Journal of Research in Personality xxx (2008) xxx–xxx

Contents lists available at ScienceDirect

Journal of Research in Personality

journal homepage: www.elsevier.com/locate/jrp

BriefReport

What is implicit about implicit self-esteem?

Zlatan Krizan *

Department of Psychology, W112 Lagomarcino Hall, Iowa State University, Ames, IA 50011, USA

ARTICLE INFO

Keywords:
Self-esteem
Implicit attitudes
Unconscious
Phenomenology
Name Letter
Self-evaluation
Awareness

ABSTRACT

Modern advances in implicit social cognition enabled development of novel methods for examining less conscious aspects of self-worth. The use of such "implicit" measures of self-esteem is based on the premise that because they circumvent direct self-reports, they must capture more implicit, automatic components of self-evaluation. Whether self-evaluations captured via "implicit" measures actually have these functional properties requires empirical verification, however. This investigation critically examined the evidence for such assumptions regarding the Name-Letter Test, one of the most popular implicit measures, by adopting a phenomenological approach. The results revealed that many respondents were aware of the self-relevant nature of the measure at the time of assessment. Moreover, at least some variance in the "implicit" measurement outcomes was accounted for by relevant conscious beliefs, particularly among those aware of the self-relevant nature of the task. The implications for understanding the nature and assessment of unconscious self-worth are discussed.

1. Introduction

Although tools for measuring unconscious aspects of self-worth existed since the time of Freud, it was not until recently that the unconscious components of global self-esteem began to draw wide-spread attention from researchers. Adequately capturing implicit components of self-esteem has proven difficult, however. Whereas many measures are available, their reliability and validity remain under intense scrutiny (see Koole & DeHart, 2007). A critical assumption underlying implicit measures of self-esteem is that capturing self-worth indirectly (i.e., without asking respondent to introspect about their self-worth) captures unconscious aspects of self-esteem. This assumption is largely based on the methodological supposition that the respondents are (1) not aware of what is being measured, and (2) a more complex supposition that they are not aware of the cognitions underlying measurement outcomes (see DeHouwer, 2006). Although there is very little direct evidence in support of these assumptions, it is also the case that direct empirical tests have been sparse (see Gawronski, LeBel, & Peters, 2007). The present investigation is an attempt to remedy this deficit; it directly probes the phenomenology underlying implicit measurement of self-esteem on the Name-Letter Test (NLT; e.g., Nuttin, 1985), and reveals somewhat disconcerting results regarding participants' awareness of such "implicit" self-evaluations.

Together with the self-esteem Implicit Association Test (Greenwald & Farnham, 2000), the NLT is one of the most commonly used implicit measures of self-esteem. Basically, the NLT captures the tendency for people to favor letters of their own names (particularly initials) over other letters (e.g., Nuttin, 1985). Typically, respondents are presented with an array of letters and symbols, and are asked to rate the likeability of each based on quick gut impressions, presumably in order to help the researchers develop stimuli for future studies. Numerous investigations have documented the robust tendency for people to rate their initials as more likeable than other letters across both cultures and languages (see Koole & Pelham, 2003 for review). Presumably, cognitive self-representations are more closely related to positive rather than negative evaluations (see

* Fax: +1 515 294 6424.
E-mail address: zkrizan@iastate.edu

0092-6566/$ - see front matter © 2008 Elsevier Inc. All rights reserved.
doi:10.1016/j.jrp.2008.07.002

Greenwald & Farnham, 2000), resulting in a general association between self-associated objects (such as initials) and positive evaluations. The NLT has been intensively used to study both trait and state aspects of self-evaluation, and to examine less conscious aspects of cognition and behavior (see Koole & DeHart, 2007 for review).

1.1. What 'Implicit' means

A common practice is to refer to standard self-report measures of self-esteem as *explicit*, and to less-obvious measures (e.g., NLT) as *implicit*, although in retrospect these terms may have been ill-advised. DeHouwer (2006) cogently points out that these terms refer to functional properties of measurement *outcomes* (e.g., the awareness of the content or consequences of the evaluation in question), and not to objective properties of measurement *procedures*. In terms of actual measurement procedures, explicit and implicit measures are better considered as *direct* and *indirect* measures, respectively, as the former directly assess the construct of interest whereas the latter do not. This distinction between properties of measurement outcomes (explicit vs. implicit) and measurement procedures (direct vs. indirect) is important as properties of measurement *outcomes* cannot be established a priori, but need empirical verification (see DeHouwer, 2006; Ranganath, Smith, & Nosek, 2008). Moreover, what functional property of the measure the term 'implicit' refers to varies, so it is critical that the exact meaning of 'implicit' be clearly specified (e.g., Gawronski et al., 2007). Although there are at least four ways in which a measurement outcome can be considered implicit (see DeHouwer, 2006; Gawronski et al., 2007), the following two are particularly frequent in discussions of implicit self-esteem.

First, it is often assumed that use of indirect measures such as the NLT means that the respondents are not aware of what is being assessed (i.e., liking of initials). Whereas this might be a reasonable methodological assumption given the indirect, non-obvious format of "implicit" measures, it is certainly not beyond reproach. The evidence regarding this assumption vis-à-vis the NLT is limited. Nuttin (1985) reported that even with no time limit and a monetary incentive, participants were not able to find their name that was actually entirely represented in letter matrices he employed. However, no analyses were reported, and it is not clear that participants were unaware that some letters might have been their initials, even if they did not notice their whole name. More recently, Koole, Dijksterhaus, and van Knippenberg (2001) reported that 7.5% of participants indicated thinking of their own name during the NLT. The letters were presented serially, however, which stands in contrast to a more common method of presenting the entire alphabet all at once (e.g., DeHart & Pelham, 2007). Thus, it seemed worthwhile to systematically examine respondent's awareness of what the NLT might be assessing.

The second assumption is deeper in nature; it reflects the notion that respondents are not aware of the mental content purportedly revealed by the indirect task (see Gawronski et al., 2007). The theoretical reasons for this assumption vary—the assumed lack of awareness regarding outcomes of the indirect tasks might reflect existence of a distinct attitudinal self-representation inaccessible to awareness directly (i.e., a "dual attitude", Wilson, Lindsey, & Schooler, 2000), or it might reflect a more veridical aspect of a single self-representation that has been morphed due to deliberate self-revision or self-presentation processes (see Olson, Fazio, & Hermann, 2007; Tafarodi & Ho, 2006). Regardless, the commonly observed independence of explicit and implicit measures is often invoked as evidence for the assumption that indirect tasks measure unconscious content. However, this independence can also be the consequence of various methodological factors, and the relation between direct and indirect measures often increases when such factors are taken into account (see Gawronski et al., 2007; Krizan & Suls, 2008, for discussion). In the least, if scores on the indirect self-esteem measures show some relation with the direct measures, an inference can be made that a common set of processes partially underlies both measurement outcomes (even without direct introspective access on the part of the respondents). Additionally, if participants report that their responses to the indirect measure were influenced by relevant self-views, the notion that the indirect measures capture content that is outside of conscious awareness should at least be questioned.

1.2. A phenomenological approach

The present study aimed to critically examine both of the assumptions above. It employed a phenomenological approach in order to test (1) whether NLT respondents are aware that they are actually rating self-relevant stimuli (i.e., initials), and (2) if so, whether there is any evidence that participants' ratings are concomitant with their conscious self-views. In order to accomplish these goals, after administration of the NLT participants were probed about their awareness of self-relevance of stimuli, and they also answered questions about the potential or actual influence of relevant self-views on their ratings. Documenting that the bias in favor of one's initials depends on any such awareness would be evidence against the notion that indirect self-esteem measurement (at least the NLT) provides pure access into unconscious self-evaluation.

2. Methods

One-hundred and one undergraduate psychology students (61% female) from a large mid-western university participated for a course requirement.

Participants were first administered the Name-Letter Test per standard instructions (see Koole et al., 2001). Under the guise of helping the researchers to develop stimuli, they provided "gut impressions" of letters (among other symbols) on a 1 (dislike very much)–9 (like very much) scale.

Please cite this article in press as: Krizan, Z., What is implicit about implicit self-esteem?. *Journal of Research in Personality* (2008), doi:10.1016/j.jrp.2008.07.002

In order to probe respondents' phenomenology during the NLT, a series of retrospective reports were collected. In order to ensure that (a) participants reported all thoughts relevant to the awareness of potential self-relevance of any letters (i.e., maximize hits), yet (b) do so with minimal experimental demand (i.e., minimize false alarms), a three-tier probing strategy was adopted. First, participants responded to the question "Did you pay attention to any particular characteristics of these letters? If so, please indicate what they were" (*Free Response)*. This solicitation method seems the least susceptible to demand effects, but respondents might have failed to report relevant thoughts. Thus, on the next page, participants provided a *Cued Response* after responding to the question "Did you think any letters had a special meaning or significance?" (Yes/Not Sure/No). In case they responded affirmatively, they were asked to indicate which letters had significance and why. Whereas this method reduced the chance of reporting failure, it also increased the potential for experimental demand. Next, participants were explicitly instructed that some letters were their initials. They then responded to the question "*At the time you made ratings of letters that happen to be your initial(s)*, were you *aware* they were your initials (Yes/Not sure/No)?" This *Direct Response*, however, is likely very susceptible to demand characteristics. Immediately after, using the same format of the question and response options, participants indicated whether "ratings of these letters *could potentially be influenced* by their association with you," "were *actually influenced* by how much you like your name", and "were *actually influenced* by how much you like yourself, that is, influenced by your self-esteem." The experimenter carefully monitored the respondents in order to prevent any looking ahead in the questionnaire packet.

Next, in order to measure (explicit) self-esteem, participants responded to the Self-Liking Self-Competence scale (SLSC; Tafarodi & Swann, 1995), and also directly indicated their attitude toward their name ("I like my name", 1 [strongly disagree] to 5 [strongly agree]), among other items.[1]

3. Results

3.1. Coding of open responses

Two coders independently examined both Free and cued responses for any indication that participants recognized any letters as their initials. Coding *only* for mention of one's own initials was likely a conservative strategy, but it maintained parallelism with the present computations in the NLT. The coders agreed 93% of the time regarding Free responses ($\kappa = .86$), and 98% of the time regarding cued responses ($\kappa = .96$). Disagreements were resolved by the author.

3.2. Awareness of self-relevance and influence

Inspection of Table 1 suggests that across all probing methods a sizeable proportion of respondents indicated awareness of their initials. Thus, for many respondents this measure should not be considered implicit in a sense of respondents being unaware of what is being assessed. Moreover, the name-letter bias was consistently higher when respondent reported recognizing their initials, although this awareness was not necessary to produce the bias (Table 2). That said, the results do suggest that awareness of one's initials is responsible for at least a portion of the NLT effect.

It was also examined whether individuals who mentioned recognizing their initials in the cued response were more likely to indicate that their ratings were potentially influenced by self-relevance or were actually influenced by how much they liked their name. Tabulations of answers to these queries across reports of awareness are shown in Table 3; there was a clear trend for those who recognized their initials to more frequently report that their ratings were potentially influenced by self-relevance of letters (χ^2 (2) = 15.82, $p < .001$) and were actually influenced by their attitudes toward their name (χ^2 (2) = 12.57, $p = .002$). As might be expected, responses to both of these queries predicted the magnitude of the name-letter bias at .02 and .06 levels, respectively. Moreover, inspection of open responses revealed that multiple individuals directly mentioned the consequences of this influence (e.g., "I rated the letters high if they were in my name").

Reporting that one's ratings were actually influenced by self-esteem (43% overall) did *not* vary across awareness reports (χ^2 (2) = 2.99, $p = .23$), although it did predict the magnitude of the name-letter bias. Respondents who endorsed this influence showed a higher bias ($M = 2.68$, $SD = 1.15$) than individuals who did not ($M = 1.38$, $SD = 2.02$), $F(2,97) = 3.64$, $p < .05$.

3.3. Links with conscious self-evaluations

As seen in Table 4, the link between NLT and self-esteem was only present (albeit marginally) among respondent who reported being aware of their initials during the task. Critically, the two correlations were significantly different, $z = -7.29$, $p < .01$. Also, attitude toward one's name predicted NLT scores independently of self-esteem, and regardless of awareness. Taken together, these results indicate that name-letter bias has clear links with conscious self-evaluations, particularly among respondents aware of the link. Indeed, a linear regression revealed that the combination of conscious evaluations of the self in general and one's name in particular accounted for more than 10% of the variance in the NLT ($R = .32$).[2]

[1] This last rating is comparable to the NLT regarding the attitude object (one's name), but respondents' evaluation is clearly conscious and intentional.

[2] While the NLT to name-attitude relation might seem obvious, it shows that the outcome of the two methods overlaps even though the self-relevance is presumably disguised in the NLT and respondents are not intentionally self-evaluating.

Please cite this article in press as: Krizan, Z., What is implicit about implicit self-esteem?. *Journal of Research in Personality* (2008), doi:10.1016/j.jrp.2008.07.002

Table 1
Relative frequencies (%) of recognizing one's initials across the three probing methods

Probing method	Recognized one's initials?	
	Yes	No
Free response	26.5	73.5
Cued response	42.6	57.4
Direct response	85.1	12.9

All values reported are percentages (%) of the total number of respondents. For the direct response, 2 individuals (2%) indicated 'not sure'. All individuals coded as recognizing their initials in the cued response indicated some letters had special meaning or significance when previously asked.

Table 2
The magnitude of the name-letter bias as a function of recognizing one's initials across the two spontaneous probing methods

Probing method	Recognized one's initials?		
	Yes	No	Difference
Free response	2.55 (1.94)*	1.41 (1.42)*	$p < .005$
Cued response	2.34 (1.41)*	1.28 (2.05)*	$p < .005$

* The bias was significant at $p < .001$ via a single-sample t-test. Standard deviations appear in parentheses.

Table 3
Raw frequencies of reporting the influence of self-association across awareness reports (Cued response)

Recognized one's initials?	Potentially influenced by self-relevance/actually influenced by name-liking		
	No	Not sure	Yes
No	13/18	7/16	38/24
Yes	0/3	1/8	42/32

Whether participants are categorized as recognizing their initials is based on coding of the cued response.

Table 4
Zero-order and partial correlations between name-letter bias and conscious self-evaluations across awareness reports (Cued response)

Evaluation	Recognized one's initials (Cued response)					
	No			Yes		
	1	2	3	1	2	3
(1) NLT	––					
(2) Self-esteem	−.05 (−.06)	––		.25+ (.14)		
(3) "I like my name"	.31* (.32*)	.29	––	.32* (.25+)	.35*	––

Partial correlations (controlling for the other conscious self-evaluation) appear in parentheses.
* $p < .05$, + $p = .10$.

4. Discussion

The present investigation probed the phenomenology of respondents to the NLT in order to examine assumptions about the nature of this "implicit" self-esteem measure. Regarding the first assumption that respondents are not aware of what is being assessed (i.e., liking of their initials), the data are somewhat disconcerting. Depending on the probing method, a quarter to a half of the respondents reported recognizing their initials during the task. These individuals were also more likely to recognize the potential influence of this self-relevance, and were more likely to state that how much they liked their name influenced their ratings—indeed, some individuals explicitly stated so. Critically, this awareness was consistently linked to a substantially higher name-letter bias, although it was not necessary for the bias to occur. Taken together, these findings indicate that for many respondents the NLT cannot be considered an implicit measure of self-evaluation *in the sense* that respondents are not aware of letters' self-relevance.

Regarding the second assumption that the NLT captures mental representations outside of conscious awareness, the findings are more equivocal. On one hand, a meaningful amount of variance in the NLT scores can be accounted for by directly-reported attitudes toward one's name and "explicit" self-esteem, particularly among those who recognized their initials during the task. On the other, the bias persisted even among those who were unaware, and a substantial amount of variance remained to be explained. The remaining variability is likely to be a combination of error-related and conceptually meaningful components, however. At minimum, the NLT partially captures conscious evaluations of one's name, and these are somewhat linked with explicit self-esteem. Again, however, this does not warrant the conclusion that the respondents have direct

Please cite this article in press as: Krizan, Z., What is implicit about implicit self-esteem?. *Journal of Research in Personality* (2008), doi:10.1016/j.jrp.2008.07.002

introspective access into representations underlying their name evaluations (see Greenwald & Nosek, 2008). Finally, the present findings do not address the validity of assumptions underlying other indirect measures of self-esteem (e.g., the Implicit Association Test; Greenwald & Farnham, 2000); these should be examined in future research.

4.1. Is awareness a cause or a consequence?

It might be tempting to conclude that being aware of the self-relevant nature of the task (as many respondents were) lead to more extreme liking of one's initials. However, no evidence reported here exclusively supports this possibility. After all, the awareness reports were retrospective in nature, and were collected after the NLT was administered. It is possible that individuals who scored high on the NLT became aware of the self-relevance of their ratings as a function of having a strong positive "gut level" reaction to letters that were their initials. In this sense, high NLT scores might have lead to awareness of their self-relevance. Indeed, some researchers have proposed that self-evaluations revealed on indirect measures are "preconscious", and can provide a "nagging doubt" or a "glimmer of hope" should they reach awareness (see Spencer, Jordan, Logel, & Zanna, 2005). Moreover, there is evidence that indirect self-evaluations reflect an intuitive sense of self that is more likely to consciously inform one's self-esteem when individuals place faith in their intuitions and see them as a valid source of information (Jordan, Whitfield, & Zeigler-Hill, 2007). Similarly, the recognition that self-relevance of letters influenced one's ratings could be a post-hoc attribution for one's positive reactions to the letters, rather than an accurate recall of one's phenomenology at the time of the rating. Taken together, these observations suggest that "implicit" self-esteem reflects a set of processes that can both shape and be shaped by conscious experience.

4.2. Conclusions

Taken together, these findings contribute to the recognition of the complexity of processes underlying indirect measures and underscore the importance of critically examining relevant assumptions. As the present data reveal, putting assumptions about indirect measures to the test suggest such measures might be more conscious than was initially thought. It is becoming clear that "implicit" measures do not provide a direct "pipeline" into unconscious self-evaluation, but rather reflect a complex mixture of automatic ("activation") and deliberate ("validation") processes with different shades of awareness (see Gawronski et al., 2007; Ranganath et al., 2008). Moreover, even if the utility of considering self-evaluations to reflect dual constructs proves to be worthwhile, it is unlikely to ever settle the question of whether there are two distinct sets of self-representations (Greenwald & Nosek, 2008). Ultimately, models which can account for both similarities and differences in direct and indirect measures, and do so within a unified process-based framework that also accounts for phenomenology, should represent the goals of researchers interested in self-evaluation.

Acknowledgment

Thanks go to Bertram Gawronski and Etienne LeBel for their helpful comments regarding this article.

References

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.

De Houwer, J. (2006). What are implicit measures and why are we using them? In *Handbook of implicit cognition and addiction* (pp. 11–28). Thousand Oaks, CA: Sage.

Gawronski, B., LeBel, E. P., & Peters, K. R. (2007). What do implicit measures tell us? Scrutinizing the validity of three common assumptions. *Perspectives on Psychological Science, 2*, 181–193.

Greenwald, A. G., & Farnham, S. (2000). Using the Implicit Association Test to measure self- esteem and self-concept. *Journal of Personality and Social Psychology, 79*, 1022–1038.

Greenwald, A. G., & Nosek, B. A. (2008). Attitudinal dissociation: What does it mean? In R. E. Petty, R. H. Fazio, & P. Brinol (Eds.), *Attitudes: Insights from the new implicit measures* (pp. 65–82). Hillsdale, NJ: Erlbaum.

Jordan, C. H., Whitfield, M., & Zeigler-Hill, V. (2007). Intuition and the correspondence between implicit and explicit self-esteem. *Journal of Personality and Social Psychology, 93*, 1067–1079.

Koole, S. L., Dijksterhaus, 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.

Koole, S. L., & DeHart, T. (2007). Self-affection without self-reflection: Origins, mechanisms, 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., & Pelham, B. W. (2003). On the nature of implicit self-esteem: The case of the name letter effect. In S. Spencer, S. Fein, & M. P. Zanna (Eds.). *Motivated social perception: The Ontario symposium* (Vol. 9, pp. 93–116). Hillsdale, NJ: Lawrence Erlbaum.

Krizan, Z., & Suls, J. (2008). Are implicit and explicit measures of self-esteem related? A meta-analysis for the Name-Letter Test. *Personality and Individual Differences, 44*, 521–531.

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

Olson, M. A., Fazio, R. H., & Hermann, A. D. (2007). Reporting tendencies underlie discrepancies between implicit and explicit measures of self-esteem. *Psychological Science, 18*, 287–291.

Ranganath, K. A., Smith, C. T., & Nosek, B. A. (2008). Distinguishing automatic and controlled components of attitudes from direct and indirect measurement. *Journal of Experimental Social Psychology, 44*, 386–396.

Spencer, S. J., Jordan, C. H., Logel, C., & Zanna, M. P. (2005). Nagging doubts and a glimmer of hope: The role of implicit self-esteem in self-image maintenance. In A. Tesser, J. V. Wood, & D. Stapel (Eds.), *On building, defending, and regulating the self: A psychological perspective* (pp. 153–170). New York: Psychology Press.

Please cite this article in press as: Krizan, Z., What is implicit about implicit self-esteem?. *Journal of Research in Personality* (2008), doi:10.1016/j.jrp.2008.07.002

Tafarodi, R. W., & Ho, C. (2006). Implicit and explicit self-esteem: What are we measuring? *Canadian Psychology, 47*, 195–202.
Tafarodi, R. W., & Swann, W. B. Jr., (1995). Self-liking and self-competence as dimensions of global self-esteem: Initial validation of a measure. *Journal of Personality Assessment, 65*, 322–342.
Wilson, T. D., Lindsey, S., & Schooler, T. Y. (2000). A model of dual attitudes. *Psychological Review, 107*, 101–126.

Please cite this article in press as: Krizan, Z., What is implicit about implicit self-esteem?. *Journal of Research in Personality* (2008), doi:10.1016/j.jrp.2008.07.002