Self-esteem, ingroup favoritism, and outgroup evaluations: A meta-analysis

Luis M. Rivera, [ID] H. Annie Vu and Valerie Laws Backstrom

Abstract

Social identity theory hypothesizes that ingroup positive distinctiveness serves as a source of self-esteem that in turn propels individuals to favor ingroups over outgroups. The current meta-analysis extends past reviews of this hypothesis by testing if (a) self-esteem is differentially related to ingroup versus outgroup evaluations, and (b) the self-esteem–outgroup evaluation relation is moderated by four theoretically driven factors. A total of 103 effect sizes measured the self-esteem and outgroup derogation relation ($N = 15,764$) and the self-esteem and ingroup liking relation ($N = 15,741$). High self-esteem was associated with strong ingroup liking and, to a lesser extent, strong outgroup liking. Regarding the second goal, moderator analyses of the relation between self-esteem and outgroup evaluations (up to 71 effect sizes) revealed four patterns: the relation emerged when personal self-esteem was measured, real groups were targeted, low-status groups judged high-status groups, and there was no domain match between self-esteem and the outgroup.

A fundamental hypothesis of social identity theory is that individuals self-categorize based on their group membership and, consequently, express ingroup favoritism as a way to achieve and maintain a positive identity (Hogg & Abrams, 1990; Scheepers & Ellemers, 2019; Tajfel, 1982; Tajfel & Turner, 1979). Moreover, it is proposed that ingroup positive distinctiveness serves as a source of self-esteem that in turn propels individuals to favor ingroups over outgroups (Abrams & Hogg, 2010). This hypothesis was thoroughly examined across two prominent reviews (Aberson et al., 2000; Rubin & Hewstone, 1998). First,

Rubin and Hewstone's (1998) literature review examined the hypotheses that (a) low self-esteem enhances ingroup favoritism (or intergroup discrimination), and that (b) ingroup favoritism in turn elevates self-esteem (also see Hogg & Abrams, 1990). Their review yielded mixed

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Rutgers University, USA

Corresponding author:
Luis M. Rivera, Department of Psychology, Rutgers University, 101 Warren Street, Smith Hall 327, Newark, NJ 07102, USA.
Email: luis@psychology.rutgers.edu

results: more studies supported the ingroup favoritism increases self-esteem relation than the low self-esteem enhances ingroup favoritism relation. The authors suggested that the lack of support for the self-esteem and ingroup favoritism hypothesis in its entirety is due to the dearth of specific social self-esteem measures adopted in research (Rubin & Hewstone, 1998, p. 57).

Shortly after this review, Aberson et al. (2000) conducted a meta-analysis of 34 studies (113 effect sizes) and found that high self-esteem individuals exhibited greater ingroup favoritism than low self-esteem individuals. However, there was no relation between self-esteem and ingroup favoritism when studies (a) used indirect versus direct measures (e.g., an indirect measure was when participants observed ingroup members complete a task together, whereas a direct measure was when participants were part of the ingroup completing the task), and (b) administered collective self-esteem measures (that were not confounded with group identification) as opposed to personal self-esteem measures. The latter results suggest that when self-esteem is based on one's group, it is not associated with how much one favors the ingroup over the outgroup.

Notwithstanding the contribution of the above reviews, they are limited by the fact that measures of ingroup favoritism simultaneously evaluate the ingroup and the outgroup (e.g., measures include relative allocations of points or money and ratings of similarity between the ingroup and outgroup). Because past reviews do not disentangle the two group's evaluations, it remains unclear whether self-esteem is linked to ingroup liking independent of outgroup derogation. This is important to examine for several reasons.

First, early theorists maintained that ingroup favoritism reflects an inverse relation between ingroup and outgroup attitudes—increased liking for the ingroup corresponds to decreased liking for the outgroup (Sherif, 1966; Sherif & Sherif, 1953; Sumner, 1906; for a discussion, see Brewer, 1999). From this perspective, Aberson et al.'s (2000) meta-analysis can be interpreted as support for opposing relations between self-esteem and outgroup versus ingroup evaluations. In other words, high self-esteem individuals are more likely than low self-esteem individuals to like their ingroup but to derogate their outgroup.

Second, and to somewhat complicate matters, Brewer (1999) argued in a seminal review that ingroup liking and outgroup derogation are often studied interchangeably, but that they are not "two sides of the same coin" (p. 430; also see Allport, 1954, Chapter 3). This suggests that ingroup liking and outgroup derogation are uniquely related to self-esteem. This would be consistent with the hypothesis that individuals like their ingroups because they provide material support, status, and a sense of belonging and security (Correll & Park, 2005; Dovidio & Gaertner, 2010). Thus, individuals who feel good about themselves at least in part because of their ingroups (high self-esteem individuals) should exhibit relatively strong ingroup liking. By comparison, individuals might express outgroup derogation because outgroups are a source of competition for money, status, and power (Dovidio & Gaertner, 2010). Since high self-esteem is linked to high power and status (e.g., Ellemers et al., 1999), high self-esteem individuals may be motivated to protect and maintain these resources by expressing negative attitudes toward outgroups. Consistent with this notion, evidence from cross-cultural correlational studies shows that high self-esteem individuals express greater outgroup derogation than low self-esteem individuals (Aberson et al., 2000; Amiot & Hornsey, 2010; Crocker et al., 1993; Falomir-Pichastor & Mugny, 2009; Utsey et al., 2002; Verkuyten, 1996; Verkuyten & Masson, 1995).

Third, it is important to examine ingroup liking separately from outgroup derogation because stereotyping, prejudice, and discrimination are widely considered to be uniquely functional in maintaining people's self-esteem (Allport, 1954; Branscombe & Wann, 1994; De Cremer & Oosterwegel, 1999; Fein & Spencer, 1997). For decades, theorists have proposed that outgroup derogation in particular functions to meet a variety of psychological and evolutionary needs,

including enhancing group identity (Falomir-Pichastor & Mugny, 2009; Jackson, 2002), maintaining group norms (Browning, 1992; Goldhagen, 1996), simplifying our complex social environment (Fazio et al., 2000; Katz, 1960), conserving cognitive resources (Macrae et al., 1994), and survival (Nowak & Lindsay, 1992; Suedfeld et al., 2002). However, perhaps no instrumental role of outgroup derogation is better known than ego-defense or self-image maintenance (Crocker et al., 1993; Eagly & Chaiken, 1993; Fein & Spencer, 1997; Kunda & Spencer, 2003). According to this perspective, people who wish to feel better about themselves are motivated to express negative attitudes toward others who are perceived as different and somewhat inferior, to address their low self-image needs. Consistent with this viewpoint, numerous correlational studies with participants from varied social identities and cultures demonstrate that low self-esteem individuals exhibit stronger stereotyping, prejudice, and discrimination than high self-esteem individuals (e.g., Heaven & Rajab, 1983; Little et al., 1998; Ruttenberg et al., 1996; Valentine, 1998; Verkuyten, 1996; Verkuyten & Masson, 1995).

Finally, separating the distinct group evaluations and examining their relations to self-esteem can address the broader issue of the role of self-esteem in the judgment of others regardless of their group membership. Theories of social comparison (Wills, 1981), frustration–aggression (Dollard et al., 1939), and scapegoating (Miller & Bugelski, 1948) suggest that low self-esteem individuals are particularly motivated to express negative evaluations of others in general. This is the case because, relative to high self-esteem individuals, low self-esteem individuals focus on worse off others for comparison (Friend & Gilbert, 1973), as social comparison theory would require; and exhibit high trait anger and strong frustration reactivity (Arslan, 2009; McLennan, 1987), as scapegoating and frustration–aggression theories would require. If low self-esteem individuals wish to address these cognitive and affective motivational needs by derogating groups in general, then self-esteem should be equally related to both ingroup and outgroup evaluations. However, if the two group evaluations serve unique functional roles in self-esteem, as some of the perspectives reviewed above suggest, then self-esteem should be distinctly related to ingroup evaluations versus outgroup evaluations.

Given the above review, the first goal of the current research is to use the meta-analytic method to systematically examine across multiple studies the relation between self-esteem and ingroup evaluations separate from outgroup evaluations within the same study. In this manner, we extend previous reviews (Aberson et al., 2000; Rubin & Hewstone, 1998) by clarifying the precise and unique functional role of self-esteem in ingroup liking versus outgroup derogation.

Moderators of the Self-Esteem and Outgroup Evaluation Relation

The second goal of the present meta-analysis is to examine the factors that may moderate the relation between self-esteem and outgroup evaluations. We specifically target outgroup (as opposed to ingroup) evaluations in this relation for two reasons. First, and as per the above literature review, empirical evidence for the self-esteem and outgroup evaluations relation is quite mixed, so testing moderators can clarify when the relation emerges. Second, theories related to the self-esteem and outgroup evaluations association provide a priori moderators for which we have the opportunity to test in the present meta-analysis data. We focus on four moderators: type of self-esteem, intergroup status judgments, type of outgroup, and domain match between self-esteem and outgroup evaluation. We describe these moderators next.

Personal versus collective self-esteem. Outgroup derogation functions to meet overall self-image needs, but is the latter rooted more in general personal self-esteem or collective self-esteem? Whereas personal self-esteem is an individual's global positive thoughts and feelings about their own worth and importance (Robins et al., 2001; Rosenberg, 1965), collective self-esteem is the extent to which individuals positively evaluate themselves based

on their group membership (Crocker & Luhtanen, 1990; Luhtanen & Crocker, 1992; Scheepers et al., 2009). Social identity theory posits that self-categorizing at the group level propels individuals to express ingroup favoritism to maintain their group's positive distinctiveness (Abrams & Hogg, 1988). To the extent that ingroup favoritism reflects an inverse relation between ingroup and outgroup attitudes (see above review), one might expect high collective self-esteem individuals to express stronger outgroup derogation than low collective self-esteem individuals. Moreover, because of the group-based connection between collective self-esteem and outgroup evaluations, it is plausible that this relation would be stronger than the personal self-esteem and outgroup evaluations relation (see Aberson et al., 2000, p. 161).

Interestingly, Aberson et al. (2000) found that personal self-esteem was significantly related to ingroup favoritism, but collective self-esteem (after controlling for group identification) was not related to ingroup favoritism. Given that the present meta-analysis isolates evaluations of the outgroup (separate from evaluations of the ingroup), we are better able to test the precise role of collective versus personal self-esteem in outgroup evaluations. Following the above theoretical review, we expect type of self-esteem to moderate the relation between self-esteem and outgroup derogation; specifically, collective self-esteem should be more strongly related to outgroup evaluations than personal self-esteem.

Intergroup status judgments. High- versus low-status groups differ historically or presently in their respective wealth, power, education, employment, and experiences with discrimination (Fiske, 1993; Keltner et al., 2003; van Laar et al., 2010). Since members of low-status groups may wish to avoid confirmation of their low status, they may be more motivated to use outgroup derogation to boost their self-esteem. This rationale is in line with a self-protection hypothesis, which argues that individuals and groups with a poor self-image avoid confirming it by negatively evaluating outgroups(Crocker et al., 1993, p. 57; see also Blaine & Crocker, 1993). Empirical support for

the self-protection hypothesis comes from research showing that low-status group members with low self-esteem tend to express greater outgroup derogation than those members with high self-esteem (Heaven & Rajab, 1983; Kelly & Duckitt, 1995; Ruttenberg et al., 1996; Verkuyten, 1996; Verkuyten & Masson, 1995; but see Andreopoulou & Houston, 2002; Kelly & Duckitt, 1995).

However, because some high-status groups may perceive their status to be unstable, illegitimate, or pervious (Bettencourt et al., 2001), or they simply feel entitled (Richeson & Ambady, 2003), their high self-esteem may be tied to the expression of outgroup derogation. A self-enhancement hypothesis suggests that individuals with power use the opportunity to express outgroup derogation as a means to protect and maintain their resources (Crocker et al., 1993). Support for the self-enhancement hypothesis comes from research showing that high-status group members with high self-esteem tend to express greater outgroup derogation than those with low self-esteem (e.g., Quinton et al., 1996; Utsey et al., 2002; Verkuyten & Masson, 1995). The present meta-analysis of multiple data sets tests if either or neither hypothesis is supported.

Real versus minimal groups. Does the self-esteem and outgroup evaluation relation equally emerge when evaluations target arbitrary groups in a minimal group paradigm as opposed to real and more emotionally significant groups? Real groups are formed in society from intergroup distinctions (e.g., Turks vs. Dutch), while minimal groups are groups created in the laboratory based on trivial criteria (e.g., a coin toss; Billig & Tajfel, 1973; Locksley et al., 1980). Real groups tend to have an intense, long-term sense of group identification and emotional significance, whereas minimal groups possess a short-term sense of identification and significance (Gaertner & Insko, 2000; Hunter et al., 2005). Frequent group experiences should produce stronger group-based feelings, so we might expect real group members to be particularly motivated to maintain their positive distinctiveness by derogating relevant outgroups.

However, social identity theory (Tajfel, 1970, 1981) posits that minimal groups should be a particularly compelling context (because of the absence of preexisting influences) in which to test the predicted relations between self-esteem and intergroup evaluations. Considering these ideas, the relation between self-esteem and outgroup derogation may be similar when the evaluated outgroup is either real or minimal.

Domain match between self-esteem and outgroup evaluation. Domain match is the conceptual correspondence between the domains of self-esteem and outgroup evaluation. For example, the relation between ethnicity-based collective self-esteem and ethnicity-based outgroup derogation constitutes a domain match, but the relation between either personal or gender-based self-esteem and ethnicity-based outgroup derogation does not. Both the domain specificity of self-esteem and that of outgroup derogation are expected to strengthen the self-esteem and outgroup derogation relation (see e.g., Falomir-Pichastor & Mugny, 2009). If, as per social identity theory (Tajfel & Turner, 1986), group members derive their self-esteem from their group membership and are motivated to achieve a positive and distinctive social identity by addressing relevant outgroup threats via negative outgroup evaluations, then the relation between high self-esteem and strong outgroup derogation should be stronger when domain match is present versus when it is not.

Method

Screening of Literature and Study Selection

To be comprehensive in our literature search, we sought to identify all psychology and sociology articles that assessed self-esteem and ingroup favoritism, and whose measures of the latter allowed us to separate evaluations of ingroups from those of outgroups. As displayed in Figure 1, first, we searched the PsycINFO and Sociological Abstracts databases for all peer-reviewed articles and

dissertation manuscripts. We used the keyword "self-esteem" in combination with each of the following two sets of keywords: (a) for outgroup evaluations: "stereotyping," "prejudice," "discrimination," "attitudes," "outgroup," "bias," and "derogation" (for a total of seven Boolean searches in each of the two databases); and (b) for ingroup favoritism: "intergroup," "intragroup," "ingroup," "group" in conjunction with "attitudes," "liking," "favoritism," "bias," and "derogation" (for a total of 20 Boolean searches in each of the two databases). For dissertation abstracts that indicated or suggested that self-esteem and ingroup favoritism were measured, we e-mailed the authors twice to request their data for possible inclusion. Second, we reviewed the reference sections of the articles found in the above Boolean searches and of four past relevant reviews (Aberson et al., 2000; Abrams & Hogg, 1988; Hogg & Abrams, 1990; Rubin & Hewstone, 1998). Third, we sent three requests for published and nonpublished data to the listservs of the Society for Personality and Social Psychology and the Society for the Psychological Study of Social Issues. The above literature screening procedure concluded in October 2021. Finally, the authors independently reviewed 158 abstracts that resulted from the above searches.

The above extensive search yielded a total of 72 papers (65 published and seven unpublished dissertations) for possible inclusion. Each author independently reviewed all papers. We excluded 43 papers for the following reasons: (a) 23 papers did not provide the necessary data to calculate an effect size. We attempted twice to contact the authors to obtain additional data, but they did not respond to our requests (16) or they no longer had the data because they were lost (e.g., computer damage) or dated (seven); (b) 14 papers used an ingroup favoritism measure in which ingroup evaluations were inseparable from outgroup evaluations (e.g., in a point distribution task, participants assigned a single set of points to the ingroup relative to an outgroup; e.g., Hogg & Sunderland, 1991); and (c) for six papers, the authors' current contact

Figure 1. Paper screening process.
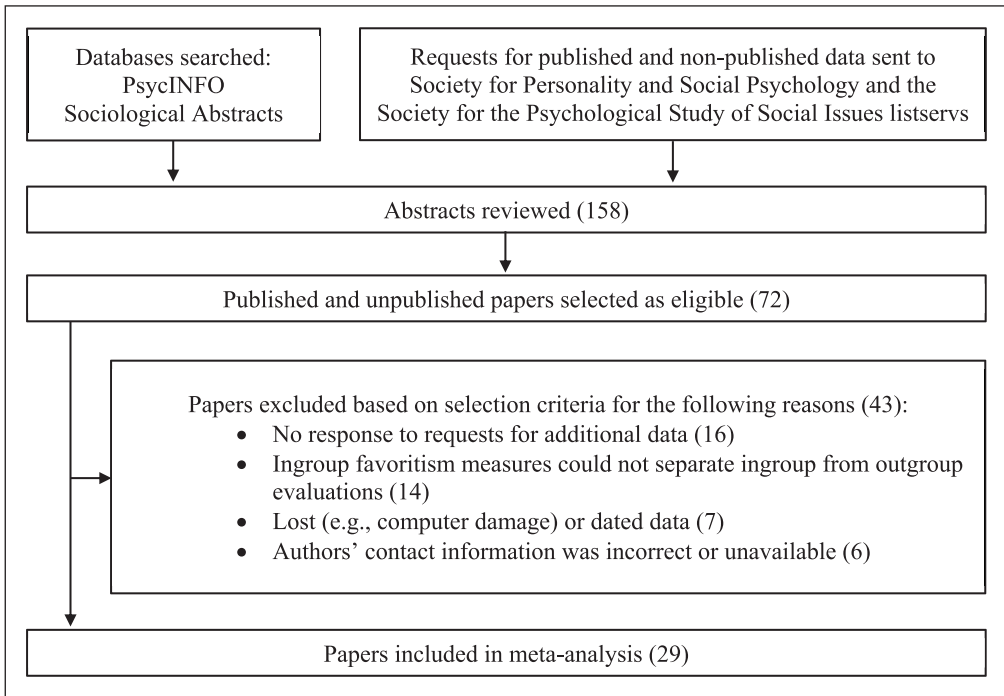
information was unavailable. The final selection yielded a total of 29 papers that reported 37 studies or independent samples (33 published and four unpublished studies), with data from up to 15,764 participants for inclusion in the meta-analysis.

Effect Size Computation and Coding of Moderator Variables

To ensure the accuracy of effect size computations and the reliability of the coding of moderator variables, the first author and either the second or third author independently computed all effect sizes and coded each one for moderator analyses following the procedures described below. Minimal disagreements were easily resolved through discussion. To compute effect sizes, we used the strategies and conventions recommended by Borenstein et al. (2009) and Johnson and Eagly (2000). All major equations and procedures are reported below.

We examined the method and results sections of all papers and collected the reported data from which effect sizes could be computed. For articles that did not report an *r* value, we requested such data from the authors. All but authors of four articles responded; for those four articles, we used the reported means (*M*) and standard deviations (*SD*) to calculate *d* values. Specifically, we calculated the standardized difference,

$$d = \frac{M_A - M_B}{SD},$$

where M_A and M_B are the sample means of two groups, and pooled *SD* is the

$$\text{Pooled } SD = \frac{\sqrt{(n_A - 1)(SD_A)^2 + (n_B - 1)(SD_B)^2}}{\sqrt{n_A + n_B - 2}}$$

where n_A and n_B are the group sample sizes, and SD_A and SD_B are the group standard deviations.

Next, *d* was converted to a correlation coefficient *r*,

$$r = \frac{d}{\sqrt{d^2 + 4}}$$

Finally, all *r* values were converted to a *Z* value using Fisher's (1921) *r*-to-*Z* transformation (Z_r),

$$z_r = \frac{1}{2} \log_e \frac{1 + r}{1 - r}.$$

In line with meta-analysis conventions, we performed all meta-analytic calculations on Z_r values (Borenstein et al., 2009; Johnson & Eagly, 2000). Each effect size (Z_r) represents the relation between self-esteem and a group evaluation such that a positive effect size means that higher self-esteem is associated with stronger positive group evaluations, and a negative effect size means that higher self-esteem is associated with stronger negative (or weaker positive) group evaluations.

The above procedures yielded a total of 106 effect sizes. This included up to 71 effect sizes of the self-esteem and outgroup evaluation relation that were coded for the four categorical moderator variables discussed in the introduction: (a) personal or collective self-esteem, (b) real or minimal groups, (c) high-status group judging low-status group or vice versa, and (d) domain match or not a match between self-esteem and outgroup evaluation.[1] Supplemental Table 1 lists all studies and their corresponding effect sizes (https://osf.io/9hvuc/).

Publication Bias

We used two interrelated approaches to assess publication bias. First, we created a funnel plot graph to examine the asymmetry of the association between the 106 effect sizes (Z_r) and their corresponding standard errors (*SEs*; see supplemental Figure 1, https://osf.io/9hvuc/). A visual inspection of the funnel plot graph indicates a symmetric shape of a funnel around the overall effect size. Second, we submitted all 106 effect sizes to an Egger's linear regression test of funnel plot asymmetry (Egger et al., 1997; Sterne &

Egger, 2005). Results indicated that there was no evidence of publication bias, $t(104) = 0.92$, $p = .338$.

Results and Discussion

To calculate the meta-analysis indexes, we used the strategies and conventions recommended by Borenstein et al. (2009) and Johnson and Eagly (2000; see also Cafri et al., 2010). We adopted random effects model over fixed effects model procedures for several important reasons. First, the present studies vary in sample types (e.g., regional and cultural differences), so we expected different effect sizes across different studies. Second, we sought to generalize the results of our meta-analysis to the population of studies from which we sampled. Lastly, random effects models are associated with less Type I error when testing mean effect sizes and moderators, and with less error in small confidence intervals around mean effect size estimates. Next, we report the equations consistent with random effects models. To ensure the reliability of our statistics, the coauthors independently analyzed the data. All data are publicly available (https://osf.io/9hvuc/).

First, we calculated a measure of central tendency of our effect sizes, the overall mean effect size (M^*):

$$M^* = \frac{\sum_{i=1}^{k} W_i^* Y_i}{\sum_{i=1}^{k} W_i^*},$$

where *k* is the number of effect sizes, Y_i is the standardized individual effect size (Z_r), and W_i^* is the adjusted weight for random effects models,

$$W_i^* = \frac{1}{V_{Y_i}^*}.$$

$V_{Y_i}^*$ is the within-study variance,

$$V_{Y_i}^* = V_{Y_i} + T^2,$$

where T^2 is the between-studies variance,

$$T^2 = \frac{Q - df}{C}.$$

Q represents the homogeneity of our effect sizes,

$$Q = \sum_{i=1}^{k} W_i Y_i^2 - \frac{(\sum_{i=1}^{k} W_i Y_i)^2}{\sum_{i=1}^{k} W_i},$$

where k and Y_i are noted above, and W_i is the weight for each effect size,

$$W_i = \frac{1}{(n-3)}$$

and

$$C = \sum W_i - \frac{\sum W_i^2}{\sum W_i}.$$

Next, we calculated two indexes to evaluate effect sizes. First, lower limit (*LL*) and upper limit (*UL*) confidence intervals (CI),

$$LL_{M^*} = M^* - 1.96 \times SE_{M^*}$$

and

$$UL_{M^*} = M^* + 1.96 \times SE_{M^*},$$

where 1.96 is the unit-normal value for a 95% CI, M^* is the overall mean effect size (see above), and SE_{M^*} is the estimated standard error of the summary effect,

$$SE_{M^*} = \sqrt{V_{M^*}}.$$

V_{M^*} is the variance of the summary effect,

$$V_{M^*} = \frac{1}{\sum_{i=1}^{k} W_i^*}.$$

The second is a Z value (Z^*) for M^*,

$$Z^* = \frac{M^*}{SE_{M^*}},$$

which can be interpreted by evaluating its corresponding p value.

Finally, for moderator analyses, we calculated Z^*_{Diff}, the magnitude of the difference between mean effect sizes:

$$Z^*_{Diff} = \frac{Diff^*}{SE_{Diff^*}},$$

where *Diff** is the difference between the two effects,

$$Diff^* = M_A^* - M_B^*,$$

and $SE_{\text{Diff*}}$ is the estimated variance,

$$SE_{Diff^*} = \sqrt{V_{M_A^*} + V_{M_B^*}}.$$

Relation Between Self-Esteem and Ingroup Versus Outgroup Evaluations

The first major goal of this meta-analysis is to test if the relation between self-esteem and group evaluations varies when the group evaluation targets an ingroup versus an outgroup. Table 1 reports all descriptive and inferential statistics. High self-esteem individuals expressed stronger positive ingroup evaluations than low self-esteem individuals, $M^* = 0.15$, 95% CI [0.09, 0.22], $Z^* = 4.56$, $p < .001$; and a majority of effect sizes were positive ($k = 35$, 66%). Furthermore, high self-esteem individuals expressed stronger positive outgroup evaluations than low self-esteem individuals, $M^* = 0.06$, 95% CI [0.02, 0.11], $Z^* = 2.76$, $p = .006$; and a majority of effect sizes were positive ($k = 42$, 79%). Very important to the present meta-analysis, the index of the self-esteem and ingroup evaluation relation was statistically stronger than the index of the self-esteem and outgroup evaluation, $Z^*_{\text{Diff}} = -2.19$, $p = .028$.

These results suggest that the self-esteem and ingroup favoritism relation is driven by high self-esteem individuals liking ingroups and, to a lesser extent, outgroups more than low self-esteem individuals. Moreover, because the meta-analysis yielded a clear and systematic relation of self-esteem to ingroup attitudes and outgroup attitudes, the data suggest that contexts in which individuals are given the opportunity to express judgments of both the ingroup and the outgroup activate positive distinctiveness. Positive distinctiveness is tied to self-esteem, and our data suggest that it is more tethered to positive evaluations of the ingroup than to those of the outgroup.

The above results also support the idea that low self-esteem individuals derogate both ingroups and outgroups (i.e., all groups regardless

Table 1. Summary of the relation between self-esteem and group evaluations as a function of group target.

Group evaluation target	k	n	M^*_i	Z^*_i	95% CI	Z^*_{Diff}
Ingroup	53	15,741	0.15	4.56 *	[0.09, 0.22]	−2.19*
Outgroup	53	15,764	0.06	2.76*	[0.02, 0.11]	

Note. k = number of effect sizes per level; n = sample size by level; M^*_i = weighted mean effect size by level; Z^*_i = standardized weighted mean effect size by level; CI = confidence intervals; Z^*_{Diff} = the magnitude of difference in mean effect between the two subgroups.
*All ps < .050.

Table 2. Summary of descriptive and inferential statistics: Moderators for the relation between self-esteem and outgroup evaluations.

Moderator variables and levels	k	n	M^*_i	Z^*_i	95% CI	Z^*_{Diff}
Self-esteem						
Personal	41	11,355	0.05	2.24*	[0.01, 0.10]	0.11
Collective	30	6,988	0.06	1.43	[−0.02, 0.14]	
Intergroup status judgements						
High-status group judged low-status group	16	3,091	0.01	0.18	[−0.12, 0.15]	−1.37
Low-status group judged high-status group	15	4,381	0.13	2.59*	[0.03, 0.23]	
Group type						
Real	50	16,253	0.07	2.84*	[0.02, 0.12]	−1.56
Minimal	20	2,069	0.00	−0.05	[−0.08, 0.08]	
Domain match between self-esteem and outgroup evaluation						
Match	23	5,518	0.05	0.90	[−0.06, 0.15]	−0.18
No match	47	12,804	0.06	2.63*	[0.01, 0.10]	

Note. k = number of effect sizes per level; n = sample size by level; M^*_i = weighted mean effect size by level; Z^*_i = standardized weighted mean effect size by level; CI = confidence intervals; Z^*_{Diff} = the magnitude of difference in mean effect between the two subgroups.
*All ps < .050.

of group membership) to address self-esteem needs. Furthermore, the relatively weak but statistically significant relation between self-esteem and outgroup evaluations across the multiple effect sizes is consistent with the mixed evidence reviewed in the introduction. As we discussed in the introduction, it is plausible that other contextual and individual factors drive individuals who vary in self-esteem to express outgroup bias.

Moderator Analyses of the Relation Between Self-Esteem and Outgroup Evaluations

We conducted a between-effect size analysis of variance to test the role of four potential moderators in the relation between self-esteem and outgroup evaluations. The results show that the effect sizes were not homogeneous, $Q(53) = 372.34$, $p < .010$, suggesting that effect size variability is explained by moderating factors. Moderator analysis can account for systematic differences at the multiple levels of a factor (e.g., personal vs. collective self-esteem) and thus shed light on the specific conditions under which the relation between self-esteem and outgroup liking or derogation exists (or not). For the four categorical moderators discussed in the introduction, we tested the homogeneity of the effect sizes within each level by calculating the following descriptive and inferential statistics (see Table 2): the frequency of effect sizes (k), weighted

mean effect sizes (M_i^*), confidence intervals (CI), and standardized weighted mean effect sizes (Z_i^*) for the effect sizes that corresponded to each level of the moderator (relevant formulas listed above). Finally, we calculated the magnitude of the difference in mean effect sizes of each moderator level (Z_{Diff^*}).

Personal versus collective self-esteem. Personal self-esteem was measured in 41 effect sizes, and collective self-esteem was measured in 30 effect sizes. High personal self-esteem individuals expressed greater positive outgroup evaluations than low personal self-esteem individuals, $M_i^* = 0.05$, 95% CI [0.01, 0.10], $Z_i^* = 2.24$, $p = .025$; and most effect sizes were positive ($k = 26$, 63%). However, collective self-esteem did not covary with outgroup evaluations, $M_i^* = 0.06$, 95% CI [−0.02, 0.14], $Z_i^* = 1.43$, $p = .153$. Although the weighted mean effect sizes corresponded to different patterns, they were not statistically different, $Z_{Diff^*} = 0.11$, $p = .910$. The patterns, however, were consistent with Aberson et al.'s (2000) meta-analysis, showing that personal self-esteem is a better predictor than collective self-esteem of how one evaluates outgroups.

Intergroup status judgments. Low-status groups' judgments of high-status groups were assessed in 15 effect sizes, and high-status groups' judgments of low-status groups were assessed in 16 effect sizes. Low-status members with high self-esteem were more likely to positively evaluate high-status outgroup members than low-status members with low self-esteem were, $M_i^* = 0.13$, 95% CI [0.03, 0.23], $Z_i^* = 2.59$, $p = .010$; and most effect sizes were positive ($k = 12$, 80%). However, the self-esteem and outgroup evaluation relation was nonexistent when high-status groups judged low-status groups, $M_i^* = 0.01$, 95% CI [−0.12, 0.15], $Z_i^* = 0.18$, $p = .856$. Although the weighted mean effect sizes corresponded to different patterns, they were not statistically different, $Z_{Diff^*} = -1.37$, $p = .169$. The low-status pattern of results is consistent with a self-protection hypothesis—low-status group members who also possess low self-esteem are more likely to express outgroup derogation, potentially to protect their dampened self-regard.

Real versus minimal groups. Real groups were targeted in 50 effect sizes, and minimal groups were used in 20 effect sizes. Among real groups, high self-esteem was associated with strong positive outgroup evaluations, $M_i^* = 0.07$, 95% CI [0.02, 0.12], $Z_i^* = 2.84$, $p = .005$, and most effect sizes were positive ($k = 35$, 70%). However, among minimal groups, the self-esteem and outgroup evaluations relation was nonexistent, $M_i^* = 0.00$, 95% CI [−0.08, 0.08], $Z_i^* = -0.05$, $p = .961$. Although the weighted mean effect sizes corresponded to different patterns, they were not statistically different, $Z_{Diff^*} = -1.56$, $p = .119$. The different patterns, however, suggest that the intense, long-term sense of group identification among real group members is a prerequisite for propelling the motivational link between self-esteem and outgroup evaluations. However, it does not appear that, in general, self-esteem be a source of motivation for evaluating outgroups in a minimal group setting.

Domain match between self-esteem and outgroup evaluation. Domain match was coded in 23 effect sizes, while no-domain match was coded in 47 effect sizes. When domain match was not present, high self-esteem individuals expressed stronger positive outgroup evaluations than low self-esteem individuals, $M_i^* = 0.06$, 95% CI [0.01, 0.10], $Z_i^* = 2.63$, $p = .009$, and most of the effect sizes ($k = 32$, 68%) were positive. However, when domain match was present, there was no difference in outgroup evaluation by level of self-esteem, $M_i^* = 0.05$, 95% CI [−0.06, 0.15], $Z_i^* = 0.90$, $p = .366$. Although the weighted mean effect sizes corresponded to different patterns, they were not statistically different, $Z_{Diff^*} = -0.18$, $p = .856$.

General Discussion

The first goal of the present meta-analysis was to systematically examine the relation between self-esteem and evaluations of the ingroup

separate from those of the outgroup. The results revealed that high self-esteem was associated with greater ingroup liking and greater outgroup liking, but that the former relation was stronger than the latter. Because our meta-analysis directly speaks to the relation between self-esteem and distinct levels of liking ingroups versus outgroups, it provides support for the hypothesis that ingroup liking and outgroup derogation are uniquely related to self-esteem (Brewer, 1999), and, thus, their underlying motivational processes are, at least to some extent, distinct. Altogether, these data suggest that, at the individual difference level, judgments of ingroups and outgroups do not function equally to meet self-esteem needs.

The second goal of the meta-analysis was to examine if the self-esteem and outgroup evaluation relation is moderated by four theoretically driven factors. First, low self-esteem was associated with strong outgroup derogation only when studies measured personal self-esteem, but no relation emerged when studies measured collective self-esteem. This suggests that individuals' feelings about their global self-worth are more relevant to outgroup derogation than their feelings about their group membership. This notion seems counterintuitive to social identity theory (Tajfel & Turner, 1979, 1986), which posits that the self-concept consists of one's personal identity and one's social (group) identity. Because individuals develop a positive emotional attachment to their social groups, social identities can be a source of value, positive distinctiveness, and collective self-esteem (Hogg & Abrams, 1990; Swann & Bosson, 2010; Tajfel, 1970, 1981, 1982; Turner et al., 2006). Moreover, Turner et al. (2006) propose that social contexts can lead individuals to self-categorize with their social versus personal identities. Situations that require an individual to interact with outgroup members—such as when individuals are given the opportunity to judge outgroups—induce categorization of the self-concept with a social identity. In this context, social identity salience can function to motivate ingroup members to express outgroup derogation because outgroups threaten the distinctiveness of the ingroup and

compromise identity-based positive feelings such as self-esteem (Tajfel, 1982; Tajfel & Turner, 1979; Turner et al., 2006). Altogether, this rationale suggests that collective self-esteem would be more likely to predict outgroup judgments than personal self-esteem (also see Gabarrot et al., 2009). However, our meta-analysis does not support this hypothesis; moreover, our results are generally consistent with Aberson et al. (2000), who found that personal self-esteem, but not collective self-esteem, was the self-esteem predictor of evaluating the outgroup relative to the ingroup.

Second, intergroup status also moderated the self-esteem and outgroup judgment relation. Among individuals from low-status groups, those with low self-esteem were somewhat more likely to derogate high-status outgroup members than those with high self-esteem. However, the self-esteem and outgroup derogation relation was nonexistent when high-status groups judged low-status groups. These results partially support the idea that low-status groups may chronically wish to avoid confirmation of their low status, and thus are motivated to use outgroup derogation to boost their self-image (self-protection hypothesis; Crocker et al., 1993, p. 57; see also Blaine & Crocker, 1993). People with limited wealth, resources, power, and education wish to avoid any confirmation of their low status and, thus, express relatively strong derogation against outgroups with substantial wealth, resources, and/or education.

Third, we found that when studies targeted real groups, low self-esteem was associated with strong outgroup derogation. These results support the idea that real groups have a stronger identification with their groups than minimal groups and are therefore especially likely to use outgroup derogation to meet self-esteem needs (Gaertner & Insko, 2000; Hunter et al., 2005). However, we did not find support for a self-esteem and outgroup derogation relation when studies targeted minimal groups. This suggests that because minimal group contexts are void of preexisting intergroup interactions, they do not provide the qualitative experience necessary to yoke one's self-concept to outgroup evaluations.

Although minimal group paradigms yield automatic preferences for the ingroup over the outgroup (Otten & Wentura, 1999), these preferences do not appear to extend to self-image motives.

Finally, low self-esteem was associated with strong outgroup derogation when there was no conceptual correspondence between the measured domains of self-esteem and outgroup derogation, but this relation was nonexistent when there was correspondence. The latter data appear to be inconsistent with the notion that a domain match between self-esteem and outgroup derogation should strengthen their interrelation. For example, Falomir-Pichastor and Mugny (2009) demonstrated across multiple correlational studies that strong gender-based, but not personal, self-esteem was related to high levels of prejudice against gay men among men but not women. The authors suggested that because self-esteem stems from group membership, and positive group-based identity is related to heightened differences between the ingroup and outgroup, then a relation emerges between self-esteem specific to a group (i.e., gender) and a relevant outgroup evaluation (i.e., gay men).

By comparison, the present results showing that a relation emerged when there was no correspondence are generally consistent with self-image maintenance theories (Lewin, 1935; Steele & Liu, 1981; Tesser & Cornell, 1991; for a review, see Tesser, 2000), which argue that activity in one domain can substitute for an activity in a different domain when addressing the same self-image concerns. The self-system consists of multiple values, attributes, and identities that are chronically or momentarily important to an individual's self-concept. As a result, the self-system is considered to be flexible—one of multiple self-concept domains that function to achieve global self-integrity. As it relates to the current meta-analysis, it is plausible that self-image motivational processes activated in one self-related domain (ethnic self-esteem) can be manifested in another seemingly distinct self-related domain (gender outgroup derogation). Moreover, self-image maintenance theories and their extensions suggest that affirming a poor self-image is most likely met in a domain that is seemingly unrelated to one's overall self-image (Sherman & Hartson, 2011; Steele et al., 1993; Tesser, 2000). Altogether, applying the above logic, a relation between self-esteem and outgroup evaluations should emerge when a global self-esteem measure is matched with a measure that judges a specific outgroup, which is consistent with the present data.

Self-Esteem: Two Caveats

Fundamental to social identity theory (and the present meta-analysis) is that self-esteem is the mechanism underlying both the ingroup and outgroup evaluations that constitute ingroup favoritism. The present meta-analysis demonstrates that self-esteem is distinctly associated with ingroup versus outgroup evaluations, but it is unable to provide a test of the causal mechanism because none of the data are from experiments that manipulated self-esteem. Experiments that are most likely to demonstrate causal self-esteem effects are in the self-image maintenance literature, namely the self-threat and self-affirmation research. A self-threat is a situation in which a favorable self-view (e.g., intelligence for students) or one's integrity is "questioned, contradicted, impugned, mocked, challenged, or otherwise put in jeopardy" (Baumeister et al., 1996, p. 8). By comparison, a self-affirmation is an opportunity to positively address self-image needs in a threatening situation that, in turn, enables individuals to cope with the threat (Sherman & Hartson, 2011; Steele, 1998). Most relevant to the present meta-analysis, studies that have tested the effects of self-affirmation and self-threat on ingroup versus outgroup evaluations (i.e., ingroup favoritism) have demonstrated mixed findings (Crocker et al., 1987, Study 1), for example, demonstrated that participants who received failure feedback (i.e., a self-threat) evaluated the ingroup relatively positively, but did not evaluate an outgroup any differently when compared to participants in a no-feedback condition. In terms of self-affirmation, Ehrlich and Gramzow (2015, Experiment 1) demonstrated that participants in a self-affirmation condition expressed less negative outgroup

evaluations, but did not differ in their positive outgroup evaluations nor in their positive or negative ingroup evaluations when compared to participants in a control condition. While some of these results are conceptually consistent and others are conceptually inconsistent with our meta-analysis, these and other relevant studies that we screened did not include measures of self-esteem and, thus, were excluded from our meta-analysis. Hence, it is unknown if the self-image manipulations had a causal self-esteem effect. Future research should address these limitations.

A second caveat is the variability in self-esteem measures used across the studies in the meta-analysis. One could argue that the present meta-analytic results are moderated by the quality of the self-esteem measures. We conducted a systematic analysis of the internal reliabilities for all effect sizes and found, in sum, that the majority of studies used reliable measures, contributing to the validity of the present meta-analytic findings (for detailed information, readers are referred to the supplemental material and supplemental Table 1; https://osf.io/9hvuc/).

Threats to Validity

Although a meta-analysis may be a powerful statistical tool to draw conclusions about the ubiquity of an empirical phenomenon in the psychological literature, it is susceptible to factors that threaten its validity (see Shadish et al., 2002; Song et al., 2000). One such issue is publication bias, which generally exists because statistically significant data are more likely to be published than data with null results. As a result, the literature may reflect a partial and very optimistic conclusion. Our quantitative tests suggest no evidence of publication bias. Another way to address this issue in a meta-analysis is to thoroughly and systematically identify studies that did not make the publication cut or those that were not submitted for publication. To this end, and as we note in the Method section, first, we sent a request for nonpublished (and published) data to the main listservs in psychology. Second, we conducted a thorough literature search of

dissertation papers in premier databases in psychology and sociology. This search yielded a total of approximately 833 abstracts that included the keywords of interest (see Method). Authors independently read the abstracts and agreed on 158 abstracts that explicitly stated or implied that they measured one of our keyword constructs. Of these, we contacted 51 authors for whom we were able to identify a current e-mail address to request missing data. Of the 10 authors who responded, four did not meet our meta-analysis criteria (e.g., did not measure outgroup derogation), two did not follow up with data, one no longer had the data, and four were included in our meta-analysis database. This included one dissertation (Sibley, 2009) that yielded four effect sizes ($rs = .12, .13, .14, .15$) that were consistent with our meta-analysis results.

A second plausible threat to validity is study quality. A meta-analysis can be limited by studies with less rigor because they are likely to introduce a great degree of random variance in the data. Most (if not all) studies have some degree of "imperfection." Excluding these studies would leave a meta-analysis with little, if any, data. As noted in the Method and the Results and Discussion sections, each author independently inspected all studies (as well as all coding and analyses), giving special attention to the quality of measures and designs. No study presented any major concern. Thus, we are fairly confident that study quality did not pose any serious threat to our meta-analysis.

Future Directions

Future reviews should explore the components of bias as a moderator in the relation between self-esteem and outgroup derogation. Outgroup bias can be partitioned into three components: stereotyping, prejudice, and discrimination (Dovidio & Gaertner, 2010; Fiske, 1998; Fiske et al., 2010).Stereotyping is defined as the cognitive component of bias; relevant measures assess characteristics and traits that differentiate one group from other groups, portray the typical member of a group, or demonstrate the

uniformity among group members. Prejudice is the affective component of bias; relevant measures assess negative versus positive evaluations of outgroup members. Finally, discrimination is defined as unwarranted negative behavioral actions; relevant measures assess intentional or observable actions toward outgroup members. The literature in general does not make any definitive predictions about how the three outgroup derogation components should be related to self-esteem. A review of our data revealed that we did not have enough data points to examine this as a potential moderator. However, this distinction is theoretically important because the three bias components tap into the cognitive, affective, and behavioral aspects of outgroup derogation, so one might argue that prejudice, the affective component, most likely impacts self-esteem, another affective construct.

In addition, future reviews should systematically explore how certain contexts can influence the relations between self-esteem and ingroup and outgroup evaluations. For example, how do threatening versus affirming motivational and contextual cues impact these relations? In line with Leary et al. (2009), a threat is operationalized as receiving self-relevant or ingroup-relevant negative feedback that challenges an important self-concept, making an ego-threatening event cognitively salient, or expectation that one will be placed in a self- or group-threatening situation. In line with Sherman and Hartson (2011), an affirmation is operationalized as maintaining the value and integrity of the self or of the group. An affirmation can be manipulated by administering a value-related scale or essay task, writing about an important self-relevant or group-relevant attribute, or providing bogus positive feedback on a self-relevant or group-relevant attribute (McQueen & Klein, 2006). A review of our data revealed that we did not have enough data points to examine these motivational contexts as a moderator. One could argue that because a self or group threat dampens self-esteem, individuals who receive such a threat will express greater outgroup derogation because they would be especially motivated to elevate

their self-esteem. By comparison, an affirmation typically boosts self-esteem and fulfills self-image needs (Koole et al., 1999, Study 3; Steele, 1988). Therefore, it is plausible that affirmed individuals will be less motivated to maintain their self-esteem and thus either express less outgroup derogation or no longer see the utility in expressing outgroup derogation (i.e., no relation between self-esteem and outgroup derogation).

Lastly, the science of implicit bias has grown exponentially over the last 25 years (Gawronski & Payne, 2010; Kurdi & Banaji, 2021), particularly because of the benefits of using "implicit" measures to assess attitudes toward socially sensitive topics such as self-esteem and outgroup derogation. Implicit measures, such as reaction time tasks, may allow researchers to circumvent two problems with using self-report measures: introspective limitations and self-presentation concerns. Moreover, implicit measures are often better than explicit ones at tapping into automatically activated mental representations (see Gawronski & Payne, 2010). Hence, it would be theoretically and empirically interesting to examine the use of explicit versus implicit measures as a moderator of the self-esteem and outgroup derogation relation. Unfortunately, with the exception of one study (Jordan et al., 2005), studies that assessed implicit self-esteem and implicit ingroup favoritism (and that met our other criterion) are absent from our meta-analysis. In that one study, Jordan et al. (2005) found that high implicit personal self-esteem was associated with less ethnic/racial explicit discrimination ($r = -.29$), which is consistent with our meta-analysis results (data reported by C. Jordan, personal communication).

For the purposes of the present meta-analysis, we cannot include data stemming from a traditional Implicit Association Test (IAT) because it cannot be decomposed into ingroup and outgroup evaluations (e.g., Davis et al., 2007; Dunham et al., 2007; Gonsalkorale et al., 2007; Jordan et al., 2012; Rudman & Goodwin, 2004; Rudman et al., 2001). Thus, future research should incorporate the use of both implicit and explicit measures to understand the implicit social cognitive processes that underlie the self-esteem

and outgroup derogation relation when one or both constructs are automatically activated. Measures such as the Single Category IAT (Karpinski & Steinman, 2006) may be beneficial here because this assessment does not incorporate an evaluation of an ingroup relative to an outgroup. The Single Category IAT may therefore allow for more precision than the standard dual category IAT.

Summary

In conclusion, the present meta-analysis extends past reviews (Aberson et al., 2000; Rubin & Hewstone, 1998) on the relation between self-esteem and ingroup favoritism in several important ways. First, it appears that self-esteem is uniquely related to the relative groups targeted in measures of ingroup favoritism. High self-esteem individuals are more likely than low self-esteem individuals to express strong liking for both groups, but stronger when the target is the ingroup than when it is the outgroup. By clarifying the unique role of self-esteem in outgroup derogation versus ingroup liking, we have a better understanding of ingroup favoritism. Second, the general relation between self-esteem and outgroup evaluations was relatively weak, but additional analyses revealed that it emerged when personal as opposed to collective self-esteem was targeted, when real as opposed to minimal groups were evaluated, when low-status groups judged high-status groups, and when there was no domain match between self-esteem and outgroup derogation.

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ORCID iD

Luis M. Rivera [iD] https://orcid.org/0000-0002-8240-7407

Supplemental material

Supplemental material for this article is available online.

Note

1. Variation in effect sizes throughout the meta-analysis is due to studies providing or not providing distinct data for coding.

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