# UC Davis UC Davis Previously Published Works

**Title** Is High Self-Esteem Beneficial? Revisiting a Classic Question

Permalink https://escholarship.org/uc/item/14c6t13t

**Journal** American Psychologist, 77(1)

**ISSN** 0003-066X

**Authors** Orth, Ulrich Robins, Richard W

Publication Date

**DOI** 10.1037/amp0000922

Peer reviewed



# **HHS Public Access**

Author manuscript

Am Psychol. Author manuscript; available in PMC 2023 January 01.

Published in final edited form as:

Am Psychol. 2022 January ; 77(1): 5-17. doi:10.1037/amp0000922.

# Is High Self-Esteem Beneficial? Revisiting a Classic Question

Ulrich Orth<sup>1</sup>, Richard W. Robins<sup>2</sup>

<sup>1</sup>Department of Psychology, University of Bern

<sup>2</sup>Department of Psychology, University of California, Davis

# Abstract

Debates about the presumed benefits of self-esteem have persisted for decades, both in the scientific literature and in the popular press. Although many researchers and lay people have argued that high self-esteem helps individuals adapt to and succeed in a variety of life domains, there is widespread skepticism about this claim. The present article takes a new look at the voluminous body of research (including several meta-analyses) examining the consequences of self-esteem for several important life domains: relationships, school, work, mental health, physical health, and antisocial behavior. Overall, the findings suggest that self-esteem is beneficial in all these domains, and that these benefits hold across age, gender, and race/ethnicity, and controlling for prior levels of the predicted outcomes and potential third variable confounds. The metaanalytic estimates of self-esteem effects (which average .10 across domains) are comparable in size to estimates for other hypothesized causal factors such as self-efficacy, positive emotionality, attachment security, and growth mindset, and larger than some generally accepted pharmaceutical interventions. Discussion focuses on several issues that are critical for evaluating the findings, including the strength of the evidence for making causal inferences, the magnitude of the effects, the importance of distinguishing between self-esteem and narcissism, and the generalizability of the results. In sum, the present findings support theoretical conceptions of self-esteem as an adaptive trait that has wide-ranging influences on healthy adjustment and adaptation, and suggest that interventions aimed at boosting self-esteem might, if properly designed and implemented, benefit individuals and society as a whole.

# Keywords

self-esteem; life outcomes; longitudinal research

Self-esteem is arguably the most widely studied variable in the behavioral and social sciences, with thousands of studies conducted each year by researchers in psychology and related disciplines. Although countless popular books tout its wide-ranging benefits, debate persists in the scientific literature about whether these benefits actually exist. On the one hand, researchers have long argued that high self-esteem helps individuals to make friends, to have more satisfying romantic relationships, to be more successful at school and work,

Correspondence concerning this article should be addressed to Ulrich Orth, Department of Psychology, University of Bern, Fabrikstrasse 8, 3012 Bern, Switzerland. ulrich.orth@psy.unibe.ch.

and to experience higher psychological well-being (e.g., Swann et al., 2007). In the 1990s, a task force of the California Department of Education (1990) even suggested that self-esteem is a panacea for a wide range of societal problems, including "crime, violence, substance abuse, teen pregnancy, child abuse, chronic welfare dependency, and educational failure" (p. 4). On the other hand, there has been widespread skepticism about the supposed benefits of self-esteem. In 2003, an influential review concluded that self-esteem has few benefits: "With the exception of the link to happiness, most of the effects are weak to modest. Self-esteem is thus not a major predictor or cause of almost anything (again, with the possible exception of happiness)" (Baumeister et al., 2003, p. 37; see also Baumeister & Vohs, 2018). The publication of this article led to an avalanche of articles in the media with titles such as, "Self-esteem: Why we need less of it" (*Time Magazine*), "Exploding the self-esteem myth" (*Scientific American*), "The trouble with self-esteem" (*New York Times*), and "Deflating self-esteem's role in societal ills" (*New York Times*).

Given the high level of media and scientific attention, it is vital that we gain a deeper understanding of the real-world consequences of self-esteem. If high self-esteem is beneficial, then effective interventions that raise self-esteem in children, adolescents, and adults might increase their chances of success in important life domains such as relationships, school, and work. However, if high self-esteem is only an epiphenomenon of life success (i.e., life success leads to higher self-esteem rather than vice versa), then efforts aimed at increasing self-esteem (whether through targeted interventions, therapy, or self-help books) are useless (Baumeister & Vohs, 2018). There has even been concern that the self-esteem movement, in its efforts to raise children's self-esteem, has been counterproductive, engendering a rise in narcissism instead of fostering a genuine sense of self-worth (Twenge & Foster, 2010).

The unresolved debates and real-world relevance of these issues highlight the need for a new, comprehensive review of the empirical evidence. It has been almost two decades since Baumeister et al.'s (2003) highly influential article (5,550 citations as of June 2021) questioned the benefits of self-esteem. Despite the pessimistic conclusions of Baumeister et al.'s review, research on self-esteem has exploded since its publication. A recent PsycINFO search for the term "self-esteem" identified over 26,000 articles published since 2003 (Baumeister et al.'s review covered up to 2002). Not only is the new evidentiary base enormous, it is also methodologically stronger than studies available when the 2003 review was conducted. Given these improvements in the literature, a new review might lead to substantially different conclusions than the earlier review. Even now, Baumeister et al.'s (2003) review continues to be frequently cited (1,540 times from 2018 to June, 2021), suggesting that it continues to shape the field's (and arguably society's) perspective on whether or not high self-esteem is beneficial. For all these reasons, we believe the time has come for an updated review of the literature.

Before reviewing the evidence, we briefly turn to how self-esteem has been defined and assessed. Self-esteem refers to an individual's subjective evaluation of their worth as a person (e.g., Donnellan et al., 2011). Thus, self-esteem is by definition a subjective construct and does not necessarily reflect a person's objective characteristics and competences. It is therefore important to distinguish self-esteem from narcissism, as both constructs involve

positive self-evaluations (Orth et al., 2016; Paulhus et al., 2004). Whereas self-esteem refers to feelings of self-acceptance and self-respect, narcissism is characterized by feelings of superiority, grandiosity, entitlement, and self-centeredness (Ackerman et al., 2011). After reviewing the evidence on self-esteem, we will return to the distinction between self-esteem and narcissism, and to the importance of assessing their unique behavioral outcomes. Moreover, researchers often distinguish between global and domain-specific self-esteem (Donnellan et al., 2011; Marsh, 1990). Whereas global self-esteem refers to an individual's overall evaluation of their worth, domain-specific self-esteem refers to an individual's evaluation of their characteristics and abilities in specific domains, such as social relationships, school, and physical appearance. In this article, we discuss findings for both global and domain-specific self-esteem, although no data on domain-specific self-esteem were available for many outcomes reviewed below.

The conceptualization of self-esteem as a subjective evaluation is consistent with how self-esteem is typically assessed, that is, using self-report measures (Donnellan et al., 2015). For example, the Rosenberg Self-Esteem Scale (Rosenberg, 1965), the most frequently used measure, includes items such as "On the whole, I am satisfied with myself" and "I am able to do things as well as most other people." In this article, we focus on people's explicit evaluation of themselves, rather than on implicit self-esteem. Implicit measures of self-esteem have limited validity and explicit measures such as the Rosenberg are generally considered the most valid measures of self-esteem (Buhrmester et al., 2011; Donnellan et al., 2015).

# **Review of Evidence**

Our review of research on the potential benefits of self-esteem will focus predominantly on longitudinal studies. Since 2003, numerous longitudinal studies have been published that use large representative samples and control for prior levels of the predicted outcomes, which increases the validity of conclusions by helping to rule out the possibility that life outcomes lead to higher self-esteem, rather than vice versa. Moreover, several meta-analyses of longitudinal studies have summarized the evidence with regard to specific outcomes, including social relationships, academic achievement, and depression. Thus, wherever possible, we focus on meta-analytic findings, which provide important information about average effect sizes and moderating factors. The review is organized around six broad categories of outcomes: social relationships, school, work, mental health, physical health, and antisocial behavior. For each category, we briefly summarize the main theoretical propositions (when available) and then present the findings (see Table 1 for an overview of meta-analytic findings).

#### Social Relationships

Several theories assume that self-esteem has consequences for social relationships (for a review, see Harris & Orth, 2020). According to the self-broadcasting perspective, individuals show observable cues that broadcast their level of self-acceptance to others, which influences how they are perceived in terms of competence and attractiveness and, ultimately, whether they are successful in initiating and maintaining social relationships

(Srivastava & Beer, 2005; Zeigler-Hill et al., 2013). Self-verification theory proposes that individuals are motivated to be perceived by others in the same way as they perceive themselves (Swann, 2012), and that individuals with low self-esteem withdraw from social relationships when their partner views them more positively than they view themselves. Finally, the risk regulation model assumes that self-esteem shapes people's behavior in social interactions and relationships, which has longterm consequences for the quality of their peer and romantic relationships (Murray et al., 2006).

A recent meta-analysis synthesized the longitudinal evidence on self-esteem and social relationships (Harris & Orth, 2020). Indicators of relationship quality included variables such as warmth, closeness, support, relationship satisfaction, and social network size. The results showed that self-esteem prospectively predicted relationship quality with a standardized regression coefficient of .08, controlling for prior level of relationship quality (see Table 1). Importantly, the effect sizes were similar in magnitude for studies that controlled versus did not control for potential confounders, suggesting that the observed effects were not accounted for by third variables. Moreover, the self-esteem effect held across age, gender, race/ethnicity, time lag between assessments, year of data collection, and type of self-esteem measure, but the effect was stronger when participants reported on relationships in general compared to relationships with specific partners (e.g., parents, peers, romantic partner), and stronger for self-reported than for informant-reported relationship quality.<sup>1</sup>

Further evidence comes from a meta-analysis by Cameron and Granger (2018), who examined the relation between self-esteem and interpersonal experiences (including social acceptance, relationship quality, relationship stability, interpersonal traits, and interpersonal behaviors). Although Cameron and Granger summarized data predominantly from crosssectional studies, a major strength is that all interpersonal experiences were based on nonself-report outcomes, such as behavior observation and informant reports. Thus, the analyses rule out the possibility that the observed relations are inflated by shared method variance or by biases inherent in self-reports of interpersonal experiences. For relationship quality and social acceptance, the average correlations with self-esteem were .15 and .11, respectively, whereas for relationship stability the effect size was close to zero (.02). Moreover, the average correlations were .19 for interpersonal traits and .08 for interpersonal behaviors. Although these cross-sectional correlations were generally small, the use of objective measures of interpersonal variables supports theoretical claims that self-esteem contributes to positive relationship outcomes. Moreover, Cameron and Granger's (2018) meta-analysis included 10 longitudinal studies with an average correlation of .12 between self-esteem and relationship outcomes (note, however, that the longitudinal associations were not controlled for prior levels of the outcomes). The meta-analysis also found that the positive effect

<sup>&</sup>lt;sup>1</sup>The effects may be larger for self-reports because of shared method variance (e.g., the tendency for high self-esteem individuals to show a positivity bias when rating life outcomes), which can inflate associations between self-report measures. However, it is important to note that by controlling for prior levels of the outcomes (as done in all meta-analytic findings shown in Table 1 and most other studies reviewed in this article), shared method variance in self-reported outcomes is already controlled for to a great extent. Thus, shared method variance cannot fully explain the difference between effect sizes based on self-report and non-self-report. Moreover, for many outcomes there is no gold standard measure, and non-self-report measures of life outcomes, such as informant reports and objective measures (e.g., criminal records), have their own limitations that may attenuate associations between self-esteem and outcomes.

of self-esteem was particularly strong in relationship contexts with a high risk of being rejected, providing support for a key assumption of the risk regulation model (Murray et al., 2006).

Little is known about several important aspects of the association between self-esteem and social relationships. For example, few studies have tested whether self-esteem predicts major transitions in the relationship domain, such as beginning a romantic relationship or breaking up with a relationship partner, and the extant evidence is mixed. Self-esteem did not predict beginning a first romantic relationship in young adulthood in two longitudinal studies (Neyer & Asendorpf, 2001; Wagner et al., 2015), but another longitudinal study found that individuals with high self-esteem were more likely to begin a longterm, stable relationship and less likely to break up with their existing relationship partner (Luciano & Orth, 2017). Another research question that deserves more attention is whether children's self-esteem influences the parenting behavior of their caregivers. The few available studies indicate that children's self-esteem predicts increasing parental warmth when parenting is assessed by child report, but not when it is assessed by parent report or when method factors are controlled for (Brummelman et al., 2015; Krauss et al., 2020). Thus, although children's personality characteristics shape their parenting environment (Atherton & Schofield, 2021), it is currently unclear whether this is true for children's self-esteem. Finally, there is little research on how domain-specific evaluations are associated with relationship outcomes. Based on the specificity-matching principle (Swann et al., 2007), we would expect to find stronger effects for relation-specific self-evaluations (i.e., does the person have a positive self-image as a relationship partner?) compared to global self-esteem.

In sum, the findings suggest that people with high self-esteem tend to have better social relationships, but more research is needed on relationship transitions and relationship-specific self-evaluations. Although the average effect size is small, the effect is likely robust, given that it holds when potential third-variable confounders are controlled.

## School

Numerous theoretical perspectives suggest that self-esteem might influence academic achievement, although contrasting views have been expressed (for a review, see Valentine et al., 2004). Theorists have proposed that motivational processes such as self-affirmation and self-verification cause individuals with high self-esteem to behave in ways (e.g., studying for tests, completing homework) that contribute to academic success in order to confirm their positive self-views (Rosenberg, 1979; Steele, 1988; Swann, 2012). The success orientation of high self-esteem students makes them more engaged and persistent in achievement contexts, and more likely to exhibit adaptive cognitive and emotional reactions to challenge, which then increases the likelihood that they will do well in school (Covington, 1989). Moreover, self-esteem is associated with higher levels of self-efficacy, which increases the use of adaptive self-regulatory strategies (Pintrich & de Groot, 1990) and promotes motivation and task engagement (Green et al., 2012). Finally, high self-esteem is a coping resource that contributes to persistence after academic failure (Baumeister et al., 2003). In contrast, individuals with low self-esteem engage in self-handicapping behaviors such as procrastination, or disengage entirely from the learning process, to avoid feedback

that would threaten their self-esteem, thereby compromising their achievement (Covington, 1989). Many of these theorized mechanisms apply to both global and academic self-esteem (i.e., self-evaluations of academic ability), and researchers generally expect stronger effects for academic than for global self-esteem (Valentine et al., 2004).

Shortly after Baumeister et al.'s (2003) review, a meta-analysis summarized the longitudinal evidence on the effect of self-beliefs (including self-esteem, self-concept, and self-efficacy) on academic achievement (Valentine et al., 2004, see Table 1). An important strength of this meta-analysis is that, in all studies included, achievement was assessed with objective measures such as grades and standardized test scores. The results showed that self-esteem prospectively predicted academic achievement with a standardized regression coefficient of .08, controlling for prior level of the outcome. Effect sizes for self-esteem, self-concept, and self-efficacy did not differ significantly. Moreover, controlling for potential confounders did not significantly alter the average effect size, suggesting that the observed effects were not due to third variables. The moderator analyses showed that academic self-beliefs showed stronger effects than global self-esteem, and that domain-specific beliefs (e.g., self-evaluation of math ability) predicted outcomes in the same domain (e.g., math grades) more strongly than in other domains (e.g., English grades). Moderator analyses indicated that the effects held across age, gender, race/ethnicity, and the time lag between assessments.

Since Valentine et al.'s (2004) meta-analysis, a number of rigorous longitudinal studies have been published, many of which used data from large, representative samples and, in some cases, controlled for potential confounders. The findings from these studies confirm the results of the meta-analysis. For example, Trzesniewski et al. (2006) found low self-esteem in adolescence (assessed three times between ages 11–15 years) predicted school dropout and a lower likelihood of obtaining a college degree, even when controlling for gender, SES, intelligence, and adolescent depression. Another large-scale study found that both global and academic self-esteem in adolescence predicted educational attainment at age 31 (based on objective data from national records), even when controlling for gender, parental SES, and school grades (von Soest et al., 2016). Generally, the effect sizes are larger for academic self-esteem compared to global self-esteem (Marsh & O'Mara, 2008; Trautwein et al., 2006; von Soest et al., 2016; Zheng et al., 2020).

In sum, empirical findings support the hypothesis that individuals with high self-esteem tend to perform better in school. Although the average effect size is small, it is likely robust, given that it holds when controlling for relevant third variables. Moreover, many individual studies, and all studies included in the meta-analysis by Valentine et al. (2004), used objective measures of achievement, which strengthens confidence in the findings.

#### Work

Several theoretical perspectives suggest that self-esteem influences success in the work domain (for a review, see Krauss & Orth, in press). Similar to academic achievement, processes such as self-affirmation and self-verification might account for self-esteem effects on work experiences (Steele, 1988; Swann, 2012). Self-esteem might influence the selection of one's work environment, such that individuals with high self-esteem tend to seek, and get, jobs with more responsibility, autonomy, and influence, compared to individuals with low

self-esteem. Also, if self-esteem positively influences social relationships, this may enhance social well-being at the work place, elicit more emotional and instrumental support from coworkers and supervisors, and, consequently, facilitate work success. Moreover, as noted above, self-esteem may strengthen persistence after failure at work (Baumeister et al., 2003), whereas those with low self-esteem may engage in self-handicapping behaviors such as procrastination, or disengage from the workplace to avoid eliciting negative evaluations from others.

A recent meta-analytic project synthesized the evidence from longitudinal studies of selfesteem and work outcomes (Krauss & Orth, in press, see Table 1). In the meta-analysis, all effects controlled for prior levels of the outcomes. A strength of this meta-analysis is that about half of the effect sizes were unpublished and there was no evidence of publication bias, which increases confidence in the findings. The results showed that self-esteem significantly predicted job satisfaction (.09), job success (.08), and job resources (.10). The effects on income (.05) and job stressors (-.09) were not significant (likely due to the low number of studies for these outcomes), but they were in the expected direction. Moderator analyses indicated that the effect of self-esteem on job satisfaction held across age, gender, sample type (nationally representative vs. non-nationally representative), and time lag (there were too few studies to examine moderator effects for the other outcomes).

Importantly, several individual studies controlled for third variables. For example, Trzesniewski et al. (2006) found that low self-esteem in adolescence predicted informantreported work problems at age 26 (but not longterm unemployment), when controlling for gender, family SES, intelligence, and adolescent depression. Von Soest et al. (2016) found that self-esteem in adolescence predicted income and being employed at age 31 (based on data from national records), when controlling for gender, family SES, and school grades; these findings were similar in magnitude for global and academic self-esteem.

In sum, the evidence suggests that individuals with high self-esteem tend to be more satisfied and successful at work, although the effect is likely small. However, more longitudinal research is needed that controls for the effects of potential third-variable confounds. Moreover, few studies have tested the effects of self-esteem on important transitions in the work domain, such as getting a job, being promoted, and becoming unemployed.

#### Mental Health

Beck's (1967) cognitive theory proposes that negative self-beliefs play a critical causal role in the etiology of depression. Low self-esteem has also been discussed as an etiological factor for anxiety disorders (Zeigler-Hill, 2011). The effects of self-esteem on mental health have often been described by a vulnerability model, in which low self-esteem is conceptualized as a stable personality factor that predisposes individuals to mental health problems (Orth & Robins, 2013). Since most prior theory and research on self-esteem has focused on its links with depression and anxiety, we focus on these two outcomes.

A meta-analysis of longitudinal studies showed that self-esteem prospectively predicted depression and anxiety with standardized regression coefficients of -.16 and -.08,

respectively (i.e., high self-esteem predicted fewer mental health problems), controlling for prior levels of the outcomes (Sowislo & Orth, 2013, see Table 1). Moderator analyses indicated that the effects held across age, gender, sample type (nationally representative vs. non-nationally representative), and time lag between assessments.

A limitation of this meta-analysis is that the effect sizes were not controlled for potential confounders. Therefore, it is important to consider evidence from primary studies that included such controls. With regard to depression, the effect of low self-esteem holds when controlling for gender, level of education, and SES (Orth, Robins, Trzesniewski, et al., 2009; Trzesniewski et al., 2006; von Soest et al., 2016), as well as when controlling for several other prospective predictors of depression, including neuroticism (Sowislo et al., 2014), low social support (Orth et al., 2014), stressful events (Orth, Robins, & Meier, 2009; Orth et al., 2014), and unstable self-esteem (Sowislo et al., 2014). The effect of self-esteem also holds for both affective-cognitive (e.g., depressed mood, hopelessness) and somatic (e.g., poor appetite, disturbed sleep) symptoms of depression (Kuster et al., 2012; Orth, Robins, Trzesniewski, et al., 2009), across a 20-year time interval (Steiger et al., 2014), and after controlling for content overlap between self-esteem and depression scales (Orth et al., 2008; Orth, Robins, Trzesniewski, et al., 2009). With regard to anxiety, we are not aware of studies that controlled for potential third-variable confounders.

Follow-up studies have shown that the effect of low self-esteem on depression is driven mostly by global rather than domain-specific self-esteem (Orth et al., 2014; Steiger et al., 2014) and that rumination partially mediates the effect (Kuster et al., 2012). Also, findings from six longitudinal studies that examined the simultaneous effects of self-esteem and narcissism indicate that the effect of low self-esteem on depression is due to a lack of genuine self-esteem (i.e., self-esteem controlling for narcissism), not the absence of narcissistic self-enhancement (Orth et al., 2016). In sum, there is robust evidence that individuals with low self-esteem tend to experience mental health problems.

#### Physical Health

The self- and social-bonds model of health proposes that self-esteem influences physical health through its effects on social relationships (Stinson et al., 2008). As reviewed above, high self-esteem may lead to more social acceptance and better relationships. Moreover, individuals with high self-esteem may ask for, and receive, more emotional, instrumental, and informational support (Stinson et al., 2008). The quality of social support, in turn, affects the cardiovascular, endocrine, and immune systems, which in the long run influence health (Uchino et al., 1996).

No meta-analysis of prospective effects of self-esteem on physical health is available, but the effects have been tested in several longitudinal studies. Stinson et al. (2008) found that high self-esteem predicted increases in health problems, measured by self-report (with a standardized regression coefficient of -.27) and objective data (-.15; e.g., number of visits to the doctor), and that the quality of social bonds mediated these effects. In a study with a large sample and five waves of data across 12 years, high self-esteem predicted increases in self-reported health (.11) and decreases in a cumulative index of 10 health problems (-.05; including high blood pressure, stroke, and diabetes), controlling for prior levels of

outcomes (Orth et al., 2012). Another study used data from about 700 older adults and found that self-esteem prospectively predicted an index of functional health (.22), including seven activities such as "walking about three blocks," "using stairs or inclines," and "reaching above your head," even when controlling for age, education, ethnicity, income, and marital status (Reitzes & Mutran, 2006). Trzesniewski et al. (2006) found that self-esteem in adolescence predicted cardiorespiratory health (.09), waist-to-hip ratio (.13), and perceived physical fitness (.08) at age 26 (but not body mass index), even when controlling for gender, family SES, adolescent depression, and childhood body mass index. Mäkikangas et al. (2004) found concurrent but not prospective effects of self-esteem on physical symptoms.

In sum, individuals with high self-esteem tend to be healthier than those with low selfesteem, based on both objective and subjective measures of health. Standardized effect sizes were of similar size to the meta-analytic estimates for the social relationships, school, work, and mental health domains. Importantly, some studies found effects controlling for potential third-variable confounders. Moreover, there is evidence that strong social connections are a mediator of the effects of self-esteem on health. However, the number of longitudinal studies is relatively small and the findings are not entirely consistent within or across studies. Thus, more research is needed to gain more robust insights.

#### Antisocial Behavior

Over the past few decades, researchers have debated whether, and in what way, self-esteem is related to aggression, violence, delinquency, and criminal behavior, with some arguing that high self-esteem promotes antisocial behavior (e.g., Baumeister et al., 1996), and others arguing that low self-esteem does (e.g., Donnellan et al., 2005). However, when self-esteem is appropriately distinguished from narcissism, the theoretical argument for high self-esteem causing antisocial behavior becomes untenable, whereas the theoretical arguments strengthen for low self-esteem. For example, individuals with low self-esteem might protect themselves against feelings of inferiority by externalizing blame for their failures (more often than individuals with high self-esteem), engendering hostile and aggressive reactions towards others (Tracy & Robins, 2003). Also, low self-esteem may lead individuals to use aggression and other forms of bullying as a means to gain social power and attention (Ostrowsky, 2010). Finally, chronic low self-esteem may weaken ties to society and social norms, thereby increasing antisocial behavior (Donnellan et al., 2005).

For self-esteem and antisocial behavior, no meta-analysis is available that examined prospective effects controlling for prior levels of the outcomes. However, meta-analyses of concurrent and longitudinal associations (not controlling for prior levels) provide robust evidence that low, rather than high, self-esteem is linked to criminal behavior and delinquency (with an effect size of –.10, Mier & Ladny, 2018) and cyberbullying (–.16, Lei et al., 2020).

Although limited in number, the few existing longitudinal studies of self-esteem and antisocial behavior are methodologically strong. For example, Donnellan et al. (2005, Study 2) used data from a representative birth cohort of more than 800 New Zealand youth, and found that self-esteem had a prospective effect of –.15 on externalizing problems (measured by parent and teacher reports), controlling for prior levels of externalizing

problems. In a follow-up study using the same sample, Trzesniewski et al. (2006) found that low self-esteem in adolescence predicted whether participants had been convicted of a violent crime at age 26 (as well as non-violent crimes), controlling for gender, SES, and adolescent depression. In a multi-wave longitudinal study of 660 adults (Kuster et al., 2013), self-esteem showed small, but consistent, prospective effects on antisocial behavior in the workplace, including incivility (-.07), interpersonal deviance (-.06), and organizational deviance (-.06).

In sum, there is robust meta-analytic evidence that low self-esteem is concurrently associated with antisocial behavior, and longitudinal studies suggest that low self-esteem is prospectively associated with antisocial behavior. However, the number of longitudinal studies is still small and more research is needed.

# Important Issues in Research on the Benefits of Self-Esteem

In this section, we discuss several issues that are critically important when interpreting and evaluating evidence concerning the benefits of self-esteem.

## Causality

Several large meta-analyses and hundreds of studies have demonstrated that self-esteem prospectively predicts outcomes in important life domains, even after controlling for prior levels of the outcomes. These findings provide necessary but not sufficient evidence for establishing causation, which raises the question: How confident should we be in inferring a causal effect of self-esteem? Although experimental studies are considered the gold standard for testing causal hypotheses, experimental manipulations of self-esteem are necessarily transitory and consequently may not generalize to real-life differences in self-esteem or provide information about the hypothesized long-term effects of self-esteem considered in this review. Intervention studies provide another avenue for supporting causal inferences. Evidence suggests that it is possible to increase self-esteem through interventions and that these interventions lead to improvements in academic performance and reductions in depression and anxiety (Haney & Durlak, 1998; O'Mara et al., 2006), which support a causal effect of self-esteem on school and mental health outcomes. However, selfesteem interventions may change other psychological characteristics (e.g., optimism, social competence, etc.), making it difficult to unequivocally attribute the observed effects to changes in self-esteem.

There is a growing recognition that longitudinal research can provide a third avenue for supporting causal inferences, if done in a careful and systematic manner (Grosz et al., 2020). Our review suggests that the available longitudinal evidence for the real-world consequences of self-esteem is methodologically strong, with many studies that used data from large and diverse samples (or even nationally representative samples), followed participants across long periods (years or even decades), examined the constructs as latent variables (thereby controlling for measurement error and some systematic biases), used objective as well as subjective measures of life outcomes, and controlled for the effects of theoretically-relevant third variables, which otherwise could have confounded the observed effects.<sup>2</sup> Thus, although longitudinal data cannot provide definite proof of causality, the available evidence

is consistent with a causal interpretation of self-esteem's effect on life outcomes. Indeed, the evidence is sufficiently strong that it is difficult to come up with a non-causal explanation that would plausibly account for the diverse array of findings documenting the predictive validity of self-esteem. In sum, the present review suggests that stronger causal inferences about the benefits of self-esteem are justified than at the time when Baumeister et al. (2003) conducted their review.

Finally, it is important to consider the possibility of reverse causation. Although longitudinal evidence suggests that some life outcomes lead to changes in self-esteem (e.g., experiences in the relationship and work domains, Harris & Orth, 2020; Krauss & Orth, in press), such findings do not contradict the hypothesis that self-esteem influences the same outcomes. In other words, self-esteem and life outcomes may have reciprocal causal effects. For example, self-esteem and social relationships reciprocally predict each other over time, suggesting a positive feedback loop (Harris & Orth, 2020). This pattern is consistent with the corresponsive principle of personality development, which states that personality characteristics (such as self-esteem) and life experiences reciprocally influence each other (Roberts & Wood, 2006).

#### **Effect Sizes**

Effects in the psychological sciences are almost never exactly zero (Meehl, 1990; Orben & Lakens, 2020). Thus, the relevant question concerns the size of an effect, not its presence or absence. As illustrated by the meta-analytic findings summarized in Table 1, the average size of prospective effects of self-esteem on life outcomes (as captured by standardized regression coefficients, controlling for prior level of the outcome) is approximately .10. Although an effect of this magnitude could be considered small, based on Cohen's (1988) conventions for interpreting correlation coefficients, these conventions do not apply to prospective effects when prior levels (i.e., the stability) of the predicted variable is controlled (Adachi & Willoughby, 2015). The stability of a construct usually explains a large portion of its variance (which was also true in the meta-analyses reviewed in this article, as indicated by large stability coefficients for most outcomes), which severely limits the theoretical range of prospective effects of other variables on the construct. In other words, when the stability of a construct is controlled, a prospective regression coefficient reflects an effect on relative change in a construct, which is typically much smaller than concurrent correlations between constructs. For these reasons, a prospective regression coefficient of .10 indicates a more substantial effect compared to a concurrent correlation of the same size.

<sup>&</sup>lt;sup>2</sup>Regarding third variables, it is crucial to distinguish between confounding variables, which should be controlled, and colliders and mediators, which should not be controlled. Control of colliders and mediators actually increases, rather than decreases, bias in the estimated causal effect (Rohrer, 2018). In our opinion, the third variables controlled for in the studies reviewed above are all potential confounders except for depression, which is better conceptualized as a potential mediator for outcomes such as relationship quality, school achievement, and work success, given its documented associations with these outcomes and with low self-esteem. Another issue is that controlling for a large number of potential third-variable confounders significantly reduces the precision and, consequently, the validity of estimates. Due to multicollinearity, virtually every predictor will become nonsignificant if a sufficiently large number of covariates are added to the model. For example, Boden et al. (2008) reported that the prospective effects of adolescent self-esteem on young adult outcomes became weak or nonsignificant after controlling for 23 covariates. We do not believe that these results allow for valid conclusions given the large number of covariates and the inclusion of variables (e.g., depression, anxiety, shyness, conduct problems) that should be conceptualized as mediators or colliders rather than confounders.

The magnitude of the self-esteem effects can also be evaluated by comparing them to findings for other constructs that influence the same outcomes (Funder & Ozer, 2019). The prospective effects of other hypothesized causal factors also tend to be about .10. Based on meta-analytic estimates of standardized regression coefficients, controlled for prior level of outcome, the effect of self-efficacy on academic performance is .07 (Talsma et al., 2018), the effect of low positive emotionality on depression is .08 and on anxiety .06 (Khazanov & Ruscio, 2016), and the effect of low attachment security on substance use is .05 (Fairbairn et al., 2018). Moreover, a meta-analysis focusing on growth mindset and academic outcomes suggested an average association of r = .10 and an average effect of growth mindset interventions of d = .08 (Sisk et al., 2018). Thus, a prospective effect of .10 is comparable to what has been found for other potential causal factors.

The practical significance of the present findings should not be over- or underestimated. Although the predictive power of self-esteem is comparable to typical findings in the psychological literature, self-esteem nonetheless explains a small proportion of the variance in most real-world outcomes. Baumeister et al. (2003) argued that such small effect sizes do not justify investing in interventions to improve self-esteem. Yet, many medical treatments that have similar or weaker effects are routinely given to the general population; for example, the effect of nonsteroidal anti-inflammatory drugs such as ibuprofen on pain is only r = .14 and the effect of aspirin on risk for death from heart attack is r = .02 (Meyer et al., 2001). Moreover, small effects are to be expected because the outcomes investigated in the present study are quintessential examples of multiply determined phenomena (Ahadi & Diener, 1989), and even small effects can have a major impact when aggregated over long periods of time (Abelson, 1985; Rosenthal & Rubin, 1994). Finally, the evidence suggests that individuals with low self-esteem accumulate a wide range of dysfunctional negative life outcomes, which in combination may have powerful negative consequences for adjustment across the life course. For all these reasons, we view self-esteem as one of many potentially modifiable risk factors for a range of adjustment problems, and consequently a potential target of interventions.

### **Distinguishing High Self-Esteem and Narcissism**

It is crucial to distinguish between self-esteem and narcissism when evaluating the consequences of self-esteem. As noted earlier, the two constructs overlap conceptually because both involve positive self-evaluations. In fact, the concurrent correlation between self-esteem and narcissism is about .30 to .40 (e.g., Ackerman et al., 2011; Orth et al., 2016), which is not nearly as strong as would be expected if self-esteem and narcissism were the same construct. Indeed, there are important conceptual differences between self-esteem and narcissism; for example, high self-esteem is not characterized by grandiosity, self-centeredness, arrogance, and entitlement, and their unique correlates often differ substantially, at times even pointing in the opposite direction (Hyatt et al., 2018).

This pattern is apparent for many outcomes examined in the present review. For example, high self-esteem has a positive prospective effect on social relationships, whereas narcissism has a negative effect once others get to know narcissistic individuals better (Leckelt et al., 2015). Also, the prospective effect of high self-esteem on mental health holds when

controlling for narcissism, whereas the prospective effect of narcissism drops essentially to zero when controlling for self-esteem (Orth et al., 2016). For antisocial behavior, no longitudinal studies are available that simultaneously examined self-esteem and narcissism. However, cross-sectional data clearly show that high self-esteem is related to less antisocial behavior, whereas narcissism is related to more antisocial behavior, and these associations become even stronger when self-esteem and narcissism are mutually controlled (Donnellan et al., 2005; Paulhus et al., 2004). Finally, longitudinal research has shown that high self-esteem prospectively predicts less frequent stressful events (serious diseases, accidents, criminal victimization, losing one's job), whereas narcissism predicts more frequent stressful events (Orth & Luciano, 2015).

Thus, when evaluating whether self-esteem has benefits, it is important not to confuse narcissism with high self-esteem because the two constructs are conceptually distinct and often have highly divergent (and sometimes opposite) effects on social relationships, mental health, and antisocial behavior. Research is needed to examine the unique effects of high self-esteem and narcissism on academic achievement, work success, and physical health, but there is reason to expect adaptive (self-esteem) versus maladaptive (narcissism) effects similar to the findings described above (Back & Morf, 2018).

#### **Constraints on Generalizability**

Another important question concerns the extent to which the findings generalize across demographic groups, such as gender, age, ethnicity, race, nationality, social class, and birth cohort. All of the meta-analyses included in Table 1 tested whether demographic variables moderate the prospective effects of self-esteem on life outcomes, with virtually all tests showing that the findings do not vary significantly across demographic subgroups. However, meta-analyses of the effects of self-esteem on physical health and antisocial behavior, including tests of demographic moderators, are needed before drawing conclusions about generalizability in these domains. Moreover, the meta-analyses in Table 1 did not examine generalizability across social class (e.g., because few studies reported SES), although some support for generalizability comes from studies based on large representative samples (with a broad range of SES) and studies that have documented self-esteem effects in low SES samples (e.g., Orth et al., 2014; Zheng et al., 2020). Finally, the available evidence is based largely on samples from Western countries, highlighting the need for more research with samples from Asia, Africa, and South America before reaching conclusions about the benefits of self-esteem in these contexts.

The absence of significant demographic moderators raises the question of what accounts for variability in effects across individual studies, given that all meta-analyses reviewed here found significant heterogeneity in effect sizes (indicating that sampling error is not the only source of variability). Therefore, future research should continue to test hypotheses about moderating factors. In our opinion, it would be worthwhile to test whether contextual factors explain why self-esteem effects are sometimes stronger and sometimes weaker. For example, it is possible that self-esteem effects are moderated by social contextual factors such as the child's family environment or an adult's social support network.

# Conclusions

The present findings, based on several large meta-analyses and hundreds of individual studies, provide a robust challenge to widespread claims in the scientific literature and in the popular press that self-esteem has few benefits and might even have a "dark side". Instead, a voluminous body of research has shown that high self-esteem helps individuals adapt to and succeed in a variety of life domains, including having more satisfying relationships, performing better at school and work, enjoying improved mental and physical health, and refraining from antisocial behavior. Moreover, these benefits hold across different stages of life, different racial and ethnic groups, and for both men and women. They also hold when controlling for prior levels of the predicted outcomes and potential third variable confounds, and when controlling for narcissism, suggesting that the effects are a result of genuine self-esteem and not narcissistic self-enhancement. Together, these various sources of evidence are consistent with a causal interpretation of the findings, although additional types of evidence (e.g., intervention studies) are needed to conclusively document that selfesteem has a causal effect on each life outcome. Importantly, the meta-analytic estimates of self-esteem effects (which average .10 across domains) are comparable in size to estimates for other hypothesized causal factors such as self-efficacy, positive emotionality, attachment security, and growth mindset, and larger than some generally accepted pharmaceutical interventions.

Both interpersonal and intrapersonal mechanisms might account for the adaptive effects of high self-esteem. For example, high self-esteem might facilitate initiating and maintaining social relationships, resulting in a stronger social network and greater availability of emotional, instrumental, and informational support, which may lead to positive outcomes in many life domains beyond relationships (e.g., education, work, mental health, and physical health). An important intrapersonal pathway is likely that high self-esteem strengthens persistence after rejections and failure, which again may lead to better outcomes in school, work, relationships, and health. Future research should focus on testing hypotheses about the mediating mechanisms that explain the salutary effects of high self-esteem.

The present findings support theoretical conceptions of self-esteem as an adaptive trait that has wide-ranging influences on healthy adjustment and adaptation, and suggest that interventions aimed at boosting self-esteem might benefit individuals and society as a whole. However, researchers, practitioners, and the public should be careful not to make the same mistakes that occurred during the self-esteem movement of the 1970s. Most notably, self-esteem interventions should not be introduced in schools and other contexts until we have more robust knowledge about how self-esteem can be improved on a sustained basis and which interventions are effective in which situations and for which individuals. Several other caveats must be considered when developing and implementing self-esteem interventions. First, self-esteem boosted by interventions may not provide the same benefits as naturally occurring high self-esteem. Second, self-esteem (Baumeister et al., 2003; Brummelman & Sedikides, 2020). Third, interventions should target individuals have the greatest need for improved self-esteem. Fourth, it might be particularly difficult to enhance

the self-esteem of individuals with low self-esteem because they show adverse reactions to affirmations designed to improve their self-esteem (Kwang & Swann, 2010; Wood et al., 2009). Fifth, a deeper understanding of the interpersonal and intrapersonal mechanisms that account for the benefits of high self-esteem is needed to improve the design of effective interventions. Finally, self-esteem interventions that are effective in research contexts may not scale up to population-level interventions.

The fact that the self-esteem effects hold across demographic groups suggests that high selfesteem is beneficial to most people, at least in Western cultural contexts. Early adolescence might be a particularly effective time to implement self-esteem interventions because there is an emerging consensus that adolescence is a critical period in neurodevelopment and a critical period for influencing adult outcomes (Andersen, 2021). Meta-analyses of self-esteem development also suggest that interventions should target early adolescence because at this developmental stage the generally increasing trajectory of self-esteem shows stagnation (Orth et al., 2018) and individual differences in self-esteem are particularly malleable (Trzesniewski et al., 2003). App-based interventions may be successful at increasing self-esteem, given that they can change even more stable constructs such as the Big Five personality traits (Stieger et al., 2021); these interventions require much less institutional investment than school-based interventions and youth may be more open to and engaged with app-based interventions compared to traditional interventions.

In summary, the findings of this review indicate that having high self-esteem has numerous positive consequences, including better social relationships, more success at school and work, better mental and physical health, and less antisocial behavior. The findings imply that endeavors to develop effective interventions to enhance self-esteem are worthwhile because such interventions have the potential to provide widespread societal benefits.

# Acknowledgments

This research was supported by a grant from the National Institute on Aging to Richard W. Robins (U01AG060164).

## References

- Abelson RP (1985). A variance explanation paradox: When a little is a lot. Psychological Bulletin, 97, 129–133. 10.1037/0033-2909.97.1.129
- Ackerman RA, Witt EA, Donnellan MB, Trzesniewski KH, Robins RW, & Kashy DA (2011). What does the Narcissistic Personality Inventory really measure? Assessment, 18, 67–87. 10.1177/1073191110382845 [PubMed: 20876550]
- Adachi P, & Willoughby T (2015). Interpreting effect sizes when controlling for stability effects in longitudinal autoregressive models: Implications for psychological science. European Journal of Developmental Psychology, 12, 116–128. 10.1080/17405629.2014.963549
- Ahadi S, & Diener E (1989). Multiple determinants and effect size. Journal of Personality and Social Psychology, 56, 398–406. 10.1037/0022-3514.56.3.398
- Andersen SH (2021). Association of youth age at exposure to household dysfunction with outcomes in early adulthood. JAMA Network Open, 4, e2032769. 10.1001/jamanetworkopen.2020.32769 [PubMed: 33410878]
- Atherton OE, & Schofield TJ (2021). Personality and parenting. In John OP & Robins RW (Eds.), Handbook of personality: Theory and research (pp. 352–366). Guilford.

- Back MD, & Morf CC (2018). Narcissism. In Zeigler-Hill V & Shackelford TK (Eds.), Encyclopedia of Personality and Individual Differences. Springer.
- Baumeister RF, Campbell JD, Krueger JI, & Vohs KD (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? Psychological Science in the Public Interest, 4, 1–44. 10.1111/1529-1006.01431 [PubMed: 26151640]
- Baumeister RF, Smart L, & Boden JM (1996). Relation of threatened egotism to violence and aggression: The dark side of high self-esteem. Psychological Review, 103, 5–33. 10.1037/0033-295X.103.1.5 [PubMed: 8650299]
- Baumeister RF, & Vohs KD (2018). Revisiting our reappraisal of the (surprisingly few) benefits of high self-esteem. Perspectives on Psychological Science, 13, 137–140. 10.1177/1745691617701185 [PubMed: 29592638]
- Beck AT (1967). Depression: Clinical, experimental, and theoretical aspects. Harper & Row.
- Boden JM, Fergusson DM, & Horwood LJ (2008). Does adolescent self-esteem predict later life outcomes? A test of the causal role of self-esteem. Development and Psychopathology, 20, 319– 339. 10.1017/S0954579408000151 [PubMed: 18211740]
- Brummelman E, & Sedikides C (2020). Raising children with high self-esteem (but not narcissism). Child Development Perspectives. 10.1111/cdep.12362
- Brummelman E, Thomaes S, Nelemans SA, Orobio de Castro B, Overbeek G, & Bushman BJ (2015). Origins of narcissism in children. Proceedings of the National Academy of Sciences, 112, 3659– 3662. 10.1073/pnas.1420870112
- Buhrmester MD, Blanton H, & Swann WB (2011). Implicit self-esteem: Nature, measurement, and a new way forward. Journal of Personality and Social Psychology, 100, 365–385. 10.1037/a0021341 [PubMed: 21038971]
- California Department of Education. (1990). Toward a state of esteem: The final report of the California Task Force to Promote Self-Esteem and Personal and Social Responsibility.
- Cameron JJ, & Granger S (2018). Does self-esteem have an interpersonal imprint beyond self-reports? A meta-analysis of self-esteem and objective interpersonal indicators. Personality and Social Psychology Review, 23, 73–102. 10.1177/1088868318756532 [PubMed: 29482451]
- Cohen J (1988). Statistical power analysis for the behavioral sciences. Erlbaum.
- Covington MV (1989). Self-esteem and failure in school: Analysis and policy implications. In Mecca AM, Smelser NJ, & Vasconcellos J (Eds.), The social importance of self-esteem (pp. 72–124). University of California Press.
- Donnellan MB, Trzesniewski KH, & Robins RW (2011). Self-esteem: Enduring issues and controversies. In Chamorro-Premuzic T, von Stumm S, & Furnham A (Eds.), The Wiley-Blackwell handbook of individual differences (pp. 718–746). Wiley-Blackwell. 10.1002/9781444343120.ch28
- Donnellan MB, Trzesniewski KH, & Robins RW (2015). Measures of self-esteem. In Boyle GJ, Saklofske DH, & Matthews G (Eds.), Measures of personality and social psychological constructs (pp. 131–157). Elsevier. 10.1016/B978-0-12-386915-9.00006-1
- Donnellan MB, Trzesniewski KH, Robins RW, Moffitt TE, & Caspi A (2005). Low self-esteem is related to aggression, antisocial behavior, and delinquency. Psychological Science, 16, 328–335. 10.1111/j.0956-7976.2005.01535.x [PubMed: 15828981]
- Fairbairn CE, Briley DA, Kang D, Fraley RC, Hankin BL, & Ariss T (2018). A meta-analysis of longitudinal associations between substance use and interpersonal attachment security. Psychological Bulletin, 144, 532–555. 10.1037/bul0000141 [PubMed: 29494194]
- Funder DC, & Ozer DJ (2019). Evaluating effect size in psychological research: Sense and nonsense. Advances in Methods and Practices in Psychological Science, 2, 156–168. 10.1177/2515245919847202
- Green J, Liem GAD, Martin AJ, Colmar S, Marsh HW, & McInerney D (2012). Academic motivation, self-concept, engagement, and performance in high school: Key processes from a longitudinal perspective. Journal of Adolescence, 35, 1111–1122. 10.1016/j.adolescence.2012.02.016 [PubMed: 22460236]

- Grosz MP, Rohrer JM, & Thoemmes F (2020). The taboo against explicit causal inference in nonexperimental psychology. Perspectives on Psychological Science, 15, 1243–1255. 10.1177/1745691620921521 [PubMed: 32727292]
- Haney P, & Durlak JA (1998). Changing self-esteem in children and adolescents: A meta-analytic review. Journal of Clinical Child Psychology, 27, 423–433. 10.1207/s15374424jccp2704\_6 [PubMed: 9866079]
- Harris MA, & Orth U (2020). The link between self-esteem and social relationships: A meta-analysis of longitudinal studies. Journal of Personality and Social Psychology, 119, 1459–1477. 10.1037/ pspp0000265 [PubMed: 31556680]
- Hyatt CS, Sleep CE, Lamkin J, Maples-Keller JL, Sedikides C, Campbell WK, & Miller JD (2018). Narcissism and self-esteem: A nomological network analysis. Plos One, 13, 1–31. 10.1371/ journal.pone.0201088
- Khazanov GK, & Ruscio AM (2016). Is low positive emotionality a specific risk factor for depression? A meta-analysis of longitudinal studies. Psychological Bulletin, 142, 991–1015. 10.1037/bul0000059 [PubMed: 27416140]
- Krauss S, & Orth U (in press). Work experiences and self-esteem development: A meta-analysis of longitudinal studies. European Journal of Personality.
- Krauss S, Orth U, & Robins RW (2020). Family environment and self-esteem development: A longitudinal study from age 10 to 16. Journal of Personality and Social Psychology, 119, 457–478. 10.1037/pspp0000263 [PubMed: 31535888]
- Kuster F, Orth U, & Meier LL (2012). Rumination mediates the prospective effect of low self-esteem on depression: A five-wave longitudinal study. Personality and Social Psychology Bulletin, 38, 747–759. 10.1177/0146167212437250 [PubMed: 22394574]
- Kuster F, Orth U, & Meier LL (2013). High self-esteem prospectively predicts better work conditions and outcomes. Social Psychological and Personality Science, 4, 668–675. 10.1177/1948550613479806
- Kwang T, & Swann WB (2010). Do people embrace praise even when they feel unworthy? A review of critical tests of self-enhancement versus self-verification. Personality and Social Psychology Review, 14, 263–280. 10.1177/1088868310365876 [PubMed: 20435799]
- Leckelt M, Küfner ACP, Nestler S, & Back MD (2015). Behavioral processes underlying the decline of narcissists' popularity over time. Journal of Personality and Social Psychology, 109, 856–871. 10.1037/pspp0000057 [PubMed: 26191958]
- Lei H, Mao W, Cheong CM, Wen Y, Cui Y, & Cai Z (2020). The relationship between self-esteem and cyberbullying: A meta-analysis of children and youth students. Current Psychology, 39, 830–842. 10.1007/s12144-019-00407-6
- Luciano EC, & Orth U (2017). Transitions in romantic relationships and development of self-esteem. Journal of Personality and Social Psychology, 112, 307–328. 10.1037/pspp0000109 [PubMed: 27379474]
- Mäkikangas A, Kinnunen U, & Feldt T (2004). Self-esteem, dispositional optimism, and health: Evidence from cross-lagged data on employees. Journal of Research in Personality, 38, 556–575. 10.1016/j.jrp.2004.02.001
- Marsh HW (1990). A multidimensional, hierarchical model of self-concept: Theoretical and empirical justification. Educational Psychology Review, 2, 77–172. 10.1007/BF01322177
- Marsh HW, & O'Mara A (2008). Reciprocal effects between academic self-concept, self-esteem, achievement, and attainment over seven adolescent years: Unidimensional and multidimensional perspectives of self-concept. Personality and Social Psychology Bulletin, 34, 542–552. 10.1177/0146167207312313 [PubMed: 18340036]
- Meehl PE (1990). Appraising and amending theories: The strategy of Lakatosian defense and two principles that warrant it. Psychological Inquiry, 1, 108–141. 10.1207/s15327965pli0102\_1
- Meyer GJ, Finn SE, Eyde LD, Kay GG, Moreland KL, Dies RR, Eisman EJ, Kubiszyn TW, & Reed GM (2001). Psychological testing and psychological assessment: A review of evidence and issues. American Psychologist, 56, 128–165. 10.1037/0003-066X.56.2.128 [PubMed: 11279806]

- Mier C, & Ladny RT (2018). Does self-esteem negatively impact crime and delinquency? A meta-analytic review of 25 years of evidence. Deviant Behavior, 39, 1006–1022. 10.1080/01639625.2017.1395667
- Murray SL, Holmes JG, & Collins NL (2006). Optimizing assurance: The risk regulation system in relationships. Psychological Bulletin, 132, 641–666. 10.1037/0033-2909.132.5.641 [PubMed: 16910746]
- Neyer FJ, & Asendorpf JB (2001). Personality-relationship transaction in young adulthood. Journal of Personality and Social Psychology, 81, 1190–1204. 10.1037/0022-3514.81.6.1190 [PubMed: 11761317]
- O'Mara AJ, Marsh HW, Craven RG, & Debus RL (2006). Do self-concept interventions make a difference? A synergistic blend of construct validation and meta-analysis. Educational Psychologist, 41, 181–206. 10.1207/s15326985ep4103\_4
- Orben A, & Lakens D (2020). Crud (re)defined. Advances in Methods and Practices in Psychological Science, 3, 238–247. 10.1177/2515245920917961 [PubMed: 33103054]
- Orth U, Erol RY, & Luciano EC (2018). Development of self-esteem from age 4 to 94 years: A metaanalysis of longitudinal studies. Psychological Bulletin, 144, 1045–1080. 10.1037/bul0000161 [PubMed: 30010349]
- Orth U, & Luciano EC (2015). Self-esteem, narcissism, and stressful life events: Testing for selection and socialization. Journal of Personality and Social Psychology, 109, 707–721. 10.1037/ pspp0000049 [PubMed: 26011661]
- Orth U, & Robins RW (2013). Understanding the link between low self-esteem and depression. Current Directions in Psychological Science, 22, 455–460. 10.1177/0963721413492763
- Orth U, Robins RW, & Meier LL (2009). Disentangling the effects of low self-esteem and stressful events on depression: Findings from three longitudinal studies. Journal of Personality and Social Psychology, 97, 307–321. 10.1037/a0015645 [PubMed: 19634977]
- Orth U, Robins RW, Meier LL, & Conger RD (2016). Refining the vulnerability model of low selfesteem and depression: Disentangling the effects of genuine self-esteem and narcissism. Journal of Personality and Social Psychology, 110, 133–149. 10.1037/pspp0000038 [PubMed: 25915133]
- Orth U, Robins RW, & Roberts BW (2008). Low self-esteem prospectively predicts depression in adolescence and young adulthood. Journal of Personality and Social Psychology, 95, 695–708. 10.1037/0022-3514.95.3.695 [PubMed: 18729703]
- Orth U, Robins RW, Trzesniewski KH, Maes J, & Schmitt M (2009). Low self-esteem is a risk factor for depressive symptoms from young adulthood to old age. Journal of Abnormal Psychology, 118, 472–478. 10.1037/a0015922 [PubMed: 19685945]
- Orth U, Robins RW, & Widaman KF (2012). Life-span development of self-esteem and its effects on important life outcomes. Journal of Personality and Social Psychology, 102, 1271–1288. 10.1037/ a0025558 [PubMed: 21942279]
- Orth U, Robins RW, Widaman KF, & Conger RD (2014). Is low self-esteem a risk factor for depression? Findings from a longitudinal study of Mexican-origin youth. Developmental Psychology, 50, 622–633. 10.1037/a0033817 [PubMed: 23895172]
- Ostrowsky MK (2010). Are violent people more likely to have low self-esteem or high self-esteem? Aggression and Violent Behavior, 15, 69–75. 10.1016/j.avb.2009.08.004
- Paulhus DL, Robins RW, Trzesniewski KH, & Tracy JL (2004). Two replicable suppressor situations in personality research. Multivariate Behavioral Research, 39, 303–328. 10.1207/ s15327906mbr3902\_7 [PubMed: 26804578]
- Pintrich PR, & de Groot EV (1990). Motivational and self-regulated learning components of classroom academic performance. Journal of Educational Psychology, 82, 33–40. 10.1037/0022-0663.82.1.33
- Reitzes DC, & Mutran EJ (2006). Self and health: Factors that encourage self-esteem and functional health. Journal of Gerontology: Social Sciences, 61B, S44–S51. 10.1093/geronb/61.1.S44
- Roberts BW, & Wood D (2006). Personality development in the context of the neo-socioanalytic model of personality. In Mroczek DK & Little TD (Eds.), Handbook of personality development (pp. 11–39). Erlbaum.

Rohrer JM (2018). Thinking clearly about correlations and causation: Graphical causal models for observational data. Advances in Methods and Practices in Psychological Science, 1, 27–42. 10.1177/25152459177456

Rosenberg M (1965). Society and the adolescent self-image. Princeton University Press.

- Rosenberg M (1979). Conceiving the self. Basic Books.
- Rosenthal R, & Rubin DB (1994). The counternull value of an effect size: A new statistic. Psychological Science, 5, 329–334. 10.1111/j.1467-9280.1994.tb00281.x
- Sisk VF, Burgoyne AP, Sun J, Butler JL, & Macnamara BN (2018). To what extent and under which circumstances are growth mind-sets important to academic achievement? Two meta-analyses. Psychological Science, 29, 549–571. 10.1177/0956797617739704 [PubMed: 29505339]
- Sowislo JF, & Orth U (2013). Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. Psychological Bulletin, 139, 213–240. 10.1037/a0028931 [PubMed: 22730921]
- Sowislo JF, Orth U, & Meier LL (2014). What constitutes vulnerable self-esteem? Comparing the prospective effects of low, unstable, and contingent self-esteem on depressive symptoms. Journal of Abnormal Psychology, 123, 737–753. 10.1037/a0037770 [PubMed: 25222046]
- Srivastava S, & Beer JS (2005). How self-evaluations relate to being liked by others: Integrating sociometer and attachment perspectives. Journal of Personality and Social Psychology, 89, 966– 977. 10.1037/0022-3514.89.6.966 [PubMed: 16393028]
- Steele CM (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In Berkowitz L (Ed.), Advances in experimental social psychology (Vol. 21, pp. 261–302). Academic Press.
- Steiger AE, Allemand M, Robins RW, & Fend HA (2014). Low and decreasing self-esteem during adolescence predict adult depression two decades later. Journal of Personality and Social Psychology, 106, 325–338. 10.1037/a0035133 [PubMed: 24467425]
- Stieger M, Flückiger C, Rüegger D, Kowatsch T, Roberts BW, & Allemand M (2021). Changing personality traits with the help of a digital personality change intervention. Proceedings of the National Academy of Sciences, 118, e2017548118. 10.1073/pnas.2017548118
- Stinson DA, Logel C, Zanna MP, Holmes JG, Cameron JJ, Wood JV, & Spencer SJ (2008). The cost of lower self-esteem: Testing a self- and social-bonds model of health. Journal of Personality and Social Psychology, 94, 412–428. 10.1037/0022-3514.94.3.412 [PubMed: 18284290]
- Swann WB (2012). Self-verification theory. In Van Lange PAM, Kruglanski AW, & Higgins ET (Eds.), Handbook of theories of social psychology (pp. 23–42). Sage.
- Swann WB, Chang-Schneider C, & McClarty KL (2007). Do people's self-views matter? American Psychologist, 62, 84–94. 10.1037/0003-066X.62.2.84 [PubMed: 17324034]
- Talsma K, Schüz B, Schwarzer R, & Norris K (2018). I believe, therefore I achieve (and vice versa): A meta-analytic cross-lagged panel analysis of self-efficacy and academic performance. Learning and Individual Differences, 61, 136–150. 10.1016/j.lindif.2017.11.015
- Tracy JL, & Robins RW (2003). "Death of a (narcissistic) salesman:" An integrative model of fragile self-esteem. Psychological Inquiry, 14, 57–62. 10.1207/S15327965PL11401\_02
- Trautwein U, Lüdtke O, Köller O, & Baumert J (2006). Self-esteem, academic self-concept, and achievement: How the learning environment moderates the dynamics of self-concept. Journal of Personality and Social Psychology, 90, 334–349. 10.1037/0022-3514.90.2.334 [PubMed: 16536654]
- Trzesniewski KH, Donnellan MB, Moffitt TE, Robins RW, Poulton R, & Caspi A (2006). Low selfesteem during adolescence predicts poor health, criminal behavior, and limited economic prospects during adulthood. Developmental Psychology, 42, 381–390. 10.1037/0012-1649.42.2.381 [PubMed: 16569175]
- Trzesniewski KH, Donnellan MB, & Robins RW (2003). Stability of self-esteem across the life span. Journal of Personality and Social Psychology, 84, 205–220. 10.1037/0022-3514.84.1.205 [PubMed: 12518980]
- Twenge JM, & Foster JD (2010). Birth cohort increases in narcissistic personality traits among American college students, 1982–2009. Social Psychological and Personality Science, 1, 99–106. 10.1177/1948550609355719

- Uchino BN, Cacioppo JT, & Kiecolt-Glaser JK (1996). The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. Psychological Bulletin, 119, 488–531. 10.1037/0033-2909.119.3.488 [PubMed: 8668748]
- Valentine JC, DuBois DL, & Cooper H (2004). The relation between self-beliefs and academic achievement: A meta-analytic review. Educational Psychologist, 39, 111–133. 10.1207/ s15326985ep3902\_3
- von Soest T, Wichstrom L, & Kvalem IL (2016). The development of global and domain-specific self-esteem from age 13 to 31. Journal of Personality and Social Psychology, 110, 592–608. 10.1037/pspp0000060 [PubMed: 26167796]
- Wagner J, Becker M, Lüdtke O, & Trautwein U (2015). The first partnership experience and personality development: A propensity score matching study in young adulthood. Social Psychological and Personality Science, 6, 455–463. 10.1177/1948550614566092
- Wood JV, Perunovic WQE, & Lee JW (2009). Positive self-statements: Power for some, peril for others. Psychological Science, 20, 860–866. 10.1111/j.1467-9280.2009.02370.x [PubMed: 19493324]
- Zeigler-Hill V (2011). The connections between self-esteem and psychopathology. Journal of Contemporary Psychotherapy, 41, 157–164. 10.1007/s10879-010-9167-8
- Zeigler-Hill V, Besser A, Myers EM, Southard AC, & Malkin ML (2013). The status-signaling property of self-esteem: The role of self-reported self-esteem and perceived self-esteem in personality judgments. Journal of Personality, 81, 209–220. 10.1111/j.1467-6494.2012.00790.x [PubMed: 22433040]
- Zheng LR, Atherton OE, Trzesniewski KH, & Robins RW (2020). Are self-esteem and academic achievement reciprocally related? Findings from a longitudinal study of Mexican-origin youth. Journal of Personality, 88, 1058–1074. 10.1111/jopy.12550 [PubMed: 32368788]

# Public Significance Statement.

The findings of this review indicate that having high (vs. low) self-esteem has wideranging positive consequences, including better social relationships, more success at school and work, better mental and physical health, and less antisocial behavior. Consequently, well-designed and properly implemented self-esteem interventions might be beneficial for individuals and society as a whole.

#### Table 1

#### Meta-Analytic Findings on Prospective Effects of Self-Esteem on Outcomes

| Category and outcome              | Effect size estimate | 95% CI     | Number of studies | Number of participants |
|-----------------------------------|----------------------|------------|-------------------|------------------------|
| Social relationships <sup>a</sup> |                      |            |                   |                        |
| Quality of social relationships   | .08*                 | [.06, .10] | 35                | 21,995                 |
| Education <sup>b</sup>            |                      |            |                   |                        |
| Academic achievement              | .08 *                | [.07, .09] | 60                | 49,266                 |
| Work <sup>C</sup>                 |                      |            |                   |                        |
| Job satisfaction                  | .09 *                | [.07, .11] | 15                | 14,374                 |
| Job success                       | .08*                 | [.01, .16] | 6                 | 3,360                  |
| Income                            | .05                  | [00, .10]  | 7                 | 7,534                  |
| Job resources                     | .10*                 | [.05, .15] | 6                 | 2,782                  |
| Job stressors                     | 09                   | [19, .01]  | 4                 | 1,770                  |
| Mental health <sup>d</sup>        |                      |            |                   |                        |
| Depression                        | 16*                  | [18,14]    | 77                | 35,501                 |
| Anxiety                           | 10*                  | [14,06]    | 18                | 3,597                  |

*Note.* Effect size estimates are standardized regression coefficients. The table includes meta-analyses that examined prospective effects of self-esteem on the outcome controlling for prior level of the outcome. For physical health and antisocial behavior, no meta-analyses of prospective effects are available. CI = confidence interval.

<sup>a</sup>Data from Harris and Orth (2020).

<sup>b</sup>Data from Valentine et al. (2004).

<sup>C</sup>Data from Krauss and Orth (in press).

<sup>d</sup>Data from Sowislo and Orth (2013).

\* p<.05.

Author Manuscript