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Reports

“How much do you like your name?” An implicit measure of global self-esteem

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ABSTRACT

We introduce a single-item implicit measure of global self-esteem. The measure is based on the mere-ownership effect and asks participants to indicate how much they like their name. Six studies attested to the validity of this measure. In addition to showing high test–retest reliability ($r = .85$), the studies found that Name-Liking was (a) unrelated to impression management, (b) positively related to the Name-Letter-Task, the Self-Esteem IAT, explicit self-esteem measures, and self-reported subjective well-being, (c) more strongly related to explicit measures of global than domain-specific self-esteem, (d) more strongly related to self-esteem judgments made spontaneously as well as under cognitive load, and (e) predicted observer-reported anxiety during an anxiety-inducing interview whereas an explicit measure of self-esteem did not.

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Self-esteem is one of the most strongly researched topics in psychology (Sedikides & Gregg, 2003; Swann, Chang-Schneider, & McClarty, 2007). Recently, implicit measures of self-esteem have garnered much theoretical and empirical attention. Although self-esteem researchers heavily debate whether implicit and explicit measures of self-esteem assess the same theoretical construct (i.e., single-attitude theories; e.g., Olson, Fazio, & Hermann, 2007) or whether these measures assess two different theoretical constructs (i.e., dual-attitude theories; e.g., Koole, Dijksterhuis, & van Knippenberg, 2001; Wilson, Lindsey, & Schooler, 2000), there is agreement that valid and reliable implicit measures of self-esteem are vital for self-esteem research. Thus, several implicit measures of self-esteem have been developed in recent years and have produced an impressive corpus of evidence. The measures include evaluative priming techniques (Spalding & Hardin, 1999), word-stem completion tasks (Pelham & Hetts, 1999), the evaluation of self-related objects (i.e., name letters, birth date numbers; Koole et al., 2001), and the self-esteem version of the Implicit Association Test (Self-Esteem IAT; Greenwald & Farnham, 2000).

Perhaps the biggest drawback of current implicit measures of self-esteem is that they are generally unrelated to each other (Baccus, Baldwin, & Packer, 2004; Bosson, Swann, & Pennebaker, 2000; Jordan, Spencer, & Zanna, 2003; Riketta, 2005). This finding has led some researchers to suggest that different implicit measures assess different facets of self-esteem (Bosson et al., 2000). More recently, this claim has been supported for the only two implicit measures that have acceptable psychometric properties

(Bosson et al., 2000): the Name-Letter-Task and the Self-Esteem IAT. In particular, Wentura, Kulfanek, and Greve (2005) suggested that the Name-Letter-Task assesses self-evaluations that pertain predominantly to the social domain. Also, Sakellaropoulou and Baldwin (2007) found that the Name-Letter-Task assesses either an agentic or a communal facet of self-esteem depending on the wording of the instructions. Finally, Campbell, Bosson, Goheen, La-key, and Kernis (2007) showed that the Self-Esteem IAT assesses different facets of self-esteem depending on the specific items used.

It is therefore timely and important to develop an implicit measure that assesses *global* rather than domain-specific self-esteem. This was the aim of the present research. Specifically, we constructed and validated a new implicit measure of global self-esteem. The next section presents the rationale for this measure.

The mere-ownership effect

Similar to the Name-Letter-Task (Koole et al., 2001), our new implicit measure of global self-esteem is based on the mere-ownership effect. This effect is the tendency to evaluate self-related objects more positively than self-unrelated objects. For example, people generally favor personal belongings over the belongings of others, people prefer the numbers appearing in their birth date over non-birth date numbers, and they like the letters included in their name more than other letters (Koole & Pelham, 2003). The mere-ownership effect allows the implicit assessment of self-esteem because people with high self-esteem extend their positive self-evaluation to the evaluation of objects representing the self, without conscious awareness that self-esteem is contributing

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to these evaluations (Greenwald & Banaji, 1995). Thus, people with high self-esteem should show a stronger mere-ownership effect than people with low self-esteem.

Koole and Pelham (2003) argued that the strength of the mere-ownership effect is more indicative of global self-esteem when the owned object is more representative of the self. Koole and Pelham reviewed a large number of studies attesting to the centrality of one's name for one's global self and concluded that one's name-letters are suitable objects for assessing self-esteem implicitly, because "it is difficult to think of a social symbol that is more closely associated with a person's identity than his or her name" (p. 99). In support of this notion, people report that they would not be the same person if they had another name, couples report that the perpetuation of their family name is one of the most important reasons for having a child, students feel flattered if their professors know their name, and namelessness is in many cultures equivalent to possessing no honor or identity.

Koole and Pelham (2003) used these arguments to explain why assessing people's liking for name-letters constitutes an implicit measure of self-esteem. However, an implication of their arguments is that assessing people's liking for their name as a whole would be an even better implicit measure of self-esteem. According to a well-known proposition of gestalt psychology, the whole is often more than the sum of its parts. This view suggests that the evaluation of one's name might be a better way of assessing the individual's global self-esteem than summing up the evaluation of name letters. Moreover, most word recognition models (McClelland & Elman, 1986; Norris, McQueen, & Cutler, 2000) assume that words are encoded holistically and are represented phonetically in memory (that is by phonemes and not by letters). Above and beyond this, the Name-Letter-Task does not take the order of one's name-letters into account. However, the order of letters is crucial to determine the meaning and valence of a target object. For example, a person called Blake may possess very high self-esteem despite the fact that rearranging his name letters gives the negatively valenced word *bleak*.

Based on this reasoning, we expected that Name-Liking is a useful implicit measure of global self-esteem. We developed and tested three measures of Name-Liking: Evaluations of one's first name, surname, and first and surname together (i.e., full-name). We tested our hypotheses for all three measures, although the full-name measure should be most powerful and valid (cf. gestalt psychology).

An additional advantage of our Name-Liking measure over other implicit measures is its brevity. Our measure consists of a single item. As such, it complements a recently developed single-item explicit measure of self-esteem ("I have high self-esteem"; Robins, Hendin, & Trzesniewski, 2001). According to Robins et al., multi-item measures, such as the 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1965), are relatively complicated and time-consuming to administer; cause fatigue, frustration, and boredom; and may result in participants skipping questions. These concerns also apply to the Self-Esteem IAT, which typically consists of about 200 trials, and to the Name-Letter-Task, which asks participants to rate all 26 letters of the alphabet.

Study 1

The aim of Study 1 was to provide a preliminary test of the viability of Name-Liking as an implicit measure of global self-esteem. Therefore, we examined the correlations between Name-Liking and the only two implicit measures of self-esteem that have been shown to possess acceptable psychometric properties: the Name-Letter-Task and the Self-Esteem IAT (Bosson et al., 2000). We expected to replicate evidence that the Name-Letter-Task and the

Self-Esteem IAT are unrelated (Baccus et al., 2004; Bosson et al., 2000; Jordan et al., 2003; Riketta, 2005), while finding that Name-Liking is moderately positively related to *both* measures. This pattern would constitute further support for the hypothesis that the Name-Letter-Task and the Self-Esteem IAT assess different facets of self-esteem (Campbell et al., 2007; Sakellaropoulou & Baldwin, 2007; Wentura et al., 2005; see discussion above). More important, this finding would be consistent with our argument that Name-Liking is an implicit measure of global (rather than domain-specific) self-esteem.

Additionally, we expected a moderately positive correlation between Name-Liking and explicitly measured global self-esteem. According to Greenwald and Farnham (2000), implicitly and explicitly measured self-esteem should be positively related, because both explicit and implicit measures are determined in part by affective associations with the self. Further, Greenwald and Farnham (2000) argued that the conscious expression of valenced self-views should strengthen the connection between the self and these evaluations. Finally, Bosson et al. (2000) argued that, even if the constructs tapped on by implicit and explicit measures of self-esteem are acquired through different learning processes, the learned content should be similar and should produce some overlap between the two constructs.

We did not have a specific hypothesis about whether Name-Liking is more strongly related to other implicit measures of (domain-specific) self-esteem or to explicit measures of (global) self-esteem. On the one hand, one might expect a stronger relation between Name-Liking and other implicit measures, because these measures should not be biased by impression management and they should not depend on one's conscious awareness of one's level of self-esteem. On the other hand, existing implicit measures seem to assess domain-specific self-esteem rather than global self-esteem. Hence, Name-Liking, as a measure of global self-esteem, may relate to explicit measures of (global) self-esteem at least as strongly as to the existing implicit measures of (domain-specific) self-esteem.

Method

This online-study was advertised on John Krantz's "Psychological Research on the Net" web-portal. Table 1 contains information about the samples in this and the other five studies. Participants completed the Name-Liking measure, the Name-Letter-Task, the Self-Esteem IAT, and two explicit measures of global self-esteem. Table 2 contains details about the measures used in all studies. The order of all measures was randomized across participants, except that Name-Liking always appeared after the Name-Letter-Task to prevent suspicion that the evaluation of one's name may play a role in letter preferences. At the end of this and all subsequent studies, participants were thanked and debriefed.

Results and discussion

When describing this and the following studies in the text, we report only the results involving the full-name version of the Name-Liking measure, but not the first name and surname versions. We focus on the full-name version because the results across the present studies supported our aforementioned hypothesis that the full-name version is the most valid implicit measure of global self-esteem. Nonetheless, in order to allow direct comparison of the performance of the three candidate Name-Liking measures, we present the zero-order correlations between all variables in separate tables (for this study, see Table 3), including all three candidate Name-Liking measures (i.e., first name, surname, and full-name). Further, for all studies, the results of any analyses for the first name and surname versions of the Name-Liking measure that

Table 1
Demographic data of participants in Studies 1 to 6

Study	<i>N</i> _{total}	<i>N</i> _{male}	<i>N</i> _{female}	Age _{mean}	Age _{SD}	Continents						Excluded outliers
						NA	SA	EU	AS	AF	AU	
1	126	37	89	25.98	11.10	111	1	9	0	0	1	1
2	145	37	105	22.38	8.72	125	3	10	4	0	0	0
3	190	14	170	18.62	1.34	0	0	190	0	0	0	0
4	357	73	283	25.41	3.57	327	1	13	3	1	4	0
5	35	17	18	—	—	0	0	35	0	0	0	0
6	241	52	187	23.38	9.61	228	0	5	2	1	1	0

Note. NA, North America; SA, South America; EU, Europe; AS, Asia; AF, Africa; AU, Australia.

do not take the form of zero-order correlations are presented in the Appendix. Parallel results for the full-name version of the Name-Liking measure are presented in the text.

As in previous research, the Name-Letter-Task and the Self-Esteem IAT were unrelated, $r = .12$, *ns*. In contrast, higher self-esteem on Name-Liking predicted significantly higher self-esteem on the Name-Letter-Task, $r = .30$, $p \leq .001$ and on the Self-Esteem IAT, $r = .24$, $p \leq .01$. These correlations speak to the validity of Name-Liking as a global measure of self-esteem.

Also, Name-Liking was positively related to explicitly measured self-esteem, as assessed by the single-item measure, $r = .38$, $p \leq .001$, and the multi-item measure, $r = .30$, $p \leq .001$. Note that this finding is consistent with the single-attitude view if one assumes that Name-Liking and the explicit measures assess the same construct but are affected by different types of measurement error (Greenwald & Farnham, 2000). This finding is also consistent with the dual-attitude view if one assumes that Name-Liking and the explicit measures refer to distinct constructs that share common sources (Bosson et al., 2000).

Study 2

In Study 2, we garnered additional support for the idea that Name-Liking is a measure of global rather than domain-specific self-esteem. Specifically, we tested whether Name-Liking is more strongly related to explicit measures of global self-esteem or to explicit measures of domain-specific self-esteem.

Further, we garnered additional evidence that Name-Liking is an implicit rather than explicit measure. Bosson et al. (2000) assert that “explicit self-report measures are essentially tapping broad beliefs or schemas about who we think we are. They are essentially self-theories: ‘I think I am this way’; ‘I feel certain I’m not this other way.’” (p. 641) Implicit measures differ from explicit measures in this respect, because implicit measures “provide estimates of individuals’ attitudes without our having to directly ask them for such information” (Fazio & Olson, 2003, p. 303). Thus, if participants respond to our Name-Liking measure without directly indicating their self-theories concerning their self-esteem, Name-Liking formally classifies as an implicit measure of self-esteem (Bosson et al., 2000; Fazio & Olson, 2003). However, it is possible that participants in Study 1 assumed that Name-Liking is meant to assess self-esteem and thus reported their self-theories concerning their self-esteem. To check this possibility, we asked participants at the end of Study 2 what guided their responses to the Name-Liking measure. This enabled us to find out whether they had completed the Name-Liking measure by indicating how much they like their name and not according to how much they like themselves (self-theory of self-esteem).

Method

This online-study was advertised on “Psychological Research on the Net.” Participants (see Table 1) completed the Name-Liking

measure, the explicit measure of global self-esteem, and the explicit measure of domain-specific self-esteem (see Table 2). The order of all measures was randomized across participants. Finally, participants were asked about the strategy that guided their responses to the Name-Liking measure.

Results and discussion

Table 4 shows all zero-order correlations between the measures used in this study. To test whether Name-Liking is a measure of global rather than domain-specific self-esteem, we performed a hierarchical regression analysis with global self-esteem and the five facets of self-esteem (all explicitly measured) as predictors of Name-Liking. As expected, the first step of the regression was the only one yielding a significant relation. Only global self-esteem predicted Name-Liking, $\beta = .36$, $p \leq .001$ whereas none of the five facets of self-esteem predicted Name-Liking over and above global self-esteem, $-.08 \leq \beta s \leq .15$, *ns*. This evidence supports our hypothesis that Name-Liking assesses global rather than domain-specific self-esteem.

Next, we examined participants’ reported strategy for completing the Name-Liking measure. Six participants (4.1%) did not complete this item, 129 (92.8%) indicated that they completed the item according to how much they like their name, and 10 participants (7.2%) indicated that they completed the item according to something else. Six of these ten participants obviously misunderstood the task and indicated a number or a phrase that reflected their name-liking (e.g., “I like my name very much”). One participant indicated that her answer was “quite random”. The remaining three participants made irrelevant statements (e.g., “I love my initials”). Thus, although Name-Liking was embedded in explicit measures of self-esteem in this study, not a single participant indicated that (s)he reported his/her self-theory concerning his/her self-esteem. Therefore, any effects of this measure are indirect and not attributable to conscious theories about self-esteem. Hence, Name-Liking meets the criteria for an implicit measure as defined by Fazio and Olson (2003).

Study 3

As mentioned above, Bosson et al. (2000) found that only the Self-Esteem IAT and the evaluation of self-related objects (i.e., name letters and birth date numbers) exhibited satisfactory test-retest reliability. The first goal of Study 3 was to test if the Name-Liking measure also exhibits satisfactory test-retest reliability.

As a second goal, we tested whether Name-Liking predicts subjective well-being. Explicit measures of self-esteem are among the strongest predictors of subjective well-being (Diener & Diener, 1995; Sedikides, Rudich, Gregg, Kumashiro, & Rusbult, 2004). However, previous studies found weak empirical links between implicitly measured self-esteem and explicitly measured subjective well-being (Schimmack & Diener, 2003; Shimizu & Pelham,

Table 2
Measures used in Studies 1 to 6

	Author(s)	N _{items}	Example item(s)	Scaling	α	M	SD
<i>Measures used in Study 1</i>							
Full-Name Name-Liking	Current	1	"How much do you like your name, in total?"	1 (not at all)–9 (very much)		7.02	1.74
Name-Letter-Task	Koole et al. (2001)	26	[all letters of the alphabet in random order]	1 (not at all beautiful)–9 (extremely beautiful)		.33	1.37
Self-Esteem IAT	Greenwald and Farnham (2000)	As in orig. publ.	ME category ([first name], [surname], [initials]), NOT-ME category ([same sex first name 1], [same sex first name 2], [surname]; all familiar but not self-related), PLEASANT category ("loved", "positive", "liked", "good", "worthy", "nice"), UNPLEASANT category ("hated", "negative", "disliked", "bad", "failure", "awful")	Improved scoring algorithm (standard D-score)	.89	.69	.39
Single-Item Self-Esteem Scale	Robins et al. (2001)	1	"I have high self-esteem."	1 (does not apply at all)–7 (applies completely)		4.81	1.41
Self-Liking/Self-Competence Scale-Revised Version	Tafarodi and Swann (2001)	16	"I am very comfortable with myself." "I am highly effective at the things I do."	1 (does not apply at all)–7 (applies completely)	.91	4.71	1.00
<i>Measures used in Study 2</i>							
Full-Name Name-Liking	Current	1	"How much do you like your name, in total?"	1 (not at all)–9 (very much)		7.40	1.73
Amount of Self-Esteem Scale	Gebauer et al. (2008)	5	"In general, I hold myself in high regard." "I do not like and value myself." (reverse-scored)	1 (does not apply at all)–7 (applies completely)	.88	5.31	1.12
Domain-Specific Self-Esteem Inventory–Social subscale	Hoyle (1991)	5	"I feel secure in social situations." "I feel confident of my social behavior."	1 (not at all like me)–5 (very much like me)	.87	3.64	.94
Domain-Specific Self-Esteem Inventory–Ability subscale	Hoyle (1991)	5	"I am able to do things as well as most other people." "I almost always accomplish the goals I set for myself."	1 (not at all like me)–5 (very much like me)	.77	3.89	.68
Domain-Specific Self-Esteem Inventory–Appearance subscale	Hoyle (1991)	5	"I feel that others would consider me to be attractive." "I am satisfied with the way I look."	1 (not at all like me)–5 (very much like me)	.90	3.41	.96
Domain-Specific Self-Esteem Inventory–Public subscale	Hoyle (1991)	5	"I enjoy being in front of large audiences." "When I speak in a large group discussion, I usually feel sure of myself."	1 (not at all like me)–5 (very much like me)	.91	3.11	1.14
Response Strategy on Name-Liking	Current	3	"I answered the question 'How much do you like your first name/surname/name, in total?' by indicating..."	(a) "...how much I like my name" or (b) "[textbox]"			
<i>Measures used in Study 3</i>							
Full-Name Name-Liking	Current	1	"How much do you like your name, in total?"	1 (not at all)–9 (very much)		6.71	1.92
Amount of Self-Esteem Scale	Gebauer et al. (2008)	5	"In general, I hold myself in high regard." "I do not like and value myself." (reverse-scored)	1 (does not apply at all)–7 (applies completely)	.92	4.52	1.28
Beck Depression Inventory–Version 2	Beck et al. (1996)	21	"SADNESS: (a) I do not feel sad, (b) I feel sad much of the time, (c) I am sad all of the time, or (d) I am so sad or unhappy that I can't stand it"	Specific to each item (see example)	.90	sum 10.8	8.20
<i>Measures used in Study 4</i>							
Full-Name Name-Liking	Current	1	"How much do you like your name, in total?"	1 (not at all)–9 (very much)		7.01	1.97
Self-Liking/Self-Competence Scale-Revised Version	Tafarodi and Swann (2001)	16	"I am very comfortable with myself." "I am highly effective at the things I do."	1 (does not apply at all)–7 (applies completely)	.93	4.52	1.19
Hospital Anxiety and Depression Scale	Zigmond and Snaith (1983)	14	"I feel tense or 'wound up.' "I feel as if I am slowed down."	1 (never)–4 (almost all of the time)	.87	2.02	.50
Satisfaction with Life Scale	Diener et al. (1985)	5	"In most ways my life is close to my ideal." "If I could live my life over, I would change almost nothing."	1 (does not apply at all)–7 (applies completely)	.90	4.21	1.47
<i>Measures used in Study 5</i>							
Full-Name Name-Liking	Current	1	"How much do you like your name, in total?"	1 (not at all)–9 (very much)		6.89	1.41
No-Load Self-Judgment Task	Koole et al. (2001)	30	"competent", "funny", "relaxed", "indecisive", "weak", "clumsy", and 24 others [these 30 traits appeared for half of the participants in the load self-judgment task]	[i key] (applies to me) and [e key] (does not apply to me)		21.5	5.47
Load Self-Judgment Task (simultaneously rehearsing an 8-digit number)	Koole et al. (2001)	30	"polite", "caring", "helpful", "vain", "cranky", "egoistical", and 24 others [these 30 traits appeared for half of the participants in the no-load self-judgment task]	[i key] (applies to me) and [e key] (does not apply to me)		22.8	4.56
Observer ratings of anxiety during interview	Current	3	"Participant shows anxiety." "Participant's hands are shaking." "Participant sits in a defensive and closed way."	1 (does not apply at all)–7 (applies completely)	.60	3.58	.85
<i>Measures used in Study 6</i>							
Full-Name Name-Liking	Current	1	"How much do you like your name, in total?"	1 (not at all)–9 (very much)		7.17	1.81
BIDR – Impression Management subscale	Paulhus, 1988	20	"I never cover up my mistakes." "I sometimes tell lies if I have to." (reverse-scored)	1 (disagree strongly)–7 (agree strongly)	.79	3.71	.81
BIDR – Self-Deceptive Enhancement subscale	Paulhus, 1988	20	"I have not always been honest with myself." "I rarely appreciate criticism." (reverse-scored)	1 (disagree strongly)–7 (agree strongly)	.69	4.05	.66

Note. Additional information concerning these measures can be obtained from the first author.

Table 3
Zero-order correlations between all measures used in Study 1

N = 126		(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1)	First Name Name-Liking	—						
(2)	Surname Name-Liking	.39***	—					
(3)	Full-Name Name-Liking	.72***	.69***	—				
(4)	Name-Letter-Task	.32***	.29***	.30***	—			
(5)	Self-Esteem IAT	.18*	.14	.24**	.12	—		
(6)	Single-Item Explicit Measure of Self-Esteem	.34***	.35***	.38***	.34***	.18*	—	
(7)	Multi-Item Explicit Measure of Self-Esteem	.31***	.25**	.30**	.31***	.18*	.79***	—

* ($p \leq .05$).** ($p \leq .01$).*** ($p \leq .001$).**Table 4**
Zero-order correlations between all measures used in Study 2

N = 145		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1)	First Name Name-Liking	—							
(2)	Surname Name-Liking	.43***	—						
(3)	Full-Name Name-Liking	.75***	.72***	—					
(4)	Explicit Measure of Self-Esteem	.36***	.21*	.36***	—				
(5)	Domain-Specific Self-Esteem – Ability Domain	.18*	.15	.19*	.50***	—			
(6)	Domain-Specific Self-Esteem – Social Domain	.32***	.20*	.30***	.53***	.47***	—		
(7)	Domain-Specific Self-Esteem – Physical Appearance	.29***	.15	.28***	.65***	.35***	.51***	—	
(8)	Domain-Specific Self-Esteem – Public Domain	.17*	.11	.08	.41***	.40***	.64***	.45***	—

* ($p \leq .05$).** ($p \leq .01$).*** ($p \leq .001$).

2004), and these relations were non-significant after controlling for explicitly measured self-esteem (Bosson et al., 2000). If Name-Liking is an indicator of global self-esteem, it should be a better predictor of subjective well-being than are the (arguably) domain-specific implicit measures used in those studies. Furthermore, because Name-Liking circumvents conscious reporting biases and does not rely on conscious theories about the self, it should predict subjective well-being over and above explicitly measured self-esteem.

Finally, Bosson et al. (2000) reported that implicit measures of self-esteem worked best when self-esteem was primed by the completion of explicit measures of self-esteem. Bosson et al. (2000) concluded that “order effects may raise concerns about the ‘implicitness’ of some of the implicit self-esteem measures” (p. 641). This concern is relevant to our use of Name-Liking in the previous studies, because Name-Liking was mainly administered after explicit measures of self-esteem (see randomized order of measures across participants in Studies 1 and 2). It is thus important to show that meaningful effects emerge when Name-Liking is administered prior to other measures of self-esteem. Such evidence would indicate that the validity of the Name-Liking measure does not rely on the completion of explicit measures beforehand.

Method

This study was conducted using a British sample of psychology undergraduate students (see Table 1). Participants completed the Name-Liking measure, an explicit measure of self-esteem, and a measure of subjective well-being in the listed order (see Table 2). Four to six weeks later, 118 of the initial participants (62%) completed the Name-Liking measure again over the internet.

Results and discussion

Table 5 shows all zero-order correlations between the measures used in this study. At first, we examined the test-retest reliability

of the Name-Liking measure. The correlation between scores at time 1 and 4–6 weeks later was very high, $r = .85$, $p \leq .001$, whereas most other implicit self-esteem measures suffer from too low or barely acceptable test-retest reliability (Bosson et al., 2000).

Further, explicitly measured self-esteem and Name-Liking were both significantly related to depression, $r = -.59$, $p \leq .001$, and, $r = -.29$, $p \leq .001$, respectively. To test whether Name-Liking was related to depression over and above explicitly measured self-esteem, we regressed depression on Name-Liking, while controlling for explicitly measured self-esteem. Name-Liking predicted depression independently of explicitly measured self-esteem, $\beta = -.15$, $p \leq .01$. This finding supports the assertion that implicitly measured self-esteem relates to subjective well-being over and above explicitly measured self-esteem (e.g., Bosson et al., 2000; Shimizu & Pelham, 2004). Notably, previous studies were unable to support this assertion using other implicit measures (e.g., Bosson et al., 2000; Schimmack & Diener, 2003; Shimizu & Pelham, 2004).

Finally, Name-Liking exhibited the same strength of relationship to explicitly measured self-esteem as in the previous studies, where Name-Liking was assessed following other self-esteem measures, $r = .26$, $p \leq .001$. Further, as shown above, theoretically sound relations were obtained between Name-Liking and depression. Thus, these results demonstrate that the validity of Name-Liking does not depend on the prior completion of a measure of explicit self-esteem.

Study 4

In Koole et al.'s (2001) third study, participants with a dispositionally fast (as opposed to slow) response style on explicit measures of self-esteem manifested a stronger relation between these measures and implicit measures of self-esteem. This finding fits dual-attitude theories of self-esteem, because implicit self-esteem is assumed to be based on faster, automatic processes, rather than slower, controlled processes (Epstein & Morling, 1995). How-

Table 5
Zero-order correlations between all measures used in Study 3

	N = 190	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1)	First Name Name-Liking @ Time 1	—							
(2)	Surname Name-Liking @ Time 1	.41***	—						
(3)	Full-Name Name-Liking @ Time 1	.76***	.77***	—					
(4)	First Name Name-Liking @ Time 2	.85***	.35***	.67***	—				
(5)	Surname Name-Liking @ Time 2	.26**	.88***	.70***	.27**	—			
(6)	Full-Name Name-Liking @ Time 2	.57***	.76***	.85***	.61***	.78***	—		
(7)	Beck Depression Inventory II	-.32***	-.17*	-.29***	-.10	-.03	-.06	—	
(8)	Explicit Measure of Self-Esteem	.33***	.10	.26***	.30***	.00	.18	-.59***	—

* ($p \leq .05$).
** ($p \leq .01$).
*** ($p \leq .001$).

ever, this finding also fits single-attitude theories, because people might be more honest when they respond quickly to self-report measures (Olson et al., 2007). Regardless of which theory applies, we should be capable of replicating Koole et al.'s (2001) finding with the Name-Liking measure. This would further attest to the validity of the measure.

In addition, we wanted to replicate Study 3's finding that Name-Liking predicts subjective well-being over and above explicitly measured self-esteem. This time, we operationalized subjective well-being broadly, by using a composite score of anxiety, depression, and life satisfaction.

Method

This online-study was advertised on "Psychological Research on the Net." Participants (see Table 1) completed an explicit measure of self-esteem, a measure of affect-based subjective well-being, a measure of cognition-based subjective well-being,¹ and the Name-Liking measure in the listed order (see Table 2).

Results and discussion

Table 6 shows all zero-order correlations between the measures used in this study. We tested whether the relation between implicitly and explicitly measured self-esteem was especially strong when the response latencies of the explicit measure were short. To this end, we conducted a multiple regression analysis with explicitly measured self-esteem (centered), the response time of explicitly measured self-esteem (centered),² and the cross-product of these two variables as predictors of Name-Liking. As predicted, we obtained a significant explicitly measured self-esteem x response time interaction, $\beta = -.11, p \leq .05$. Fig. 1 shows that explicitly measured self-esteem was a better predictor of Name-Liking for participants who responded more quickly to the explicit measure. Thus, we replicated Koole et al.'s (2001, Study 3) finding with the Name-Liking measure.

Subjective well-being was related to explicitly measured self-esteem, $r = .67, p \leq .001$, and Name-Liking, $r = .36, p \leq .001$. Further, a simultaneous regression revealed that Name-Liking predicted subjective well-being even when explicitly measured self-esteem was controlled, $\beta = .12, p \leq .05$. Thus, we replicated Study 3 using a broader operationalization of subjective well-being.

¹ The subjective well-being measures were included in the study after the first 154 participants. Thus, only 203 of the 357 participants completed these measures.

² We excluded response times greater than 20 s per item because we considered such long responses an indication of exceptionally low attention to the item. After excluding these trials, the internal consistency of the response times to the multi-item explicit measure of self-esteem was very high ($\alpha = .90$), suggesting that the mean across these response times is a reliable indicator of an individual's response style (i.e., spontaneous vs. deliberate).

Table 6
Zero-order correlations between all measures used in Study 4

	N = 357	(1)	(2)	(3)	(4)	(5)
(1)	First Name Name-Liking	—				
(2)	Surname Name-Liking	.45***	—			
(3)	Full-Name Name-Liking	.77***	.77***	—		
(4)	Explicit Measure of Self-Esteem	.26***	.31***	.40***	—	
(5)	Subjective Well-Being (N = 202)	.31***	.34***	.36***	.67***	—

* ($p \leq .05$).
** ($p \leq .01$).
*** ($p \leq .001$).

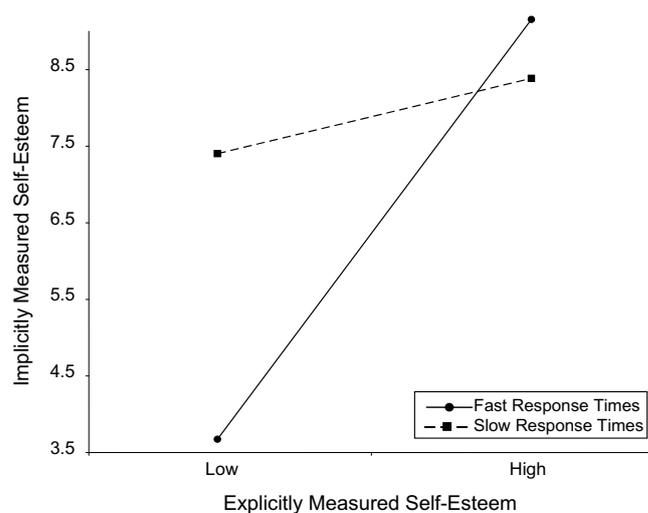


Fig. 1. The moderating effect of response time on the relation between implicitly and explicitly measured self-esteem (Low = $M - 2SD$, High = $M + 2SD$).

Study 5

Our interpretation of Study 4 rests on the assumption that response times mainly depend on the amount of cognitive deliberation. This follows from both single-attitude and dual-attitude theories because both faking on explicit self-esteem measures (cf. single-attitude theories) and the activation of explicit self-esteem (cf. dual-attitude theories) should require cognitive capacity (e.g., Koole et al., 2001; Paulhus, 1993; Wilson et al., 2000). Nonetheless, a more direct test of our assumption is to manipulate cognitive capacity. Thus, following Koole et al.'s (2001) validation of the Name-Letter-Task, we extended Study 4 by manipulating cognitive load while completing the explicit measure of self-esteem. Koole et al. showed that the relation between implicitly measured and

Table 7
Zero-order correlations between all measures used in Study 5

N = 35		(1)	(2)	(3)	(4)	(5)	(6)
(1)	First Name Name-Liking	–					
(2)	Surname Name-Liking	.21	–				
(3)	Full-Name Name-Liking	.55***	.70***	–			
(4)	Explicit Measure of Self-Esteem – Cognitive Load	.29	.27	.48**	–		
(5)	Explicit measure of Self-Esteem – No Cognitive Load	.33 [†]	.31	.59***	.78***	–	
(6)	Observer-Rated Anxiety	–.18	–.49**	–.47**	–.32	–.44**	–

[†] ($p \leq .05$).

** ($p \leq .01$).

*** ($p \leq .001$).

explicitly measured self-esteem became stronger when participants were under cognitive load while completing the explicit measure. We expected to replicate this finding using the Name-Liking measure.

Moreover, we wanted to demonstrate that Name-Liking predicts subjective well-being even in a context where explicitly measured self-esteem fails to predict subjective well-being. Spalding and Hardin (1999) found that implicitly measured self-esteem is a better predictor of observer-reported anxiety during a demanding interview than is explicitly measured self-esteem. Replication of this pattern using the Name-Liking measure would further bolster the argument that Name-Liking is a valid implicit measure of self-esteem and in this regard is at least as useful as other implicit measures of self-esteem.

Method

This study was conducted using a German sample of non-psychology undergraduate students (see Table 1). Participants completed an explicit measure of self-esteem without cognitive load, a parallel version of the same explicit measure under cognitive load, the Name-Liking measure, and were subjected to an anxiety-inducing interview³ (modelled after Spalding & Hardin, 1999) in the listed order (see Table 2).

Results and discussion

Table 7 shows all zero-order correlations between the measures used in this study. At first, we tested whether Name-Liking was more strongly related to explicitly measured self-esteem under cognitive load than without load. Because each participant completed the explicit measure of self-esteem both under load and without load, we simultaneously regressed Name-Liking on load self-esteem and no-load self-esteem. Name-Liking was related to explicitly measured load self-esteem, $\beta = .55$, $p \leq .05$, but unrelated to explicitly measured no-load self-esteem, $\beta = .05$, *ns*.

Next, we tested whether Name-Liking is a better predictor of observer-rated anxiety during an interview than is explicitly measured self-esteem. Therefore, we simultaneously regressed observer-rated anxiety on Name-Liking and explicitly measured self-esteem (i.e., no-load self-esteem). As expected, Name-Liking was negatively related to anxiety, $\beta = -.41$, $p \leq .05$, whereas explicitly measured self-esteem was unrelated to anxiety, $\beta = -.13$, *ns*. Together with Studies 3 and 4, this study suggests that Name-Liking

is at least as valid as other implicit measures and predicts important outcomes (subjective well-being and state anxiety) over and above explicit measures of self-esteem.

Study 6

Explicit measures of self-esteem have been shown to relate the impression management component of socially desirable responding in particular (e.g., Greenwald & Farnham, 2000; Riketta, 2004). This finding has been labeled the “Achilles’ heel” of explicit measures of self-esteem (Bosson et al., 2000). One crucial advantage of implicit measures is that they are less likely to be influenced by impression management than explicit measures (Bosson et al., 2000). In Study 6, we tested whether Name-Liking does have this virtue; that is, whether it does not relate to impression management.

A second and distinct self-presentational strategy, and another component of socially desirable responding, is self-deceptive enhancement. This strategy is defined as any positively biased response that the participant believes to be true. Paulhus (1991) argues that self-deceptive enhancement is a valid component of self-esteem. In line with this claim, prior research has revealed a positive relation between explicitly measured self-esteem and self-deceptive enhancement (e.g., Paulhus, 1991; Raskin, Novacek, & Hogan, 1991; Riketta, 2005). It is not entirely clear whether a positive relation between implicitly measured self-esteem and self-deceptive enhancement should be expected (Riketta, 2005). Although some researchers have argued that implicitly measured self-esteem should be independent of self-deceptive enhancement (Epstein & Morling, 1995), Paulhus (1991) assumes that self-deceptive enhancement is an automatic process. In the latter case, it may be positively related to implicitly measured self-esteem. Thus, the answer to this question appears to depend on whether self-deceptive enhancement is truly automatic. Given our evidence for the validity of the Name-Liking measure, we expected that the correlation between self-deceptive enhancement and Name-Liking would be conclusive in this regard.

Method

This online-study was advertised on “Psychological Research on the Net.” Participants (see Table 1) completed questionnaires assessing self-deceptive enhancement, impression management, and Name-Liking in the listed order (see Table 2).

Results and discussion

Table 8 shows all zero-order correlations between the measures used in this study. To disentangle the empirical overlap between self-deceptive enhancement and impression management, Paulhus (1991) suggests controlling for one when testing for the effects of

³ Participants were announced an interview about their mental health. The interview was intended to induce anxiety. The experimenter seated participants in front of a camera and told them that they would be videotaped during the following interview. Then he asked a series of questions that was the same for all participants. At first, participants were asked to describe their negative and positive aspects of their personality. Next, participants had to respond to several items (one picture, several verbal stimuli) from projective tests. The interview lasted about 5 minutes.

Table 8
Zero-order correlations between all measures used in Study 6

N = 241		(1)	(2)	(3)	(4)	(5)
(1)	First Name Name-Liking	—				
(2)	Surname Name-Liking	.39***	—			
(3)	Full-Name Name-Liking	.76***	.69***	—		
(4)	Impression Management	.02	.10	.11	—	
(5)	Self-Deceptive Enhancement	.14*	.23***	.24***	.35***	—

**($p \leq .01$).

*($p \leq .05$).

***($p \leq .001$).

the other. Therefore, we regressed Name-Liking simultaneously on impression management and self-deceptive enhancement. Impression management was unrelated to Name-Liking, $\beta = .03$, *ns*, whereas self-deceptive enhancement was associated with higher Name-Liking, $\beta = .23$, $p \leq .001$.

These results indicate that Name-Liking overcomes a crucial limitation of explicit measures of self-esteem in that it is unrelated to impression management. Moreover, the positive relation between Name-Liking and self-deceptive enhancement is consistent with Paulhus's (1991) argument that self-deceptive enhancement operates automatically. This argument suggests that self-deceptive self-enhancement should color responses to implicit (and not only explicit) measures of self-esteem, and our data support this reasoning.

General discussion

Past research and theory suggests that existing implicit measures of self-esteem assess different facets of self-esteem, rather than global self-esteem (Bosson et al., 2000; Campbell et al., 2007; Sakellaropoulou & Baldwin, 2007; Wentura et al., 2005). Thus, we aimed to develop an implicit measure that assesses global, rather than domain-specific, self-esteem.

Building on the mere-ownership effect (Koole et al., 2001), we devised an implicit measure that simply asks participants to evaluate their name with a single item. We expected that Name-Liking should capture global self-esteem more adequately than the Name-Letter-Task and the Self-Esteem IAT, because the evaluation of one's name is particularly representative of the self as a whole (Koole & Pelham, 2003). In line with this argument, inspection of Tables 3–8 reveals that the evaluation of one's full-name was the most suitable implicit measure of self-esteem, although the first-name and surname versions of Name-Liking produced similar results. In fact, the first name and surname versions correlated positively with each other across all six studies, $r(1090) = .42$, $p \leq .001$ (see also Tables 3–8). This supports our assumptions that responses to these items, too, are driven by the mere-ownership effect.

Results across studies indicated that Name-Liking was positively related to the Name-Letter-Task and the Self-Esteem IAT, even though the latter two tasks were unrelated. Furthermore, Name-Liking predicted responses to explicit measures of global self-esteem and subjective well-being. Moreover, the relation between Name-Liking and subjective well-being remained significant even after controlling for explicitly measured self-esteem. This finding provides initial support for the claim that implicitly measured self-esteem should predict self-reported subjective well-being (e.g., Bosson et al., 2000).

Support for the "implicitness" of Name-Liking was obtained in several ways. For one, we used a validation criterion developed by Koole et al. (2001). These researchers expected that the implicit-explicit relation is especially strong for people who (a) are dispositionally prone to responding quickly to the explicit measure

and (b) respond under cognitive load. We replicated both findings with the Name-Liking measure. Furthermore, we replicated Spalding and Hardin's (1999) finding that implicit measures of self-esteem predict observer-reported anxiety, whereas explicit measures do not. Moreover, a post-experimental probe that asked participants what they had indicated when completing the Name-Liking measure revealed that not a single participant reported that (s)he had responded on the basis of his or her self-esteem. Finally, Name-Liking was unrelated to impression management (a controlled process) but related positively to self-deceptive enhancement (an automatic process; Paulhus, 1991). On the whole, these findings suggest that responses to the Name-Liking measure are more strongly affected by automatic self-evaluative processes, which is the characteristic of implicit measures. Moreover, our findings show that Name-Liking is at least as valid as other implicit measures of self-esteem and has predictive power over and above explicit measures of self-esteem.

An interesting question for future research is whether Name-Liking is a valid measure of self-esteem in Eastern, collectivistic cultures, and not only in Western, individualistic cultures, as examined here (US, UK, and Germany). The tendency to link objects to the self may be less strong in relatively non-materialistic, Eastern cultures than in materialistic (i.e., Western) cultures, which may make Name-Liking less suitable for assessing self-esteem in Eastern cultures. Alternatively, a person's name is clearly of less material value than other self-related objects, such as personal belongings. Furthermore, admitting to thinking positively about oneself (i.e., indicating high self-esteem on explicit measures) violates the cultural norms of many Eastern societies. Therefore, the Name-Liking measure may be even more suitable in Eastern cultures. This latter position is consistent with studies showing the predictive validity of other mere-ownership based implicit measures of self-esteem (evaluation of name-letters and birthday-numbers) in Eastern cultures (Kitayama & Karawawa, 1997).

A provocative finding is that people who reported higher Name-Liking exhibit higher self-deceptive enhancement. This result is consistent with Paulhus's (1991) claim that self-deceptive enhancement is a valid part of self-esteem. Given the strong validity and test-retest reliability of the Name-Liking measure, it may help to enhance the corpus of data being amassed to examine the automaticity of the self-enhancement bias (Sedikides & Gregg, 2003; Sedikides & Strube, 1997). It is likely that the measure would also be useful in analyses of other issues, such as the relation between self-esteem and subjective well-being. Because Name-Liking predicted subjective well-being over and above explicitly measured self-esteem, this measure should play an important part in future analyses of the role of various factors that influence subjective well-being through self-esteem (e.g., belongingness, narcissism, habitual negative self-thinking). Thus, we believe that the Name-Liking measure is an extremely useful tool for future research. To the researcher's advantage, the measure is very brief, easy to administer and score, reliable, and valid.

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Appendix

Regression analyses employed in Studies 2 to 6

Study 2	First name	Surname	Full-name
Explicit Measure of Global Self-Esteem (hierarchical regression)	.36***	.21**	.36***
Domain-Specific Self-Esteem Measure—Ability (hierarchical regression)	.17	.13	.15
Domain-Specific Self-Esteem Measure—Social (hierarchical regression)	.00	.06	.02
Domain-Specific Self-Esteem Measure—Appearance (hierarchical regression)	.09	.01	.09
Domain-Specific Self-Esteem Measure—Public (hierarchical regression)	.03	.02	-.08
Study 3			
Depression (controlling for explicitly measured self-esteem)	-.14*	-.12*	-.15**
Study 4			
Explicit Measure of Self-Esteem × Response Time (multiple regression)	-.05	-.13**	-.11*
Subjective Well-Being (controlling for explicitly measured self-esteem)	.10	.17**	.12*
Study 5			
No-Load Explicit Measure of Self-Esteem (controlling for load self-esteem)	.08	.06	.05
Load Explicit Measure of Self-Esteem (controlling for no-load self-esteem)	.28	.27	.55*
Observer-Rated Anxiety (controlling for no-load self-esteem)	-.10	-.43**	-.41*
Study 6			
Impression Management (controlling for Self-Deceptive Enhancement)	-.03	.03	.03
Self-Deceptive Enhancement (controlling for Impression Management)	.15*	.22***	.23***

* = ($p \leq .05$).** = ($p \leq .01$).*** = ($p \leq .001$).

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