Self-Esteem Relates to Expecting Others to See Us How We See Ourselves

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In press, Social Psychological Bulletin

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# Funding

Preparation of this manuscript was supported by a W. Burghardt Turner Fellowship awarded to Ashley Araiza by the Center for Inclusive Education at Stony Brook University.

# **Competing Interests**

The authors have declared that no competing interests exist.

# **Data Availability**

Studies 1 and 2 were pre-registered via the Open Science Framework. Pre-registration information is available online at <u>osf.io/498nr</u> (Study 1) and <u>osf.io/7rxsv</u> (Study 2). Data are available at <u>osf.io/jqep6</u> (Study 1) and <u>osf.io/nu3az</u> (Study 2).

# **Index of Supplementary Materials**

## Abstract

We examined whether self-esteem relates to coherence between self-evaluations and anticipated evaluations by others. In two studies (total N = 279), participants twice completed a measure of their personal attributes, once from their own standpoints and once from the perspective of someone they anticipated meeting, separated by a 25-minute distractor task. Supporting our pre-registered predictions, the within-person association between self- and other-ratings was stronger as a function of between-person increases in self-esteem. These effects remained after statistically controlling for self-concept clarity and for fear of negative evaluation, both of which related meaningfully to self-esteem. Together, these findings indicate that persons high in self-esteem anticipate that others will evaluate them consistently with how they evaluate themselves.

Keywords: self-esteem; self-evaluation; self-verification; self-consistency; the self;

Self-Esteem Relates to Expecting Others to See Us How We See Ourselves

Daily life presents numerous opportunities to meet other people. Whether greeting a new neighbor, talking to a fellow spectator at a soccer game, or joining a conversation between acquaintances at work, each of us may form incipient relationships that could grow into lasting bonds with others. Forming and maintaining social relationships impacts health and wellbeing (House, Landis, & Umberson, 1998). Unfortunately, contemplating meeting others is not always experienced positively. Anticipating meeting someone new can foster concerns with being evaluated negatively (Leary, 1983) and/or inconsistently with one's self-views (Swann, 2011). Extensive work has examined how concerns with negative evaluation may involve self-esteem, the degree to which a person views oneself positively and whether they are of equal worth to others (Carleton, Collimore, & Asmundson, 2007; Rosenberg, 1965). On the other hand, no research of which we are aware has examined the role of self-esteem in people's anticipations that others will evaluate them consistently with how they evaluate themselves. We tested whether self-esteem relates to anticipating consistency between one's self-evaluations and evaluations of oneself by others.

People value consistency among mental constructs they judge to be important (Festinger, 1962), and mental constructs people hold of their own traits, characteristics, and abilities are typically highly important and chronically accessible (Culcea & Freitas, 2017). Accordingly, people often experience discomfort when others evaluate them differently from how they evaluate themselves (Swann, 2011). Discord between one's self-views and evaluations of oneself by workgroup members, for example, can undermine one's identification with the group (for a review, see Swann, 2011). Meta-analyses further indicate that, when risks of outright rejection are low, people prefer feedback that agrees with their self-views over positive feedback (Kwang

& Swann, 2010). The consistency people expect between self-evaluations and evaluations by others may thus color how people construe opportunities for social interactions, although previous research has not examined the role of self-esteem in this process.

We propose that self-esteem relates positively to the extent to which people expect to be evaluated consistently with their self-views. Our proposal builds on previous work on selfdisclosure, relational authenticity, and social expectancies. Research on self-disclosure has documented positive relations between self-esteem and both positive and negative expressivity with romantic partners and friends (Gaucher et al., 2012). A person who generally self-discloses to others may anticipate providing others with information that promotes self-consistent evaluations. Research on relational authenticity further indicates that self-esteem relates positively to valuing truthfulness in relationships, by sharing "those deep, dark, or potentially shadowy self-aspects that are not routinely discussed" (Kernis & Goldman, 2006, p. 302). Beyond self-disclosing and valuing truthfulness in relationships, expecting others to see us how we see ourselves also requires confidence in the predictability of others' responses. Implicating a role of self-esteem in this general process, research on interpersonal if-then expectancies indicates that self-esteem relates positively to confidence that one's own affiliative behaviors will be interpreted accurately by others, eliciting appropriate responses from them (Baldwin & Keelan, 1999). Although not pertaining directly to self-disclosure, this latter finding indicates that persons high in self-esteem expect reliable if-then contingencies between their own behaviors and the behaviors of others. In summary, self-esteem relates positively to selfdisclosing, to valuing relational authenticity, and to anticipating others' contingent responses to one's interpersonal behaviors. Persons high in self-esteem may thus tend to approach social interactions anticipating relatively high degrees of self-disclosure and authenticity, which they

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then expect to yield contingent responses from others in the form of evaluations consistent with their own self-views. More specifically, a person high (relative to low) in self-esteem may anticipate being more forthcoming about their qualities, and a person high (relative to low) in self-esteem may expect that others will take note of their disclosures and respond contingently to them, which then would lead to higher concordance between self-ratings from one's own and others' standpoints for high self-esteem persons than for low self-esteem persons.

Although supported indirectly by previous work, the prediction that persons high in selfesteem will tend to expect others to evaluate them consistently with their self-evaluations has not yet been tested directly. We asked research participants to contemplate having a brief social interaction with a stranger and to estimate how they would be evaluated by their interaction partners on various attributes. We also assessed participants' self-evaluations on the same attributes and their levels of self-esteem. We tested via multilevel modeling whether consistency between participants' self-evaluations and their anticipated evaluations by others would increase as a function of increasing self-esteem.

To assess the independence of our predicted findings from existing evidence regarding the associations of self-esteem with related constructs, we also statistically controlled for selfconcept clarity (Study 1) and fear of negative evaluation (Study 2). Self-concept clarity refers to the extent to which an individual has clearly defined and stable beliefs about the self (Campbell et al., 1996), and has been associated with self-esteem in numerous studies (e.g., Campbell et al., 1996; Nezlek & Plesko, 2001; Wu, Watkins, & Hattie, 2010). People who are low in self-concept clarity are unclear in their beliefs about the self; these people may find it difficult to be certain of how they will be perceived by others. Accordingly, we assessed self-concept clarity in Study 1 to statistically control for this variable. Study 2 tested the replicability of Study 1's findings, while also considering fear of negative evaluation as a covariate. Fear of negative evaluation involves apprehension and concern by a person about the potential that they might be negatively evaluated by others (Leary, 1983), and there exists longstanding evidence of relations between self-esteem and fear of negative evaluation (e.g., Carleton et al., 2007). This fear of being negatively evaluated by others involves discord, such that people high in fear of negative evaluation are likely to expect that others will not recognize their strengths or attributes, resulting in inconsistency between how they evaluate themselves and how they expect to be evaluated by others; accordingly, we statistically controlled for fear of negative evaluation in Study 2. Across both studies, we predicted that self-esteem would moderate the effect of self-ratings on other-ratings, indicating greater predictive utility of self-ratings as a function of increasing self-esteem.

#### Study 1

Previous work has documented positive associations between self-concept clarity and self-esteem (Campbell et al., 1996). Low self-concept clarity could plausibly undermine anticipated agreement between one's self-evaluations and anticipated evaluations of oneself by others. Accordingly, Study 1 assessed self-concept clarity and considered it as a covariate when testing the proposed interaction between self-esteem and self-evaluations predicting anticipated evaluations by others.

# Method

**Participants.** One hundred twenty-three undergraduates (86 females), aged 18 to 40 years (M = 20.96, SD = 3.00), participated for course credit. The sample size was planned based on sample and effect sizes from a previous study in which we observed our present hypothesized effect of interest during exploratory data analyses (see the online pre-registration for that study at <u>osf.io/g7kam</u>). In that study, a self-esteem by self-evaluation interaction effect of b = .19 was

observed with 108 participants; considering this, we pre-registered a plan to collect data from at least 100 participants in Study 1.

Self-Attributes Questionnaire (Pelham & Swann, 1989). Participants rated themselves on 10 personal attributes (i.e., intellectual ability, social skills/social competence, artistic and/or musical ability, athletic ability, physical attractiveness, leadership ability, common sense, emotional stability, sense of humor, and discipline) relative to other individuals their own age, on a scale from 1 (the bottom 5% relative to peers their own age) to 10 (the *upper 5%* relative to peers their own age). Besides rating themselves on the 10 attributes from their own perspectives (M = 6.79, average within-person SD = 1.67), participants also rated themselves on each of the same attributes from the perspective of another person, given the instruction, "Imagine that today, right after you leave here, you meet a new student of the same gender as you. The two of you have a 15-minute conversation. During this brief conversation, the other student probably will form some impressions of you. While thinking about this conversation taking place today, please indicate how you think he or she would rate you compared to other people your age" (M =6.77, average within-person SD = 1.50).

*Rosenberg Self-Esteem Scale (Rosenberg, 1965).* This 10-item measure of global selfesteem includes items such as "At times I think I am no good at all" (reverse-scored) and "I am able to do things as well as most other people" on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*); M = 2.92, SD = 0.59,  $\alpha = .90$ .

*Self-Concept Clarity Scale (Campbell et al., 1996).* This 12-item measure assesses individuals' evaluations that their self-beliefs are defined clearly and confidently. Participants rate on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*) items including "My beliefs about myself often conflict with one another" (reverse-scored) and "In general, I have a clear sense of

who I am and what I am"; M = 2.97, SD = 0.74,  $\alpha = .86$ .

*Distractor Task.* Participants completed a speeded response-time task for approximately 25 minutes between completing the counterbalanced self- and other-ratings of the attributes assessed by the Self-Attributes Questionnaire. See Freitas and Clark (2015; Experiment 1) for more details about this task.

**Procedure.** Participants completed the study in a laboratory setting. After providing informed consent, participants were seated in separate rooms to complete the study tasks on separate computers. Prior to completing the first task, participants read on the computer screen brief general instructions stating that the experiment would involve several different tasks and then thanking them in advance for participating. After completing the self-perspective and other-perspective ratings, separated by the 25-minute distractor task, participants completed the measures of self-esteem and of self-concept clarity, presented in a randomized order.

**Design and Data Analysis.** The predictor variable was self-ratings of one's own attributes (continuous) and the outcome variable was perceived ratings of one's own attributes from the perspective of another person (i.e., other-ratings; continuous). The moderator variable was self-esteem (continuous) and the covariate was self-concept clarity (continuous). Data were analyzed via multilevel modeling (MLM; Hox, 2010) using SAS software, Version 9.4 (PROC MIXED; SAS Institute Inc., 2013). Self-ratings of one's personal attributes (level 1; N = 10) were nested within persons (level 2; N = 123). Self-esteem was a level-2, between-person moderator, and self-concept clarity was a level-2, between-person covariate. The intercept from the level-1 regression of other-ratings on self-ratings was treated as a random effect and thus was allowed to vary across individuals; all other effects were treated as fixed. We did not perform any centering transformations on self-ratings, given that self- and other-ratings were assessed on

the same scale. All models were conducted using residual maximum likelihood estimation.

Prior to testing our primary research hypotheses, we determined the percentages of between- and within-person variation in other-ratings by estimating the intraclass correlation coefficient (ICC) via an intercept-only model predicting other-ratings (Model 0).

To test our primary research hypotheses that (1) the association between self- and otherratings would be increasingly positive as a function of increasing self-esteem and (2) this effect would remain when statistically controlling for self-concept clarity, we conducted two models. The first model included self-ratings, self-esteem, and the interaction between self-ratings and self-esteem as predictors of other-ratings (Model 1), and the subsequent model included selfratings, self-esteem, and their interaction as predictors of other-ratings when controlling for selfconcept clarity and its interaction with self-ratings (Model 2); models 1 and 2 were consistent with our pre-registered analysis plan.

Next, we considered mean levels of self-ratings via MLM to control statistically for associations between person-level variance in self-ratings and in self-esteem, which is important given that any non-linear relations between within-person variables could give rise to the appearance of their moderation by a between-person variable (e.g., if individual self- and otherratings related more strongly to one another among higher than lower values, given a positive relation between self-esteem and mean levels of self-ratings). To separate the within- and between-person slopes of self- on other-ratings, we repeated models 1 and 2, this time statistically controlling for the between-person mean level of self-ratings across the sample and its interaction with self-esteem; this reflects a subtraction method for separating within- and between-person slopes. Again, we conducted two models. Model 3 tested self-ratings, selfesteem, and their interaction as predictors of other ratings, statistically controlling for mean levels of self-ratings and for mean levels of self-ratings by self-esteem. Model 4 tested selfratings, self-esteem, and their interaction as predictors of other ratings, statistically controlling for mean levels of self-ratings and its interaction with self-esteem as well as for self-concept clarity and its interactions with self-ratings and mean self-ratings. Controlling for the betweenperson mean of self-ratings was not pre-registered; accordingly, we describe the results of the analyses for models 3 and 4 under the sub-heading "Additional Analyses."

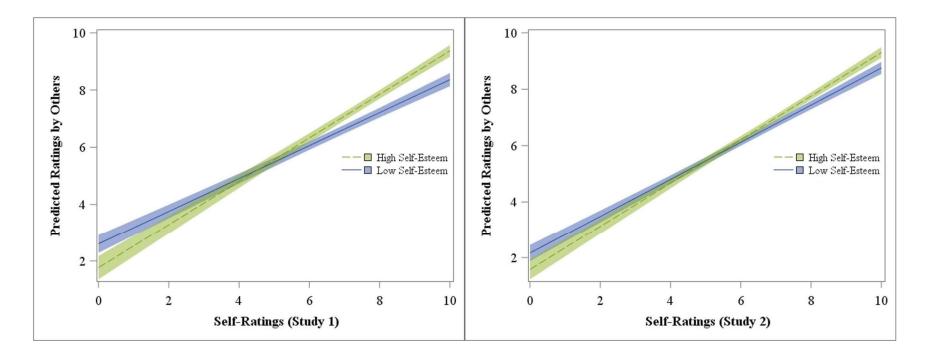
## **Results and Discussion**

Self-esteem related positively to self-concept clarity (r = .733, N = 123, p < .0001), replicating previous findings (Campbell et al., 1996), and to participants' averaged ratings on the 10 attributes when adopting their own perspectives (r = .540, N = 123, p < .0001) and others' perspectives (r = .535, N = 123, p < .0001), also replicating previous findings (Robins, Hendin, & Trzesniewski, 2001).

## **Pre-Registered Analyses**

The ICC for other-ratings, calculated based on Model 0, indicated that 27% of the variation in other-ratings was due to individual differences, whereas 73% of the variation in other-ratings was within-persons. Results of Model 1, examining self-ratings, self-esteem, and their interaction as predictors of other-ratings, supported our directional hypothesis that the relation between self- and other-ratings would be increasingly positive as a function of increasing self-esteem; specifically, the self-esteem by self-ratings interaction was positive in sign and was statistically significant, b = .16, se = .03, t(1105) = 5.45, p < .0001 (see Figure 1). Results of Model 2 showed that the self-esteem by self-ratings interaction was also statistically significant (b = .28, se = .04, t(1104) = 6.60, p < .0001) when considering self-concept clarity and its interaction with self-ratings. The increase in the effect size of the self-esteem by self-

ratings interaction in the latter analysis appears to reflect suppression, given the large positive correlation between self-esteem and self-concept clarity. Please see Table 1 for all results of models 1 and 2.



*Figure 1.* Predicted ratings by others on the 10 items of the Self-Attributes Questionnaire (Pelham & Swann, 1989), as a function of self-ratings on the same 10 items, between-person levels of self-esteem (Rosenberg, 1965), and the interaction between those two variables, based on multi-level models described in the text. *Note.* High/Low Self-Esteem was defined as +/- 1 *SD*.

Multilevel regression analyses for Study 1, examining self-ratings, self-esteem, and their interaction as predictors of other-ratings, including mean self-ratings and self-concept clarity as covariates.

|                        |         |     |       |              |       |     |       |              | Models Controlling for Mean Self-Ratings |      |       |              |      |      |       |               |  |
|------------------------|---------|-----|-------|--------------|-------|-----|-------|--------------|--|------|-------|--------------|------|------|-------|---------------|--|
|                        | Model 1 |     |       | Model 2      |       |     |       | Model 3      |  |      |       | Model 4      |      |      |       |               |  |
| Fixed effects          | b       | SE  | р     | 95% CI       | b     | SE  | р     | 95% CI       | b  | SE   | р     | 95% CI       | b    | SE   | р     | 95% CI        |  |
| Intercept              | 4.25    | .60 | .0000 | [3.05, 5.44] | 3.80  | .62 | .0000 | [2.58, 5.02] | 2.04                                     | 1.32 | .1263 | [58, 4.66]   | 1.89 | 1.37 | .1719 | [83, 4.61]    |  |
| Self-Ratings           | .21     | .08 | .0104 | [.05, .38]   | .28   | .08 | .0011 | [.11, .44]   | .16                                      | .09  | .0790 | [02, .34]    | .23  | .09  | .0125 | [.05, .41]    |  |
| SE                     | 71      | .21 | .0012 | [-1.13,28]   | -1.49 | .30 | .0000 | [-2.09,89]   | 23                                       | .45  | .6114 | [-1.12, .66] | 61   | .81  | .4543 | [-2.20, .99]  |  |
| Self-Ratings x SE*     | .16     | .03 | .0000 | [.10, .21]   | .28   | .04 | .0000 | [.19, .36]   | .17                                      | .03  | .0000 | [.11, .23]   | .30  | .04  | .0000 | [.21, .39]    |  |
| Self-Rating Mean       |         |     |       |              |       |     |       |              | .44                                      | .22  | .0519 | [00, .89]    | .39  | .23  | .0906 | [06, .85]     |  |
| Self-Rating Mean x SE  |         |     |       |              |       |     |       |              | 10                                       | .07  | .1565 | [25, .04]    | 17   | .13  | .1931 | [43, .09]     |  |
| SCC                    |         |     |       |              | .86   | .24 | .0005 | [.38, 1.33]  |  |      |       |              | .38  | .70  | .5926 | [-1.02, 1.77] |  |
| Self-Ratings x SCC     |         |     |       |              | 13    | .03 | .0000 | [19,06]      |  |      |       |              | 14   | .03  | .0000 | [21,07]       |  |
| Self-Rating Mean x SCC |         |     |       |              |       |     |       |              |  |      |       |              | .08  | .11  | .4911 | [14, .30]     |  |
| Random effects         | b       | SE  | z     | р            | b     | SE  | Z     | р            | b  | SE   | Z     | Р            | b    | SE   | Ζ     | Р             |  |
| Level 1                |         |     |       | -            |       |     |       | -            |  |      |       |              |      |      |       |               |  |
| Intercept              | .21     | .04 | 4.74  | .0000        | .22   | .05 | 4.80  | .0000        | .20                                      | .04  | 4.62  | .0000        | .21  | .04  | 4.66  | .0000         |  |
| Residual               | 1.31    | .06 | 23.50 | .0000        | 1.29  | .06 | 23.49 | .0000        | 1.31                                     | .06  | 23.51 | .0000        | 1.29 | .06  | 23.49 | .0000         |  |

Note. SE = self-esteem; SCC = self-concept clarity. The asterisk connotes the hypothesized effect. The unexpected self-concept clarity by self-ratings interaction in Study 1 appears to reflect suppression, given the large positive association between self-esteem and self-concept clarity, and given that running this analysis without considering self-esteem yielded a self-concept clarity by self-ratings interaction that was not statistically significant (p > .25). Reported p-values listed as .0000 are p < .0001.

# **Additional Analyses**

Models 3 and 4, in which we statistically controlled for mean levels of self-ratings and their interactions with our other predictor variables, were not pre-registered. These analyses included self-ratings, self-esteem, the interaction of self-ratings by self-esteem, mean-level self-ratings, and mean self-ratings by self-esteem (Model 3); Model 4 included these variables, as well as controlled for self-concept clarity, its interaction with self-ratings, and its interaction with self-esteem. These analyses were conducted given our interest in separating the within- and between-person self-rating slopes and considering the significant positive relation between self-esteem and mean levels of self-ratings.

In these analyses, self-esteem again significantly moderated the relationship between within-person self- and other-ratings when considering between-person self-ratings and their interaction with self-esteem. Results of Model 3 showed that the interaction effect of self-ratings and self-esteem on other-ratings was statistically significant (b = .17, se = .32, t(1105) = 5.35, p < .0001), and this effect remained significant in Model 4 when controlling for self-concept clarity and its interactions with self-ratings and the mean of self-ratings (b = .30, se = .05, t(1104) = 6.61, p < .0001). Please see Table 1 for the full results from Models 3 and 4.

Finally, if self-esteem related positively to variance in self-ratings, that could help explain stronger associations between self-ratings and any other variable<sup>1</sup>. To address this possibility, we examined the relationship between self-esteem and the within-person standard deviation in selfratings. Rather than positive in sign, this relationship was negative in sign (r = -.23, p = .011), indicating that greater variance in self-ratings among participants high (rather than low) in selfesteem cannot explain the present findings.

These findings indicate that persons high in self-esteem, relative to those lower in self-

esteem, expect greater correspondence between their self-evaluations and their evaluations by others, independent of self-concept clarity.

## Study 2

Study 2 had two aims. First, it tested the replicability of Study 1's finding that selfesteem relates positively to expecting others to evaluate oneself consistently with one's selfviews. Second, it assessed the independence of our findings from evidence that self-esteem relates significantly to fear of negative evaluations (Carleton et al., 2007).

## Method

The methods for Study 2 were identical to those of Study 1, with one exception: we assessed individual differences in fear of negative evaluation rather than in self-concept clarity.

**Participants.** One hundred fifty-six undergraduate psychology students (134 females), aged 17 to 47 years (M = 19.53, SD = 3.23), participated for course credit. The sample size was planned based on sample sizes and self-esteem by self-evaluation interaction effect sizes from our previous study (described in Study 1) and from Study 1. For Study 2, we pre-registered a plan to collect data from at least 150 participants, in order to increase the precision of our estimated effects.

Self-Attributes Questionnaire (Pelham & Swann, 1989). As described in Study 1, participants rated themselves on the 10 attributes from their own perspectives (M = 6.46, average within-person SD = 1.59) and from the perspective of a person of the same gender and general age, whom they imagined meeting for a 15-minute conversation (M = 6.52, average withinperson SD = 1.54).

Rosenberg Self-Esteem Scale (Rosenberg, 1965). As described in Study 1; M = 2.81, SD = 0.52,  $\alpha = .89$ .

Brief Fear of Negative Evaluation Scale (Leary, 1983). This 12-item measure of the extent to which individuals fear being negatively evaluated by others includes items such as "I am afraid others will not approve of me" and "If I know someone is judging me, it has little effect on me" (reverse-coded), on a scale from 1 (not at all characteristic of me) to 5 (extremely characteristic of me); M = 3.20, SD = 0.83,  $\alpha = .90$ .

**Procedure.** As in Study 1, participants completed the study tasks on computers, seated in separate rooms of the laboratory. First, participants read on the computer screen the general instructions stating that the experiment would involve several different tasks. Next, they completed the self-perspective SAQ. After completing the self-perspective and other-perspective ratings, separated by the 25-minute distractor task, participants completed the measures of self-esteem and of fear of negative evaluation, presented in a randomized order.

**Design and Data Analysis.** The design and data analysis strategy for Study 2 was identical to that of Study 1, with the exception that we did not examine self-concept clarity and instead we examined fear of negative evaluation as a covariate. The predictor variable was self-ratings and the outcome variable was other-ratings. The moderator variable was self-esteem and the covariate was fear of negative evaluation (continuous). Data were analyzed via MLM. Self-ratings of one's personal attributes (level 1; N = 10) were nested within persons (level 2; N = 156). Self-esteem was a level-2, between-person moderator, and fear of negative evaluation was a level-2, between-person covariate.

Again, we determined the percentages of between- and within-person variation in otherratings by estimating the intraclass correlation coefficient (ICC) via an intercept-only model predicting other-ratings (Model 0).

Next, we conducted a model including self-ratings, self-esteem, and the interaction

between self-ratings and self-esteem as predictors of other-ratings (Model 1), and a subsequent model including self-ratings, self-esteem, and their interaction as predictors of other-ratings when controlling for fear of negative evaluation and its interaction with self-ratings (Model 2); both models 1 and 2 were consistent with our pre-registered analysis plan.

Finally, we considered mean levels of self-ratings via MLM to statistically control for associations between person-level variance in self-ratings and in self-esteem. Model 3 tested self-ratings, self-esteem, and their interaction as predictors of other ratings, statistically controlling for mean levels of self-ratings and for mean levels of self-ratings by self-esteem. Model 4 tested self-ratings, self-esteem, and their interaction as predictors of other ratings, statistically controlling for mean levels of self-ratings and their interaction with self-esteem as well as for fear of negative evaluation and its interactions with self-ratings and mean self-ratings. Controlling for mean self-ratings was not pre-registered; again, we describe the results of the analyses for models 3 and 4 under the sub-heading "Additional Analyses."

#### **Results and Discussion**

Self-esteem related negatively to fear of negative evaluation (r = -.542, N = 156, p < .0001), replicating previous findings (Carleton et al., 2007), and positively to participants' averaged ratings on the 10 attributes when adopting their own perspectives (r = .458, N = 156, p < .0001) and others' perspectives (r = .400, N = 156, p < .0001), also replicating previous findings (Robins et al., 2001).

#### **Pre-Registered Analyses**

The ICC for other-ratings, calculation based on Model 0, indicated that 23% of the variation in other-ratings was due to individual differences, whereas 77% of the variation in other-ratings was within-persons. Model 1, including self-ratings, self-esteem, and their

interaction predicting other-ratings, supported the directional hypothesis that the relation between self- and other-ratings would be increasingly positive as a function of increases in selfesteem; the self-esteem by self-ratings interaction was positive in sign and was statistically significant, b = .11, se = .03, t(1402) = 3.50, p = .0005 (see Figure 1). Results of Model 2 showed that the self-esteem by self-ratings interaction was also statistically significant (b = .14, se = .04, t(1401) = 3.68, p = .0002) when statistically controlling for fear of negative evaluation and its interaction with self-ratings. The full results for models 1 and 2 are reported in Table 2.

#### Table 2

Multilevel regression analyses for Study 2, testing self-ratings, self-esteem, and their interaction as predictors of other-ratings, including mean self-ratings and fear of negative evaluation as covariates.

| Fixed effects          |         |     |       |              |      |      |       |              | Models Controlling for Mean Self-Ratings |      |       |              |      |      |       |              |  |  |
|------------------------|---------|-----|-------|--------------|------|------|-------|--------------|--|------|-------|--------------|------|------|-------|--------------|--|--|
|                        | Model 1 |     |       | Model 2      |      |      |       | Model 3      |  |      |       | Model 4      |      |      |       |              |  |  |
|                        | b       | SE  | р     | 95% CI       | b    | SE   | р     | 95% CI       | b  | SE   | р     | 95% CI       | b    | SE   | р     | 95% CI       |  |  |
| Intercept              | 3.44    | .60 | .0000 | [2.27, 4.62] | 5.02 | 1.09 | .0000 | [2.87, 7.16] | 2.35                                     | 1.28 | .0682 | [18, 4.88]   | 4.84 | 2.54 | .0590 | [19, 9.87]   |  |  |
| Self-Ratings           | .41     | .09 | .0000 | [.24, .58]   | .23  | .16  | .1467 | [08, .54]    | .39                                      | .10  | .0000 | [.20, .58]   | .21  | .17  | .2204 | [13, .55]    |  |  |
| SE                     | 56      | .22 | .0107 | [99,13]      | 81   | .26  | .0022 | [-1.32,30]   | 50                                       | .45  | .2721 | [-1.39, .40] | 91   | .57  | .1153 | [-2.04, .22] |  |  |
| Self-Ratings x SE*     | .11     | .03 | .0005 | [.05, .17]   | .14  | .04  | .0002 | [.06, .21]   | .11                                      | .03  | .0018 | [.04, .18]   | .14  | .04  | .0010 | [.05, .22]   |  |  |
| Self-Rating Mean       |         |     |       |              |      |      |       | . / .        | .25                                      | .23  | .2754 | [20, .69]    | .09  | .44  | .8280 | [77, .96]    |  |  |
| Self-Rating Mean x SE  |         |     |       |              |      |      |       |              | 03                                       | .08  | .7086 | [18, .12]    | 00   | .10  | .9835 | [19, .19]    |  |  |
| FNE                    |         |     |       |              | 27   | .16  | .0860 | [59, .04]    |  |      |       |              | 42   | .39  | .2747 | [-1.18, .34] |  |  |
| Self-Ratings x FNE     |         |     |       |              | .03  | .02  | .1865 | [02, .08]    |  |      |       |              | .03  | .03  | .2125 | [02, .08]    |  |  |
| Self-Rating Mean x FNE |         |     |       |              |      |      |       | [ . ,]       |  |      |       |              | .02  | .07  | .7114 | [11, .16]    |  |  |
| Random effects         | b       | SE  | Z     | р            | Ь    | SE   | Ζ     | р            | b  | SE   | Z     | Р            | b    | SE   | z     | Р            |  |  |
| Level 1                |         |     |       |              |      |      |       | 1            |  |      |       |              |      |      |       |              |  |  |
| Intercept              | .16     | .03 | 4.67  | .0000        | .16  | .03  | 4.64  | .0000        | .14                                      | .03  | 4.47  | .0000        | .14  | .03  | 4.44  | .0000        |  |  |
| Residual               | 1.33    | .05 | 26.46 | .0000        | 1.33 | .05  | 26.45 | .0000        | 1.33                                     | .05  | 26.48 | .0000        | 1.33 | .05  | 26.47 | .0000        |  |  |

Note. SE = self-esteem; FNE = fear of negative evaluation. The asterisk connotes the hypothesized effect. Reported *p*-values listed as .0000 are p < .0001.

# **Additional Analyses**

Given our interest in separating the between- and within-person self-rating slopes and the significant positive relation between self-esteem and mean levels of self-ratings, we also considered mean levels of self-ratings, as in Study 1. Model 3 included self-ratings, self-esteem, the interaction of self-ratings by self-esteem, mean-level self-ratings, and mean self-ratings by self-esteem; Model 4 included these variables, as well as controlled for fear of negative evaluation, its interaction with self-ratings, and its interaction with self-esteem.

Self-esteem again was a significant moderator of the relationship between within-person self- and other-ratings when considering between-person self-ratings and their interaction with self-esteem. The interaction effect of self-ratings and self-esteem on other-ratings was statistically significant (b = .11, se = .03, t(1402) = 3.13, p = .0018) in Model 3, and this effect remained significant in Model 4 when controlling for fear of negative evaluation and its interactions with self-ratings and the mean of self-ratings (b = .14, se = .04, t(1401) = 3.31, p = .0010). Please see Table 2 for all results of models 3 and 4.

As in Study 1, the relationship between self-esteem and the within-person standard deviation in self-ratings was negative in sign (r = -.18, p = .044), indicating that greater variance in self-ratings among participants high (rather than low) in self-esteem cannot explain the present findings. Independent of individual differences in fear of negative evaluation, then, self-esteem again related positively to anticipating correspondence between one's self-evaluations and evaluations of oneself by others.

#### **General Discussion**

Across two studies, people's anticipated evaluations by others related positively to their self-evaluations, and the intensity of this relationship increased as a function of increasing self-

esteem. These effects remained evident after statistically controlling for self-concept clarity and for fear of negative evaluation, both of which related meaningfully to self-esteem.

Broadly, self-esteem is a monitoring system that indicates to a person whether they are being socially included or excluded, according to sociometer theory (see Leary 1999 for a brief review). In order to maintain social relations, people must continuously infer the quality of their relationships from their interpersonal experiences of acceptance and rejection (Leary, Tambor, Terdal & Downs, 1995). As a person monitors their social environment for cues about the status of their relationships, they acquire information about whether they are being included or excluded in order to make the appropriate adjustments necessary to try to maintain their desired social status. According to sociometer theory, self-esteem acts as an indicator of this social status, in that it allows people to perceive social inclusion or exclusion and to perceive acceptance or direct rejection (Leary et al., 1995). Consistency between self- and otherevaluations may also represent an indicator of inclusion, and therefore may be associated with higher self-esteem, as observed in the present studies. More specifically, the present findings may suggest implications for the degree of certainty/uncertainty people experience when contemplating meeting other people. Research indicates that self-esteem relates to expecting positive evaluations from others (Robins, Hendin & Trzesniewski, 2001). We replicated those results in the present studies, wherein self-esteem related positively to evaluating oneself favorably when adopting others' perspectives. From an epistemic standpoint, anticipating differentially favorable feedback should provide persons high and low in self-esteem with equivalently informative bases for anticipating the tenor of future social interactions, underlying expectations of relatively accepting or rejecting behaviors, respectively (Stinson et al., 2010). However, our novel finding of a relation between self-esteem and anticipated consistency

between self- and other-generated evaluations suggests a unique advantage of high self-esteem for the predictability of social interactions. Apart from promoting an expectation of favorable responses from others, high self-esteem may lead a person to expect self-consistent responses from others, which may help alleviate the uncertainty inherent in meeting other people for the first time.

Self-verification theory provides one potential explanation for the present findings. According to self-verification theory, people often strive for agreement between how they see themselves and how others see them (Swann, 2011). It may be the case that having high selfesteem increases people's expectations that their self-views will be verified by others, which also could explain why coherence between self- and other-ratings in the present studies increased as a function of increasing self-esteem. More specifically, participants higher in self-esteem may expect that their already established self-reported personal attributes will be confirmed by others, leading them to report expected-other ratings of their attributes that are closely in line with their own ratings of those same attributes. Although self-esteem and self-verification are often considered to involve conflicting motives (Sedikides & Strube, 1995), one inference from the present findings might be that self-verification itself relates positively to self-esteem, whereby the epistemological and affective benefits of self-verification inspire confidence in one's knowledge of one's place in the world, as reflected in higher self-esteem.

Self-enhancement bias may also offer insight into the effects observed in the present studies. Self-enhancement is a self-serving bias that describes how people tend to perceive themselves (e.g., their traits, attitudes, behaviors) as "overly positive" (Kwan, John, Kenny, Bond & Robins, 2004). Research has shown that self-enhancement, more so than selfverification, predicts people's evaluations of their own traits (Sedikides, 1993). In the present studies, it is possible that people high in self-esteem, desiring to maintain their high sense of self via self-enhancement, were motivated to rate themselves favorably on personal attributes and to report consistent other-ratings of those attributes.

#### **Limitations and Future Directions**

One limitation of the present results is that they are correlational, precluding inferences about their directionality. Future studies could longitudinally assess self-ratings, self-esteem, and other-ratings to begin to shed light on this issue. These findings are also limited in terms of generalizability for at least three reasons. First, participants were provided few constraints on the target person with whom they imagined interacting. This lack of information limits the generality of these findings to other situations, although research suggests that people aim to present consistent versions of themselves to others, regardless of the target to which those impressions are conveyed (Leary & Allen, 2011). Second, our samples were primarily female, which also limits the generalizability of the present findings, particularly as they apply to men. Compared to men, women tend to report lower levels of self-esteem (Bleidorn et al., 2016) and to attach more importance to social acceptance (Sanchez & Crocker, 2005), meaning that the present findings among mostly female samples limit our ability to make broader inferences about the relationships among our variables. Third, the attributes we assessed (via the SAQ; Pelham & Swann, 1989) were primarily related to competence (in domains such as academics, musicality, and sociality). Extensive research indicates that person-perception is sensitive to content falling on dimensions connoting warmth/communality as well as competence/agency (Fiske, Cuddy, & Glick, 2007). Moreover, self-esteem has been found to relate more strongly to agentic than to communal self-evaluations (Wojciszke, Baryla, Parzuchowski, Szymkow & Abele, 2011). Accordingly, future work examining the generalizability of these findings to relatively

communal attributes will be needed to test whether the present results extend to attributes beyond those that are central to the construction of self-esteem.

Future research may also examine whether anticipating others' evaluations of oneself to be (in)consistent with one's own self-evaluations helps explain relations between self-esteem and willingness to enter into new social situations. Complementing previous work that has sought to differentiate conditions under which people prefer favorable versus self-consistent feedback (Kwang & Swann, 2010), future work may consider the role of self-esteem in people's willingness to enter into social situations as a function of their expectations of favorable versus self-consistent feedback. Based on the presently reported results, increased confidence that others will share one's self-evaluations may help explain how self-esteem relates positively to having confidence to begin new social relationships, to trusting others, and to taking advantage of opportunities for social support (Lee & Robbins, 1998).

Lastly, the relation between self-esteem and relative agreement between self-evaluations and anticipated evaluations remained significant when statistically controlling for self-concept clarity and for fear of negative evaluations. Although helping to establish the independence of the present findings from earlier work, we did not directly elucidate the psychological mechanisms explaining its results. Future work should assess additional constructs, such as authenticity (cf. Kernis & Goldman, 2006), to help identify the process(es) by which having high self-esteem relates to expecting others to see us how we see ourselves.

#### **Open Practices**

Studies 1 and 2 were pre-registered via the Open Science Framework. Pre-registration information is available online at <u>osf.io/498nr</u> (Study 1) and <u>osf.io/7rxsv</u> (Study 2). Data are available at <u>osf.io/jqep6</u> (Study 1) and <u>osf.io/nu3az</u> (Study 2).

# Footnotes

<sup>1</sup>We thank an anonymous reviewer of a previous version of this manuscript for raising

this concern.

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