather than ME (%

choosing YOU = 82.56%), $\chi^2 = 36.47$, $p < .01$. The interaction (Question by Pronoun chosen) was highly reliable by the McNemar's Chi-square test, $\chi^2 = 34.57$, $p < .01$. These pilot results establish that the self is a "you" in this computerized context. Owing to our interest in implicit processes, such representational questions were not asked in the main studies.

Study 1: Are There Normative Tendencies toward Implicit Self-Importance?

Infants are likely born with a rudimentary sense of self, but no capacity to appreciate dyadic others (Westen et al., 1991). With increased social and cognitive development, self- and other-representations are thought to gain more equal footing in mentation (Piaget & Cook, 1954). Others' viewpoints can be appreciated, empathy develops, self-criticism becomes more frequent, and efforts to modify the self to support better interpersonal functioning occurs (Frith, 2007). In other words, the all-encompassing self of the early child becomes the truly transactional self of the mature adult (Eriksen, 1978). The development of a transactional self, in which both self and other are appreciated, has been viewed as normative except in relation to developmental disorders such as autism (Baron-Cohen, Tager-Flusberg, & Cohen, 2000). Similarly, self-favoring object relations are thought to constitute a failure of development in the clinical literature on narcissism (Kohut, 1966; 1971).

On the other hand, there are likely to be cognitive, motivational, and functional reasons for viewing the implicit self as more important than the implicit other. From a cognitive perspective, the self represents a rich, articulated set of associations that might dominate the implicit interpersonal landscape for this reason (Symons & Johnson, 1997). From a motivational perspective, individuals ascribe more importance to their personal strengths than weaknesses (Dunning, Heath, & Suls, 2004) and normative tendencies toward self-enhancement have been found in a number of research paradigms (Taylor & Brown, 1988). From a functional

perspective, self-favoritism may represent a sort of default that people maintain to attempt to gain more than the other in their dyadic relationships (Finkel & Rusbult, 2008). These are all reasons for thinking that there may be some general tendency toward implicit self-importance, albeit an entirely novel potential contribution to the literature.

Study 1 was the first one in which we measured categorization times for “me” and “you” pronouns when their font sizes varied. On the basis of the considerations above, we predicted a systematic interaction. Specifically, the pronoun “you” (representing the self) should be categorized faster when presented in a large relative to small font size, whereas the pronoun “me” (representing the computer) should be categorized faster when presented in a small relative to large font size. Such results would establish the phenomenon of implicit self-importance.

Method

Participants and General Procedures

One hundred and nineteen (60 female) undergraduates from a north Midwest research university received course credit for their participation. They were generally informed that we were testing their ability to classify presented stimuli as quickly and accurately as possible. Sessions involved groups of 6 or less and each participant was seated at a personal computer in a private laboratory room.

Task for Assessing Implicit Self-Importance

A computerized task was administered. Its instructions were simple. Participants were asked to categorize the pronoun “ME” (when presented) as “me” and the pronoun “YOU” as “you”. They did so in an E-Prime program while responding with the 1 and 5 keys of a button box (< 1 ms error). Response mappings for “me” and “you” were counterbalanced across participants and were continuously displayed to render the task quite easy.

Participants were told that the pronouns ME and YOU might vary somewhat in appearance from trial to trial to “keep the task interesting”. The variation in appearance, ostensibly irrelevant to the task, involved the manipulation of font size. Meier et al. (2008) had previously shown that positive affective stimuli were evaluated more quickly when presented in a 20.5 Times New Roman font size relative to a 15.5 Times New Roman font size, consistent with “bigger is better” metaphors. This font size manipulation was accordingly used here as well. Pronouns and font sizes were randomized on a trial-to-trial basis.

Although the task was easy, it was important to penalize inaccurate responses to ensure that the focus was on accurate responding rather than unduly fast responding (Sanders, 1998). Accordingly, inaccurate responses were penalized with a 1000 ms “Incorrect!” error message before the next trial stimulus was presented. There were a total of 120 trials.

Reaction Time Quantification

Accuracy rates were quite high ($M = 97\%$), consistent with the simple nature of the task. In quantifying reaction time tendencies, inaccurate responses were first dropped. Subsequently, reaction times were log-transformed to reduce positive skew (Ratcliff, 1993). Then, log-transformed times that were 2.5 *SDs* faster or slower than the overall log-transformed mean were replaced with such 2.5 *SD* outlier values. This procedure ensured that all accurate responses were included, while lessening the undue influence of outliers (Robinson, 2007). Subsequently, data were averaged for the separate cells of the pronoun by font size experimental design.

Results

Reaction Time Results

To the extent that normative tendencies toward implicit self-importance are reliable, they should be reflected in a pronoun by font size interaction. A repeated-measures ANOVA was

performed on log-transformed reaction times to examine this prediction, though raw millisecond values will be reported for the sake of interpreting the pattern. Main effects for pronoun and font size were not significant, $F_s < 1$. On the other hand, and as hypothesized, there was a robust Pronoun by Font Size interaction, $F(1, 114) = 10.84, p < .01$, partial eta squared = .09.

Millisecond means for the interaction are displayed in Figure 1. As shown there, the pronoun ME (psychologically representing a dyadic partner, as shown in the pilot test) was categorized more quickly when it was assigned a *small* font size, $F(1, 114) = 3.47, p = .06$, whereas the pronoun YOU (psychologically representing the self, as shown in the pilot test) was categorized more quickly when it was assigned a *large* font size, $F(1, 114) = 7.11, p < .01$. These simple comparisons are somewhat useful, but the interactive pattern is what should be emphasized from an object relations perspective.

Accuracy Results

Accuracy rates were also analyzed. Main effects for Pronoun, $F < 1$, and Font Size, $F(1, 114) = 1.69, p = .20$, were not significant. However, a Pronoun by Font Size interaction was found, $F(1, 114) = 6.37, p = .01$, partial eta squared = .05. Response accuracy was directionally higher when the pronoun ME was presented in a smaller ($M = .97$) versus larger ($M = .96$) font size, whereas it was directionally higher when the pronoun YOU was presented in a larger ($M = .97$) versus smaller ($M = .95$) font size. These accuracy-related results indicate quite the opposite of a speed-accuracy tradeoff. Instead, they provide additional support for a normative pattern indicative of implicit self-importance in the pronoun categorization task.

Discussion

Unconscious representations of self and other, and their differential salience/importance, are likely key to interpersonal dynamics according to psychodynamic (and particularly object

relations) theories of social functioning (e.g., Horney, 1945; Klein, 1952). Yet, modeling such dynamics in experimental terms has been viewed as crucial in linking psychodynamic theories to empirically tractable social cognitive predictions (Westen, 1991). From an assessment perspective, simple cognitive paradigms without undue complications (e.g., pre-existing relationships) may be important to empirical progress (Baldwin, 1994; Erdelyi, 1985).

Along these lines, Study 1 established that a computerized paradigm was useful in modeling differential implicit representations of self and other. The manipulation of font size was simple (Meier et al., 2008), but consistent with metaphor-related theories of how people conceptualize salience or importance (Lakoff & Johnson, 1999). If implicit interpersonal self-importance persists into adulthood, there should be a Pronoun by Font Size interaction in which me/small and you/big combinations are categorized more quickly than me/big and you/small combinations. Just such an interaction occurred. We conclude that the average person possesses implicit self-importance, at least as assessed, and that such differential object representations are not therefore limited to young children or clinically disturbed individuals. Some people should be more prone to implicit self-importance than others, though, a focus of Study 2.

Study 2: Can Implicit Self-Importance Provide Insight Into Interpersonal Functioning?

Interpersonal behaviors are well captured by two dimensions and their blends. One dimension is warmth-coldness and the other is dominance-submission. This two-dimensional space both conceptually and empirically characterizes how people interact with others (Wiggins & Trobst, 1999). Indeed, most if not all individual difference variables directly relevant to interpersonal functioning – including agreeableness, anger, empathy, extraversion, femininity, Machiavellianism, masculinity, narcissism, etc. – can be understood in terms of their coordinates within the interpersonal circumplex space (see Plutchik & Conte, 1997, for an edited volume).

Further, the interpersonal circumplex serves as a common currency in linking up constructs and findings from a number of different literatures (Smith, Glazer, Ruiz, & Gallo, 2004).

We sought to locate tendencies toward implicit self-importance in this interpersonal space using well-validated markers for different areas of the circumplex. Implicit self-importance could reflect interpersonal dominance as dominant individuals habitually manipulate others (Wiggins & Trobst, 1999). The problem with this prediction is that dominance can be enacted in a warm manner that is seemingly as other-focused as it is self-focused (Winter, 2002). Implicit self-importance could alternatively reflect interpersonal coldness as cold individuals tend to be more dismissive of others (Plutchik & Conte, 1997). The problem with this prediction is that coldness can be enacted in a submissive manner such that the self essentially gives up its claims for status or power (Wiggins, 1979).

Instead, we thought it likely that implicit self-importance would vary by the diagonal contrasting cold/dominant individuals with warm/submissive ones. This diagonal can be, and is, labeled as interpersonal arrogance (see Figure 2). There are extensive sources of evidence for the idea that the arrogance diagonal best captures “dark” tendencies toward exploitative, self-centered behaviors (Jones & Paulhus, 2011). Further, this diagonal best captures the combination of self-enhancing and other-denigrating motives (Wiggins & Broughton, 1991) emphasized by object relations theories of narcissistic interpersonal tendencies (e.g., Kernberg, 1998; Masterson, 1993; Ronningstam, 2005). We therefore hypothesized that implicit self-importance scores would systematically vary by interpersonal arrogance, thus supporting an implicit object relations perspective of such individual differences.

In dyadic interactions, the self is a “you” (Mortenson, 2008). In Study 2, we sought to build upon this case. Study 2 participants were told to think of the self in terms of a “me” prior to

starting the task. We hypothesized, however, that they would not be able to override the self=you mapping inherent to the dyadic nature of the task. If so, further evidence in support of the automaticity of the paradigm and its assessed tendencies would be provided (Bargh, 1994).

Method

Participants and Procedures

Participants were 185 (53 female) undergraduates from a northern Midwest research university who received course credit. They first completed the implicit self-importance task on private computers. The task procedures were identical to Study 1 with the exception of the instructions. In Study 2, participants were explicitly instructed to think of ME as the self and YOU as the computer. Given the automaticity of self=you mappings in everyday dyadic discourse (Mortenson, 2008), implicit self-importance should nevertheless be exactly of the type manifest in Study 1. Data from the cognitive task were handled as in Study 1 and then averaged as a function of the 2 (Pronoun) by 2 (Font Size) cells of the within-subject design.

Following the completion of the implicit categorization task, participants reported on their interpersonal tendencies in terms of Wiggins' Interpersonal Adjective Scale (IAS-R; Wiggins, Trapnell, & Phillips, 1988). The IAS-R is a well-validated (Wiggins & Broughton, 1991; Wiggins, Phillips, & Trapnell, 1989) instrument in which adjectives are rated according to how well they describe the self (1= extremely inaccurate; 6= extremely accurate). Three separate 16-item scales were administered to capture the cold (e.g., "cold" & "unsympathetic"; alpha = .89), dominance (e.g., "dominant" & "assertive"; alpha = .89), and arrogance (e.g., "boastful" & "cocky"; alpha = .84) vectors of the interpersonal space. The arrogance vector, in particular, was hypothesized to covary with categorization tendencies consistent with implicit self-importance.

Results

Normative Results

A repeated-measures ANOVA was conducted on log-transformed reaction time means. The main effect for Pronoun was not significant, though it was marginally significant, $F(1, 186) = 2.85, p = .09$ ($M_s = 483$ & 481 ms for ME & YOU pronouns respectively). The main effect for Font Size was also marginally significant, $F(1, 186) = 3.79, p = .05$ ($M_s = 483$ & 481 ms for the smaller & larger font sizes respectively). Of more importance, there was a robust Pronoun by Font Size interaction, $F(1, 186) = 26.57, p < .01$, partial eta squared = .13.

As in Study 1, the pronoun ME was categorized more quickly when it was presented in a small font size ($M = 481$ ms) relative to large a font size ($M = 486$ ms), $F(1, 186) = 4.95, p = .03$. On the other hand, the pronoun YOU was categorized more quickly when it was presented in a large font size ($M = 476$ ms) relative to a small font size ($M = 486$ ms), $F(1, 186) = 25.12, p < .01$. Thus, the same implicit self-importance pattern found in Study 1 was replicated in Study 2.

Accuracy rates were similarly analyzed. Main effects for Pronoun, $F < 1$, and Font Size, $F(1, 186) = 3.18, p = .08$, were both non-significant. The Pronoun by Font Size interaction was significant, however, $F(1, 186) = 19.59, p < .01$, partial eta squared = .10, and the interaction provided further support for implicit self-importance as a normative tendency. That is, participants categorized the pronoun ME more accurately when presented in a small font size ($M = .96$) relative to a large font size ($M = .95$), whereas they categorized the pronoun YOU more accurately when presented in a large font size ($M = .96$) relative to a small font size ($M = .95$). The results involving accuracy rates were admittedly subtle due to how easy the task was and to the provision of error feedback. For this reason, results involving individual differences will focus on the more sensitive reaction time metric.

Implicit Self-Importance as a Predictor of Interpersonal Functioning

We hypothesized that implicit self-importance would better, and perhaps exclusively, characterize high arrogant relative to low arrogant individuals. To examine this hypothesis, we conducted a General Linear Model (GLM) analysis, which combines features of ANOVA and multiple regression (Robinson, 2007). Interpersonal Arrogance was z-scored in the analysis and treated as a continuous variable. Significant effects were followed up by estimating means at high versus low levels of the interpersonal arrogance continuum (Aiken & West, 1991).

Normative effects replicated those reported above and are thus omitted below.

There was a somewhat interesting, but theory-irrelevant, main effect for Arrogance, $F(1, 185) = 5.54, p = .02$, such that individuals high (+1 *SD*) in arrogance were generally faster ($M = 471$ ms) than individuals low (-1 *SD*) in arrogance ($M = 494$ ms). Two-way interactions involving Arrogance were not significant, $F_s < 1$, nor were they expected to be. On the other hand, and as hypothesized, there was a significant Arrogance by Pronoun by Font Size three-way interaction, $F(1, 186) = 11.05, p < .01$, partial eta squared = .07. Two further GLM analyses revealed that there were significant Arrogance by Font Size interactions both when categorizing the pronoun ME, $F(1, 185) = 5.09, p = .03$, and the pronoun YOU, $F(1, 185) = 5.47, p = .02$.

Implicit self-importance is necessarily defined by the pronoun by font size interaction. Further, initial inspection of estimated means for the three-way interaction revealed that the normative cross-over pattern reported above appeared evident at high levels of interpersonal arrogance, but not at low levels. To support this point statistically, a single composite score of implicit self-importance was created, whereby higher scores would reflect higher levels of this self-importance pattern (i.e., $((\text{ME}/\text{big} + \text{YOU}/\text{small}) - (\text{ME}/\text{small} + \text{YOU}/\text{big}))$). Consistent with the three-way interaction reported above, Arrogance predicted the size of this bias score in a simple regression, $t(186) = 3.32, p < .01$.

The single bias score allowed us to examine whether implicit self-importance was evident at high and low levels of arrogance in two follow-up simple regressions. The predictor was first altered to reflect high (+1 *SD*) levels of interpersonal arrogance. A significant intercept would indicate a significant cross-over interaction at this level of arrogance (Wilkowski & Robinson, 2007). In fact, the intercept was significant in this analysis, $t(186) = 6.09, p < .01$. Estimated means for the cells composing this interaction are reported in Figure 3. The predictor was then altered to reflect low (-1 *SD*) levels of arrogance and a second simple regression was performed. The intercept was not significant in this second analysis, $t(186) = 1.45, p = .15$ (estimated *M*s = 494, 496, 496, & 490 ms for ME/big, YOU/small, ME/small, & YOU/big conditions respectively). Accordingly, we can conclude that implicit self-importance was exaggerated at high levels of interpersonal arrogance and absent at low levels of interpersonal arrogance.

We then turned to whether the arrogance vector was the best predictor of implicit self-importance. As should be the case (Wiggins et al., 1988), arrogance scores were positively though moderately associated with dominance, $r(186) = .43, p < .01$, and coldness, $r(186) = .28, p < .01$, scores. On the other hand, simple regressions involving the overall bias score indicated that neither dominance, $p = .08$, nor coldness, $p = .21$, was a significant predictor of tendencies toward implicit self-importance. Thus, implicit self-importance best aligned itself with the arrogance dimension of the circumplex.

Discussion

The purposes of Study 2 were several. First, we sought to replicate the normative interactive pattern of Study 1. We were successful in doing so in relation to both reaction time and accuracy sources of evidence. Thus, normative tendencies toward implicit self-importance can be characterized as robust.

Second, we were able to show that implicit self-importance was impervious to explicit instructions concerning how to think about the pronouns. This was likely so because of the well-learned pronoun correlates of the self (“you”) versus another (“me”) in dyadic interaction contexts (Mortenson, 2008). Because the normative pattern was practically identical to that found in Study 1, we suggest that the task displays some evidence for the uncontrollability criterion of automaticity (Bargh, 1994). In addition, the normative pattern should be viewed as automatic in another respect in that the font size manipulation was quite irrelevant to how participants should respond and yet influenced performance nonetheless.

Third, object relations theories suggest that individuals differ in the extent to which the self-object (versus other-object) is given greater weight in the unconscious, tendencies that should have consequences for interpersonal behavior (Huprich & Greenberg, 2003). By translating this feature of object relations theory into a cognitive task and by assessing interpersonal functioning in circumplex terms, we were able to provide some positive evidence for this point. Indeed, and consistent with some other theorizing (e.g., Kernberg, 1998), implicit self-importance was aligned with a dimension of the interpersonal circumplex that is particularly predictive of exploitative, self-centered behavior (Wiggins & Broughton, 1991). Of course, further research of an individual difference type can be advocated, as discussed below.

General Discussion

A key question for object relations theories is the extent to which the mind ascribes differential salience or importance to the self than to a dyadic other (Kernberg, 1998; Kohut, 1971). To the extent that this is the case, we might expect behavior to be self-serving and even arrogant in nature. To the extent that it is not, we might expect more accommodative behavior.

There are certainly difficulties in translating psychodynamic theories into objective empirical assessments, but we believed it possible to do so by (a) developing a simple cognitive paradigm involving dyadic objects, (b) measuring reaction time, and (c) manipulating object size, a cue to object importance (Balci et al., 2010). Implicit self-importance would be – and was – revealed in terms of a robust pronoun by font size interaction such that categorization times were faster when the self-object was large and the other-object was small. As a way of organizing the General Discussion, we consider three key questions.

Who is the Dyadic Self?

The communication literature led us to expect that it would be quite feasible to model dyadic representations in a minimal type of simulated interaction with a computer (Mortensen, 2008; Nass & Moon, 2000). In a pilot test, furthermore, we were able to show that participants overwhelmingly thought of themselves as “you” and the computer as “me” in this dyadic pronoun context. It is appropriate, though, to contrast our pronoun manipulation with words and categories used in the implicit self-concept literature (Greenwald & Farnham, 2000). Briefly, this literature uses more generic other-related categories and stimuli (e.g., the word “it”) that cannot be viewed as self-relevant (Nosek, Greenwald, & Banaji, 2005). The self must necessarily become a different sort of pronoun entity than in our studies for this reason.

Thus, there is no incompatibility between our self/other manipulation and what is done in the implicit self-concept literature. If one seeks to capture dyadic object representations, as we did, then our manipulation of pronouns can be used. If one seeks a more generic self/other contrast, then the categorization procedures of the implicit self-concept literature (Greenwald & Farnham, 2000) can be used. As a point of potential interest, though, we would like to see what

happens in the latter paradigms when a “me” versus “you” contrast is employed. The present results suggest that such a contrast might be informative concerning dyadic processes.

Is Implicit Self-Importance Normal?

Although we did not screen for psychopathology, our participants should be viewed as generally well-functioning in that they gained admittance to a competitive university. Moreover, they came from a state and institution that scores very high in agreeableness (Rentfrow, Gosling, & Potter, 2008), a key trait in the prosocial realm (Graziano & Eisenberg, 1997). It is therefore informative that the average person displayed implicit self-importance, consistent with “normal” views of at least some narcissistic tendencies (Cain, Pincus, & Ansell, 2008; Paulhus & John, 1998). Our results also seem consistent with the implicit self-esteem literature, which generally finds people to have positive associations to the self (Yamaguchi et al., 2007).

We conceptualized and operationalized implicit self-importance in ways quite different from implicit self-esteem, however. The studies modeled object size representations concerning the self and other, not valence-based associations. Still, it would be informative to examine potential relationships between implicit self-importance and implicit self-esteem. From an object relations standpoint, such links might be hypothesized (Hibbard, Hilsenroth, Hibbard, & Nash, 1995), though this remains to be determined. In any case, what we have documented is a novel, theory-important way in which most people seem to represent the self in a special manner.

Does Implicit Self-Importance Predict Interpersonal Functioning?

Object representations are thought to provide insights into interpersonal functioning (Kohut, 1971). Study 2 made an important foray into this territory in that we were able to show that arrogant people were particularly high in implicit self-importance. Nonetheless, it would seem desirable to cast a wider nomological net in future research. Given that the arrogance

dimension of the circumplex organizes a number of “dark” interpersonal traits (Jones & Paulhus, 2011), for example, implicit self-importance should also vary as a function of traits such as Machiavellianism and psychopathy. We also call for research in which implicit self-importance is used to predict everyday social behaviors (Moskowitz, 2010) and relationship well-being (Finkel & Rusbult, 2008), as these sorts of outcomes are thought to vary by the object relations processes that we examined (Huprich & Greenberg, 2003).

As a final point of discussion, we can contrast the present results with those reported by Fetterman and Robinson (2010). In that study, vulnerable narcissists (Pincus et al., 2009) appeared to appraise the self as powerful particularly when they were feeling dominant rather than submissive. Such findings, too, make sense from an object relations perspective (Cain et al., 2008) and they suggest that vulnerable and “normal” forms of narcissism should be contrasted in future studies of the present type. An implicit probe of self-importance, that is, can make further contributions to the psychodynamic and individual difference literatures.

References

- Aiken, L., & West, S. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage Publications, Inc.
- Akhtar, S. (2003). *New clinical realms: Pushing the envelope of theory and technique*. Lanham, MD: Jason Aronson.
- Balcetis, E., & Lassiter, G. D. (2010). *Social psychology of visual perception*. New York: Psychology Press.
- Baldwin, M. (1994). Primed relational schemas as a source of self-evaluative reactions. *Journal of Social & Clinical Psychology, 13*, 380-403.
- Baldwin, M., Carrell, S., & Lopez, D. (1990). Priming relationship schemas: My advisor and the Pope are watching me from the back of my mind. *Journal of Experimental Social Psychology, 26*, 435-454.
- Bargh, J. (1994). The four horsemen of automaticity: Awareness, intention, efficiency, and control in social cognition. In: R. S. Wyer & T. K. Srull (Eds.), *Handbook of social cognition* (2nd ed., pp. 1-40). Hillsdale, NJ England: Lawrence Erlbaum Associates.
- Baron-Cohen, S., Tager-Flusberg, H., & Cohen, D. (2000). *Understanding other minds: Perspectives from developmental cognitive neuroscience* (2nd ed.). New York: Oxford University Press.
- Bornstein, R. F. (2006). A Freudian construct lost and reclaimed: The psychodynamics of personality pathology. *Psychoanalytic Psychology, 23*, 339-353.
- Bosson, J. K., Lakey, C. E., Campbell, W. K., Zeigler-Hill, V., Jordan, C. H., & Kernis, M. H. (2008). Untangling the links between narcissism and self-esteem: A theoretical and empirical review. *Personality and Social Psychology Compass, 2/3*, 1415-1439.

- Bowlby, J. (1960). Separation anxiety. *The International Journal of Psychoanalysis*, *41*, 89-113.
- Cain, N. M., Pincus, A. L., & Ansell, E. B. (2008). Narcissism at the crossroads: Phenotypic description of pathological narcissism across clinical theory, social/personality psychology, and psychiatric diagnosis. *Clinical Psychology Review*, *28*, 638-656.
- Dunning, D., Heath, C., & Suls, J. (2004). Flawed self-assessment: Implications for health, education, and the workplace. *Psychological Science in the Public Interest*, *5*, 69-106.
- Erdelyi, M. (1985). *Psychoanalysis: Freud's cognitive psychology*. New York: Henry Holt & Co.
- Erikson, E. (1978). *Adulthood*. Oxford, England: W. W. Norton & Co.
- Fazio, R. H., & Olson, M. A. (2003). Implicit measures in social cognition research: Their meaning and uses. *Annual Review of Psychology*, *54*, 297-327.
- Fetterman, A. K., & Robinson, M. D. (2010). Contingent self-importance among pathological narcissists: Evidence from an implicit task. *Journal of Research in Personality*, *44*, 691-697.
- Fetterman, A. K., Robinson, M. D., Ode, S. (2013). The incentive dynamics of power versus affiliation: Normative effects and their role in understanding interpersonal arrogance. *Manuscript submitted for publication*.
- Finkel, E., & Rusbult, C. (2008). Prorelationship motivation: An interdependence theory analysis of situations with conflicting interests. In: J. Y. Shah, & W. L. Gardner (Eds.), *Handbook of motivation science* (pp. 547-560). New York: Guilford Press.
- Freud, S. (1920). The libido theory and narcissism. In: *A general introduction to psychoanalysis* (pp. 356-371). New York: Liveright.
- Frith, C. (2007). *Making up the mind: How the brain creates our mental world*. Malden, MA: Blackwell Publishing.

- Graziano, W. G., & Eisenberg, N. (1997). Agreeableness: A dimension of personality. In: R. Hogan, J. A. Johnson, & S. R. Briggs (Eds.), *Handbook of personality psychology* (pp. 795-824). San Diego, CA: Academic Press.
- Greenberg, J. R., & Mitchell, S. A. (1983). *Object relations in psychoanalytic theory*. Cambridge, MA: Harvard University Press.
- Greenwald, A., & Farnham, S. (2000). Using the Implicit Association Test to measure self-esteem and self-concept. *Journal of Personality and Social Psychology*, 79, 1022-1038.
- Hibbard, S., Hilsenroth, M. J., Hibbard, J. K., & Nash, M. R. (1995). A validity study of two projective object representations measures. *Psychological Assessment*, 7, 432-439.
- Horney, K. (1945). *Our inner conflicts*. Oxford, England: Norton & Co.
- Huprich, S. K., & Greenberg, R. P. (2003). Advances in the assessment of object relations in the 1990s. *Clinical Psychology Review*, 23, 665-698.
- Jones, D. N., & Paulhus, D. L. (2011). Differentiating the Dark Triad within the interpersonal circumplex. In: L. M. Horowitz & S. Strack (Eds.), *Handbook of interpersonal psychology: Theory, research, assessment, and therapeutic interventions* (pp. 249-267). Hoboken, NJ: John Wiley & Sons.
- Kernberg, O. F. (1998). Pathological narcissism and narcissistic personality disorder: Theoretical background and diagnostic classification. In: E. Ronningstam (Ed.), *Disorders of narcissism: Diagnostic, clinical, and empirical implications* (pp. 29-51). Washington, DC: American Psychiatric Press.
- Klein, M. (1952). The origins of transference. *The International Journal of Psychoanalysis*, 33, 433-438.

- Kohut, H. (1966). Forms and transformations of narcissism. *Journal of the American Psychoanalytic Association, 14*, 243-272.
- Kohut, H. (1971). *The analysis of the self*. New York: International Universities Press.
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh*. New York: Basic Books.
- Masterson, J. F. (1993). *The emerging self: A developmental, self, and object relations approach to the treatment of the closet narcissistic disorder of the self*. New York: Brunner/Mazel.
- Meier, B., Robinson, M., & Caven, A. (2008). Why a Big Mac is a good Mac: Associations between affect and size. *Basic and Applied Social Psychology, 30*, 46-55.
- Mikulincer, M., Shaver, P. R., Bar-On, N., & Ein-Dor, T. (2010). The pushes and pulls of close relationships: Attachment insecurities and relational ambivalence. *Journal of Personality and Social Psychology, 98*, 450-468.
- Mortensen, D. C. (2008). *Communication theory* (2nd ed.). Piscataway, NJ: Transaction Publishers.
- Moskowitz, D. S. (2010). Quarrelsomeness in daily life. *Journal of Personality, 78*, 39-66.
- Nass, C., & Moon, Y. (2000). Machines and mindlessness: Social responses to computers. *Journal of Social Issues, 56*, 81-103.
- Nosek, B. A., Greenwald, A. G., & Banaji, M. R. (2005). Understanding and using the Implicit Association Test: II. Method variables and construct validity. *Personality and Social Psychology Bulletin, 31*, 166-180.
- Paulhus, D. L., & John, O. P. (1998). Egoistic and moralistic biases in self-perception: The interplay of self-deceptive styles with basic traits and motives. *Journal of Personality, 66*, 1025-1060.
- Piaget, J. (1960). *The child's conception of the world*. Oxford, England: Littlefield, Adams.

- Piaget, J., & Cook, M. (1954). *The construction of reality in the child*. New York: Basic Books.
- Pincus, A., Ansell, E., Pimentel, C., Cain, N., Wright, A., & Levy, K. (2009). Initial construction and validation of the Pathological Narcissism Inventory. *Psychological Assessment, 21*, 365-379.
- Plutchik, R., & Conte, H. (1997). *Circumplex models of personality and emotions*. Washington, DC: American Psychological Association.
- Ratcliff, R. (1993). Methods for dealing with reaction time outliers. *Psychological Bulletin, 114*, 510-532.
- Rentfrow, P. J., Gosling, S. D., & Potter, J. (2008). A theory of the emergence, persistence, and expression of geographic variation in psychological characteristics. *Perspectives on Psychological Science, 3*, 339-369.
- Robinson, M. D. (2007). Lives lived in milliseconds: Using cognitive methods in personality research. In: R. W. Robins, R. C. Fraley, & R. Krueger (eds.), *Handbook of research methods in personality psychology* (pp. 345-359). New York: Guilford Press.
- Ronningstam, E. (2005). *Identifying and understanding narcissistic personality*. New York: Oxford University Press.
- Sanders, A. F. (1998). *Elements of human performance: Reaction processes and attention in human skill*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Smith, T., Glazer, K., Ruiz, J., & Gallo, L. (2004). Hostility, anger, aggressiveness, and coronary heart disease: An interpersonal perspective on personality, emotion, and health. *Journal of Personality, 72*, 1217-1270.
- Symons, C., & Johnson, B. (1997). The self-reference effect in memory: A meta-analysis. *Psychological Bulletin, 121*, 371-394.

- Taylor, S., & Brown, J. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, *103*, 193-210.
- Westen, D. (1991). Social cognition and object relations. *Psychological Bulletin*, *109*, 429-455.
- Westen, D., Klepser, J., Ruffins, S., Silverman, M., Lifton, N., & Boekamp, J. (1991). Object relations in childhood and adolescence: The development of working representations. *Journal of Consulting and Clinical Psychology*, *59*, 400-409.
- Wiggins, J.S. (1979). A psychological taxonomy of trait-descriptive terms: The interpersonal domain. *Journal of Personality and Social Psychology*, *37*, 395-412.
- Wiggins, J. S., & Broughton, R. (1991). A geometric taxonomy of personality scales. *European Journal of Personality*, *5*, 343-365.
- Wiggins, J. S., Phillips, N., & Trapnell, P. (1989). Circular reasoning about interpersonal behavior: Evidence concerning some untested assumptions underlying diagnostic classification. *Journal of Personality and Social Psychology*, *56*, 296-305.
- Wiggins, J., Trapnell, P., & Phillips, N. (1988). Psychometric and geometric characteristics of the Revised Interpersonal Adjective Scales (IAS—R). *Multivariate Behavioral Research*, *23*, 517-530.
- Wiggins, J., & Trobst, K. (1999). The fields of interpersonal behavior. In: L. A. Pervin, & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102-138). New York: Guilford Press.
- Wilkowski, B., & Robinson, M. (2007). Keeping one's cool: Trait anger, hostile thoughts, and the recruitment of limited capacity control. *Personality and Social Psychology Bulletin*, *33*, 1201-1213.

Winter, D. G. (2002). The motivational dimensions of leadership: Power, achievement, and affiliation. In: R. E. Riggio, S. E. Murphy, & F. J. Pirozzolo (Eds.), *Multiple intelligences and leadership* (pp. 119-138). Mahwah, NJ: Lawrence Erlbaum Associates.

Yamaguchi, S., Greenwald, A., Banaji, M., Murakami, F., Chen, D., Shiomura, K., et al. (2007). Apparent universality of positive implicit self-esteem. *Psychological Science*, *18*, 498-500.

Figure 1

Categorization Reaction Times as a Function of Pronoun and Font Size, Study 1

Figure 2

A Graphic Depiction of the Arrogance Diagonal of the Interpersonal Circumplex, Study 2

Figure 3

Estimated Means for the Pronoun by Font Size Interaction at High Levels of Arrogance, Study 2





