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## The robust self-esteem proxy: Impressions of self-esteem inform judgments of personality and social value

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### ABSTRACT

People use impressions of an evaluative target's self-esteem to infer their possession of socially desirable traits. But will people still use this *self-esteem proxy* when trait-relevant diagnostic information is available? We test this possibility in two experiments: participants learn that a target person has low or high self-esteem, and then receive diagnostic information about the target's academic success or failure and positive or negative affectivity (Study 1), or watch a video of the target's extraverted or introverted behavior (Study 2). In both experiments, participants' impressions of the target's traits accurately tracked diagnostic information, but impressions also revealed an independent self-esteem proxy effect. Evidently, the self-esteem proxy is robust and influences person perception even in the presence of vivid individuating information.

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Self-esteem; trait proxy; implicit theories; person perception

I may be dumb, but I'm not a dweeb,  
I'm just a sucker with no self-esteem.

- Lyrics to the hit song, *Self Esteem* (D. Holland, 1994), by The Offspring

Self-esteem is one of the great “knowledge mobilization” success stories of modern psychology. Not only has self-esteem been the subject of intense empirical and theoretical exploration within the academic and research-based psychological community, but as the song lyrics quoted above clearly demonstrate, the concept has been embraced by popular culture (e.g., Mecca, Smelser, & Vasconcellos, 1989). The general public seems to share a well-developed, consensually agreed-upon, working definition of self-esteem (Cameron, MacGregor, & Kwang, 2013; Stinson, Cameron, & Huang, 2015). People know that self-esteem reflects an individual's “evaluation of his or her own worth” (Wikipedia “Self-Esteem,” 2013). Moreover, recent research demonstrates that lay people also use impressions of an evaluative target's self-esteem to infer that person's actual worth (Cameron, 2016a; Cameron, MacGregor, Gaucher, Hole, & Holmes, 2016; Zeigler-Hill & Besser, 2014; Zeigler-Hill, Besser, Myers, Southard, & Malkin, 2013b; Zeigler-Hill & Myers, 2009, 2011). Specifically, targets described

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as possessing high self-esteem (HSE) are judged to be more valuable interpersonally, and to possess more valuable interpersonal traits, than those branded as having low self-esteem (LSE). The influence of self-esteem on interpersonal judgments is so powerful that people even consider insecurity (i.e., LSE) to be a “dealbreaker” when forming a new romantic relationship (Jonason, Garcia, Webster, Li, & Fisher, 2015). Thus, self-esteem is not merely an intrapersonal experience, but an interpersonal one as well.

The existence of this *self-esteem proxy* is a relatively new discovery in the field of self psychology, and there remain many important unanswered questions about its nature and function. The goal of the present research is to address one of these unanswered questions. Will people use an evaluative target’s self-esteem to infer his or her relational value even when relevant *diagnostic information* is readily available – that is, when information is available that is reliably and validly indicative of the traits being assessed (Rosch, 1978)? Answering this question will illuminate the power of the self-esteem proxy, addressing whether the proxy is merely a byproduct of insufficient information about a novel target or a true proxy, altering judgments of people even in the presence of a vivid array of other individuating information.

### **Self-esteem as a proxy trait**

People readily and quickly form impressions of others, often based on limited information (e.g., Ambady & Rosenthal, 1992; Asch, 1946). Forming quick impressions of others that are also reasonably accurate is essential to social success, especially to the formation of high-quality long-term relationships wherein partner outcomes become interdependent (e.g., Thibaut & Kelley, 1959). Yet, access to the types of behaviors and information necessary to form an accurate impression of a partner’s relational value can take time (e.g., Stinson, Wood, & Doxey, 2008), and waiting to form an impression can incur present and future difficulties. For example, a partner’s ability to engage in appropriate self-control is an important predictor of relationship satisfaction (Vohs, Finkenauer, & Baumeister, 2011) and intimate partner violence (Finkel, DeWall, Slotter, Oaten, & Foshee, 2009; Finkenauer et al., 2015), yet it takes some time to accurately detect traits like self-control that are relatively difficult to observe (e.g., Rothbart & Park, 1986; Vazire, 2010). By the time an individual has observed enough diagnostic information to accurately assess a potential partner’s self-control, a committed relationship may already have formed with a partner who has significant flaws. It is beneficial, then, for individuals to quickly form impressions of traits relevant to relationship success, to avoid inadvertently committing to a poor quality relationship. In an attempt to resolve this interpersonal dilemma, people use proxy traits in lieu of actual trait knowledge to infer an individual’s relational value, a process that reflects an *implicit theory* about how trait characteristics covary within individuals (Cronbach, 1955; Schneider, 1973; Uleman, Saribay, & Gonzalez, 2008). Perhaps the most infamous trait proxy is the “what is beautiful is good” bias, whereby people use a readily observable characteristic, physical attractiveness, to infer a target’s standing on traits that are not as readily observable (Dion, Berscheid, & Walster, 1972). Indeed, people utilize a wide variety of characteristics as proxies, ranging from relationship status (Conley & Collins, 2002) to humor style (Zeigler-Hill, Besser, & Jett, 2013a).

The nature and function of self-esteem makes it particularly well-suited to serve as a proxy trait (see Stinson et al., 2015). According to sociometer theory, trait self-esteem is a gauge, or *sociometer*, reflecting one’s history of acceptance and rejection, such that developmental

experiences of acceptance by relational partners foster higher self-esteem whereas developmental experiences of rejection foster lower self-esteem (Leary & Baumeister, 2000). Thus, global self-esteem reflects an aggregated summary of one's perceived relational value (Stinson & Holmes, 2010). If self-esteem tracks an individual's relational value, then knowing a social partner's self-esteem might be a quick method of gaging his or her actual relational value (Zeigler-Hill et al., 2013b). In other words, people utilize self-esteem as a proxy for relational value, basing their impression of an individual on their impression of that person's self-esteem.

To facilitate the use of this trait proxy, people form judgments of others' self-esteem based on a variety of readily assessable social cues such as appearance (e.g., Naumann, Vazire, Rentfrow, & Gosling, 2009), clothing choices (Zeigler-Hill & Myers, 2011), and email addresses (Chang-Schneider & Swann, 2010; Zeigler-Hill & Myers, 2011). Once people have formed an impression of a target's self-esteem, regardless of that impression's accuracy, people use that information to infer the target's standing on valued personality traits (Zeigler-Hill et al., 2013b), and to infer the mate value of romantically preferred-gender targets (Zeigler-Hill & Besser, 2014; Zeigler-Hill & Myers, 2011). Moreover, people use a target's self-esteem to predict their own responses to that target, such as liking for the target (Cameron et al., 2016), romantic attraction (Zeigler-Hill & Myers, 2011), and willingness to vote for political candidates (Zeigler-Hill & Myers, 2009). For individuals perceived to have HSE, they are apt to enjoy the value and acceptance bestowed upon them by others using the self-esteem proxy. However, for those perceived to have LSE, they are more likely to experience degradation, rejection, and discrimination, which if consistently experienced, would further maintain or reduce their actual self-esteem. Because people demonstrate modest accuracy in detecting other's true self-esteem (i.e., correlations between .20 and .40 between perceivers and targets; Lemay & Dudley, 2011; Macgregor, Fitzsimons, & Holmes, 2013; Naumann et al., 2009; Zeigler-Hill et al., 2013b), the application of the self-esteem proxy might lead to unfortunate errors in the judgments of others. Such errors might lead those people branded as LSE to suffer derogation and those branded as HSE to experience admiration and favoritism (see Cameron et al., 2013). To date, research on the self-esteem proxy has illuminated yet another tool that people use to make quick judgments about others and highlighted important consequences for the use of this proxy.

Despite the growing body of research demonstrating that self-esteem is used as a proxy trait and not merely an intrapersonal evaluation, little is known about the robustness of this phenomenon. In the typical research paradigm, participants are asked to form judgments of a target described as having HSE or LSE, and no other descriptive information is provided about the target except his or her gender (e.g., Zeigler-Hill & Besser, 2014). Such a method is high in experimental control, but such limited information is not representative of the rich context of information typically available from live interaction (Reis, Maniaci, Caprariello, Eastwick, & Finkel, 2011). Indeed, the presentation of such limited information about a target might artificially inflate people's reliance on self-esteem as a proxy trait, resulting in a general halo effect that does not generalize to real-world interactions (Cooper, 1981; see Eagly, Ashmore, Makhijani, & Longo, 1991 for similar argument about physical attractiveness). In other words, is the self-esteem proxy merely an artifact of an experimental method that presents observers with limited information about an evaluative target, or is it an important mental shortcut that perceivers use to discern the personality and relational value of others?

To address this question, we need to determine whether observers will use the self-esteem proxy when clear diagnostic information about a target is also available. In the rich context of meeting new people, the presence of diagnostic information about a social partner's traits tends to reduce an observer's reliance on proxy traits. For example, in a meta-analysis on the "beautiful is good" bias, studies that presented diagnostic information along with targets' physical appearance observed that physical attractiveness was less robust in predicting personality judgments ( $d = .48$ ) compared to studies that simply presented the targets' appearance ( $d = .68$ ; Eagly et al., 1991). The presence of diagnostic information also reduces reliance upon gender stereotypes when judging targets' assertiveness and passivity (Locksley, Borgida, Brekke, & Hepburn, 1980). However, some implicit theories are robust, and the presence of diagnostic information does not diminish their influence. For example, Krueger and Rothbart (Krueger & Rothbart, 1988, Study 1) report that gender stereotypes about aggressiveness continue to influence perceiver's ratings of men and women even when diagnostic information about aggressive behavior is also available (e.g., hitting an annoying person). Apparently, trait proxies vary in their robustness in the face of diagnostic information, and may even vary in robustness across different trait judgments. For example, gender influences judgments of aggressiveness but not assertiveness when diagnostic information about those traits is available.

We believe that the self-esteem proxy is a robust implicit theory that will influence perceptions of a target's socially valuable traits over-and-above the influence of diagnostic information. Why might this be the case? In part, our prediction is based on the psychological nature and function of self-esteem, which occupies a prominent place in the self-concept. Self-esteem is a higher order trait that is quite stable over time, and it colors people's perceptions of their specific traits in a top-down manner (Brown, Dutton, & Cook, 2001). Thus, the intrapsychic influence of self-esteem on trait perceptions is robust. Indeed, people will remain confident in their existing self-esteem despite contradictory cues from the environment concerning their worth (Swann, 1987). Because a perceiver is so confident that his or her own self-esteem reflects an accurate summary assessment of his or her own relational value, it is logical for that perceiver to assume that a target's self-esteem also reflects an accurate summary assessment of the target's relational value. Consistent with this account, people often project their own psychological experiences onto others (e.g., Krueger, 1998).

The existing literature also hints that the self-esteem proxy is robust. A target's self-esteem influences observers' perceptions of a political candidate's competence over-and-above diagnostic information available in the media concerning said candidates (Zeigler-Hill & Myers, 2009). Moreover, perceivers' impressions of their friends' or family members' self-esteem are linked with their impressions of those target's general personality, despite the large volume of diagnostic information that perceivers would have about such intimates (Zeigler-Hill et al., 2013b, Study 2). However, no study to date has systematically manipulated the presence of diagnostic cues to directly test the robustness of the self-esteem proxy.

We conducted two experiments to test the robustness of the self-esteem proxy in the face of diagnostic information about intelligence, conscientiousness, and emotional stability (Study 1) and extraversion and emotional stability (Study 2). In both experiments, participants receive diagnostic information about a target person suggesting that the target is either high or low in the traits in question, as well as information suggesting that the target has HSE or LSE. In Study 1, we follow previous research by presenting the self-esteem and

**Table 1.** Confirmatory hypotheses.

Hypothesis 1 (H1)	The diagnostic-information manipulation will influence impressions of traits that are <i>relevant</i> to the diagnostic information
Hypothesis 2 (H2)	The self-esteem manipulation will influence impressions of traits that are <i>relevant</i> to the diagnostic information
Hypothesis 3 (H3)	The diagnostic-information manipulation will influence traits that are <i>irrelevant</i> to the diagnostic information, and this effect <i>will be smaller</i> than the effect observed for relevant traits
Hypothesis 4 (H4)	The self-esteem manipulation will influence traits that are <i>irrelevant</i> to the diagnostic information, and this effect <i>will not differ</i> from the effect observed for relevant traits
Hypothesis 5 (H5)	The manipulations of diagnostic information and self-esteem will both influence participants' impressions of the target's overall relational value

diagnostic information about the target explicitly in writing. In Study 2, we use a method novel to the field by presenting the self-esteem information in writing, but we present the diagnostic information naturalistically via an introductory video of the target person.<sup>1</sup> On the basis of this information, participants evaluate the target person on traits both directly *relevant* to the diagnostic information, and *irrelevant* to the diagnostic information.

Our confirmatory hypotheses are the same for both experiments, and are presented in Table 1. Not only do we expect participants to correctly use diagnostic information to inform their impressions of the target's relevant traits (H1), but we also expect participants to use the target's self-esteem level to inform their impressions of those same traits (H2). More specifically, we predict that perceivers will ascribe to HSE targets more positive traits relevant to the diagnostic information than they will ascribe to LSE targets. Furthermore, we expect that the diagnostic information will have a greater influence on relevant traits than irrelevant traits (H3), suggesting that observers' impressions accurately track the diagnostic information. However, because self-esteem is a higher order indicator of global relational value, we anticipate that self-esteem will exert a similar magnitude effect on both relevant and irrelevant traits (H4). We also expect that participants will use the diagnostic information and the target's self-esteem to infer the target's overall relational value (H5), such that the target will be rated most favorably when he or she has high levels of the (desirable) diagnostic behavior in question and HSE. Overall, we predict that the self-esteem proxy is robust and will continue to influence person-perception even when valid and reliable diagnostic information about a target is readily available.

## Study 1

In our first experiment, participants read a description of a target person named Alex, who is described as having thoughts and feelings indicative of high or low self-esteem, and is also described as recently winning or losing a scholarship. This type of academic information serves as diagnostic information concerning Alex's academic skills (e.g., conscientiousness, intelligence) and future success in a chosen career. Furthermore, participants read about Alex's emotional reaction to the scholarship decision, which is always negative when Alex loses the scholarship and positive when Alex wins the scholarship. This type of emotional self-disclosure serves as diagnostic information concerning Alex's affective tendencies, such as emotional stability (see Burusic & Ribar, 2014; Rodriguez, Holleran, & Mehl, 2010). Our predictions are presented in Table 1. In this experiment, the traits that are *relevant* to the diagnostic information are intelligence, conscientiousness, and emotional stability, whereas

the traits that are *irrelevant* to the diagnostic information are extraversion, agreeableness, openness to experience, and physical attractiveness. Alex's overall relational value is indicated by participants' liking for Alex and their ratings of Alex's future life successes.

## Participants

Four hundred undergraduate students at the University of Manitoba participated in this online study. Nine participants did not complete all measures, leaving 391 participants in the final sample ( $M_{\text{age}} = 19.25$  years;  $SD = 3.59$ ; 273 Women, 116 Men, 2 did not report their gender; 99% Canadian born; 78% White, 13% Asian, 5% East Indian, 3% Indigenous, 1% Black, and 2% did not identify with any provided category;<sup>2</sup> 94% spoke English as their first language). This sample size yielded a power level of 1.00 to detect a medium-sized effect. Participants received course credit in appreciation for their time.

## Method

After completing some demographic questionnaires, all participants read a short description of a target with the gender-neutral name "Alex." Participants were randomly assigned to read about an Alex with LSE ( $n = 198$ ) or an Alex with HSE ( $n = 193$ ). However, we did not use the terms "LSE" or "HSE" to describe the target. Instead, we adapted the negatively valenced items (i.e., items on which high scores indicate LSE) from the Rosenberg Self-esteem Scale (Rosenberg, 1965) to create the following description of LSE Alex:

Alex is the type of person who sometimes doubts himself/herself. Alex wishes s/he could have more self-respect and sometimes feels like a failure. From time to time, Alex thinks s/he has little to be proud of.

Conversely, we adapted the positively valenced items (i.e., items on which high scores indicate HSE) from the Rosenberg Self-esteem Scale (1965) to create the following description of HSE Alex:

Alex is the type of person who takes a positive attitude toward himself/herself. Alex thinks s/he is on an equal basis with others, feeling like s/he does things as well as most others. Overall, Alex is satisfied with himself/herself.<sup>3</sup>

Immediately following the self-esteem information, the written passage continued to describe how Alex either had won ( $n = 204$ ) or lost ( $n = 187$ ) a scholarship, and described Alex's emotional reaction to this event. Participants who learned that Alex had lost the scholarship read the following:

Alex is a University student who has recently lost a scholarship. This is Alex's reaction: "I know scholarship decisions have to be made, but I'm still devastated. Even though I was told three weeks ago I can still hardly believe it. It feels like my heart stops beating every time I think about it. With my dad being out of work, it is particularly scary thinking about how I am going to afford to pay for school. I haven't told my parents yet. I just don't want to disappoint them. I'm worried that they will feel bad for not being able to help me pay for school. I am worried I may have to drop out of school."

Participants who learned that Alex had won the scholarship read the following:

Alex is a University student who has recently received a scholarship. This is Alex's reaction: "I am really happy! Even though I was told three weeks ago I can still hardly believe it. It feels like my heart stops beating every time I think about it. With my dad being out of work, it is a relief

knowing I am going to be able to pay for school. I haven't told my parents yet. They will be so proud of me. I am glad they will not have to feel bad for not being able to help me pay for school. I am so happy I can stay in school."

To assess personality impressions, participants then rated Alex on several traits, some of which were relevant and some irrelevant to the diagnostic information presented. The three traits relevant to the scholarship outcome and the emotional self-disclosure were conscientiousness, intelligence, and emotional stability. Four traits considered irrelevant to the diagnostic information were extraversion, openness to experience, agreeableness, and physical attractiveness. Participants rated all of these characteristics on seven-point bipolar scales (e.g., 1 = *unintelligent*; 7 = *intelligent*).

To assess overall impressions of Alex's worth, participants completed two measures. First, participants used a seven-point scale (1 = *extremely unlikely*; 7 = *extremely likely*) to report Alex's *future success* using Dion and Dion's (1987) eight-item Life Objectives Scale; (e.g., "Alex will lead an exciting life";  $\alpha = .91$ ). Second, participants used a seven-point scale (1 = *strongly disagree*, 7 = *strongly agree*) to report their *anticipated liking* for Alex (3-items adapted from Cameron, Stinson, Gaetz, & Balchen, 2010; e.g., "I would be willing to spend time with Alex,"  $\alpha = .88$ ) and their perceptions of Alex's *general likability* (3-items adapted from Rubin, 1970; e.g., "Most people would react very favorably toward Alex,"  $\alpha = .79$ ). These two judgments of liking were highly correlated,  $r = .64$ , and thus were combined to create an index of overall *liking*.

## Results and discussion

We conducted a series of 2 (self-esteem condition: LSE vs. HSE) by 2 (scholarship condition: lost vs. won) between-subjects ANOVAs predicting each dependent measure.<sup>4</sup> The main effects that emerged from these analyses are presented in Table 2, along with the relevant cell means. As expected (H1), participants correctly used the diagnostic information of scholarship outcome and the accompanying emotional disclosure to infer relevant traits: Alex who won the scholarship and disclosed positive emotions was seen as more conscientious, intelligent, and emotionally stable than Alex who lost the scholarship and disclosed negative

**Table 2.** Main effects of scholarship condition and target self-esteem condition on trait ratings (Study 1).

	Scholarship condition				Self-esteem condition			
	Lost	Won	$F(1,387)$	$d$	LSE target	HSE target	$F(1,387)$	$d$
<i>Relevant traits</i>								
Conscientiousness	4.70	5.21	20.57	.34	4.62	5.29	35.53	.60
Intelligence	4.79	6.09	134.57	1.14	5.12	5.76	32.51	.51
Emotional stability	3.70	4.56	42.44	.59	3.48	4.78	98.07	.97
<i>Irrelevant traits</i>								
Extraversion	3.95	4.50	20.22	.43	3.79	4.66	49.72	.70
Agreeableness	4.67	5.18	24.60	.48	4.61	5.24	37.24	.60
Openness	3.83	4.65	34.34	.54	3.66	4.82	68.38	.79
Physical Attractiveness	4.06	4.31	6.46	.25	3.85	4.52	48.39	.70
<i>Overall worth</i>								
Liking	4.18	4.64	21.06	.48	4.12	4.68	33.69	.59
Future success	4.41	4.95	39.45	.62	4.42	4.94	36.29	.59

Note. All  $p$ 's < .001. Values in columns represent means. The effect size ( $d$ ) refers to the unadjusted contrast between scholarship conditions or self-esteem conditions within a given row.

emotions. Also as predicted (H2), participants used the self-esteem proxy even when clear diagnostic information was present concerning the traits in question. Participants indicated that HSE Alex was more conscientious, intelligent, and emotionally stable than LSE Alex. In fact, the average effect size of the scholarship-condition main-effects for relevant traits was the same as the average effect size of the self-esteem-condition main-effects for those same traits (both  $d$ s = .69), demonstrating that the influence of the self-esteem proxy is just as robust as the influence of actual diagnostic information.

For irrelevant traits, participants still used the scholarship and emotional disclosure to inform their impressions. However, as expected (H3), the average effect-size for the main effect of scholarship condition was greater for the relevant traits (average  $d$  = .69) than for the irrelevant traits (average  $d$  = .43), Fisher's  $Z$  = 2.54,  $p$  = .005. Also as expected (H4), participants used Alex's self-esteem to infer irrelevant traits, seeing HSE Alex as more extraverted, agreeable, open to experience and attractive than LSE Alex. Importantly, and as expected, the strength of the self-esteem proxy was not influenced by whether the diagnostic information was relevant to the trait in question (average  $d$  = .69) or irrelevant to the trait in question (average  $d$  = .70), Fisher's  $Z$  = -.01,  $p$  = .494.

Participants also used the diagnostic information and Alex's self-esteem to infer Alex's overall worth and future success (H5; see Table 2). Participants reported greater liking and greater future success for Alex who won the scholarship and disclosed positive emotions than for Alex who lost the scholarship and disclosed negative emotions. Participants also anticipated greater liking for HSE Alex than LSE Alex and predicted that HSE Alex would have a more successful future than LSE Alex.

We did not anticipate that self-esteem and scholarship condition would interact to predict impressions of Alex's traits. No such interaction emerged for judgments of intelligence, liking, and future success, all  $F$ 's < 1, and the interactions for conscientiousness and agreeableness were weak,  $F$ s < 3.30,  $p$ s > .07. However, self-esteem condition and scholarship condition did interact to predict impressions of Alex's emotional stability, extraversion, openness, and physical attractiveness (see Table 3). For all four traits, unadjusted contrasts revealed that the diagnostic information manipulation had a smaller effect on ratings of LSE Alex's traits than on ratings of HSE Alex's traits. Thus, participants relied *less* on the diagnostic information to rate LSE Alex than HSE Alex, suggesting that the self-esteem proxy may constrain the influence of diagnostic information in certain circumstances. These results also suggest that it might be very difficult for those branded as LSE to "shake off" the self-esteem proxy, even when their actions and experiences clearly contradict the proxy. The fact that the interaction emerged only for one of the three relevant traits (emotional stability), but for three of the four

**Table 3.** Self-esteem condition X scholarship condition interactions (Study 1).

	LSE target			HSE target			Interaction $F(1, 387)$
	Lost	Won	$d$	Lost	Won	$d$	
<i>Relevant traits</i>							
Emotional stability	3.21	3.76	.44	4.20	5.36	.88	5.52
<i>Irrelevant traits</i>							
Extraversion	3.68	3.91	.19	4.22	5.09	.71	6.71
Openness	3.55	3.78	.16	4.11	5.52	1.06	18.17
Physical attractiveness	3.85	3.85	.00	4.38	4.77	.40	6.60

Note. All interactions  $p$ 's < .02. Values in columns represent means. The effect size ( $d$ ) refers to the unadjusted contrast between scholarship conditions within a given self-esteem condition.

irrelevant traits may suggest that impressions of self-esteem moderate the use of diagnostic information when making judgments that extend beyond the boundary of that diagnostic information. Furthermore, the fact that this interaction emerged for emotional stability despite the presence of clear diagnostic information may be at least in part because emotional stability is reliably related to self-esteem whereas the other relevant traits of intelligence and conscientiousness are not (Furr & Funder, 1998; Hansford & Hattie, 1982). Thus, it is possible that the relative influence of diagnostic information and the self-esteem proxy varies as a function of the actual association between a trait in question and self-esteem. If this is the case, then it suggests that the self-esteem proxy is quite nuanced (Cameron, 2016a).

Overall, our first study supported our predictions that the self-esteem proxy is robust and will inform evaluations of a target even in the presence of diagnostic information. Yet our method limits the conclusions that can be drawn from these results. Although the text description of the target in the present study was more elaborate than similar descriptions used to study the self-esteem proxy in past research (e.g., Zeigler-Hill & Besser, 2014), and hypothetical scenarios and descriptions of targets can be quite evocative (Dadds, Bovbjerg, Redd, & Cutmore, 1997), written descriptions still pale in comparison to the rich context of live action. Because they provide less information, written descriptions may provide greater room for bias, and thus the present results may over-estimate the robustness of the self-esteem proxy.

Thus, in our second experiment we sought to offer a stronger test of our predictions. Specifically, we provided participants with both written *and behavioral* diagnostic information about the target of interest, the latter information being presented in a short video-taped introductory speech. Because the availability of live-action behavior tends to substantially reduce the use of proxy traits (e.g., Fernald, Williams, & Droescher, 1985), the method in our second experiment offers a particularly strict test of our predictions.

## Study 2

In our second experiment, we manipulate both the target's stated self-esteem and their observable behavior. Participants first read a brief written description of a man or woman named Alex who is said to have LSE or HSE. Then they watch a brief video in which Alex introduces himself or herself. To manipulate diagnostic information, in one video condition Alex behaves in a very expressive, positive, and extraverted manner, and in another video condition Alex behaves in a rather inhibited, cold, and introverted manner. Once again, our predictions are listed in Table 1. In this experiment, the relevant traits were extraversion and emotional stability, whereas the irrelevant traits were openness, conscientiousness, and agreeableness.<sup>5</sup> In addition to testing our confirmatory hypotheses, we also explored whether the self-esteem proxy would moderate the use of diagnostic information, as discovered in Study 1. We also built upon Study 1 by exploring whether the self-esteem proxy would influence two additional traits that were *held constant* across the experimental conditions; specifically, physical attractiveness and intelligence.

## Participants

One hundred and forty-three individuals participated in this study. Seven participants did not complete all components of the survey, leaving 136 individuals in the final sample

( $M_{\text{age}} = 21.35$  years;  $SD = 2.68$ ; 74 women, 62 men; 100% Canadian born; 91% White, 9% Asian, 2% East Indian, 1% Black, 1% Hispanic, and 2% did not identify with any provided category; 100% spoke English as their first language). This sample size yielded a power level of .82 to detect a medium-sized effect. Participants received a chocolate bar or pack of gum in appreciation for their time.

## Method

Interested individuals approached a booth set up in the student center at the University of Victoria advertising a psychology study on “perceptions of traits.” Those who consented to participate were informed that they would read a description of a person, see a short video of that person, and then provide their personality impression of that target individual.

First, all participants read a short description of “Alex,” who was either a man ( $n = 63$ ) or a woman ( $n = 73$ ), with LSE ( $n = 68$ ) or HSE ( $n = 68$ ). All participants received the following description (with opposing condition in parentheses):

Alex is 20 years old and in her (his) 2nd year of university. Alex works a part-time job on the side, waiting tables at a restaurant near the university. Alex does well in university achieving a B+ average across her (his) courses. Alex has high (low) self-esteem.

Next, participants watched a 30-s pre-recorded video of Alex in which he or she read and then responded to the question “Would you rather be rich or famous and why?” In all conditions, Alex is dressed casually and seated alone, facing the camera, in front of a blank wall. Alex also gives the same scripted response to the question in all conditions. Pilot testing confirmed that both the male and female actors who played Alex were matched in their high levels of physical attractiveness. We chose highly attractive targets because the “beautiful is good” stereotype is quite powerful (e.g., Eagly et al., 1991), which may limit the ability of other proxy traits to influence person-perception, thus furthering our goal of making this experiment a particularly strict test of the strength of the self-esteem proxy.

In the “high extraversion” video ( $n = 69$ ), the actors were instructed to behave in a warm, expressive, and extraverted fashion. Thus, the actors in this condition engaged in lots of eye contact with the camera, displayed a very open body posture, used lots of hand gestures, smiled often, used plenty of vocal tone variation, and were very facially expressive. In the “low extraversion” video ( $n = 67$ ) the actors were instructed to behave in a cold, inexpressive, and introverted manner. Actors in this condition engaged in relatively little eye contact, displayed a closed body posture, used few hand gestures, never smiled, and spoke in a monotone manner. Relative to the “high extraversion” target, the “low extraversion” target also displayed more negative affect.<sup>6</sup>

After watching the video, participants indicated their impression of Alex on the Big Five personality traits using nine-point scales (1 = *very strongly disagree*; 9 = *very strongly agree*) to complete the Ten-Item-Personality-Inventory (TIPI; Gosling et al., 2003). Two traits were considered relevant to the manipulated video behavior (extraversion and emotional stability) and three traits were considered irrelevant (agreeableness, openness, and conscientiousness). Using 100-point scales (0 = *lower than the rest of the population*; 50 = *average*; 100 = *higher than the rest of the population*), participants indicated their impression of Alex for traits relevant to the information we kept stable across targets (intelligent and physically attractive; *invariant traits*). Next, participants completed the three-item anticipated liking scale used in Study 1,  $\alpha = .88$ . Demographic questions appeared at the end of the survey.

**Table 4.** Main effects of target self-esteem on trait ratings (Study 2).

	LSE target	HSE target	$F(1, 128)$	$d$
<i>Relevant traits</i>				
Extraversion	5.31	6.69	29.59**	.91
Emotional stability	5.18	6.08	13.74**	.63
<i>Irrelevant traits</i>				
Openness	5.24	5.53	1.62	.22
Conscientiousness	6.53	6.23	1.89	.24
Agreeableness	5.84	5.81	.02	.03
<i>Invariant traits</i>				
Attractiveness	71.47	73.89	.83	.16
Intelligence	62.98	63.77	.07	.05
<i>Overall worth</i>				
Anticipated liking	6.10	6.48	2.25	.26

Note. Values in columns represent means.

\*\* $p < .001$ .

## Results and discussion

To test our main predictions, we conducted a 2 (self-esteem condition: LSE vs. HSE) by 2 (video condition: high extraversion vs. low extraversion) by 2 (target gender: man vs. woman) between-subjects ANOVA on each trait.<sup>7</sup>

As expected (H1), participants correctly used the diagnostic video behavior to infer one of the relevant traits: Alex who behaved in a highly extraverted manner was rated as more extraverted ( $M = 6.36$ ,  $SD = 1.70$ ) than Alex who behaved in a less extraverted manner ( $M = 5.65$ ,  $SD = 1.53$ ),  $F(1, 128) = 7.75$ ,  $p = .006$ ,  $d = .49$ . However, video condition did not influence participants' impressions of the other relevant trait, emotional stability ( $d = .05$ ). In support of our second prediction (H2), participants were more likely to ascribe positive traits to the HSE target than the LSE target, though this was only true for the relevant traits of extraversion and emotional stability (see Table 4). Unlike Study 1, the self-esteem condition main effect was stronger (average  $d = .77$ ) than the video condition main effect (average  $d = .27$ ) for relevant traits, Fisher's  $Z = 2.83$ ,  $p = .002$ , suggesting that the self-esteem proxy can be more influential than actual diagnostic behavior in some circumstances.

For irrelevant traits, diagnostic behavior did not influence trait impressions, all  $F_s < 1.62$ , all  $p_s > .204$ . Consistent with H3, the manipulation of diagnostic information influenced relevant traits (average  $d = .27$ ) more strongly than irrelevant traits (average  $d = -.03$ ), Fisher's  $Z = 1.74$ ,  $p = .041$ . However, refuting H4, for all traits considered irrelevant to the manipulated behavior, there were no main effects for self-esteem condition, and unlike in Study 1, the average size of the self-esteem effect was greater for relevant traits (average  $d = .77$ ) than for irrelevant traits (average  $d = .16$ ), Fisher's  $Z = 3.42$ ,  $p < .001$ .

Failing to support H5, video condition did not influence judgments of liking,  $F(1, 128) = .000$ ,  $p = .997$ ,  $d = .001$ , nor did self-esteem condition (see Table 4). Although we intended the targets' high level of attractiveness to offer a strict test for the self-esteem proxy, the "beautiful is good" bias may have been so strong that it completely constrained the ability of any other variable to influence liking. In fact, compared to the average anticipated liking reported in Study 1 ( $M = 4.66$ ,  $SD = 1.07$ ), the average liking reported in Study 2 was nearly two points higher ( $M = 6.28$ ,  $SD = 1.45$ ),  $t(188.1) = 11.95$ ,  $p < .001$ , leaving little room for the self-esteem proxy or extraverted behavior to influence liking.

Unlike Study 1, there were no significant interactions between self-esteem condition and video condition for any of the traits. In addition, participants' ratings of Alex's attractiveness and intelligence were unaffected by the experimental manipulations,  $F_s < 1$ . Thus, it appears there are limits to the self-esteem proxy, and future research should explore these boundary conditions in greater detail.

Overall, participants in the present experiment correctly used diagnostic information to infer relevant traits. However, participants also used the target's self-esteem to inform their impressions of the target's extraversion and emotional stability, despite the more vivid and concrete diagnostic information presented in the present experiment, demonstrating the strength of the self-esteem proxy. There is, however, a boundary to the influence of self-esteem on impressions: When the diagnostic information was concrete and invariant, in the form of GPA and objective physical attractiveness, participants' judgments on those characteristics were not influenced by the target's self-esteem level. Moreover, traits considered irrelevant to the display of extraverted and happy behavior in the video (openness, conscientiousness, and agreeableness) were immune to the self-esteem proxy. The lack of self-esteem proxy effects for impressions of openness, conscientiousness, and agreeableness may reflect the fact that such traits are not consistently linked with self-esteem in real life (Furr & Funder, 1998) and individuals' lay theories of self-esteem reflect this reality, linking self-esteem more closely with traits such as extraversion and emotional stability (Cameron, 2016a). Thus, traits considered "irrelevant" to the behaviors manipulated through the video conditions may also have been the same traits considered "irrelevant" to the self-esteem conditions. Alternatively, the provision of such vivid and concrete diagnostic behavior and the high levels of attractiveness of the targets (i.e., the attractiveness proxy) in the present study might have overshadowed the self-esteem proxy.

## General discussion

Across two experiments, people relied on a target's self-esteem to infer their relational value. These results strengthen the growing body of research suggesting that a self-esteem proxy influences person perception, such that people jump to the conclusion that LSE people are lower in relational value and HSE people are higher in relational value. Most importantly, our research extends these previous findings by demonstrating that people continue to use self-esteem to infer relational value even when diagnostic information is readily available, suggesting that self-esteem serves as a higher order trait that, once revealed about a target, influences subsequent perceptions of other characteristics. As such, our results confirm that people possess an implicit theory that self-esteem can serve as a proxy for important interpersonal judgments concerning a social partner's actual value.

Despite the presence of diagnostic information, the self-esteem proxy was also remarkably robust in its influence on personality judgments: The majority of our effect sizes were over the cut-off for medium effect sizes (.5; Cohen, 1988). In fact, a meta-analysis of the target self-esteem main effect across the two studies reveals that the average effect size for target self-esteem was .55 (corrected for sample size; Hedges, 1981) for traits considered relevant and irrelevant. Even including the two traits held constant in Study 2, where we expected minimal influence of self-esteem, the average effect size is still .51. Thus, even in the presence of diagnostic information, the self-esteem proxy is strong and comparable to the average effect size of the "what is beautiful is good" bias, reported to be .58 (Eagly et al., 1991). As

further demonstration of the robustness of the self-esteem proxy, even when the “what is beautiful is good” bias and gender stereotypes were likely at work (Study 2), the self-esteem proxy still influenced some personality ratings.

The self-esteem proxy is not without its limits. In our first experiment, where only written target descriptions were used and thus greater observer-bias was possible, we observed greater influence of the self-esteem proxy. Target self-esteem influenced perceptions of relevant and irrelevant traits equally, moderated the influence of the diagnostic information on some personality impressions, and influenced perceptions of the target’s overall relational value. However, in our second experiment, where we not only provided richer information about the target (i.e., video behavior) but also provided concrete information about certain traits (physical attractiveness and intelligence), the self-esteem proxy had limited influence. However, in such a context so rich with social information, the self-esteem proxy had the greatest sway on the two traits that are most closely tied to implicit theories of self-esteem, extraversion, and emotional stability (Cameron, 2016a). Importantly, these two traits were also the traits considered relevant to the diagnostic information manipulated within the video behavior of the targets. Thus, even though there was a clear behavioral example of extraversion and dispositional happiness, those deemed as possessing LSE were still seen as less extraverted and less emotionally stable than the HSE target engaging in the identical behaviors. In sum, the self-esteem proxy might not paint all interpersonal judgments equally, and might instead influence most strongly those judgments most closely tied to the implicit theory of self-esteem.

### ***Strengths and limitations***

Our research has several important strengths. First, the present manuscript represents the first investigation to pit a target’s self-esteem level against other diagnostic information. In this regard, our results attest to both the robustness and limits of the implicit theory of self-esteem. Second, regardless of whether we used the terms “LSE” and “HSE” or used more general descriptions of the psychological experiences of LSE and HSE, participants still used the self-esteem proxy. Furthermore, self-esteem still influenced interpersonal judgments when participants learned about the target from a written description or from a video sample of their behavior. Together, these results suggest that the effects reported here are not artificially driven by the questions posed, the personal information provided, or by labeling someone “low” or “high” on any given trait.

Among the strengths of our design, there are also four key limitations. First, because our samples were derived only from Canadian sources, we are unable to directly generalize our results to other cultures. For example, in Japan, concepts like “self-esteem” are not commonly used (Heine, Lehman, Markus, & Kitayama, 1999) and those raised in Taiwan do not experience the intense social pressure to enhance self-esteem that North Americans experience (Miller, Wang, Sandel, & Cho, 2002). Thus, such cultures may not possess an implicit theory concerning the meaning of HSE and may not use self-esteem as a proxy to judge others’ social value. However, even if “self-esteem” as it is defined in the West is not universally applied across cultures, the need to belong and the need to monitor one’s value to one’s group are both universal human needs. Thus, humans around the world are likely to possess psychological adaptations that monitor their value to the group, and in turn, other people may rely on a target person’s internalized sense of their value to others to judge that target person’s value.

Future research should explore these possibilities. Second, because we only asked participants to form impressions based on two self-esteem categories (low vs. high), we are unable to speak to how the self-esteem proxy behaves across the full continuum of self-esteem. Indeed, recent research by Zeigler-Hill and Besser (2014) suggests that people evaluate the mate desirability of those deemed as very low, somewhat low, somewhat high, and very HSE in a nonlinear pattern. Thus, future research should investigate the self-esteem proxy across the full continuum of self-esteem. Third, we only used a small number of targets in our experiments and though this allowed us greater control over extraneous variables, this leaves open many possible questions for future research, such as whether other social categories (e.g., ethnicity, race, or gender) and other proxy traits (e.g., attractiveness) moderate the self-esteem proxy. Fourth, in both experiments, participants learned about the self-esteem of the target *before* learning about other diagnostic information. Thus, it is possible that confirmation bias influenced perceptions of Alex's scholarship outcome and emotional disclosure (Study 1) and extraverted behavior (Study 2). Future research should aim to tease apart how the order of information about a target might influence impressions of personality and relational value.

### Implications

Together with previous research on the implicit theory of self-esteem (e.g., Zeigler-Hill & Myers, 2011), our results imply that the average North American views self-esteem as a barometer of actual worth. Although using self-esteem to infer the worth of an individual may have some adaptive merit, it also has its limitations. Self-esteem is not related to everything, including many culturally important characteristics relevant to relational value. For example, research relying on objective measures shows that LSE and HSE people are equally attractive (Feingold, 1992), likeable (Campbell & Fehr, 1990), prosocial (Buhrmester, Furman, Wittenberg, & Reis, 1988), intelligent (Gabriel, Critelli, & Ee, 1994), competent (Judge & Bono, 2001), conscientious, and open to experience (Furr & Funder, 1998). Thus, using self-esteem as a trait proxy may result in erroneous judgments of others. As such, its use may disadvantage the relational prospects of anyone who *appears* to have LSE.

The ubiquitous use of the self-esteem proxy has many interpersonal consequences. Among relative strangers, those branded (correctly or incorrectly) as having LSE may be vulnerable to the same discrimination experienced by stigmatized groups (e.g., Heatherton, Kleck, Hebl, & Hull, 2000). Recent evidence suggests that people discriminate against LSE people, such as being less willing to vote for LSE political candidates (Zeigler-Hill & Myers, 2009). Even within closer relationships, people with LSE report greater attempts to conceal their self-esteem from loved ones and are pessimistic about their future relationships when their self-esteem is revealed (Cameron, 2016b). Such fears seem to be justified: When interacting with friends or romantic partners understood to have LSE, people exaggerate affection, conceal negative sentiments (Lemay & Dudley, 2011), and are reluctant to disclose positive personal experiences (e.g., Macgregor et al., 2013). These inauthentic behaviors predict decreased relationship satisfaction over time (Lemay & Dudley, 2011; Macgregor et al., 2013). Overall, our research supports the notion that self-esteem serves as a robust trait proxy that may lead those branded as possessing LSE to suffer greater interpersonal rejection and ultimately reinforce LSE (Leary, 2004).

## Notes

1. To date, only one study investigating implicit theories of self-esteem has included video recordings of targets (Zeigler-Hill et al., 2013b, Study 1). In their novel study, trained judges watched video recordings of participants with the aim of testing whether participants' self-esteem was associated with judges' impressions of personality and whether impressions of personality were associated with impressions of self-esteem. Because our goals diverge, we adopted a methodology that allowed us to contrast the robustness of self-esteem information to diagnostic information.
2. In Studies 1 and 2, the total percentage adds up to more than 100 because some individuals identified with multiple ethnic groups.
3. An independent sample of 192 undergraduate students ( $M_{\text{age}} = 20$  years;  $SD = 4.62$ ; 122 women, 69 men, 1 did not report; 100% Canadian born), read either the LSE or HSE description and rated how much they agreed that Alex had "HSE" using a 9-point scale (1 = *strongly disagree*; 9 = *strongly agree*). As intended, a Univariate Analysis of Variance (ANOVA) with condition as the between-subjects factor (Self-esteem condition: LSE vs. HSE) revealed that HSE Alex was perceived to have higher self-esteem ( $M = 7.17$ ,  $SD = 1.27$ ) than LSE Alex ( $M = 2.32$ ,  $SD = 1.35$ ),  $F(1, 191) = 657.98$ ,  $p < .001$ ,  $d = 3.70$ .
4. In both experiments, participants also indicated their own self-esteem using Rosenberg (1965) self-esteem scale in Study 1 and the single-item self-esteem scale (Robins, Hendin, & Trzesniewski, 2001) in Study 2. In both experiments, participants' own self-esteem did not moderate how the other variables influenced their perceptions of the target. Similarly, participants' own gender did not consistently influence results and thus, was not included in the analyses reported here. Study 1 also included the Ten-Item-Personality Inventory (Gosling, Rentfrow, & Swann, 2003), Personal Belief in a Just World scale and General Belief in a Just World scale (Dalbert, 1999). None of these additional scales moderated the reported effects.
5. Though we initially intended agreeableness to tap the warmth displayed in the extraverted videos, the TIPI agreeableness items did not directly tap the variable of interest. The two items, "sympathetic, warm" and reversed item "critical, quarrelsome" simply do not reflect the type of friendly and expressive behavior exhibited in the videos. Because the TIPI does not assess all facets of the Big Five traits (Gosling et al., 2003) and warmth does not perfectly align with agreeableness (DeYoung, Weisberg, Quilty, & Peterson, 2013), we opted to assign agreeableness as an "irrelevant" trait to the diagnostic videos.
6. An independent sample of 215 undergraduate students ( $M_{\text{age}} = 22.77$  years;  $SD = 6.85$ ; 116 women, 96 men, 3 did not identify with male or female gender identity; 84% Canadian born), rated the male and female targets as similarly attractive ( $M_s = 6.10$  and 6.32, respectively;  $SD_s = 1.51$  and 1.52 respectively; where 1 = *not at all attractive*, and 9 = *extremely attractive*).
7. There were three main effects for target gender. Compared to when the target was a man, when the target was a woman, she was rated as less emotionally stable ( $M = 5.87$  vs. 5.40),  $F(1, 128) = 3.81$ ,  $p = .053$ , more agreeable ( $M = 5.58$  vs. 6.07),  $F(1, 128) = 5.94$ ,  $p = .016$ , and more physically attractive ( $M = 69.57$  vs. 75.78),  $F(1, 128) = 5.45$ ,  $p = .021$ , consistent with gender differences in social perception (attractiveness: Cameron et al., 2010; emotional stability and agreeableness: e.g., Koppensteiner & Grammer, 2011) and also consistent with the notion that gender stereotypes continue to influence personality impressions despite the presence of diagnostic information (e.g., Krueger & Rothbart, 1988).

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## References

- Ambady, N., & Rosenthal, R. (1992). Thin slices of expressive behavior as predictors of interpersonal consequences: A meta-analysis. *Psychological Bulletin*, *111*, 256–274.
- Asch, S. E. (1946). Forming impressions of personality. *The Journal of Abnormal and Social Psychology*, *41*, 258–290. doi:<http://dx.doi.org/10.1037/h0055756>
- Brown, J. D., Dutton, K. A., & Cook, K. E. (2001). From the top down: Self-esteem and self-evaluation. *Cognition and Emotion*, *15*, 615–631.
- Buhrmester, D., Furman, W., Wittenberg, M. T., & Reis, H. T. (1988). Five domains of interpersonal competence in peer relationships. *Journal of Personality and Social Psychology*, *55*, 991–1008.
- Burusic, J., & Ribar, M. (2014). The moderating role of self-presentation tactics: Judgments of personality traits and self-presentation of others based on a limited amount of information. *Swiss Journal of Psychology*, *73*, 235–242.
- Cameron, J. J. (2016a). *Lay theories of self-esteem: Defining characteristics, source, and controllability*. Manuscript in preparation.
- Cameron, J. J. (2016b). *Projecting a (false) sense of security: Self-esteem and the impact of beliefs about transparency of self-esteem in close relationships*. Manuscript in preparation.
- Cameron, J. J., MacGregor, J. C. D., Gaucher, D., Hole, C., & Holmes, J. G. (2016). *Is low self-esteem a stigma? The extremity of the self-esteem signal*. Manuscript in preparation.
- Cameron, J. J., MacGregor, J. C. D., & Kwang, T. (2013). Self-esteem as an interpersonal signal. In V. Zeigler-Hill (Ed.), *Current issues in self-esteem research* (pp. 145–162). New York, NY: Psychology Press.
- Cameron, J. J., Stinson, D. A., Gaetz, R., & Balchen, S. (2010). Acceptance is in the eye of the beholder: Self-esteem and motivated perceptions of acceptance from the opposite sex. *Journal of Personality and Social Psychology*, *99*, 513–529.
- Campbell, J. D., & Fehr, B. A. (1990). Self-esteem and perceptions of conveyed impressions: Is negative affectivity associated with greater realism? *Journal of Personality and Social Psychology*, *58*, 122–133.
- Chang-Schneider, C., & Swann, W. B. (2010). The role of uncertainty in self-evaluative processes: Another look at the cognitive-affective crossfire. In R. M. Arkin, K. C. Oleson, & P. J. Carroll (Eds.), *Handbook of the uncertain self* (pp. 216–231). New York, NY: Psychology Press.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- Conley, T. D., & Collins, B. E. (2002). Gender, relationship status, and stereotyping about sexual risk. *Personality and Social Psychology Bulletin*, *28*, 1483–1494.
- Cooper, W. H. (1981). Ubiquitous halo. *Psychological Bulletin*, *90*, 218–244.
- Cronbach, L. J. (1955). Processes affecting scores on understanding of others and assuming “similarity”. *Psychological Bulletin*, *52*, 177–193.
- Dadds, M. R., Bovbjerg, D. H., Redd, W. H., & Cutmore, T. R. H. (1997). Imagery in human classical conditioning. *Psychological Bulletin*, *122*, 89–103.
- Dalbert, C. (1999). The world is more just for me than generally: About the personal belief in a just world scale’s validity. *Social Justice Research*, *12*, 79–98.
- DeYoung, C. G., Weisberg, Y. J., Quilty, L. C., & Peterson, J. B. (2013). Unifying the aspects of the big five, the interpersonal circumplex, and trait affiliation. *Journal of Personality*, *81*, 465–475.
- Dion, K. K., Berscheid, E., & Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology*, *24*, 285–290.

- Dion, K. L., & Dion, K. K. (1987). Belief in a just world and physical attractiveness stereotyping. *Journal of Personality and Social Psychology*, *52*, 775–780.
- Eagly, A. H., Ashmore, R. D., Makhijani, M. G., & Longo, L. C. (1991). What is beautiful is good, but...: A meta-analytic review of research on the physical attractiveness stereotype. *Psychological Bulletin*, *110*, 109–128.
- Feingold, A. (1992). Good-looking people are not what we think. *Psychological Bulletin*, *111*, 304–341.
- Fernald, C. D., Williams, R. A., & Droscher, S. D. (1985). Actions speak louder...: Effects of diagnostic labels and child behavior on perceptions of children. *Professional Psychology: Research and Practice*, *16*, 648–660.
- Finkel, E. J., DeWall, C. N., Slotter, E. B., Oaten, M., & Foshee, V. A. (2009). Self-regulatory failure and intimate partner violence perpetration. *Journal of Personality and Social Psychology*, *97*, 483–499.
- Finkenauer, C., Buyukcan-Tetik, A., Baumeister, R. F., Schoemaker, K., Bartels, M., & Vohs, K. D. (2015). Out of control: Identifying the role of self-control strength in family violence. *Current Directions in Psychological Science*, *24*, 261–266.
- Furr, R. M., & Funder, D. C. (1998). A multimodal analysis of personal negativity. *Journal of Personality and Social Psychology*, *74*, 1580–1591.
- Gabriel, M. T., Critelli, J. W., & Ee, J. S. (1994). Narcissistic illusions in self-evaluations of intelligence and attractiveness. *Journal of Personality*, *62*, 143–155.
- Gosling, S. D., Rentfrow, P. J., & Swann Jr., W. B. (2003). A very brief measure of the big-five personality domains. *Journal of Research in Personality*, *37*, 504–528.
- Hansford, B. C., & Hattie, J. A. (1982). The relationship between self and achievement/performance measures. *Review of Educational Research*, *52*, 123–142.
- Heatherton, T. F., Kleck, R. E., Hebl, M. R., & Hull, J. G. (2000). *The social psychology of stigma*. New York, NY: Guilford Press.
- Hedges, L. V. (1981). Distribution theory for Glass's estimator of effect size and related estimators. *Journal of Educational Statistics*, *6*, 107–128.
- Heine, S. J., Lehman, D. R., Markus, H. R., & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review*, *106*, 766–794.
- Jonason, P. K., Garcia, J. R., Webster, G. D., Li, N. P., & Fisher, H. E. (2015). Relationship dealbreakers: Traits people avoid in potential mates. *Personality and Social Psychology Bulletin*, *41*, 1697–1711. doi: <http://dx.doi.org/10.1177/0146167215609064>
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits self-esteem, generalized self-efficacy, locus of control, and emotional stability with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, *86*, 80–92.
- Koppensteiner, M., & Grammer, K. (2011). Body movements of male and female speakers and their influence on perceptions of personality. *Personality and Individual Differences*, *51*, 743–747.
- Krueger, J. (1998). On the perception of social consensus. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 163–240). San Diego, CA: Academic Press.
- Krueger, J., & Rothbart, M. (1988). Use of categorical and individuating information in making inferences about personality. *Journal of Personality and Social Psychology*, *55*, 187–195.
- Leary, M. R. (2004). The sociometer, self-esteem, and the regulation of interpersonal behavior. In R. F. Baumeister & K. Vohs (Eds.), *Handbook of self-regulation* (pp. 373–391). New York, NY: Guilford.
- Leary, M. R., & Baumeister, R. F. (2000). The nature and function of self-esteem: Sociometer theory. *Advances in experimental social psychology*, *32*, 1–62.
- Lemay, E. P., & Dudley, K. L. (2011). Caution: Fragile! Regulating the interpersonal security of chronically insecure partners. *Journal of Personality and Social Psychology*, *100*, 681–702.
- Locksley, A., Borgida, E., Brekke, N., & Hepburn, C. (1980). Sex stereotypes and social judgment. *Journal of Personality and Social Psychology*, *39*, 821–831.
- Macgregor, J. C. D., Fitzsimons, G. M., & Holmes, J. G. (2013). Perceiving low self-esteem impedes capitalization: Relationship consequences, moderation by positive event type. *Personal Relationships*, *20*, 690–705.
- Mecca, A. W., Smelser, N. J., & Vasconcellos, J. (1989). *The social importance of self-esteem*. Berkeley: University of California Press.
- Miller, P. J., Wang, S., Sandel, T., & Cho, G. E. (2002). Self-esteem as folk theory: A comparison of European American and Taiwanese mothers' beliefs. *Parenting: Science and Practice*, *2*, 209–239.

- Naumann, L. P., Vazire, S., Rentfrow, P. J., & Gosling, S. D. (2009). Personality judgments based on physical appearance. *Personality and Social Psychology Bulletin*, *35*, 1661–1671.
- Reis, H. T., Maniaci, M. R., Caprariello, P. A., Eastwick, P. W., & Finkel, E. J. (2011). In live interaction, does familiarity promote attraction or contempt? Reply to Norton, Frost, and Ariely (2011). *Journal of Personality and Social Psychology*, *101*, 575–578.
- Robins, R. W., Hendin, H. M., & Trzesniewski, K. H. (2001). Measuring global self-esteem: Construct validation of a single-item measure and the rosenberg self-esteem scale. *Personality and Social Psychology Bulletin*, *27*, 151–161.
- Rodriguez, A. J., Holleran, S. E., & Mehl, M. R. (2010). Reading between the lines: The lay assessment of subclinical depression from written self-descriptions. *Journal of Personality*, *78*, 575–597.
- Rosch, E. (1978). Principles of categorization. In E. Rosch & B. B. Lloyd (Eds.), *Cognition and categorization* (pp. 27–49). New York, NY: John Wiley & Sons.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rothbart, M., & Park, B. (1986). On the confirmability and disconfirmability of trait concepts. *Journal of Personality and Social Psychology*, *50*, 131–142.
- Rubin, Z. (1970). Measurement of romantic love. *Journal of Personality and Social Psychology*, *16*, 265–273.
- Schneider, D. J. (1973). Implicit personality theory: A review. *Psychological Bulletin*, *79*, 294–309.
- Self-Esteem. (n.d.). In Wikipedia. Retrieved August 10, 2013, from <http://en.wikipedia.org/wiki/Self-esteem>
- Stinson, D. A., Cameron, J. J., & Huang, E. T. (2015). Your sociometer is telling you something: How the self-esteem system functions to resolve important interpersonal dilemmas. In V. Zeigler-Hill, L. Welling, & T. Shackelford (Eds.), *Evolutionary perspectives on social psychology* (pp. 137–147). New York, NY: Springer.
- Stinson, D. A., & Holmes, J. G. (2010). Sociometer model. In J. M. Levine & M. A. Hogg (Eds.), *Encyclopedia of group processes and intergroup relations* (pp. 830–832). Thousand Oaks, CA: Sage.
- Stinson, D. A., Wood, J. V., & Doxey, J. R. (2008). In search of clarity: Self-esteem and domains of confidence and confusion. *Personality and Social Psychology Bulletin*, *34*, 1541–1555.
- Swann, W. B. (1987). Identity negotiation: Where two roads meet. *Journal of Personality and Social Psychology*, *53*, 1038–1051.
- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York, NY: Wiley.
- Uleman, J. S., Saribay, S. A., & Gonzalez, C. M. (2008). Spontaneous inferences, implicit impressions, and implicit theories. *Annual Review of Psychology*, *59*, 329–360.
- Vazire, S. (2010). Who knows what about a person? The self-other knowledge asymmetry (SOKA) model. *Journal of Personality and Social Psychology*, *98*, 281–300.
- Vohs, K. D., Finkenauer, C., & Baumeister, R. F. (2011). The sum of friends' and lovers' self-control scores predicts relationship quality. *Social Psychological and Personality Science*, *2*, 138–145.
- Zeigler-Hill, V., & Besser, A. (2014). Self-esteem and evaluations of targets with ostensibly different levels of self-worth. *Self and Identity*, *13*, 146–161.
- Zeigler-Hill, V., Besser, A., & Jett, S. E. (2013a). Laughing at the looking glass: Does humor style serve as an interpersonal signal? *Evolutionary Psychology*, *11*, 201–226.
- Zeigler-Hill, V., Besser, A., Myers, E. M., Southard, A. C., & Malkin, M. L. (2013b). The status-signaling property of self-esteem: The role of self-reported self-esteem and perceived self-esteem in personality judgments. *Journal of Personality*, *81*, 209–220.
- Zeigler-Hill, V., & Myers, E. M. (2009). Is high self-esteem a path to the white house? The implicit theory of self-esteem and the willingness to vote for presidential candidates. *Personality and Individual Differences*, *46*, 14–19.
- Zeigler-Hill, V., & Myers, E. M. (2011). An implicit theory of self-esteem: The consequences of perceived self-esteem for romantic desirability. *Evolutionary Psychology*, *9*, 147–180.