

DOES HIGH SELF-ESTEEM CAUSE BETTER PERFORMANCE, INTERPERSONAL SUCCESS, HAPPINESS, OR HEALTHIER LIFESTYLES?

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Summary—Self-esteem has become a household word. Teachers, parents, therapists, and others have focused efforts on boosting self-esteem, on the assumption that high self-esteem will cause many positive outcomes and benefits—an assumption that is critically evaluated in this review.

Appraisal of the effects of self-esteem is complicated by several factors. Because many people with high self-esteem exaggerate their successes and good traits, we emphasize objective measures of outcomes. High self-esteem is also a heterogeneous category, encompassing people who frankly accept their good qualities along with narcissistic, defensive, and concealed individuals.

The modest correlations between self-esteem and school performance do not indicate that high self-esteem leads to good performance. Instead, high self-esteem is partly the result of good school performance. Efforts to boost the self-esteem of pupils have not been shown to improve academic performance and may sometimes be counterproductive. Job performance in adults is sometimes related to self-esteem, although the correlations vary widely, and the direction of causality has not been established. Occupational success may boost self-esteem rather than the reverse. Alternatively, self-esteem may be helpful only in some job contexts. Laboratory studies have generally failed to find that self-esteem causes good task performance, with the important exception that high self-esteem facilitates persistence after failure.

People high in self-esteem claim to be more likable and attractive, to have better relationships, and to make better impressions on others than people with low self-esteem, but objective measures disconfirm most of these beliefs. Narcissists are charming at first but tend to alienate others eventually. Self-esteem has not been shown to predict the quality or duration of relationships.

High self-esteem makes people more willing to speak up in groups and to criticize the group's approach. Leadership does not stem directly from self-esteem, but self-esteem may have indirect effects. Relative to people with low self-esteem,

those with high self-esteem show stronger in-group favoritism, which may increase prejudice and discrimination.

Neither high nor low self-esteem is a direct cause of violence. Narcissism leads to increased aggression in retaliation for wounded pride. Low self-esteem may contribute to externalizing behavior and delinquency, although some studies have found that there are no effects or that the effect of self-esteem vanishes when other variables are controlled. The highest and lowest rates of cheating and bullying are found in different subcategories of high self-esteem.

Self-esteem has a strong relation to happiness. Although the research has not clearly established causation, we are persuaded that high self-esteem does lead to greater happiness. Low self-esteem is more likely than high to lead to depression under some circumstances. Some studies support the buffer hypothesis, which is that high self-esteem mitigates the effects of stress, but other studies come to the opposite conclusion, indicating that the negative effects of low self-esteem are mainly felt in good times. Still others find that high self-esteem leads to happier outcomes regardless of stress or other circumstances.

High self-esteem does not prevent children from smoking, drinking, taking drugs, or engaging in early sex. If anything, high self-esteem fosters experimentation, which may increase early sexual activity or drinking, but in general effects of self-esteem are negligible. One important exception is that high self-esteem reduces the chances of bulimia in females.

Overall, the benefits of high self-esteem fall into two categories: enhanced initiative and pleasant feelings. We have not found evidence that boosting self-esteem (by therapeutic interventions or school programs) causes benefits. Our findings do not support continued widespread efforts to boost self-esteem in the hope that it will by itself foster improved outcomes. In view of the heterogeneity of high self-esteem, indiscriminate praise might just as easily promote narcissism, with its less desirable consequences. Instead, we recommend using praise to boost self-esteem as a reward for socially desirable behavior and self-improvement.

Most people feel that self-esteem is important. It is difficult, if not impossible, for people to remain indifferent to informa-

tion that bears on their own self-esteem, such as being told that they are incompetent, attractive, untrustworthy, or lovable. Increases and decreases in self-esteem generally bring strong emotional reactions. Moreover, these fluctuations are often coincident with major successes and failures in life. Subjective

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experience creates the impression that self-esteem rises when one wins a contest, garners an award, solves a problem, or gains acceptance to a social group, and that it falls with corresponding failures. This pervasive correlation may well strengthen the impression that one's level of self-esteem is not just the outcome, but indeed the cause, of life's major successes and failures.

But is self-esteem a cause of important consequences in life? In this monograph, we report the results of a survey of major research findings bearing on this question. Our mission was to conduct a thorough review of empirical findings—emphasizing the most methodologically rigorous research studies—to ascertain whether high self-esteem is in fact a cause of positive or negative outcomes. We anticipated we would find that self-esteem has positive value for bringing about some hypothesized benefits, but not others. Such a pattern would presumably allow an accurate and nuanced understanding of just what high self-esteem is good for. This would be beneficial both for theory (in that it would promote a better understanding of self-esteem as well as the outcomes it predicts) and for practical applications—and even for determining whether efforts at boosting self-esteem are worth undertaking in order to solve particular social problems.

Self-esteem is literally defined by how much value people place on themselves. It is the evaluative component of self-knowledge. High self-esteem refers to a highly favorable global evaluation of the self. Low self-esteem, by definition, refers to an unfavorable definition of the self. (Whether this signifies an absolutely unfavorable or relatively unfavorable evaluation is a problematic distinction, which we discuss later in connection with the distribution of self-esteem scores.) Self-esteem does not carry any definitional requirement of accuracy whatsoever. Thus, high self-esteem may refer to an accurate, justified, balanced appreciation of one's worth as a person and one's successes and competencies, but it can also refer to an inflated, arrogant, grandiose, unwarranted sense of conceited superiority over others. By the same token, low self-esteem can be either an accurate, well-founded understanding of one's shortcomings as a person or a distorted, even pathological sense of insecurity and inferiority.

Self-esteem is thus perception rather than reality. It refers to a person's belief about whether he or she is intelligent and attractive, for example, and it does not necessarily say anything about whether the person actually is intelligent and attractive. To show that self-esteem is itself important, then, research would have to demonstrate that people's beliefs about themselves have important consequences regardless of what the underlying realities are. Put more simply, there would have to be benefits that derive from believing that one is intelligent, regardless of whether one actually is intelligent. To say this is not to dismiss self-esteem as trivial. People's beliefs shape their actions in many important ways, and these actions in turn shape their social reality and the social realities of the people around them. The classic study *Pygmalion in the Classroom*, by

Rosenthal and Jacobson (1968), showed that teachers' false, unfounded beliefs about their students later became objective, verifiable realities in the performance of those students. In the same way, it is quite plausible that either high or low self-esteem, even if initially false, may generate a self-fulfilling prophecy and bring about changes in the objective reality of the self and its world.

Then again, self-esteem might not bring about such changes. Many researchers, clinicians, teachers, parents, and pundits have taken it as an article of faith that high self-esteem will bring about positive outcomes. Such an assumption was perhaps reasonable several decades ago, given the lack of firm data either way and the anecdotal impressions and theoretical bases for assuming that self-esteem has strong effects. It is particularly understandable that practitioners would accept this assumption without proof, because they cannot generally afford to admonish their suffering clients to hang on for a few decades until needed research is conducted. They must use the best evidence available at the time to design their interventions.

By now, however, the excuse of inadequate data is beginning to wear thin. The fascination with self-esteem that began to spread during the 1970s infected researchers too, and in the past couple of decades, a number of methodologically rigorous, large-scale investigations on the possible effects of self-esteem have been conducted. We do not think all the final answers are in, but many of them are taking shape. There is no longer any justification for simply relying on anecdotes, impressions, and untested assumptions about the value of self-esteem.

WHY STUDY SELF-ESTEEM?

In the heady days of the 1970s, it might have seemed possible to assert that self-esteem has a causal effect on every aspect of human life, and by the 1980s, the California legislature might well have been persuaded that funding a task force to increase the self-esteem of Californians would ultimately produce a huge financial return because reducing welfare dependency, unwanted pregnancy, school failure, crime, drug addiction, and other problems would save large amounts of taxpayers' money. However, as Karl Marx, Sigmund Freud, and other grand thinkers could assert if they were alive today, even the most elaborate and persuasive theories about human behavior do not generally receive empirical support in all aspects. Thus, we note at the outset that we did not expect all the extravagant claims of the self-esteem movement to be supported.

Even if the self-esteem movement was wrong in crucial respects, its positive aspects and contributions deserve to be recognized and celebrated. The self-esteem movement showed that the American public was willing to listen to psychologists and to change its institutional practices on the basis of what psychology had to teach. It would not be in psychology's best interest to chastise the American public for accepting the ad-

vice of psychologists. If errors were committed, perhaps psychologists should reduce their own self-esteem a bit and humbly resolve that next time they will wait for a more thorough and solid empirical basis before making policy recommendations to the American public. Regardless of the outcome of the self-esteem movement, it showed that there is a voice for psychology in public policy and discourse. If psychology uses that voice judiciously, it may still be able to make a major contribution to the well-being of society.

The Appeal of Self-Esteem

As self-aware and self-reflective creatures, many people intuitively recognize the importance of self-esteem. Not surprisingly, a great deal of psychological theorizing has focused on the motivation to protect and, if possible, enhance self-esteem. Research is showing that even psychodynamic defense mechanisms, which Freud originally understood as ways of keeping threatening sexual and aggressive impulses at bay, serve as strategies to bolster self-esteem (for a review, see Baumeister, Dale, & Sommer, 1998).

But the desire to feel good about oneself is certainly not the only self-related motive at play. Having to cope with reality, people are also motivated to perceive themselves accurately and admit awareness of their undesirable characteristics (Swann, Stein-Seroussi, & Giesler, 1992; Trope, 1986). Nevertheless, people would rather learn positive things about themselves than negative things (Sedikides, 1993). Although they may want to know whether they are good or not, they much prefer to learn that they are good.

Over the past few decades, the need for high self-esteem has risen from an individual to a societal concern. North American society in particular has come to embrace the idea that high self-esteem is not only desirable in its own right, but also the central psychological source from which all manner of positive behaviors and outcomes spring. This strong psychological claim has begun to permeate popular beliefs. Its corollary, the idea that low self-esteem lies at the root of individual and thus societal problems and dysfunctions, has obvious implications for interventions on both the individual and the societal level. The hope that such interventions might work has sustained an ambitious social movement. Nathaniel Branden, a leading figure in the self-esteem movement, stated categorically that "self-esteem has profound consequences for every aspect of our existence" (Branden, 1994, p. 5), and, more pointedly, that he "cannot think of a single psychological problem—from anxiety and depression, to fear of intimacy or of success, to spouse battery or child molestation—that is not traceable to the problem of low self-esteem" (Branden, 1984, p. 12). Other advocates of the movement have endorsed this sentiment. Andrew Mecca, for example, is cited as saying that "virtually every social problem can be traced to people's lack of self-love" (Davis, 1988, p. 10).

Academic and professional psychologists have been more hesitant to endorse strong categorical claims. Eminent clinical psychologist Albert Ellis, for example, is convinced that "self-esteem is the greatest sickness known to man or woman because it's conditional" (cited in Epstein, 2001, p. 72). According to Ellis, people would be better off if they stopped trying to convince themselves that they are worthy. Others believe that concerns about self-esteem are a peculiar feature of Western individualist cultures. According to this perspective, the search for high self-esteem is not a universal human motive, but a cultural or ideological artifact. Indeed, such a motive is difficult to detect in collectivist cultures, and especially in Japan (Heine, Lehman, Markus, & Kitayama, 1999). Even in Western culture, the need for high self-esteem seems to be a rather recent development (Baumeister, 1987). The Judeo-Christian tradition has long considered modesty and humility as virtues conducive to spiritual growth. In this tradition, high self-esteem is suspect because it opens the door to sentiments of self-importance. Medieval theologians considered pride or vainglory to be particularly satanic and thus a deadly sin. To combat it, religious devotees cultivated an unattractive appearance (e.g., shorn hair, no makeup, unfashionable clothes, no jewelry), spoke with self-effacement, and submitted to degrading exercises (e.g., begging, prostrations, self-flagellations).

Such practices are but a faint memory in contemporary popular culture, in which high self-esteem seems to reign supreme. Prodded by Assemblyman John Vasconcellos, the then governor of California George Deukmejian agreed in 1986 to fund a Task Force on Self-Esteem and Personal and Social Responsibility with a budget of \$245,000 per annum for several years. Vasconcellos argued that raising self-esteem would help solve many of the state's problems, including crime, teen pregnancy, drug abuse, school underachievement, and pollution. At one point, he expressed the hope that raising self-esteem would help balance the state's budget because people with high self-esteem earn more money than people with low self-esteem and therefore pay more taxes (Winegar, 1990). It is easy to dismiss and satirize such claims (Dawes, 1994). However, Vasconcellos and the task force also speculated astutely about the possibility that self-esteem might protect people from being overwhelmed by life's challenges and thus reduce failures and misbehaviors, much as a vaccine protects against disease.

Concurrent with its activities in the field, which included creating self-esteem committees in many California counties, the task force assembled a team of scholars to survey the relevant literature. The results were presented in an edited volume (Mecca, Smelser, & Vasconcellos, 1989). Echoing Branden (1984), Smelser (1989) prefaced the report by stating that "many, if not most, of the major problems plaguing society have roots in the low self-esteem of many of the people who make up society" (p. 1). But the findings did not validate the high hopes of the task force, and Smelser had to acknowledge that "one of the disappointing aspects of *every* [italics added]

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chapter in this volume . . . is how low the associations between self-esteem and its [presumed] consequences are in research to date” (p. 15). Given that the correlations were so low, the question of whether low self-esteem in fact caused the societal problems did not even arise.

The lack of supportive data created a dilemma. Should a notion as attractive as self-esteem be abandoned and replaced with more promising concepts, or should the validity of the evidence be questioned? The editors and the authors opted for a mix of these two strategies. Some retreated to a defense of self-esteem on a priori grounds. Undeterred, Smelser (1989) maintained that

diminished self-esteem stands as a powerful *independent variable* (condition, cause, factor) in the genesis of major social problems. We all know this to be true, and it is really not necessary to create a special California task force on the subject to convince us. The real problem we must address—and which the contributors to this volume address—is how we can determine that it is scientifically true. (p. 8)

Others, however, acknowledged the limitations of the findings and called for additional study, or tried to fit more complex theoretical models of self-knowledge to the data. Our report is focused primarily on studies conducted since the review by the California task force. Instead of examining the merits of the more complex models of self, we have retained the hypothesis that global self-esteem causes desirable, adaptive, and beneficial behaviors. There is a certain beauty to this hypothesis because it is simple, clear, and testable. There have also been sufficient methodological advances in study design and statistical analysis that warrant a fresh look at the evidence.

Meanwhile, the self-esteem movement was not deterred by the disappointing findings of the task force. After it was disbanded in 1995, the National Council for Self-Esteem inherited its mandate, which was subsequently taken on by the National Association for Self-Esteem, or NASE. Vasconcellos (now a member of the California Senate) and Jack Canfield (*Chicken Soup for the Soul*) are on NASE’s advisory board, and such media personalities as Anthony Robbins (*Unlimited Power*), Bernie Siegel (*Love, Medicine, and Miracles*), and Gloria Steinem (*A Revolution From Within: A Book of Self-Esteem*) are members of a “Masters Coalition,” created by NASE. The mission statement of NASE minces no words about the presumed benefits of self-esteem. Its goal is to “promote awareness of and provide vision, leadership and advocacy for improving the human condition through the enhancement of self-esteem” (NASE, 2000). The goal of the Masters Coalition is no less ambitious. “It is hoped that the Master Coalition can, in a meaningful way, facilitate the actualization of society and lead to the amelioration, if not elimination, of various negative influences which have operated in part to trivialize and demean the human condition” (NASE, 2000).

It is hard not to conclude that the self-esteem movement has ignored its own major scholarly document (i.e., the Mecca et

al., 1989, volume). In the quest for enhanced self-esteem, any tool in the psychological—and pseudopsychological—box is thrown into the fray, including

disparate psychological models that have given rise to such popular notions as the “inner child”; the “self-image”; principles of proper grieving; “super learning”; “community networking”; “relaxation techniques” and their effects on overall mental and physical well-being; the principles of “neuro-linguistic programming”; and the well-founded scientific basis for the connection between the body and the mind and the effect of this interface on overall wellness. (NASE, 2000)

Even a contributor to the volume edited by Mecca et al. (1989) argued that self-esteem must be enhanced, although its causal role is far from established. “To abandon the search for esteem-related solutions . . . is to admit defeat before exploring all our options” (Covington, 1989, p. 74).

Was it reasonable to start boosting self-esteem before all the data were in? Perhaps. We recognize that many practitioners and applied psychologists must deal with problems before all the relevant research can be conducted. Still, by now there are ample data on self-esteem. Our task in this monograph is to take a fresh look and provide an integrative summary.

An Epidemic of Low Self-Esteem?

A key assumption of the self-esteem movement is that too many people have low self-esteem. Under this assumption, raising self-esteem becomes a meaningful goal. But what does “too many” mean? Self-esteem scales are designed to capture valid individual differences that exist in a population. Thus, a good measure will yield a distribution of scores from low to high. However, unlike some other measurement instruments, such as IQ tests, that are constructed to yield symmetrical distributions centered around an arbitrary mean (e.g., 100), self-esteem scales allow skewed distributions to emerge. The average score typically lies far above the midpoint of the scale, often by more than a standard deviation (Baumeister, Tice, & Hutton, 1989). The fact that most people score toward the high end of self-esteem measures casts serious doubt on the notion that American society is suffering from widespread low self-esteem. If anything, self-esteem in America is high. The average person regards himself or herself as above average.

The skewed distribution of self-esteem scores raises two methodological issues. First, when researchers split samples at the median to distinguish between respondents with high versus low self-esteem, the range of scores among respondents classified as having low self-esteem is much greater than the range of scores among respondents classified as having high self-esteem. A good number of respondents in the low self-esteem category have scores above the midpoint of the scale. In other words, the classification of a person as someone with low self-esteem has no longer an absolute, but only a relative meaning. Second, correlations involving variables with skewed dis-

tributions tend to be smaller than correlations involving variables with symmetric distributions. Moreover, when self-esteem is raised selectively for those respondents with the lowest initial values, correlations between self-esteem and relevant outcome variables shrink further, not necessarily because the elevation of self-esteem had the desired causal effect, but simply because of the restriction in the range of scores. It is always necessary to ask whether relevant outcomes also changed in the desired direction.

The standard finding that most self-esteem scores are high raises the possibility that at least some scores are affected by deliberate or unwitting self-enhancement (Krueger, 1998). Brown (1986), for example, found that people high in self-esteem were also most likely to rate themselves more positively than they rated other people. Because self-enhancement may involve invalid and undesirable distortions of the self-concept, it is unwarranted to rush to boost everyone's self-esteem.

In short, we find no evidence that modern Western societies are suffering from an epidemic of low self-esteem. If anything, self-esteem seems generally high in most North American samples. Regardless of their race, gender, or socioeconomic status, Americans already appear to live in a "culture of self-worth" (Twenge & Campbell, 2001, p. 325). Indeed, levels of self-esteem increased at a time when the self-esteem movement bemoaned the lack of self-love. Disturbingly, academic performance decreased at the same time (Twenge & Campbell, 2001).

PROBLEMS AND CHALLENGES

Measurement of Self-Esteem

Many scales are available for measuring self-esteem, and different investigations have used different ones, which compounds the difficulty of comparing results from different investigations (especially if the results are inconsistent). Blascovich and Tomaka (1991) reviewed multiple measures and found them of uneven quality, giving high marks to only a few (such as Fleming & Courtney's, 1984, revision of Janis & Field's, 1959, scale, and Rosenberg's, 1965, global self-esteem measure). In essence, self-esteem scales ask people to rate themselves in response to questions such as "Are you a worthwhile individual?" "Are you good at school or work?" "Do people like you?" and "Are you reliable and trustworthy?" When researchers check self-esteem measures against the so-called lie scales (also called measures of social desirability, because they assess tendencies to give distorted, even unrealistic answers just to make a good impression), they conclude that self-esteem scores are somewhat contaminated by people's efforts to make themselves look good. These measures also obscure needed distinctions between defensive, inflated, narcissistic, and so-called genuine high self-esteem. (We discuss different varieties of high self-esteem in the next section.) Unfortunately, there is

no objective criterion against which to compare self-reported self-esteem, because of the nature of the construct: Self-esteem essentially consists of how a person thinks about and evaluates the self. In the case of intelligence, for example, self-ratings can be compared against objective performance on intellectual tests, and the results can (and often do) show that people's self-reports of their own intelligence are wrong. But there is no known basis for saying that certain people really have more or less self-esteem than they think they have.

To overcome these measurement problems, some researchers measure *implicit*, or unfakeable, self-esteem by using a variety of subtle methods, such as reaction times to good and bad thoughts that can be paired with the self (Greenwald & Farnham, 2000). Though promising, this research has only recently begun, and it therefore does not play a significant role in this review. Despite the potential pitfalls of *explicit* (i.e., self-report) measures, the fact that scores on different scales are positively correlated (e.g., Greenwald & Farnham, 2000) is an indication that they can be used with some confidence. Even more significantly, the Rosenberg scale, which is by far the most popular among researchers, has been shown to be highly reliable (e.g., if a person completes the scale on two occasions, the two scores tend to be similar). As a measure of global self-esteem, this scale is unidimensional (Gray-Little, Williams, & Hancock, 1997; Robins, Hendin, & Trzesniewski, 2001). Indeed, its reliability is so high that a single item ("I have high self-esteem") may be sufficient (Robins et al., 2001).

Heterogeneity of High Self-Esteem

The high internal consistency of self-esteem measures may mask the possibility that a variety of psychological processes contribute to high (or low) scores. One approach to studying the heterogeneity of self-esteem is to examine the pattern of scores across multiple measurement instruments. Schneider and Turkat (1975) suspected that some people's high self-esteem is defensive rather than genuine, and that these individuals could be identified if they also scored high on the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). The concept of defensive self-esteem has recently been refined by the distinction between deception of others (i.e., impression management) and deception of the self (see Paulhus, 2002, for a review). High self-esteem is considered defensive if it is coupled with high scores on a self-deception scale (which has items such as "I always know why I do things").

Taking a different approach, Kernis and his colleagues (see Kernis & Waschull, 1995, for a review) measure both the overall level and the temporal stability of self-esteem. In many studies, the stability of self-esteem, either by itself or in combination with level of self-esteem, has been shown to predict behavioral outcomes. Baumeister and his colleagues (e.g., Baumeister, 1993; Baumeister, Smart, & Boden, 1996) found that behaviors and outcomes are often more variable for people high in self-

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esteem than for people low in self-esteem. For example, studies often fail to yield a significant correlation between aggression or violence and self-esteem, in part because high self-esteem is associated with both the presence and the absence of aggression. Kernis's work leads to similar conclusions. People with high but unstable self-esteem score higher on measures of hostility than do people with low self-esteem (whether stable or unstable), whereas people with high but stable self-esteem are the least hostile (Kernis, Grannemann, & Barclay, 1989). In other words, people with high self-esteem are found at the extremes of both high and low hostility.

A third approach is to measure narcissism along with, or even instead of, self-esteem. The construct of narcissism involves highly favorable, even grandiose views of self, a sense of being special or unique, fantasies of personal brilliance or beauty, and the belief that one is entitled to privileges and admiration by others (see American Psychiatric Association, 2000). In normal populations, scores on the Narcissistic Personality Inventory (Emmons, 1984; Raskin & Hall, 1981) correlate substantially with self-esteem (Rhodewalt & Morf, 1995; Sinha & Krueger, 1998). The heterogeneity of high self-esteem is indicated by the finding that some people with high self-esteem are not narcissistic, whereas others are; the reverse is not true (i.e., there are very few narcissists with low self-esteem). Bushman and Baumeister (1998) measured both self-esteem and narcissism in laboratory studies of aggression. Narcissism, but not self-esteem, predicted aggression, and only when the target was someone who had previously insulted the participant. The idea that narcissistically high self-esteem is unhealthy is further supported by the finding that narcissists' high self-esteem tends to be unstable (Rhodewalt, Madrian, & Cheney, 1998) and self-defensive (Paulhus, 1998).

Taken together, these lines of research suggest that some low correlations between self-esteem and socially relevant behaviors or outcomes conceal the tendency for different categories of high self-esteem to produce opposite responses. Researchers who believe in the value of so-called genuine or healthy self-esteem may find that they can obtain more valid correlations with desirable outcomes if they control variables such as narcissism, self-deception, or temporal stability. The broader implication is, however, that the category of people with high self-esteem is a mixed bag that contains individuals whose self-opinions differ in important ways.

Theorists and researchers have linked low self-esteem to other constructs, generally focusing on the links between low self-esteem and pathologies such as depression. Recently, low self-esteem has begun to be associated with more general concepts such as emotional lability (a tendency for strong emotions to occur in both directions) and low internal locus of control (a generalized belief that the self is not in control of what happens).

Although there are moderate associations between low self-esteem and pathology (see the section on Coping and Depression), there is also evidence against the notion that the constructs of low self-esteem and depression are isomorphic.

Correlations between self-esteem and depression are of only moderate strength, ranging from .4 to .6 (e.g., Joiner, Alfano, & Metalsky, 1992). Also, a theoretical standpoint indicates that although the psychological processes associated with self-esteem and depression may overlap somewhat (e.g., Abramson, Metalsky, & Alloy, 1989), they are not identical. Rather, the concept of depression has been characterized by a constellation of symptoms, of which low self-esteem is one (Roberts & Monroe, 1999). But low self-esteem is neither necessary nor sufficient for depression.

A recent analysis of the interrelations among self-esteem, neuroticism, locus of control, and feelings of being effective points to a more serious methodological problem regarding their overlap. Judge, Erez, and Bono (2002) found that these constructs are highly related and reflect one overarching construct (which they said was neuroticism, broadly defined). Judge et al. concluded that the ability of any of these constructs to uniquely (i.e., independently) predict outcomes is quite poor, and they urged psychological scientists to begin thinking of each construct in tandem with the others. We concur with this suggestion and hope that researchers will include more of these measures in studies of the effect of self-esteem on objective outcomes.

Global Versus Domain-Specific Self-Esteem

The heterogeneous nature of people who score high on self-esteem measures is not the only reason why the predictive power of global measures of self-esteem is limited. Another reason is that it is difficult to detect a correspondence between a global attitude and specific behaviors or outcomes (Fishbein & Ajzen, 1975). It is not to be expected, for example, that a global sense of being worthy, competent, and popular will predict performance on a trigonometry quiz. Many people may consider mathematical ability to be irrelevant to global self-appraisal, and so their self-esteem could be utterly irrelevant to how well they can perform numerical calculations. Predictions improve when self-esteem is measured for the domain of interest and among people who consider this domain to be personally important (Crocker & Wolfe, 2001). If relevant domains are hierarchically organized, it is important to measure self-esteem at the appropriate level of specificity. If the domain becomes too narrow, the assessment of specific self-esteem may yield only trivial results. For example, a high correlation between people's success at doing long division and their self-evaluation for this task may simply result from people's awareness of their ability in this domain. If so, any attempts to improve performance by way of enhancing self-esteem would fail.

The difficulties of relating global self-esteem to specific behaviors may be overcome, in part, by aggregating behaviors into bundles. But aside from differences in levels of specificity of measurement, there is also a difference in affectivity. Global self-esteem is heavily invested with feelings about the self, whereas specific facets of self-esteem include a variety of self-related thoughts (Brown, 1998; Rosenberg, Schooler, Schoen-

bach, & Rosenberg, 1995). It is perhaps because of its high affective relevance that global self-esteem has been the preferred target for well-intentioned interventions. Interventions at the level of domain-specific self-esteem would arguably become both more fragmented and less affectively charged. For these reasons, we focus our review on global self-esteem.

Floccinaucinihilipilification

The word *floccinaucinihilipilification* is allegedly the longest word in the Oxford English Dictionary, and it is defined as “the action or habit of estimating as worthless.” The definition of low self-esteem involves making a disparaging or low-worth judgment about the self, yet there is mounting evidence that people with low self-esteem are not merely negative about themselves. Rather, they express a generally negative attitude toward many events, circumstances, people, and other realities. That is, they have a tendency toward floccinaucinihilipilification.

The problem this raises for the researcher is twofold. First, it is difficult to distinguish the general negativity from the specific low self-esteem. A good example of this problem emerged in the research literature on prejudice. In early work, researchers assumed that people with low self-esteem would have more prejudice than others toward out-groups, and studies in which people simply rated other groups seemingly confirmed that people with low self-esteem expressed more negative attitudes toward them than did people with higher self-esteem (see Wills, 1981, for review). But Crocker and Schwartz (1985) pointed out that if people rate themselves and their in-groups negatively, it is hardly fair to label them as prejudiced for rating out-groups negatively, too. Such general floccinaucinihilipilification can be corrected by subtracting the ratings of self or the in-group from the ratings of the out-group, and when this was done, the finding was reversed: People with high self-esteem showed greater in-group bias and greater prejudice than people with low self-esteem (see also Aberson, Healy, & Romero, 2000; Crocker & Luhtanen, 1990; Crocker, Thompson, McGraw, & Ingerman, 1987).

Second, floccinaucinihilipilification raises the very substantial danger that self-reports will show spurious correlations between self-esteem and other outcomes. A general tendency toward floccinaucinihilipilification may cause certain people to describe themselves in disparaging terms, thus generating low scores on self-esteem, as well as to describe their lives and outcomes in disparaging terms, thus furnishing the appearance of maladaptive behaviors and pathology. This is one reason why it is important to obtain objective outcome measures.

Need for Objective Measures

All too often, results involving self-esteem are based on the self-report of outcome variables. The problem this raises can be illustrated by the case of a researcher who asks people, “How good are you at juggling red beanbags?” and then takes their answers as indications of their self-esteem in the beanbag-

juggling sphere. If the researcher also decides to use self-reports to measure performance, almost exactly the same question could be used as a measure of performance. The resulting high correlation between the measures of self-esteem and performance would reflect nothing more than the fact that the same question was asked to measure different constructs.

It is essential to keep in mind that self-esteem is measured almost exclusively (and unavoidably) by self-report. People score high in self-esteem because they respond to a questionnaire by endorsing favorable statements about themselves. The habit of speaking well of oneself does not abruptly cease when the respondent turns from the self-esteem scale to the questionnaire asking for self-report of other behaviors. People who like to describe themselves in glowing terms will be inclined to report that they get along well with others, are physically attractive, do well in school and work, refrain from undesirable actions, and the like. That is how they get high scores in self-esteem, but researchers may easily mistake this identical tendency as evidence that self-esteem predicts or even causes a broad range of positive outcomes. Over and over during our survey of the literature, we found that researchers obtained more impressive evidence of the benefits of self-esteem when they relied on self-reported outcomes than when they relied on objective outcomes. The research on the relationship between self-esteem and physical attractiveness provides a good example of such a discrepancy. Most self-esteem scales do not contain items that specifically ask whether respondents consider themselves physically attractive, but they do measure the global tendency to speak well of oneself. It seems plausible that people who speak well of themselves in general would rate their physical attractiveness more highly than others. Then again, it is plausible that physically attractive people would end up with higher self-esteem than other people, if only because attractive people are treated more favorably than unattractive ones throughout life—they are more popular, more sought after, more valued by lovers and friends, and so forth.

Several studies have explored correlations between global self-esteem and self-rated attractiveness, generally finding very strong positive relationships. Harter (1993) described results from multiple studies indicating that the correlation was around .85. This is a remarkably strong connection, indicating that people’s physical attractiveness accounted for more than 70% of the variance in their self-esteem. If this result is correct, it means that people’s self-esteem is mainly based on their appearance. But one cannot easily rule out the possibility that the correlation received an unfair boost by the general tendency to speak well of oneself. People who score high on self-esteem by claiming to be wonderful people in general may claim to be physically attractive, and people who rate themselves relatively poorly overall may derogate their appearance.

Hence, it is important to obtain more objective measures of physical appearance, to match up with the subjective measures of self-esteem. Diener, Wolsic, and Fujita (1995) obtained self-esteem scores from a broad sample of individuals and then

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photographed everyone. The photographs were shown to other judges, who rated them for attractiveness, thus providing an objective measure of physical attractiveness unaffected by self-report. The ratings of attractiveness based on full-length pictures showed a trivial correlation of .06 with self-esteem—not even a significant correlation. Head-and-shoulders photos fared only slightly better, with a correlation of .14, which suggests that physical attractiveness accounted for less than 2% of self-esteem. Even this figure may be inflated, because it could be that people with high self-esteem take particular care to present themselves in a favorable light, such as by wearing attractive clothing and jewelry. When these props were removed to produce unadorned photos of the participants' faces, the correlation of judge-rated attractiveness with self-esteem was .00. In that same investigation, however, self-reported physical attractiveness was found to have a hefty ($r = .59$) correlation with self-esteem. Thus, people's ratings of their own good looks accounted for 35% of the variance in their self-esteem, whereas objective ratings of their looks had a negligible relationship to their self-esteem. People with high self-esteem are gorgeous in their own eyes, but objective observers do not see any difference.

Similar findings were reported by Gabriel, Critelli, and Ee (1994), who obtained peer ratings of attractiveness from photographs. The correlations with self-esteem were negligible: $r = +.01$ for males and $r = -.04$ for females. Again, though, people with high self-esteem rated themselves as more attractive than those with low self-esteem.

The discrepancy is sobering. What seems at first to be a powerful relationship between physical good looks and high self-esteem turns out to be nothing more than a pattern of consistency in how favorably people rate themselves. Those who say they are very good overall tend to say that they look good, too. When other people are brought in to judge unadorned photographs, however, people with high self-esteem do not emerge as any more attractive than people with low self-esteem.

Inflated views of one's own attributes are not confined to physical attractiveness. Gabriel et al. (1994) also asked participants to rate their own intelligence and then gave them an intelligence (IQ) test. People with high self-esteem rated themselves as significantly more intelligent than people with low self-esteem ($r = .35$). But the results of the objective IQ test did not justify these favorable claims, for there was no significant relationship between self-esteem and IQ scores ($r = -.07$). The authors also reported that self-esteem was significantly correlated ($r = .38$) with the discrepancy between self-rated intelligence and objectively measured intelligence. This finding confirms that people with high self-esteem exaggerate their intelligence more than people with low self-esteem.

Weight has long been associated with self-esteem, especially in modern Western cultures that glorify slender, young-looking bodies (especially for women). Hence, a lighter body weight should be associated with high self-esteem, whereas obesity should be linked to low self-esteem. Consistent with that view, a meta-analysis (which statistically combines the re-

sults of multiple studies) by C.T. Miller and Downey (1999) found a significant correlation ($r = -.24$) between actual body weight and self-esteem. But the correlation of self-esteem with self-rated body weight was much stronger ($r = -.72$). Thus, people with high self-esteem are a little slimmer than others, but not nearly as much as they think.

The broad implication of these examples is that self-reports are likely to contain substantial biases that can easily yield misleading empirical findings. People with high self-esteem claim to be successful, attractive, and wonderful in many respects. Objective evidence sometimes paints a much different picture, and many of the ostensible (self-reported) advantages claimed by people with high self-esteem are clearly disconfirmed.

The systematic discrepancies between objective and self-reported outcomes led us to conclude that we should set up our literature search and review to emphasize objective measures of outcomes whenever possible. This vastly reduced the amount of material we could use. But the material that remained is far more reliable and convincing insofar as the results are based on objective measures.

To be sure, objective measures are not always possible to obtain, and reliance on self-report is thus inevitable in some spheres. For example, in the case of happiness, there is almost no alternative to self-report. Even when it is necessary to use self-report, however, we urge researchers to emphasize the most objective, concrete, and verifiable data possible. It seems likely, for example, that global self-ratings of intelligence are more vulnerable to bias and inflation than self-reports of grades in specific courses or scores on specific tests. Behavioral self-reports (e.g., "How many cigarettes did you smoke yesterday?") should be more reliable than vague or "in general" ratings of one's own behavior (e.g., "How much do you smoke? Very much, some, not very much, or not at all?").

The bias in self-report may well be partly responsible for the popularity of self-esteem among teachers, parents, therapists, and others who seek to intervene in people's lives in a positive fashion. A rise in self-esteem may well cause a person to honestly believe that he or she is doing better in many spheres, even if these beliefs are utterly false and stem from the positive illusions that attend high self-esteem. If both teacher and student believe that boosting the student's self-esteem has led to improvements in academic performance, the entire enterprise of boosting self-esteem is likely to be marked by a seductive feeling of success and efficacy. The unfortunate fact that academic performance may not have changed at all by objective measures might be overlooked in the context of the mutually sustained social reality of the belief that performance has improved.

Direction of Causality

A great many researchers have proceeded by administering a self-esteem scale and some behavioral measures and then computing the correlation. Such an approach can establish

links between self-esteem and other variables. Correlations cannot establish causality, however, and so the meaning of such correlations remains highly ambiguous. As anyone who has taken a research methodology course knows, a correlation between X and Y could mean that X causes Y, that Y causes X, or that some other variable causes both. Thus, if self-esteem correlates with good school performance, self-esteem might be either the cause or the result of good performance, or both outcomes could derive from something else, such as a privileged upbringing.

The question of causality goes to the heart of the debate about the self-esteem movement and interventions aimed at boosting self-esteem. If self-esteem causes an assortment of positive outcomes, then it may well be worth considerable effort and expense to instill high self-esteem into children, the mentally ill, stigmatized populations, and other vulnerable or at-risk groups. In contrast, if the correlations mean simply that self-esteem is an outcome of success and good behavior—which is, after all, at least as plausible as the hypothesis that self-esteem is a cause of success—then there is little to be gained by raising self-esteem.

If self-esteem is indeed an outcome rather than a cause, then it is even plausible that raising self-esteem could backfire and produce undesirable effects. Suppose, for example, that working hard in school leads to good grades, and good grades lead to high self-esteem. Assume also that high self-esteem feels good, and so the rise in self-esteem could operate as an important reinforcer for the hard work that leads to academic success. If a school program intervenes directly to boost self-esteem regardless of academic performance, then students can enjoy the rewards of self-esteem without making the effort. One major incentive to work hard would thereby be eliminated, and students might reduce their effort, leading to poorer academic performance. Such speculations indicate the need to attend to the causal processes involved in self-esteem and raise substantial questions about the impact of boosting self-esteem.

The claim that correlational findings can shed no light on causal processes is overstated. Two patterns of correlational findings are especially helpful for evaluating causality. First, if A causes B, or B causes A, then A and B will show up as correlated in most data sets. If A fails to show a significant correlation with B, then it is fair to conclude that there is no causal relationship in either direction (assuming that measurement error or methodological shortcomings are not responsible for the null correlation). Put another way, null correlations falsify causal hypotheses.

Second, causes generally precede consequences in time, and so correlations across time are often used to make causal inferences. If self-esteem on one occasion (Time 1) predicts school performance at a later time (Time 2), whereas school performance at Time 1 does not predict self-esteem at Time 2, then one can reasonably conclude that self-esteem is the cause and school performance is the outcome. Likewise, if self-esteem at Time 1 predicts school performance at Time 2 after differences

in school performance at Time 1 are controlled statistically (in effect, self-esteem at Time 1 predicts change in school performance between Times 1 and 2), then causal inferences may be made, albeit somewhat tentatively.

Insisting that self-esteem must predict achievement at Time 2 after controlling for achievement at Time 1 could obscure some actual causal relationships, so it should be regarded as a highly conservative way of testing the hypothesis. Suppose, for example, that self-esteem does consistently contribute to achievement—and that self-esteem is fairly stable. Achievement at Time 1 is thus a result of prior self-esteem (say, at Time -1). If one controls for achievement at Time 1 when computing the correlation between Time 1 self-esteem and Time 2 achievement, one may be throwing a very large baby out with the statistical bathwater. What in reality was a replication of causal processes (Time -1 self-esteem causing Time 1 achievement, and Time 1 self-esteem causing Time 2 achievement) ends up looking like no relationship at all.

In short, care must be taken to avoid either overstating or understating the causal influence of self-esteem.

METHOD OF SEARCHING THE LITERATURE

The research covered in the subsequent sections of this review was located in the following manner. On several occasions from January 2001 through October 2001, we searched the PsychINFO database and obtained a list of all articles containing “self esteem” in the abstract. Our searches yielded a total of 15,059 publications. We also went to the “subject” category in PsychINFO and searched for “self esteem,” finding a total of 11,860 articles. Because these two lists overlapped substantially, we decided to rely mainly on one of them; we chose the former because it included more entries.

The 15,000-article list was too long to work with, so we narrowed it down using a series of criteria. First, we did not retain work that had not been published and whose sole source was *Dissertation Abstracts International*. This biased our results in favor of positive effects of self-esteem, insofar as null results are difficult to publish. Second, we excluded studies designed to show what causes self-esteem. In other words, we sought to understand the consequences of self-esteem rather than its determinants. Third, we generally eliminated secondary sources in order to obtain original data. Many book chapters, books, and other writings talk about self-esteem, but our goal was to see what the original data indicate. We therefore included secondary sources only if they presented meta-analyses or other authoritative literature reviews.

Three other sources of information beyond the PsychINFO list were utilized. First, we have all been reading and writing about self-esteem for many years, and we all felt it appropriate to contribute any additional work from our own knowledge. Second, sources cited in the articles from the PsychINFO search were also included. This was especially helpful for finding null effects, because researchers who investigate self-esteem

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and fail to confirm predictions often cite previous work to note that their own failure is not unique. Third, in August 2001, we sent out a request on the Listserv of the Society for Personality and Social Psychology asking for any new or unpublished articles on objective outcomes of self-esteem. This request elicited an additional five articles.

Finally, we sought to narrow our list to include only work on outcomes with broad social relevance. We searched for specific relationships between self-esteem and variables of interest, such as health, sexual behavior, financial status, grades, intelligence, job performance and satisfaction, and interpersonal relations.

We then read the remaining articles carefully. At this point, our overriding goal was to obtain studies that included objective evidence of the effects of self-esteem. As we have already noted, some variables (such as happiness) can be assessed only via self-report. Whenever possible, however, we wanted objective or third-party evidence. We also favored studies that sought to establish causal relationships, either by longitudinal designs or by laboratory experimentation.

Given our restrictive criteria, relatively few studies survived from the initial set. Although many thousands of publications refer to self-esteem, relatively few of them report studies that used highly rigorous methods to examine the causal impact of self-esteem on personal and social problems. These few generally represent vast amounts of work and deserve careful attention. We summarize them individually rather than meta-analytically.

SCHOOL PERFORMANCE

The self-esteem movement has been especially influential in American schools, and part of the reason for this is the assumption that raising self-esteem will lead to improvements in children's academic performance. There are plausible reasons for thinking that high self-esteem will lead to good schoolwork. People with high self-esteem may set higher aspirations than people with low self-esteem. They may be more willing to persist in the face of initial failure and less likely to succumb to paralyzing feelings of incompetence and self-doubt. Learning, by definition, involves acquiring information and skills that one does not initially have, and high self-esteem may help prevent the recognition of one's initial incapability from producing a sense that the cause is hopeless. High self-esteem may foster the confidence to tackle difficult problems and enable people to derive satisfaction from progress and success.

Correlational Findings

Many studies have found that self-esteem is positively correlated with academic performance. In an early review, Wylie (1979) concluded that the correlation between self-esteem and students' grade point averages was about .30. She added that similar or slightly stronger relationships had been reported be-

tween self-esteem and scores on various achievement tests. Creativity, however, was not consistently related to any form of self-regard.

The most definitive compilation was Hansford and Hattie's (1982) meta-analysis of 128 studies involving more than 200,000 participants. These studies explored a variety of measures of self-regard (mostly self-esteem) and a variety of objective performance measures, most of which were achievement tests. The correlations reported varied widely, from $-.77$ to $+.96$, and averaged between $+.21$ and $+.26$ (depending on how the average was computed, how studies were weighted, etc.). Hansford and Hattie concluded that overall there is a significant positive relationship between self-esteem and academic performance, with self-esteem accounting for between 4 and 7% of the variance in academic performance.

More recent studies have yielded similar conclusions. Using standard achievement tests, Davies and Brember (1999) found significant though weak positive relationships between self-esteem and academic performance in a large ($N = 3,001$) British sample. The correlations ranged from $.10$ to $.13$, and averaged $.12$. A somewhat stronger relationship was found by Bowles (1999), who showed that self-esteem correlated at $.29$ with students' most recent semester grades in mathematics and English. Kugle, Clements, and Powell (1983) found that scores on a reading achievement test correlated $.18$ with level of self-esteem. However, when these authors controlled for ethnicity, the effect of self-esteem was no longer significant. Thus, these recent studies also indicate that self-esteem goes with doing well in school, although the relationship is weaker than one might have expected in a society that values doing well in school.

As already noted, people with high self-esteem report their intelligence to be high, although there is no relationship between self-esteem and scores on objective IQ tests (Gabriel et al., 1994). Simon and Simon (1975) found scores on self-esteem to be correlated significantly ($r = .33$) with scores on academic achievement tests and also with IQ test scores (thus contradicting the null result obtained by Gabriel et al.). In general, though, there is very little evidence that self-esteem correlates with IQ or other academic abilities.

Self-esteem also predicts performance in minority and at-risk samples. Ortiz and Volloff (1987) found significant correlations between self-esteem and tests of IQ and school abilities, using a limited sample of Hispanic students in grades 3 to 6 who had been nominated for testing as candidates for gifted classes. Howerton, Enger, and Cobbs (1994) studied at-risk Black male students, and found that self-esteem predicted grades and school achievement. Although Howerton et al. used objective measures (school records) of achievement, a drawback of the study is that the sample was very small ($N = 42$).

Different authors have drawn very different conclusions from correlations between self-esteem and school performance. Among the most optimistic was that of Zimmerman, Copeland, Shope, and Dielman (1997): "Efforts either to prevent and stabilize decreasing self-esteem or to build self-esteem

may have vital effects on . . . outcomes for youth” (p. 137). In their own study, Zimmerman et al. measured performance by asking students for general ratings of their grades (e.g., “Are your grades mostly A’s, mostly A’s and B’s . . . ?”), so their results were vulnerable to subjective bias. In addition, the correlations with self-esteem were very weak. Their results do not seem to support their confidence that high self-esteem leads to better grades.

Other authors have inferred that significant correlations between self-esteem and school performance support the opposite causal conclusion, namely, that good work in school leads to high self-esteem. Bowles (1999) specifically measured self-esteem after the semester for which he obtained school grades, so the positive correlation he found seems most consistent with the view that self-esteem is a result, not a cause, of doing well in school. This conclusion was further supported by path analysis (a statistical technique for testing theories about complex chains of causes), which indicated that there was no direct causal path from self-esteem to achievement.

Still other researchers have concluded that the correlations between self-esteem and school performance, albeit significant, are so small as to be not worth pursuing. Rubin, Dorle, and Sandidge (1977) found that self-esteem was significantly correlated with all their measures of achievement, as well as with teachers’ ratings of students’ behavior and performance. Yet statistical analysis showed that taking self-esteem into account barely improved the accuracy of predictions of achievement that were based on socioeconomic status and intelligence (IQ) alone. Rubin et al. wrote, “While these increases were significant, their practical significance is negligible” (p. 506), and they concluded that the links between self-esteem and academic performance are based on “common underlying factors such as ability and background” (p. 503).

These and other findings generally point to a positive but weak and ambiguous relationship between self-esteem and school performance. Students with high self-esteem generally have done somewhat better in school and on school achievement tests than students with low self-esteem. The correlational findings do not indicate whether self-esteem is a cause or a result of school performance. They do, however, furnish one possible explanation for the continuing belief that self-esteem may be beneficial for school performance. Teachers, parents, and others may observe that high self-esteem and good school performance go together and infer that self-esteem plays a causal role. Unfortunately, impressions—even when backed up by significant correlations—do not justify causal conclusions. We now turn to studies that have investigated whether there is a causal relationship between self-esteem and academic performance.

Investigating Causality

Several studies have investigated the time course of the positive relation between self-esteem and academic performance,

as a way of establishing causal priority. Some of these studies have also investigated whether third variables, such as socioeconomic status or intelligence (IQ), could be responsible for the correlations between self-esteem and academic performance.

An early and still well respected study by Bachman and O’Malley (1977) used data from a nationwide longitudinal study that tracked more than 1,600 young men from 1966, when they were in 10th grade, up through 1974. All participants in this study completed a modified version of the Rosenberg (1965) self-esteem scale at several points during this period. Although Bachman and O’Malley found that self-esteem correlated with school performance, their more sophisticated statistical tests (i.e., path analyses) did not point to any causal role for self-esteem. Instead, they concluded that shared prior causes, including family background, ability, and early school performance, affect self-esteem and later educational attainment and were responsible for the correlation between the two. They also concluded that occupational success caused self-esteem to rise, whereas obtaining higher education had a negligible impact on self-esteem. Of all their findings, the one that gives the most credence to the view that self-esteem is an important cause of successful outcomes is that self-esteem in high school predicted eventual level of educational attainment (final degree earned), but in their path analysis the direct link from high school self-esteem to later educational attainment was only .072. Its link to eventual occupational status was similar, at .061. These numbers indicate that the relationship is extremely weak, if it exists at all. Neither link was significant.

The findings of Bachman and O’Malley (1977) are important for several reasons. First, these researchers were perhaps the first to conduct such a thorough and sophisticated study of the impact of self-esteem. Second, they plainly had hoped to find that self-esteem played a causal role, and they favored this hypothesis in their initial exposition. Indeed, they proposed that high self-esteem fosters high aspirations and persistence, which lead ultimately to better academic performance and career success. Third, most subsequent work has generally confirmed their conclusions that self-esteem is a result rather than a cause, and that any correlations between self-esteem and achievement are likely to be due to third variables such as family background.

Another milestone study was conducted by Maruyama, Rubin, and Kingsbury (1981). This research is an important complement to Bachman and O’Malley’s (1977) study because it focused on a much younger age: Maruyama et al. followed a final sample of more than 700 students from age 4 to age 15. Achievement was measured using academic achievement tests, including the Stanford Achievement Test and, later, the Wide Range Achievement Test, which emphasizes spelling, vocabulary, and arithmetic. Like Bachman and O’Malley, Maruyama et al. found that self-esteem and academic achievement are correlated, but concluded that there is no causal relationship between those variables. Instead, they argued that ability (IQ) and social class are the underlying causal factors that affect the levels of both self-esteem and academic achievement.

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A follow-up by Bachman and O'Malley (1986) confirmed their previous findings. In this follow-up, they sought to improve their methodological rigor in several ways. One of these was to confine analyses to White males in White-majority schools. Although the exclusion of minorities is not considered methodologically desirable today, Bachman and O'Malley had quite persuasive reasons for deciding that such inclusion might have weakened the chance for self-esteem to emerge as causally significant. Specifically, in their original sample, African American students scored lower than White students on achievement and ability tests but higher on self-esteem. Combining data from White and African American students could therefore obscure a positive relationship between self-esteem and achievement. The authors also acknowledged that the low achievement scores of African American students might indicate some lack of validity of those measures for such a sample. Any lack of validity would make self-esteem look less effective than it actually is.

Despite their effort to increase the potential for their study to demonstrate effects of self-esteem, Bachman and O'Malley (1986) found that global self-esteem had a negligible relationship to eventual educational attainment. Family background (socioeconomic status), ability (IQ), and early school grades predicted eventual level of educational attainment, and self-esteem added little to the accuracy of prediction. Self-esteem was correlated with actual ability, although self-rated ability was consistently inflated: People thought they were smarter than they actually were. In short, these findings support the role of illusion in self-esteem, but they contradict the view that self-esteem causes long-term educational success.

An article titled "Is There a Causal Relation Between Self-Concept and Academic Achievement?" was published by Pottebaum, Keith, and Ehly (1986). Their answer was a rather blunt negative: "The results suggest that there is no significant causal relation between self-concept and academic achievement [in either direction], but rather that the observed relation is the result of one or more uncontrolled and unknown third variables" (p. 142). A great deal of methodologically sophisticated work went into producing that conclusion. Pottebaum et al. used a sophisticated research design, testing a very large sample of high school students (more than 23,000) in the 10th grade and again in the 12th grade. Self-esteem in 10th grade predicted academic achievement in 12th grade quite weakly ($r = .11$). Conversely, academic achievement in 10th grade predicted self-esteem in 12th grade only trivially better ($r = .12$). The authors noted that a reciprocal causal relationship between self-esteem and academic performance could produce the pattern of findings they obtained—but only if the two variables cause each other with about the same amount of power, which seemed a priori implausible. Hence, Pottebaum et al. concluded it is more likely that self-esteem and academic performance are both the result of a third variable (or set of variables). This conclusion is clearly consistent with what Bachman and O'Malley (1977) and Maruyama et al. (1981)

found, despite different methods and somewhat different numerical results.

A slightly different conclusion was reached by Rosenberg, Schooler, and Schoenbach (1989). They analyzed data from the Youth in Transition longitudinal study that was also the basis for Bachman and O'Malley's (1977) work. They used the 10th- and 12th-grade data for nearly 1,900 boys, including measurements of achievement that relied on having the students report their grade point average in school. This sort of measure is in the middle of the span of methodological rigor that we have outlined: It is not fully objective, but it is somewhat specific and verifiable. A slight tendency of people with high self-esteem to furnish self-flattering reports is to be expected, although the scope for such inflation may be more limited than if respondents are asked a general self-rating question, such as "How good are you at school?"

Rosenberg et al. (1989) did find significantly positive, although weak, correlations between self-esteem and self-reported grades, $r = .24$ in 10th grade and $r = .25$ in 12th grade. Of greater interest were the findings across time. These supported the conclusion that self-esteem is the result of grades, rather than the cause. There was a modest causal relationship (.15) leading from grades to self-esteem, but the causal relationship leading from self-esteem to grades was only .08, which was not significantly different from zero. In other words, there was no solid evidence that self-esteem had any effect on grades, despite the fact that even a weak relationship would likely have been significant because Rosenberg et al. tested so many people.

The view that self-esteem is an outcome rather than a cause of good school performance was further supported in another large and sophisticated study, by Skaalvik and Hagtvet (1990). Their sample consisted of 600 Norwegian schoolchildren in two cohorts, one in third grade (about age 9) and the other in sixth grade at the start of the study. A second set of data was obtained a year and a half later. Achievement was measured by teachers' ratings, which furnish a good measure although erroneous perceptions by the teacher could affect a student's self-esteem (e.g., if the teacher treats the student as a genius or dullard). Skaalvik and Hagtvet found evidence that doing well in school one year led to higher self-esteem the next year, whereas high self-esteem did not lead to performing well in school. In fact, high global self-esteem in grade 6 predicted lower academic achievement in grade 7.

Skaalvik and Hagtvet (1990) also measured students' self-concept of their academic ability. Although our focus is not on domain-specific measures of self-esteem in this review, the findings are of interest. These researchers concluded that self-concept of ability mediates the relation between academic performance and global self-esteem. Specifically, doing well in school leads to thinking of oneself as good at schoolwork, which in turn can boost global self-esteem. There was also some evidence for a causal influence of academic self-concept on school performance, which is thus one finding that suggests thinking well of oneself can lead to better schoolwork (al-

though this relationship involves thinking of oneself as good at schoolwork rather than as good overall). This causal influence was found in some analyses but not others and was not strong. Still, the fact that it was demonstrated at all helps dispel worries that some kind of methodological or measurement problem renders it impossible to verify causal effects of self-concept. This in turn lends further credence to the conclusion that global self-esteem is not a cause of school performance.

Interventions

We found relatively little evidence on how self-esteem programs or other interventions affect self-esteem. Such interventions are practiced in many schools and other places, but it is common for them to target not only self-esteem but also study skills, citizenship, conflict reduction, and other variables. Obviously, if a program that attempts to boost self-esteem and improve study skills ends up producing an improvement in grades, it is hardly safe to conclude that self-esteem is responsible for the improvement. Furthermore, given that the studies investigating causality have not demonstrated that self-esteem has an impact on academic achievement, it seems likely that any attempt to collect solid data on the impact of boosting self-esteem would end up with null results, and the evaluators would not be anxious to publish their results even if they could.

An impressive review of research on such programs was published by Scheirer and Kraut (1979). The title, "Increased Educational Achievement via Self-Concept Change," sounds promising with respect to the benefits of self-esteem, but the findings were not. Scheirer and Kraut covered evidence from both published and unpublished evaluations of school-based interventions and programs, including Head Start, the Early Training Project, and Upward Bound. By and large, the evaluations of these studies "generally failed to find an association between self-concept change and academic achievement" (Scheirer & Kraut, 1979, p. 140). When there was an association, it tended to be temporary (i.e., it was not maintained beyond the end of the program), or it indicated that self-esteem was the result of academic achievement rather than the cause. Programs that targeted factors other than self-esteem (such as by encouraging parents to become involved in their children's schoolwork) seemed to get better results.

Scheirer and Kraut (1979) carefully considered a variety of factors that could have led to the general pattern of null results, including poor measurement, methodological problems, and failure to implement interventions properly, among others. Yet as far as they could tell, these factors were not sufficient to explain the broad pattern of results. For example, they noted that some interventions that did not target self-esteem had produced measurable gains in academic performance. Hence, they concluded that the most likely explanation of the disappointing results was that the basic theoretical hypothesis—namely, that improving self-esteem will lead to better academic performance—was wrong. They said that self-esteem may be an out-

come of academic achievement, but it does not appear to be a cause or a mediating variable.

A nicely controlled field experiment by Forsyth and Kerr (1999) provided converging evidence using an adult (college student) sample. This investigation was conducted in connection with a regular course. Students who received a C, D, or F on the first examination were targeted to receive weekly e-mail messages from the professor. Each message contained a review question pertaining to that week's assignment. In the control condition, the review question was all that was included in the e-mail. Students who were randomly assigned to two other groups, however, received either a message aimed at boosting their sense of personal control and responsibility for their own performance or a message aimed at boosting and maintaining their positive sense of self-worth. These manipulations had no effect on the C students, but the D and F students who received the self-esteem boost performed significantly worse on subsequent tests than the D and F students in the other conditions.

Forsyth and Kerr's (1999) study is of interest because it involved full random assignment and because it found significant differences as a function of treatments aimed at self-esteem. Unfortunately for the self-esteem movement, the findings suggest that the intervention aimed at boosting self-esteem was counterproductive in its impact on academic performance. We have already noted some evidence linking high self-esteem to subsequently poorer performance (e.g., Skaalvik & Hagtvet, 1990), although the preponderance of findings suggests that self-esteem is positively linked to academic achievement. Still, Forsyth and Kerr used an intervention rather than simple measurement of current self-esteem, and they aimed their intervention specifically at low-performing students. Their results are consistent with the view that self-esteem is an important reinforcer for good academic performance and that supplying the reward indiscriminately (i.e., not linking it to good performance) may deflate its reward value. In plainer terms, students may ordinarily work hard in order to be permitted to feel good about themselves, and an intervention that encourages them to feel good about themselves regardless of work may remove the reason to work hard—resulting in poorer performance.

Conclusion

The impact of self-esteem on school performance has been studied more carefully and thoroughly than any other outcome we discuss in this review. We were able to find studies that used longitudinal designs and other methods that can address causation, used objective methods rather than relying on self-report, and attempted to untangle self-esteem from other variables.

The results do not support the view that self-esteem has a strong causal effect on school achievement. Indeed, most of the evidence suggests that self-esteem has no impact on subsequent academic achievement. The few studies suggesting any positive causal impact of self-esteem generally found only tiny

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effects. Some findings even point (again weakly) in the opposite direction, suggesting that high or artificially boosted self-esteem may detract from subsequent performance.

There were in fact some reasons to hope that self-esteem would be more potent. On a theoretical basis, self-esteem seemed likely to enhance academic strivings and persistence. Early empirical findings may also have encouraged the belief that self-esteem is helpful, because simple correlations between self-esteem and academic performance have often been positive and significant (as noted by Wylie, 1979). Unfortunately, those correlations appear to be due to processes other than self-esteem causing good performance. First, good performance in school may sometimes lead to higher self-esteem, instead of the reverse. (Even that tendency is disappointingly weak, however.) Second, self-esteem overlaps with other variables, and when these are controlled in the statistical analyses, the proportion of variance in performance accounted for by self-esteem dwindles rapidly.

JOB AND TASK PERFORMANCE

Applied to the world of work, the self-esteem hypothesis suggests that people who feel better about themselves perform better. Early reviews of studies on the relationship between self-esteem and work performance noted the high variability of the reported size and nature of this relationship (Brockner, 1983; Tharenou, 1979). Judge and Bono (2001) surveyed the results of 40 studies with more than 5,000 participants and found that most of them showed weak positive relationships. In some studies, self-esteem was measured with global indices, such as the Rosenberg scale, whereas in others, it was measured more specifically as organization-based self-esteem. Similarly, there were differences in the way performance was measured. Some studies employed self-perception measures, whereas others used supervisors' ratings or objective measures. Whether the association between self-esteem and performance was moderated by such differences in measurement was not reported.

Ultimately, the results regarding the link between self-esteem and job performance seem to echo what has been found with school performance: The simple search for correlations yields a modest positive relationship, such that high self-esteem goes with better performance. However, the reported link between self-esteem and job performance is highly variable, in contrast to the more consistent findings regarding school performance. A likely explanation is that the relevance of self-esteem to work performance varies substantially because the demands and rewards of different occupations are highly variable.

The most important point, however, is that correlational findings do not permit causal inferences. Self-esteem might improve job performance. Then again, occupational success might well boost self-esteem, whereas failure at one's job may deflate it. As in the case of school performance, time-lagged longitudinal studies are useful for determining whether self-

esteem is a result or a cause of good performance, but these have not yet been done.

A quite different approach to studying how self-esteem may influence performance is to investigate the relationship in the laboratory. Such studies typically measure self-esteem as a pre-existing trait and then investigate task performance in the laboratory. In most cases, researchers manipulate other variables such as initial failure or size of reward to investigate how they interact with self-esteem.

Performance Quality

Relatively few studies on the effect of self-esteem on performance quality have been published, and this leads us to suspect that the results are typically nonsignificant. We can point to evidence from our own laboratories. Wallace and Baumeister (2002) had students solve arithmetic problems under varying levels of challenge and performance pressure. There was no effect of self-esteem on any of the performance measures. Baumeister, Heatherton, and Tice (1993) examined performance at a video game that was presented as a test of nonverbal intelligence. Across multiple studies, there was essentially no effect of self-esteem on performance. The control conditions (which indicate whether there is a link between self-esteem and performance in the absence of special interventions) typically showed no difference in performance as a function of self-esteem, whereas ego threat in the form of critical feedback on a prior test caused people with high self-esteem to perform worse than those with low self-esteem.

In contrast, J.D. Campbell and Fairey (1985) found that people with high self-esteem performed better than those with low self-esteem on an anagram test when participants were first asked to write explanations for a hypothetical failure (there were no self-esteem differences when participants first wrote explanations for a hypothetical success or in a control condition). Thus, when the prospect of a possible failure is salient, higher levels of self-esteem may benefit task performance. In general, though, self-esteem seems to have little or no direct relationship to task performance.

Persistence at Tasks

Conventional wisdom claims that persistence is a vital aspect of performance (at both school and work). The research on persistence has generally been consistent with the notion that a core characteristic of people with high self-esteem is their tendency to persist in the face of failure (e.g., McFarlin, Baumeister, & Blascovich, 1984; Perez, 1973; Shrauger & Sorman, 1977, Study 1).

The conventional wisdom notwithstanding, blind persistence is not an ideal self-regulatory strategy; there is also value in knowing when to quit. Some studies have not found a correlation between greater persistence and high self-esteem, but these seeming failures to replicate suggest that individuals with

high self-esteem may make better use of cues telling them whether it is prudent to persist or withdraw. For example, Janoff-Bulman and Brickman (1982) and McFarlin (1985) told some participants that some of the tasks that they would work on did not have solutions. This information caused high self-esteem participants to persist less (compared with the control participants who did not receive this information), but did not affect the persistence of low self-esteem participants. In a similar vein, Sandelands, Brockner, and Glynn (1988) advised some participants that persistence was a wise strategy and others that it was a less prudent strategy. People with high self-esteem persisted more in the former condition than in the latter, whereas those with low self-esteem were relatively unaffected by the manipulation.

Thus, when people are given advice or cues that persistence may not be a good strategy, those with high self-esteem persist less than those with low self-esteem. Results were rather different, however, when McFarlin et al. (1984) directly told participants what to do when they encountered a difficult problem (quit or persist). In this case, low self-esteem participants were responsive to the instructions, whereas high self-esteem participants were not. Taken together, these studies suggest that people with high self-esteem make better use of situational cues in deciding for themselves the appropriate course of action, but that people with low self-esteem may be more responsive to directions that simply tell them what to do.

Although these experiments are interesting, in the real world individuals are rarely (if ever) provided with this kind of information. Indeed, persistence is a ubiquitous phenomenon precisely because people are not given such direct advice. The experiments also differ from natural conditions in that experimental participants experience only a single instance of failure, and there are no opportunities to pursue alternative goals or tasks (Bandura, 1989). Under these conditions, persistence at the failed task seems to be a reasonable strategy. In contrast, if one has experienced multiple failures on a task and, as is typically the case outside the laboratory, there are opportunities to pursue alternative goals, it seems more adaptive to abandon the original task in favor of an alternative.

Di Paula and Campbell (2002) recently examined the relationship between level of self-esteem and knowing when to quit. First, they conducted a laboratory experiment in which they manipulated the degree of failure (a single, initial failure or three instances of failure) and the availability of an alternative goal. Compared with low self-esteem participants, high self-esteem participants persisted more after a single failure, but less after repeated failure when an alternative was available. In a second correlational study, participants enumerated 10 specific goals at the beginning of an academic year and at the end of the year indicated, for each goal, their perceived progress and behavioral persistence, as well as how much they had ruminated about the goal. Self-esteem was positively correlated with achieving more goals, more satisfaction with progress toward goals, more behavioral pursuit of goals, and

less rumination. More important, compared with participants with low self-esteem, those with high self-esteem showed higher correlations between their ratings of perceived progress and behavioral persistence across the 10 goals.

Taken together, this research supports the notion that high self-esteem individuals utilize more adaptive self-regulatory strategies than low self-esteem individuals; these strategies may, in fact, be a factor in their higher levels of reported happiness and satisfaction (reviewed in a later section). The fact that high self-esteem people have more functional responses to failure may also convey slight advantages in performance, and thus contribute to the (weak) associations between self-esteem and performance.

Conclusion

High self-esteem has value in causing people to persist longer in the face of failure, at least when there is no viable alternative task or goal to pursue and when no cues suggest that persistence is not a good strategy. When there is an alternative goal or information that persistence may be a poor strategy, high self-esteem is also associated with knowing when to quit. Thus, in performance contexts, high self-esteem people appear to use better self-regulation strategies than low self-esteem people.

It is difficult to draw firm causal conclusions about self-esteem and other aspects of job and task performance. Overall, there are weak positive correlations between job performance and self-esteem, but these may be due in whole or in part either to successful performance improving self-esteem or to self-report biases. There is no strong evidence indicating specifically that high self-esteem leads to improved performance on the job. The links between self-esteem and job performance deserve more systematic and careful study, using objective measures and longitudinal designs. However, if high self-esteem consistently produced better performance in laboratory tasks, this would be well established by now, and the lack of such evidence suggests to us that self-esteem has little impact on task performance.

INTERPERSONAL RELATIONS

Another major sphere of life activity is interpersonal relations. The apparent failure of self-esteem to contribute directly to improvements in academic and job performance would easily be offset if self-esteem helped people to get along better with others.

It is certainly plausible that high self-esteem would improve interpersonal relations. People with high self-esteem claim to be more popular than people with low self-esteem (Battistich, Solomon, & Delucchi, 1993), although as already noted, self-reports are not reliable guides to objective realities. High self-esteem might well make a person more likable insofar as people may prefer to interact with confident, enterprising indi-

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viduals and to avoid interacting with people who suffer from self-doubts and insecurities. The reverse causal relationship is also quite plausible, of course, and indeed it forms the centerpiece of the *sociometer theory* of self-esteem put forward by Leary and his colleagues (Leary, Tambor, Terdal, & Downs, 1995; see also Leary & Baumeister, 2000; Leary & Downs, 1995). According to this view, self-esteem operates as an internal measure of one's interpersonal appeal and success. Popularity would therefore cause self-esteem to rise, whereas social rejection would cause it to drop. It is also plausible that high self-esteem elicits dislike, insofar as people reject conceited or arrogant individuals.

Friendship Patterns and Interpersonal Interactions

As already noted, people with high self-esteem claim to be especially popular (Battistich et al., 1993). They also rate their friendships as being of higher quality compared with people with low self-esteem (Keefe & Berndt, 1996). People low in self-esteem report more negative, aversive social interactions, more stressful life events, and less social support than people high in self-esteem (Lakey, Tardiff, & Drew, 1994). In the workplace, people with high self-esteem claim to get along better with their co-workers (although not with their supervisors), compared with people with low self-esteem (Frone, 2000). Thus, self-reports indicate that the social lives of people with high self-esteem are far better, richer, and more satisfying than the lives of people with low self-esteem. But are these claims justified?

In a large sociometric study by Bishop and Inderbitzen (1995), 542 ninth-grade students nominated their most-liked and least-liked peers. On the basis of these votes, each person was put into one of five categories along a span of degree of popularity (i.e., popular, average, controversial, neglected, rejected). Perhaps surprisingly, these categories showed no correlation with self-esteem whatsoever. This finding contradicts both the view that high self-esteem is socially appealing and the theory that self-esteem results from peer approval. One finding that offered minimal support for the general self-esteem hypothesis was that people who had no reciprocal friendships at all exhibited lower self-esteem than people who had at least one. Beyond one reciprocal friendship, however, self-esteem appeared to be irrelevant to friendship status and popularity.

Glendinning and Inglis (1999) categorized students into four distinct social groups on the basis of their self-reported attitudes about peer relations and their own popularity and then related group membership to the students' self-esteem levels. The social groups were called "peer oriented" (i.e., high status, popular with peers), "conventional" (i.e., middle status, accepting of authority), "socially isolated" (i.e., hard to make and keep friends), and "disaffected" (i.e., troublesome, disrespectful of authority). Results showed that adolescents with low self-esteem were relatively more common in the socially isolated and disaffected categories, whereas those with high self-

esteem were more often found in the conventional and peer-oriented categories. Unfortunately, because these findings were based on students' self-rated popularity rather than peer ratings, they may reflect the tendency of people with high self-esteem to rate themselves favorably. Without objective measures, it is hard to know whether some students were actually more popular or merely believed themselves to be so.

A somewhat better approach was taken by Dolcini and Adler (1994), who asked a subsample of eighth graders to indicate which peer group, or "crowd," every other student in the eighth grade belonged to, and then obtained self-esteem scores from all the students directly. Global self-esteem did not differ among the different crowds, although there were some effects for domain-specific self-esteem. For example, the academically oriented "smart" crowd scored higher than the jocks on academic self-esteem, and the athletic crowd scored higher than the bookworms on athletic self-esteem.

Adams, Ryan, Ketssetz, and Keating (2000) used teachers' ratings as the basis for evaluating the interpersonal behavior and social desirability of 300 schoolchildren in grades 4 and 7 in Ontario, Canada. Two main types of desirable behavior were the focus of the ratings: peer sociability, which included popularity and good relationships, and desirable classroom behavior, which included following rules and behaving properly in class. Neither popularity nor classroom behavior varied as a function of self-esteem. Several background factors and child characteristics did successfully predict these outcomes, though (e.g., high scores on assertiveness were correlated with higher popularity but also higher levels of rule breaking in class). Thus, the null findings for self-esteem do not appear to reflect a general failure of measurement or a high amount of random fluctuation. Self-esteem did show some correlations with some of the background variables, such as family cohesion, but even though these background variables predicted popularity and classroom behavior, self-esteem failed both as a possible mediator and as an independent predictor of the outcomes. The authors concluded glumly that their findings "call into question whether self-esteem is a potential causal agent or even a correlate of interpersonal relations or classroom citizenship" (p. 247).

A smattering of methodologically sound studies with adult college students has examined the social interaction patterns of people high in self-esteem. An important study by Buhrmester, Furman, Wittenberg, and Reis (1988) examined a variety of interpersonal behaviors. All the students were rated both by themselves and by their roommates, so the method offered a valuable opportunity to compare subjective and external perspectives. As usual, people high in self-esteem rated themselves as significantly better than other people on all interpersonal skills: They claimed to be substantially better at initiating relationships ($r = .63$), better at disclosing things about themselves ($r = .41$), better at asserting themselves in connection with objectionable behaviors by others ($r = .40$), better at providing emotional support to others ($r = .30$), and significantly better at managing interpersonal conflicts ($r = .20$).

The roommates' ratings told a very different story, however. For four of the five interpersonal skills, the correlation between self-rated self-esteem and roommate-rated skill fell short of significance, ranging from .01 for conflict management to .15 for assertion in the face of objectionable behaviors. In the case of initiating new social contacts and friendships, the link to self-esteem ($r = .38$) remained significant but was substantially lower than the link between self-esteem and self-rated skill at making new friends. A troublesome aspect of this study's findings was that roommate-rated self-esteem correlated better than self-rated self-esteem with roommate-rated social skills, and the correlations between roommate-rated self-esteem and roommate-rated interpersonal skills were quite similar to the correlations between self-rated self-esteem and self-rated interpersonal skills. Self-esteem almost certainly has to be more accurate when reported by the self than when estimated by others, and so these findings raise the worrisome possibility that the correlations were due to some kind of response bias that resulted in answers to questions about self-esteem being similar to answers to questions about interpersonal skills.

The findings of Buhrmester et al. (1988) thus suggest that people high in self-esteem regard themselves as having an impressive range of superior social skills, but that these skills are not readily discerned or confirmed by others. By and large, roommates did not find their high self-esteem roommates to be any more socially skilled than their low self-esteem roommates. The only significant exception involved skill in initiating new relationships and interactions. This does seem to be one sphere in which confidence could come into play: People who think that they are desirable and attractive might well be willing to strike up conversations with strangers, possibly because they do not expect rejection. In contrast, people with low self-esteem might shy away from initiating such contacts.

Interpersonal interactions were studied in the laboratory by Brockner and Lloyd (1986). All subjects first rated their self-esteem and then had a 10-min "get acquainted" conversation with a member of the opposite sex. Care was taken to ensure that conversational partners did not know each other prior to the session. Afterward, they answered questions about their impressions of each other. In addition to these peer ratings, self-ratings of likability were obtained. People with high self-esteem estimated that their partners had liked them much more than people with low self-esteem, but partners' actual ratings did not show even a hint of this correlation. It is also noteworthy that people with low rather than high self-esteem appear to have been responsible for the discrepancy between self-ratings and partner ratings: People low in self-esteem estimated that their partners liked them much less than the partners actually indicated, whereas people high in self-esteem estimated their partners' ratings quite accurately. These results dovetail with those of Buhrmester et al. (1988): High self-esteem makes for thinking oneself popular and likable, but in reality people with high and low self-esteem are equally likable.

Similar findings were reported by J.D. Campbell and Fehr

(1990). After a 15-min get-acquainted conversation, people estimated how their partner and an observer would evaluate them and rated how favorably they evaluated their partner. Ratings were also obtained from uninvolved observers. People with high self-esteem estimated that their partners and observers would rate them more positively than people with low self-esteem, but there was no difference in the actual ratings by partners or by observers. As in the study by Brockner and Lloyd (1986), people high in self-esteem estimated quite accurately how much their partners liked them (low self-esteem people underestimated how much their partners liked them). However, because the observers rated everyone more harshly than did interaction partners, low self-esteem people were more accurate in their estimates of the observers' ratings.

A more complex laboratory investigation of self-esteem and interpersonal liking was recently published by Heatherton and Vohs (2000). They reasoned that the null findings of Brockner and Lloyd (1986) might have been due in part to the relatively neutral context, so they introduced a manipulation of ego threat. Specifically, prior to the conversational interaction, half of the participants took a difficult intellectual test and received esteem-threatening feedback that they had performed far worse than their peers. The other participants took a neutral version of the same test, which was labeled as a pilot task, and received no feedback. Then all participants had a structured, 20-min conversation with a naive participant involving topics of low, medium, and high intimacy. Finally, the participants rated how much they liked each other.

Heatherton and Vohs's (2000) results showed that self-esteem interacted with ego threat. In the control condition, in which there was no blow to anyone's pride or sense of competence, people were liked equally regardless of their level of self-esteem. In that respect, the results replicated the findings of Brockner and Lloyd (1986) and J.D. Campbell and Fehr (1990). In the ego-threat condition, however, differences did emerge. People with high self-esteem were given lower ratings than people with low self-esteem. These findings directly contradict the view that high self-esteem leads to better interpersonal liking. (They also contradict the so-called buffer hypothesis, which holds that people with high self-esteem cope better with stress and adversity. We discuss this hypothesis further in the section on Coping and Depression.) Additional evidence suggested that the decreased liking for people with high self-esteem in the ego-threat condition compared with the control condition was due to their being perceived as antagonistic. In contrast, and perhaps counterintuitively, low self-esteem people were liked significantly more in the ego-threat condition than in the control condition.

These findings were corroborated by Vohs and Heatherton (in press) in a naturalistic study of 372 college men and women who were rated by their peers. Participants' global self-esteem was assessed during the spring of their senior year in high school and then again midway through their 1st year at an Ivy League college. Those whose self-esteem dropped substan-

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tially (i.e., by 1 *SD*), presumably because the move to college shook their positive sense of self, were placed in the ego-threat group, and compared with students whose self-esteem did not drop. This study supported Heatherton and Vohs's (2000) previous studies in showing that high self-esteem men and women who were threatened were liked least by their peers. Once again, being seen as antagonistic mediated the effect.

Vohs and Heatherton (2001) looked into possible mechanisms underlying these results. They found that high and low self-esteem people think about themselves differently after threat, such that high self-esteem people become more independent and less interdependent (i.e., they emphasize self-reliance and believe that they really do not need other people), whereas the opposite is true for low self-esteem people (i.e., they emphasize interpersonal relations, even at the expense of the self). In the absence of threat, however, high and low self-esteem people show no differences in concern for the self versus interpersonal relations. Further, Vohs and Heatherton found that it is seeing the self as separate versus connected to others that drives differences in likability and personality perceptions between high and low self-esteem people who have experienced an ego threat.

Converging evidence was recently provided by Bonanno, Field, Kovacevic, and Kaltman (2002). They found that untrained observers disliked people prone to self-enhancement. Among the same group of participants, the size of the tendency toward self-enhancement was associated with the self-reported ability to cope with stress and trauma (see the section on Coping and Depression). Put another way, holding an inflated view of themselves helped people feel good and recover from trauma, but also tended to alienate others.

Other evidence, however, suggests that people with high self-esteem are liked better if certain conditions are met. Joiner et al. (1992) conducted a 5-week study of same-gender roommates, measuring roommates' liking using a modified version of the Rosenberg scale. Thus, if roommates rated people as they rated themselves, people low in self-esteem would appear to be disliked, and people with high self-esteem would appear to be liked. This procedure therefore made it extra likely that people with high self-esteem would emerge as well liked. Even so, people with low self-esteem were liked less than others only if they were male, depressed, and prone to reassurance seeking (an annoying pattern of interpersonal tactics designed to elicit positive, supportive comments from others). The results for females, nondepressed individuals, and other participants did not show greater dislike or disparagement of people with low self-esteem than people with high self-esteem.

Romantic and Intimate Relationships

The role of self-esteem in romantic relationships has received fairly little attention. In particular, little is known about whether self-esteem predicts the durability of romantic relationships. One study with a very small sample ($N = 30$) found

that couples with low self-esteem were more likely than couples with high self-esteem to break up over a 1-month period (S.S. Hendrick, Hendrick, & Adler, 1988). Data on love styles and self-esteem support this finding, showing that low self-esteem is related to feelings of manic love, which is characterized by extreme feelings of both joy and anguish over the love object (W.K. Campbell, Foster, & Finkel, 2002). High self-esteem is related to passionate, erotic love, which is marked by the escalation of erotic feelings for the love object. These findings are consistent with other studies showing that, compared with people with high self-esteem, those with low self-esteem experience more instances of unrequited love (Dion & Dion, 1975) and more intense feelings of love for others (C. Hendrick & Hendrick, 1986).

Several findings indicate that relationship behavior differs as a function of self-esteem. Murray, Rose, Bellavia, Holmes, and Kusche (2002) found that people low in self-esteem engage in a variety of potentially destructive behaviors. They tend to distrust their partners' expressions of love and support, and so they act as though they are constantly expecting their partners to reject and abandon them. Thus far, however, these patterns have not translated into any evidence that the relationships are actually more likely to dissolve.

Thus, despite the relationship problems caused by low self-esteem, relationships are no more likely to break up if a partner has low self-esteem than if a partner has high self-esteem. Possibly the reason for this is that high self-esteem leads to relationship problems, too. Rusbult, Morrow, and Johnson (1987) examined four types of responses to problems within close relationships, and found that self-esteem produced the largest difference in the active-destructive ("exit") category of responses. People with high self-esteem were significantly more likely than others to respond to problems and conflicts by deciding to leave the relationship, seeking other partners, and engaging in other behaviors that would actively contribute to the deterioration of the relationship. These results were based on responses to hypothetical scenarios, which share many of the drawbacks of self-report measures. However, as the authors noted, it seems unlikely that their findings can be attributed to a simple response bias because people with high self-esteem were admitting to more undesirable, rather than desirable, behaviors.

Shackelford (2001) found that self-esteem was intertwined with a variety of patterns in marriage, although he did not provide evidence as to whether high self-esteem affects the durability of marriages. Spouses showed similar levels of self-esteem, with global self-esteem of spouses correlating at .23 and physical self-esteem (including self-rated attractiveness) correlating fairly strongly at .53. Significantly, Shackelford regarded self-esteem as an outcome rather than a cause of marital interactions, although his data were correlational. Wives' fidelity was the strongest predictor of husbands' self-esteem. This might indicate that men with high self-esteem cause their wives to remain faithful, or—as Shackelford speculated—that cuckolded husbands experience a loss of self-esteem.

Most important, women complained more about husbands with low than with high self-esteem. Low self-esteem men were derided by their wives as jealous, possessive, inconsiderate, moody, prone to abuse alcohol, and emotionally constricted. Again, the direction of causality is difficult to determine. Possibly, husbands' low self-esteem elicits negative perceptions among wives. Conversely, being disrespected or despised by his wife may lower a man's self-esteem. Yet another possibility is that having a variety of bad traits leads both to low self-esteem and to being disrespected by one's wife. Meanwhile, the self-esteem of wives was unrelated to their husbands' complaints about them, except that husbands who criticized or insulted their wives' appearance were generally married to wives with low self-esteem, and indeed Shackelford (2001) found that this was the most consistent predictor of low self-esteem among wives.

Group Behavior and Leadership

Behavior in groups is an important complement to behavior in intimate dyadic relationships. We found relatively little work that shows objective behavioral effects of self-esteem in group settings. One notable exception is an impressive longitudinal study by LePine and Van Dyne (1998). These researchers compiled a broad sample of work groups, consisting in total of nearly 600 employees in 21 different organizations. They followed the groups for 6 months and obtained peer ratings of the behavior of each participant. The main variable of interest was "voice behavior," defined as the willingness to speak within the group, criticizing its operation or proposing alternative routes of action. Voice behavior is vital to an organization's long-term success, because innovation depends on it, as do the group's chances for stopping itself from proceeding down a destructive path (as in "groupthink"; Janis, 1982). Because speaking up and criticizing the group require initiative and a willingness to deviate from the group's apparent consensus, the authors predicted that high self-esteem would lead to greater voice behavior.

This prediction was confirmed, although the effect was only marginally significant. Across the 6-month period, LePine and Van Dyne (1998) found that high self-esteem led to more voice behavior, though it accounted for only 1% of the differences between people on that dimension. Moreover, it was indeed people high in self-esteem who were most willing to speak out. An additional 3% of the variance in voice behavior was accounted for by interactions of self-esteem with other variables, especially group size. As one might expect, as groups became larger, fewer people were willing to speak out against the consensus or criticize the group, but this pattern of declining initiative was less pronounced for people high in self-esteem than for those low in self-esteem. Put another way, people with high self-esteem were less intimidated by the prospect of speaking out in a large group.

Thus, high self-esteem was found to have one benefit, and it was a benefit that fits well with theoretical assumptions. Taking

initiative and criticizing a group would seemingly require having some confidence in one's own views, and sure enough, people with high self-esteem were rated by their peers as more willing and more likely to do those things. It is in fact surprising that the effect was so small.

Group performance was also investigated in a longitudinal study by Paulhus (1998). He had 4-person and 5-person groups meet once per week for 7 weeks to discuss readings for their psychology class. Group members rated each other after the first and last weeks. Self-enhancement, defined as rating oneself more favorably than group members did, was positively correlated with narcissism at the end of the study (whereas if anything, narcissists came across as fairly modest at the initial assessment). In contrast, self-esteem showed a weak, but positive correlation with self-enhancement at both times. The most relevant outcome variable, however, was the rating of each individual's contribution to group performance. People with high self-esteem were rated more positively than people with low self-esteem at both times ($r = .25$ and $r = .28$, respectively), indicating good contribution to the group's work. The heterogeneity of high self-esteem was evident, however, in the ratings of narcissists. Initially, narcissists were rated quite positively as contributing to the group, but by the end of the 7th week, the favorable impression of narcissists had disappeared completely ($r = -.01$). In a second study, similar results were found, and in addition, narcissists went from generally positive peer ratings initially to being rated as cold, arrogant, inclined to brag, prone to overestimate self, and hostile by the end of the study.

The second study also solicited ratings by friends prior to the series of group meetings, which allowed Paulhus (1998) to calculate a second, pretest, measure of self-enhancement, that is, each person's tendency to rate himself or herself more favorably than friends did. The pattern of ratings for participants with high scores on this pretest measure of self-enhancement was quite similar to the pattern found for narcissists—peers' ratings of their contribution to the group were significantly positive initially, but this positive impression was gone in the final ratings. The ratings at the end of the study depicted self-enhancers as confident, but cold, arrogant, prone to brag, defensive, and hostile.

Leadership is another important aspect of group behavior, and most experts would say that the causes and determinants of good leadership form a set of questions that psychology has not yet managed to answer to everyone's satisfaction. Intuition suggests that leadership ought to correlate with self-esteem, although the causal arrow could point in either direction. High self-esteem might give a person the confidence and initiative to take charge of a group, make decisions under pressure or uncertainty, and expect that others will do his or her bidding. But it is also plausible that becoming a leader engenders a sense of personal superiority and brings about a rise in self-esteem. Certainly, the careers of many exceptional leaders in history suggest that they must have had some high degree of self-confidence in order to make it to the top and that, conversely,

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over time their positions of power encouraged them to become narcissistic and sometimes megalomaniacal (Baumeister, 1989).

An impressive study of leadership among military cadets was recently published by Chemers, Watson, and May (2000). The cadets were followed over time, including during a special summer program devoted to leadership training. The measures included ratings by peers and by military science professors, as well as objective performance on two leadership tasks and two nonleadership tasks (rifle marksmanship and land navigation). Simple correlational analyses showed some significant effects of self-esteem. It predicted peer ratings, professors' ratings, and performance on the second (though not the first) leadership exercise, as well as performance on the two control nonleadership tasks.

Self-esteem, optimism, and leadership efficacy (feelings of being a good leader) proved to be intercorrelated, however, so the authors conducted more rigorous statistical analyses that disentangled the effects of these variables. In these analyses, global self-esteem did not have a significant correlation with leadership ratings obtained either from the professors or from the cadet peers. Self-esteem also failed to yield a significant contribution to performance on the leadership exercises (as did optimism), but leadership efficacy succeeded. The fact that the effects of self-esteem disappeared in these more sophisticated analyses indicates that self-esteem overlapped with other factors (e.g., leadership efficacy) that may have taken precedence in predicting the outcome measures assessed. Chemers et al. found a unique association between self-esteem and performance only on the land navigation exercise. High self-esteem might help people avoid getting lost (or, conversely, finding one's way home might raise self-esteem).

Group behavior also involves intergroup relations. In general, people favor their own groups in thought and deed. They prefer to assign greater rewards to members of their own group than to out-groups, they rate their own group more favorably than out-groups, and they tend to direct prejudice and discrimination toward out-groups. Early theorizing suggested that such in-group favoritism is stronger among people with low self-esteem than among those with high self-esteem (e.g., Ehrlich, 1973). It seemed plausible that people low in self-esteem are most inclined to boost themselves by means of disparaging and discriminating against members of other groups. Indeed, the opportunity to discriminate against a member of a negatively stereotyped group can bolster self-esteem (Fein & Spencer, 1997).

Crocker et al. (1987) pointed out, however, that one cannot infer the presence of prejudice when people with low self-esteem give low ratings to out-groups. People with low self-esteem seem generally negative about many events and people, including themselves. A more appropriate measure of bias is the difference between how one rates oneself or one's own group versus how one rates the out-group. By that measure, Crocker et al. found that prejudice was stronger among people with high rather than low self-esteem (see also Crocker & Luhtanen, 1990).

In a meta-analysis, Aberson et al. (2000) found that people high in self-esteem rate groups to which they belong more favorably than they rate groups to which they do not belong. People low in self-esteem show no such difference. Recent work on social categorization suggests a simple process can account for this effect. When people predict the attributes of their in-groups, they rely heavily on their own self-concepts, but when they predict the attributes of out-groups, they do not engage in such self-anchoring (or projection) (Cadinu & Rothbart, 1996; Clement & Krueger, 2002). Because positive attributes outnumber negative ones in most people's self-concepts, projections to in-groups yield positive outcomes. By not being subject to projection, descriptions of out-groups remain more neutral. The process of differential projection also explains why in-group bias typically reflects in-group favoritism rather than out-group derogation (Brewer & Kramer, 1985).

Conclusion

Popular wisdom in the age of self-esteem holds that loving oneself is a prerequisite for loving others (e.g., Crooks & Baur, 1999). Efforts to boost self-esteem in schools, homes, and elsewhere would be well justified if they resulted in significant improvements in how people got along with one another.

The evidence suggests that the superior social skills and interpersonal successes of people with high self-esteem exist mainly in their own minds. People with high self-esteem claim to be more popular and socially skilled than others, but objective measures generally fail to confirm this and in some cases point in the opposite direction. When rated by peers, teachers, or laboratory interaction partners, people with high self-esteem are not liked any better than people with low self-esteem, and following a blow to their pride they may become antagonistic and elicit negative reactions. People who have elevated or inflated views of themselves tend to alienate others.

The sociometer model proposed by Leary and his colleagues (Leary et al., 1995) suggests that the level of self-esteem should be an outcome of interpersonal successes and failures. This view raises a very plausible alternative explanation for any findings that might link high self-esteem to social success. But as already noted, there are relatively few such findings. Bishop and Inderbitzen (1995) found that children without any friends tended to have low self-esteem, and it seems quite plausible that this lack of friends was a cause rather than a result of low self-esteem.

The results of studies on group behavior do not provide a ringing endorsement of the importance of self-esteem. High self-esteem does not appear to have much to contribute to leadership, especially after controlling for other variables. High self-esteem appears to foster a small but significant tendency toward greater voice behavior in work groups. This tendency to speak up may also be responsible for people with high self-esteem receiving somewhat higher ratings for contributing to the group, compared with people with low self-esteem. People

with high self-esteem also generally show greater bias in favor of their own groups, which may be beneficial for the in-group but may also produce greater discrimination and conflict between groups.

Self-esteem does appear to have a variety of interpersonal consequences. People with low self-esteem differ from those with high self-esteem in how they conduct their interpersonal relationships and how they choose and pursue social goals. Still, these differences do not appear to translate into substantially different relationship outcomes.

The most promising results involve social initiative. The tendency to initiate interpersonal contacts and relationships (as rated by roommates) was the only interpersonal skill that differentiated participants with high and low-esteem in the study by Buhrmester et al. (1988). In groups, people with high self-esteem are more willing than those with low self-esteem to speak up to criticize the group or propose directions for action. Likewise, people high in self-esteem take more initiative in extricating themselves from unhappy relationships (Rusbult et al., 1987). At present the evidence is sparse, but both theoretical considerations and the few available findings suggest that self-esteem may have value in promoting initiative.

Self-esteem per se may not be the best variable for exploring interpersonal processes. Narcissists (many of whom have high self-esteem) exhibit a variety of interpersonally problematic and alienating behaviors. Some depressed people (a group that includes some people with low self-esteem) constantly seek interpersonal reassurance and alienate others for different reasons.

AGGRESSION, VIOLENCE, DELINQUENCY, AND ANTISOCIAL BEHAVIOR

For decades, psychologists believed that low self-esteem was an important cause of aggression. This view appears to have emerged from clinical impressions rather than any single theoretical formulation or line of empirical evidence. It was challenged by Baumeister et al. (1996), who reviewed assorted bodies of findings and concluded that perpetrators of aggression generally hold favorable and perhaps even inflated views of themselves. They proposed that aggression results from what they called "threatened egotism," namely, a positive view of self that is questioned or attacked by other people. Two points need to be noted. First, that review did not contain laboratory experiments linking measured self-esteem to measured aggression, and indeed many of the findings about violent groups (such as incarcerated murderers) relied on interviews and impressions rather than standard measures of self-esteem. Second, Baumeister et al. firmly embraced the notion of the heterogeneity of high self-esteem. They noted that many people high in self-esteem are not aggressive, even though others are highly aggressive. If that view is correct, then carefully controlled and systematic studies attempting to measure both self-esteem and aggression might generally find null results,

insofar as the aggressive and nonaggressive people in the high self-esteem category would cancel each other out.

Aggression

Among children, bullying is an important form of aggression. The traditional view that bullies have low self-esteem has recently come under attack. Olweus (1990, 1994) was one of the first to dispute the notion that bullies suffer from insecurities and self-doubts that underlie a tough exterior. Although Olweus did not measure self-esteem directly, he did show that bullies reported less anxiety and were more sure of themselves than other children. Analyzing self-reports of bullying behavior from more than a thousand Australian schoolchildren, Slee and Rigby (1993) found no correlation between bullying and self-esteem. Clearly, though, self-reports of bullying are suspect, insofar as people who score high on self-esteem generally claim to perform a broad range of socially desirable behaviors more often than other people do (and indeed they claimed to perform more prosocial behavior in this sample, too).

Reliable information about bullying requires confirmation from external sources, preferably peers. Such data were obtained by Salmivalli, Kaukiainen, Kaistaniemi, and Lagerspetz (1999), who had a sample of more than 300 Finnish adolescents (ages 14 and 15) fill out trait measures, including measures of self-esteem and defensive egotism, and rate all their classmates on a variety of behavioral and trait measures. In addition to calculating correlations between self-esteem ratings and other measures, Salmivalli et al. used the measures of self-rated and peer-rated self-esteem to categorize the participants according to whether they were best characterized as having defensive high self-esteem, genuine high self-esteem, low self-esteem, a tendency to belittle themselves, or humble pride. By using these categories, the authors were able to allow for the possible heterogeneity of high self-esteem.

The correlation between each person's self-esteem and the classmates' ratings of that person as prone to bully people was not significant. However, people categorized as having defensive high self-esteem (characterized by very high scores on defensive egotism along with above-average scores on self-rated and peer-rated self-esteem) were significantly more likely than others to be named by peers as bullies. Salmivalli et al. (1999) noted that this finding confirmed both the heterogeneity of high self-esteem and the threatened-egotism hypothesis put forward by Baumeister et al. (1996). Of further interest was that the category of defensive high self-esteem covered not only the bullies themselves but their cronies, too. People in this category were rated by peers as prone to assist bullies in their victimization of others, such as by joining in once a bully had begun attacking someone, or by catching and holding the victim so the bully could continue tormenting him or her. People with defensive high self-esteem were also rated as more likely than others to reinforce bullying, such as by coming over to watch the bullying, shouting out encouragement to the bully, laughing at the

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spectacle, and making approving comments either to the bully or to other bystanders.

The heterogeneity of high self-esteem was confirmed by Salmivalli et al. (1999) in another way. Adolescents with genuine (as opposed to defensive) high self-esteem were rated by their peers as significantly more likely than others to defend the victims of bullying. Upon reflection, this finding is not surprising, because coming to the aid of a victim requires some degree of confidence. One might combine all these findings to suggest that high self-esteem appears to support initiative, whether for good or ill: People with high (defensive) self-esteem were more likely than others to engage in bullying, and people with high (so-called genuine) self-esteem were more likely to fight against bullying. Meanwhile, people with low self-esteem were more likely than others to be the victims of bullies.

The work by Salmivalli et al. (1999) is the most rigorous and methodologically sophisticated study of bullying that we have found, because it incorporated objective (peer-rated) measures of bullying behavior and multiple measures of self-esteem that allowed for heterogeneity in this construct. The main drawback of this study is that it was cross-sectional and correlational, so that causality cannot be determined from it. Does bullying other people cause (defensive) self-esteem to rise, or does defensive high self-esteem lead to bullying? The link between low self-esteem and victimization can also quite plausibly be construed in either causal direction: Bullies may choose victims on the basis of perceived lack of self-esteem, or being victimized may be detrimental to self-esteem.

Probably the best evidence about the causal links between aggression and self-esteem would come from programs specifically designed to alter self-esteem. A pair of studies of this type was recently reported by Murphy, Stosny, and Morrel (2001), who tracked domestic offenders through therapy programs that included interventions aimed at boosting self-esteem. Their research has several drawbacks that must be kept in mind. One drawback is that the sample consisted of men who were referred by courts to therapy on the basis of spouse abuse. It is generally believed that men in therapy for domestic violence differ from other domestic offenders, not least because they know well that the situation demands that they express remorse and criticize themselves. Another drawback of these studies is that the therapy could hardly focus on self-esteem alone, but also included interventions directly aimed at reducing violent behavior, and so one must be cautious in attributing any reduction in violent behavior directly to increases in self-esteem.

Nonetheless, the two studies are noteworthy because of their focus on real-world adult violence, and because in both cases, therapy led to significant increases in self-esteem. These increases were accompanied by significant self-reported reductions in spouse abuse. Both before and after treatment, self-esteem correlated negatively with aggression, such that higher self-esteem was associated with less self-reported aggression, although the correlations reached significance in only one of the two studies.

Self-reported violence is a problematic measure, however. Murphy et al. (2001) addressed this problem by obtaining reports from the spouses and partners of the domestic offenders during the 6 months after the therapy. These data alone meet the standard of objectively confirming behavioral outcomes, and they provide no confirmation at all of the benefits of boosting self-esteem. There was no significant correlation between men's self-esteem or change in self-esteem and their partner-reported abusive behavior, and if anything the trend was in the wrong direction: Higher post-therapy self-esteem and greater increases in self-esteem from the beginning to the end of therapy were both correlated with more rather than less subsequent spouse abuse ($r_s = .08$, n.s.).

Another fairly rigorous approach to examining the impact of self-esteem on aggression is to conduct laboratory experiments. Assuming causes precede effects, self-esteem measured at the start of a laboratory session could not be the result of aggressive behavior that is observed later in the session, although in principle a chronic tendency toward aggression might be the underlying cause of both the aggression during the experiment and the self-esteem level. Baumeister et al. (1996) were unable to find any reports of laboratory experiments linking self-esteem to aggression. Given the wide popularity of both self-esteem and aggression as research topics, it did not seem plausible that the possible link between them had never been tested. This pointed tentatively toward the conclusion that studies had been conducted but remained unpublished because of null results.

A pair of laboratory experiments by Bushman and Baumeister (1998) did provide a direct test of the role of self-esteem in aggressive behavior. The experiments investigated aggression in direct retaliation for an insult, displaced aggression (i.e., participants were insulted by one person and then had a chance to aggress against someone else), and unprovoked aggression (i.e., participants were praised rather than insulted and then had a chance to aggress against the praiser). The two studies used different measures of self-esteem. Aggression was measured by the loudness and duration of blasts of aversive, stressful noise participants delivered to an opponent when the opponent lost a trial in a competitive game.

There were no significant correlations between levels of self-esteem and aggression in any of the three situations studied. This confirmed the suspicion that the absence of previously published findings probably indicated that studies had been done but obtained null results.

However, Bushman and Baumeister (1998) did find that narcissism was a significant predictor of aggression. Specifically, narcissists were more aggressive than other individuals when provoked by an insult, but did not show elevated rates of displaced or unprovoked aggression. More recent studies by Stucke and Sporer (2002) demonstrated high aggression among narcissists who had been criticized and further suggested that the combination of an unclear or confused self-concept with narcissism is especially likely to lead to aggressive retaliation. The impact of narcissism in those studies provided further support

for the heterogeneity of high self-esteem, insofar as narcissists may be considered a category of high self-esteem people—people who not only think well of themselves, but also view themselves as being superior to others.

Delinquency

Juvenile delinquency is of both theoretical and practical interest. It combines outright aggression, sometimes extending to assault and murder, with antisocial behavior such as stealing and vandalism. The assumption that low self-esteem causes aggression has traditionally offered one explanation for why young people turn to delinquency, namely, that they lack self-esteem. However, evidence for the role of self-esteem in delinquency is quite contradictory. In this section, we summarize some of the more important findings.

Neumark-Sztainer, Story, French, and Resnick (1997) obtained self-reports of delinquent behavior by having adolescents report how frequently during the past 12 months they had damaged or destroyed property, struck or beaten another person, or stolen from a store. Self-esteem showed a significant negative correlation with self-reported delinquent behavior among both boys ($r = -.22$) and girls ($r = -.26$), but in a regression analysis that controlled for family cohesion, school involvement, prior victimization, risk-taking disposition, and emotional well-being, self-esteem failed to emerge as a significant independent predictor, despite the exceptionally large sample ($N = 123,132$). The lack of independent prediction does not necessarily undermine the value of self-esteem: Self-esteem may have important effects on delinquency that happen to be mediated by other variables (e.g., perhaps low self-esteem people are more likely to engage in delinquency because they are more likely to disengage from school and take risks).

A more recent study by Trzesniewski, Donnellan, Robins, Moffitt, and Caspi (2002, Study 1) with 292 fifth- and eighth-grade students yielded significant correlations (r s ranged from $-.26$ to $-.35$) between self-reported delinquency and three different measures of self-esteem (two self-report measures and a teacher report). In this case, the relation remained significant (standardized coefficient = $-.28$) in a complex statistical analysis (latent structural equation model) that controlled for both supportive parenting and academic achievement.

One of the most ambitious and intriguing studies of self-esteem and delinquency was published by Rosenberg et al. (1989). Their nationwide sample included nearly 2,000 adolescent males who were measured twice. The study's longitudinal design permits some causal inference, although its exclusive reliance on self-reports of delinquent behavior means that the results may be compromised by self-report biases. The simple correlations between self-esteem and self-reported delinquency were quite weak in this study, r s = $-.09$ and $-.07$ at the first and second assessments, respectively. Rosenberg et al. proposed, however, that this seemingly null result might actually conceal contrary trends. By examining changes across time,

they concluded that there were actually two significant links between self-esteem and delinquency in the data. First, low self-esteem was associated with an increase in delinquent behavior ($r = -.19$). Second, delinquent behavior was associated with an increase in self-esteem ($r = .08$, marginally significant). They also found that these effects interacted with social class. Low self-esteem was most prone to increase delinquency in the more affluent group, possibly because delinquent behavior was more normative among the lower classes, so the numbers were already so high that there was not much room for increase. Meanwhile, the boost in self-esteem deriving from delinquent participation was greater among the young men of low rather than high (or medium) socioeconomic status.

Another recent longitudinal study, however, failed to confirm the conclusions of Rosenberg et al. (1989). In this study, Jang and Thornberry (1998) followed nearly a thousand students (starting in seventh and eighth grade) for 4 1/2 years. They distinguished between delinquent activities and associating with delinquent friends, although self-reports were the main source of information about both. Jang and Thornberry found no tendency for low self-esteem to predict subsequent delinquency, whether measured by criminal and antisocial behavior or having delinquent friends. They also failed to find that delinquent activity boosted self-esteem, and, if anything, self-reported delinquent activity led to a decrease in self-esteem. Forming friendships with delinquent peers did, however, boost self-esteem. Thus, any apparent benefits from delinquency appeared to be due to forming friendships and engaging in social comparison with delinquent peers, as opposed to committing violent or antisocial acts.

Most recently, an ambitious longitudinal study by Trzesniewski et al. (2002, Study 2) yielded fairly strong evidence that self-esteem may indeed play a causal role in *externalizing behavior*, a constellation of behaviors that includes delinquency plus additional antisocial misbehavior not generally considered delinquent. (The term externalizing behavior reflects the assumption that the person is dumping his or her problem onto others.) This study followed students from age 11 ($n = 809$; 48% female) to age 13 ($n = 726$; 48% female) and assessed externalizing behavior with three relatively objective measures: teacher report, parent report, and an interview report (at age 13 only) based on the American Psychiatric Association's symptom criteria for Conduct Disorder. Self-esteem was significantly correlated with externalizing behavior at both time points (r s ranged from $-.16$ to $-.25$), and self-esteem at age 11 predicted externalizing behavior at age 13 (r s ranged from $-.19$ to $-.21$). Moreover, the contribution of self-esteem was found to be independent of relationships to parents, relationships with peers, IQ, and socioeconomic status. Given the large sample, longitudinal design, and multimethod measurement of externalizing behavior, this study provides the best available evidence for a positive link between low self-esteem and subsequent delinquent behavior.

Overall, there is some support for the traditional view that low self-esteem may predispose a person to participate in anti-

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social behavior. The correlation between self-esteem and delinquency varies among studies (from nearly zero to around $-.30$), but it is almost always negative, suggesting that the effect is present, although probably quite weak. There is also some suggestion that the effect of self-esteem on delinquency may be mediated by variables such as school involvement and choosing to associate with delinquent friends.

Antisocial Behavior

Antisocial behavior is a companion to delinquency. By antisocial behavior, we mean behavior that is socially undesirable but not necessarily violent. An experiment by Lobel and Levanon (1988) examined cheating in relation to individual differences in self-esteem and need for approval. The participants were 12-year-old boys and girls in school in Israel. Their task was to trace line drawings without lifting the pencil or retracting lines. After two easy problems, three unsolvable problems were presented, and the children could claim to have solved them only if they cheated, which thereby allowed the researchers to obtain an objective measure of cheating. Self-esteem did not have a direct effect on cheating, but interacted with need for approval to determine the amount of cheating. The results were consistent with the view that self-esteem is a heterogeneous construct, in that the children who cheated the most and who cheated the least both had high self-esteem. More precisely, those who were high in both self-esteem and need for approval cheated the most, whereas those who were high in self-esteem but had a low need for approval cheated least. The authors proposed that a distinction between true and defensive high self-esteem could account for their results.

School disciplinary problems and related antisocial behaviors were the focus of a large survey by DeWit et al. (2000). All students in four secondary schools in Ontario, Canada, were included in the study, for a total of a thousand participants. Although the authors clearly favored the self-esteem hypothesis, self-esteem was not a significant predictor for three of the five outcome variables. Most notably, self-esteem did not contribute to the prediction of disciplinary problems in school, substance abuse, or conduct problems.

DeWit et al. (2000) relied exclusively on self-reports of antisocial behavior. As we noted earlier, all self-reports are not equal, with reports of concrete and verifiable misbehavior presumably being less subject to distortion and bias than global estimates. The reports of school disciplinary problems seem the most concrete and verifiable measure DeWit et al. used, insofar as students were asked how frequently they had been suspended, served detentions, been sent to the principal, or been truant in the past 6 weeks. The measures of substance abuse likewise seem reasonably concrete, although less readily verifiable, and on these measures self-esteem yielded no significant effects. In contrast, oppositional-defiant disorder (a recurring pattern of negative, hostile, disobedient, and defiant behavior) was related to low self-esteem. Indications of this disorder were

measured largely by an attitude survey consisting of questions such as, "How often in general do you get annoyed by others?" The fact that self-esteem had its effects on the less concrete measures suggests some potential role for self-report bias.

Last, a set of interview and laboratory studies by Colvin, Block, and Funder (1995) looked specifically at people with inflated self-esteem. This was done by comparing how favorably people rated themselves with how favorably they were rated by others, and the people whose self-ratings were higher than the peer ratings were classified as having inflated favorable views of self. Participants were then invited into the laboratory, and their interactions with randomly assigned peers were observed. As compared with controls, people who had inflated self-esteem exhibited a high rate of antisocial and socially undesirable behaviors. They were more prone to interrupt others during the conversation. They expressed more hostility and were found to annoy and irritate their partners. Their conversational style was seen as talking at rather than talking with someone. Despite their favorable self-ratings, they came across as socially awkward. In a second study, people of this sort were found to be prone to psychological maladjustment and to have poor social skills.

Conclusion

Many researchers have sought to link self-esteem to violence, aggression, and antisocial tendencies. The results are mixed at best. Psychologists who wish to study or reduce aggression might be well advised to focus on factors other than self-esteem or, at least, to respect the heterogeneity of high self-esteem and therefore consider additional variables. In the case of aggression, simple measures of self-esteem have generally failed to predict objective behavior, whereas high narcissism (presumably one subcategory of high self-esteem) does lead to aggressive retaliation, a finding consistent with the threatened-egotism model. Inflated self-esteem, in the sense of regarding oneself more favorably than one's peers do, is also associated with socially undesirable behaviors. Although most large studies have found self-esteem to be weak at predicting delinquency, school disciplinary problems, and related antisocial activities, and in fact some findings suggest that people with some varieties of high self-esteem are most prone to act antisocially, one methodologically strong recent study has suggested that low self-esteem may predispose individuals toward externalizing behavior.

Although further research is needed, one impression that emerges from these data is that self-esteem simply intensifies both prosocial and antisocial tendencies. As the study by Salmivalli et al. (1999) showed, people who think well of themselves are overrepresented among both the perpetrators of bullying and the people who stand up to bullies and defend victims. By the same token, Lobel and Levanon (1988) found that people high in self-esteem made up both the highest-cheating and the lowest-cheating groups. Quite possibly, the actual ef-

fect of high self-esteem per se is to support initiative and confident action, for good or ill.

HAPPINESS, COPING, DEPRESSION

We turn now to subjective outcomes, such as happiness. The pursuit of happiness is one of the overarching goals in life for most people, and feeling happy is one form of positive outcome whose desirability is difficult to dispute. Along with happiness, we consider two other related phenomena. One of these is depression, which is often defined (at least in part) by pervasive unhappiness. The other is coping with stress and trauma. Even if self-esteem were to fail to contribute to a better, happier life overall, it might accomplish a great deal by helping people to recover from aversive events. Misfortunes, problems, and setbacks can be experienced as blows to one's favorable view of self (e.g., Janoff-Bulman, 1992; Taylor, 1983), and it is plausible that high self-esteem enables people to recover faster or more thoroughly from such events.

Before we present findings, we must acknowledge that studies of happiness and related variables seem almost inevitably to rely on self-reports. For other outcomes, we were routinely suspicious and critical of self-report data, and whenever possible we sought objective measures. Yet it is not clear what sort of objective measure could replace self-reports of happiness. It is possible to prove that people are less (or more) intelligent, attractive, or likable than they think they are, but in what sense could researchers conclude that people are less (or more) happy than they think they are? If someone estimates his or her happiness to be at 60 on a scale running from 1 (very low happiness) to 100 (very high happiness), there is no objective criterion, or "happiness meter," that could show that the person's true happiness is higher or lower. There is not even any meaningful or realistic way to assert that someone can be mistaken about his or her happiness. As a result, studies investigating any possible link between self-esteem and happiness will necessarily have to rely on self-reports for both measures, despite the pitfalls and drawbacks of self-reports in connection with establishing the effects of self-esteem.

Reliance on self-report carries the danger of distorting the role of self-esteem. As we reported in preceding sections, people with high self-esteem repeatedly emerge as better than others in self-report data, whereas objective data often depict such people to be no better than others. A response bias toward presenting the self in favorable, socially desirable ways appears to characterize people high in self-esteem. Hence, one might well expect that people with high self-esteem claim to be happier than other people. However, there does not seem to be any way around this problem, given the lack of objective measures (indeed the ineluctable subjectivity) of happiness.

Happiness

A major international study of self-esteem and happiness was reported by Diener and Diener (1995). The data came from

more than 13,000 college students from 49 different universities, 31 countries, and five continents. High self-esteem emerged as the strongest of several predictors of life satisfaction overall. The simple correlation between self-esteem and happiness was quite significant at .47. In short, self-esteem and happiness are substantially interrelated.

The correlation between self-esteem and happiness (life satisfaction) varied somewhat across countries. In particular, it was stronger in individualistic countries than in collectivistic ones. Diener and Diener (1995) proposed that in individualistic countries, people are socialized to attend to their own internal attributes, and so these become important in determining overall happiness, whereas collectivistic cultures encourage people to focus on groups and relationships.

In a sample of 406 young people (aged 14–28), Furnham and Cheng (2000) measured a number of potential correlates of happiness, including recalled parental rearing styles, scores on the Eysenck Personality Questionnaire, and self-esteem. They reported that self-esteem was the most dominant and powerful predictor of happiness. Shackelford (2001) examined the happiness of young to middle-aged couples (ages ranged from 17 to 41) who had been married within the past year and found that for both husbands and wives, self-esteem was significantly correlated with happiness in the form of global, sexual, and emotional satisfaction.

Data on older adults were provided recently by Lyubomirsky and Lepper (2002), and these nicely complement the emphasis on college students in Diener and Diener's (1995) study. Lyubomirsky and Lepper obtained data from more than 600 adults ranging in age from 51 to 95. Once again, happiness and self-esteem were highly correlated ($r = .58$). It is important to note that in both this study and Diener and Diener's work, self-esteem and happiness had very different patterns of correlations with other predictor variables, which supports the conclusion that happiness and self-esteem are in fact distinct constructs that can be measured separately despite their relatively high intercorrelation. In Lyubomirsky and Lepper's study, self-esteem was more strongly correlated than happiness with hopelessness, optimism, and sense of mastery, whereas happiness was more strongly correlated than self-esteem with energy level, overall health, loneliness, mood and emotion, and purpose in life.

A meta-analysis of the relation between 137 personality traits and happiness (subjective well-being) was published by DeNeve and Cooper (1998). They found that "private collective self-esteem" (a term they did not explain) was one of the strongest predictors of happiness ($r = .31$). Other forms of collective self-esteem yielded weaker results in their analysis. They do not appear to have included the more typical measure of self-esteem, nor did they define their terms, but in any case their results provide further evidence that self-esteem (of some sort) is consistently correlated with happiness.

Taken together, these findings uniformly indicate that self-esteem and happiness are strongly interrelated. They suggest

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that high self-esteem may pay off handsomely for the individual in terms of subjective happiness. Our main note of caution is that the primitive data resemble the simple and previously promising correlations between self-esteem and school achievement. Further research with longitudinal designs (or other means of testing causal relationships), controls for third variables, and, if possible, alternatives to self-report measures would greatly strengthen the case.

Coping and Depression

Studies of coping look specifically at how people respond to harmful, threatening, traumatic, or otherwise unpleasant events. The hypothesis favored by most theorists is that high self-esteem operates as a kind of resource that enables people to suffer less or to recover more rapidly from such events (e.g., Arndt & Goldenberg, 2002). According to this hypothesis, under low stress, people would fare reasonably well regardless of self-esteem, but in the wake of stress, people with high self-esteem would fare better than those with low self-esteem. Sometimes this hypothesis is labeled the *buffer hypothesis*, because it asserts that high self-esteem operates as a buffer against stress, trauma, and misfortune.

To test the buffer hypothesis, Murrell, Meeks, and Walker (1991) interviewed a sample of more than a thousand adults at 6-month intervals for several years. Contrary to their predictions, self-esteem failed to operate as a buffer, in that the effect of self-esteem on depression was essentially unchanged whether stressful events were included in the statistical analysis or not. Instead, high self-esteem predicted lower depression overall, regardless of stress. In other words, low self-esteem predisposed individuals toward depression in both good times and bad, and actual circumstances made little difference.

A similar finding was obtained by Robinson, Garber, and Hilsman (1995). Their original sample was composed of nearly 400 sixth-grade students, almost 300 of whom were interviewed again in the fall of seventh grade (and more than 200 were surveyed again in the spring of that year). This timing is of particular interest because many students move from elementary to junior high schools between sixth and seventh grade, and the change of school can be a potent source of stress. Self-esteem had a direct effect on depression but not on externalizing behaviors. There was no interaction between self-esteem and stress in predicting either dependent variable. Thus, as Murrell et al. (1991) found, low self-esteem predicted depression regardless of life stress.

It must be noted that Robinson et al. (1995) did find a three-way interaction between stress, self-esteem, and attributional style. That is, depression was increased by a combination of external stresses and a tendency to blame oneself for failure, especially among people low in self-esteem. Put another way, low self-esteem alone did not create a vulnerability to becoming depressed in response to stress, but low self-esteem combined with a pessimistic and self-blaming style of thinking did.

Another pair of studies did find interactions between self-esteem and life stress predicted participants' increases in depressive feelings. Whisman and Kwon (1993) tested a sample of 80 undergraduates on two occasions separated by 3 months. They found that increases in dysphoria (a term for depression that is sometimes preferred because it avoids the connotation of clinical pathology) were predicted by self-esteem, by life stress, and by the interaction between the two. As in the studies already discussed, low self-esteem led to greater depression. Unlike in those studies, high life stress also led to greater depression, and the interaction between stress and self-esteem was also a significant predictor.

However, the interaction Whisman and Kwon (1993) found did not conform to the pattern of the buffer hypothesis. The buffer hypothesis holds that high self-esteem helps people cope with life stress, so differences between people with high and low self-esteem should be found mainly under conditions of high life stress. Instead, Whisman and Kwon found the opposite: The self-esteem differences were most pronounced under conditions of low life stress. Moreover, Whisman and Kwon reported that life stress appeared to have the biggest effect on people with high (rather than low) self-esteem. That is, people with high self-esteem were happy in good times but unhappy during stressful times, whereas the degree of life stress apparently made less difference to people low in self-esteem.

A larger study along the same lines was conducted by Ralph and Mineka (1998), who surveyed a sample of 141 undergraduates more than a week before their midterm examination, again after the exam but before grades were issued, the day after the students received their grades, and 3 days later. This procedure allowed the researchers to track reactions to a particular, well-defined stressful experience with a positive or a negative outcome. The distress of people with high self-esteem tended to decrease after they received their grades, regardless of what the grades were. In contrast, the responses of low self-esteem people depended on how their grades compared with what they had sought and expected. (The researchers had asked the students to indicate the lowest acceptable grade, and the relationship between that answer and the actual grade was used to classify each student's outcome as a personal success or failure.) Contrary to the buffer hypothesis, the greatest increases in generalized distress occurred among people who had low self-esteem (and also high pessimism) and received grades that were acceptable to them. Thus, it was the reaction of people with low self-esteem to a relatively good outcome that was most problematic and revealing.

The studies by Whisman and Kwon (1993) and Ralph and Mineka (1998) produced findings that contradicted the buffer hypothesis: Differences between people with high versus low self-esteem emerged under relatively positive, benign conditions, rather than under stressful conditions. Moreover, low self-esteem seems to poison the good times. In contrast, the buffer hypothesis did receive support from DeLongis, Folkman, and Lazarus (1988) in a study of 75 married couples as-

essed 20 times over 6 months. They measured daily hassles, physical health and symptoms, and mood. Perhaps surprisingly, self-esteem did not moderate the impact of stressful hassles on mood, but it did moderate the link between stressful hassles and physical symptoms. Participants who were low in self-esteem showed a stronger link than others between the amount of stress they experienced on a particular day and whether they had physical illness on the same day and on the following day. Moreover, the buffering effect of self-esteem remained significant even in analyses that controlled for the participants' emotional support and the size of their social networks. Thus, people with low self-esteem were apparently more prone than others to get sick or suffer other physical problems in connection with stressful daily events.

Metalsky, Joiner, Hardin, and Abramson (1993) also found support for the buffer theory, although only under certain conditions. They assessed self-esteem and other factors in a sample of more than a hundred students prior to midterm grade reports and then took several measures on the day midterm grades were received and for 5 consecutive days thereafter. Subjective failure on the midterm was defined as getting a grade below the level the student had previously stated as acceptable. Increases in depression at first depended solely on subjective failure, regardless of other factors. Over time, however, depressive reactions were found to be a product of a three-way interaction. Substantial increases in depression were found only among people who fit three criteria: subjective failure, negative (self-blaming) attributional style, and low self-esteem. (These results are quite consistent with the pattern of findings reported by Robinson et al., 1995, described earlier in this section.) Thus, low self-esteem, especially in combination with a self-blaming attributional style, made people more vulnerable to feeling depressed in response to a real-life stressor over a short period of time.

A similar investigation by Roberts and Monroe (1992) reached a somewhat different conclusion. They, too, tracked a sample ($N = 216$) of college students, and measured self-esteem before midterm exams and depression afterward. Academic stress was assessed by calculating the difference between a student's hoped-for grade and actual grade, and then multiplying this difference by the subjective importance (to the student) of academic achievement. There was a small independent effect of self-esteem on depression, such that students with lower self-esteem just before the examination reported more depression after getting their grades, regardless of what their grades were. This effect is interesting, despite its small size, because it shows low self-esteem leading to increased depression over a short period of time. Unfortunately, the effect was not maintained in the later days of the study, which is puzzling and casts doubt on the impact of self-esteem on depression.

Level of self-esteem did not interact with academic stress to predict depression in Roberts and Monroe's (1992) study, contrary to the buffer theory. However, unstable self-esteem (measured in terms of within-person variance in self-esteem scores

during the preexamination, baseline period) did. Depression increased most among students who were initially not depressed, had unstable self-esteem, and subjectively failed on the examination. It also increased among those who were initially depressed, had unstable self-esteem, and did well on the exam. Unstable self-esteem also independently predicted an increase in depression regardless of other factors, although when statistical controls were entered into a more complex analysis, this effect vanished.

Building on this work and other findings, Roberts and Monroe (1994) proposed a general theoretical account of the role of self-esteem in depression. They acknowledged that low self-esteem has often been proposed as a risk factor that creates a vulnerability to depression, but concluded that in research, level of self-esteem has failed to emerge as a robust predictor of the onset of depression. They proposed that vulnerability to depression accompanies unstable self-esteem (i.e., self-esteem that is prone to fluctuate across time), as well as self-esteem based on relatively few and unreliable sources.

The buffer theory was supported in Corning's (2002) research on reactions to perceived discrimination among women. As in most other studies, there was a general tendency for people with high self-esteem to feel better than those with low self-esteem regardless of events. However, self-esteem interacted with perceived discrimination. Women with low self-esteem reacted to being the target of discrimination by becoming distressed, whereas the effects of discrimination were much weaker on women with high self-esteem. Corning examined a variety of bad outcomes, including anxiety, depression, and physical symptoms, rather than focusing exclusively on distress.

Recent work by Roese and Pennington (2002) suggests a possible reason why people with high self-esteem apparently cope better with discrimination than people with low self-esteem do. People with high self-esteem tend to have a gap between their perception of discrimination against their group and their perception of discrimination against themselves. That is, they believe that their group is often the victim of discrimination, but that they themselves have not been victims.

Laboratory experiments by Greenberg et al. (1992) also supported the buffering hypothesis, although with regard to anxiety rather than depression. They sought to boost self-esteem by first giving people a personality test and then providing bogus feedback that conveyed a very positive evaluation. Afterward, the participants were exposed to one of several stressors, including having to watch upsetting images of gruesome death and receiving bad feedback on an IQ test. The stressors tended to produce increases in self-reported anxiety and signs of physical distress, but these effects were attenuated among people whose self-esteem had been boosted.

The buffer hypothesis also received support from a recent pair of studies by Bonanno et al. (2002), although they used a measure of self-enhancement (i.e., whether participants rated themselves as better than average and more highly than peers rated them on various dimensions) rather than a standard self-

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esteem measure. Bonanno et al. examined reactions to stress in two very different populations, residents of Bosnia during the recent civil war and young to middle-aged residents of the San Francisco Bay area whose spouse had died within 3 years of marriage. The full buffer hypothesis could not be tested because these studies did not include low-stress control groups, but in both studies, self-enhancers reported better coping than non-self-enhancers. Moreover, the findings for the self-report data were supported by more objective data: The good adjustment of the self-enhancers was confirmed in mental health experts' ratings based on clinical interviews.

How can all these findings on the relation between depression and self-esteem be integrated? First, nearly every study did find that people low in self-esteem felt more depressed or otherwise worse than people high in self-esteem. Second, the buffer hypothesis (namely, the hypothesis that low self-esteem creates vulnerability to stress) received its best support in studies that used outcome measures other than depression, such as physical illness or anxiety. Third, when low self-esteem did interact with life stress, the findings were about evenly split as to whether they supported the buffer hypothesis or the opposite pattern—that is, half the studies confirmed that low self-esteem increased vulnerability to stress but was irrelevant in good times, whereas the rest found that low self-esteem poisoned the good times rather than exacerbating vulnerability to the bad times. Last, some findings favor a more complicated version of the buffer hypothesis that incorporates a third variable, namely, self-blame. In other words, the combination of low self-esteem, self-blame, and stressful or aversive events causes depression to increase.

Conclusion

The link between self-esteem and happiness is strong. People with high self-esteem are significantly, substantially happier than other people. They are also less likely to be depressed, either in general or specifically in response to stressful, traumatic events. Many studies have confirmed this link.

Before it is safe to conclude that self-esteem causes happiness, however, further research must address the methodological shortcomings of the work that has been done so far. First, causation needs to be established, and potential third-variable causes need to be ruled out. It seems plausible that self-esteem causes happiness, but no research has shown this. The strong correlation between self-esteem and happiness is just that—a correlation. It is possible that occupational, academic, or interpersonal successes cause both happiness and high self-esteem, whereas corresponding failures cause both unhappiness and low self-esteem. It is even possible that happiness, in the sense of a temperament or disposition to feel good, causes high self-esteem. In this regard, the research on academic performance is informative: The correlations between self-esteem and good grades do not seem to derive from any causal impact of self-

esteem on schoolwork, but rather other background causes lead to both, and to some extent good school performance leads to higher self-esteem. Happiness seems to us to be more promising than academic performance as a potential consequence of self-esteem, but the alternative causal pathways need to be considered with equal rigor and care.

Second, happiness and depression have been studied mainly by means of self-report. As we have seen, the tendency of some people toward general floccinaucinihilipilification may produce both their low self-esteem and unfavorable reports about other aspects of life. Clearly, objective measures are much more difficult to obtain for happiness and depression than for academic performance. But the lessons from academic performance, interpersonal skill, physical attractiveness, and the like are sobering with regard to self-reports.

Support for the buffer hypothesis is uneven, but there are several strong and supportive findings. The correlations between high self-esteem and happiness and between low self-esteem and depression may conceal some influence of circumstances. Yet further research is needed to untangle these processes. Some studies supported the buffer hypothesis: Low self-esteem produced its detrimental effects mainly in bad times. Others found the opposite: Low self-esteem seemed to poison the good times, whereas in bad times everyone suffered. Still others found circumstances to be irrelevant, and low self-esteem simply predicted worse outcomes in both good times and bad. The final resolution of this theoretical controversy is not in sight, and we recommend that researchers continue to conduct tests and analyses to illuminate this question, all the while being cognizant of conflicting findings. It seems fair to assume that the ultimate answer will be more complex than the original buffer hypothesis. Nonetheless, the findings consistently suggest that low self-esteem leads to poorer outcomes, including depression and possibly physical illness, under some circumstances.

HEALTH, SMOKING, ALCOHOL AND OTHER DRUGS, SEX, EATING

There are a number of reasons to believe that high levels of self-esteem may have a beneficial impact on physical health. For example, as we noted earlier, high self-esteem individuals perceive that they have more social support, and perceptions of social support have well-documented relations with numerous health outcomes, including length of life (see Ornish, 1998, for a summary).

Another reason to surmise that high self-esteem might have benefits for health lies in the vast literature demonstrating the impact of stress (especially chronic stress) on health. Stress is, of course, a highly subjective response, and depends critically on both the individual's interpretation of events and his or her beliefs about coping resources that are available (Lazarus & Folkman, 1984). Because high self-esteem people interpret

negative events more benignly, perceive that they have greater control, and are generally more optimistic about their coping abilities, it seems reasonable that they would experience less stress and therefore enjoy better levels of physical health than people with low self-esteem.

The adverse health consequences of stress are primarily mediated by activation of stress hormones (cortisol). Thus, the best indirect evidence for the supposition that high self-esteem benefits health comes from studies demonstrating that people who differ in self-esteem show differential cortisol reactivity in response to stressors experienced in the laboratory. In general, these studies have shown that when the stressor involves actual failure or the strong potential for failure (e.g., for elderly people, a challenging test of ability to drive a car), cortisol responses are higher in participants with low self-esteem than in those with high self-esteem (Kirschbaum et al., 1995; Pruessner, Hellhammer, & Kirschbaum, 1999; Seeman et al., 1995).

Nonetheless, there are only a few studies that provide any direct evidence linking self-esteem and objective health outcomes. In a study of 502 adults who were over 60 years of age and had cardiovascular disease, high self-esteem predicted better physical and psychosocial functioning 12 months later among female, but not male, participants (Forthofer, Janz, Dodge, & Clark, 2001). And an earlier study of more than 1,300 Helsinki policemen showed that among those whose electrocardiograms had signs of coronary heart disease, lower self-esteem was related to a higher risk of dying from myocardial infarction over the next 10 years (Nirkko, Lauroma, Siltanen, Tuominen, & Vanhala, 1982).

Several studies have found that people high in self-esteem rate their overall health better than people with low self-esteem (e.g., Glendinning, 1998). James (1997) found that collective self-esteem (such as racial pride) predicted self-reported health in a small sample of African American workers but not White workers. In a large sample of 1,700 Scottish youth, aged 14 to 16, Glendinning (1998) found that self-esteem was linked to self-ratings of health, but not to self-reports of health-relevant behaviors. Still, these latter findings were not verified by objective measures, and could be distorted by the usual self-report bias.

Although we regard it as premature to draw any conclusions about the impact of self-esteem on physical health, this does seem an area that deserves further study (and any null findings should be published). In particular, further investigation through longitudinal designs that control for potential mediators or moderators of the relation would be desirable. It is conceivable that the benefits of high self-esteem, including feeling good, lead directly to better health. Then again, the studies we surveyed all found self-esteem to be correlated with better health only in some groups and not in others, and they differed as to which groups benefited. It is also possible that underlying biological causes, such as temperament or good physical condition, contribute to both self-esteem and health, in which case interventions aimed at raising self-esteem would likely have no effect on health. In any case, more and better research is warranted.

Unlike overall health, many health-relevant behaviors have been studied in relation to self-esteem. Foremost among these are several sets of destructive or risky behaviors that young people engage in. The public interest in self-esteem is motivated in part by the hope that boosting self-esteem will help young people abstain from abusing alcohol and other drugs, smoking cigarettes, succumbing to pathological eating patterns, and engaging in risky sexual practices. We summarize the findings regarding these behaviors in this section.

A major shortcoming of most of these studies is that they rely primarily on self-reports. To be sure, it would be neither ethical nor practical to attempt to induce youngsters to take illegal drugs or engage in risky sex during a laboratory experiment, and attempting to observe these covert activities in the world outside the laboratory is also not very practical. Hence, some degree of reliance on self-report is difficult to avoid. Still, interpretation of the findings should be tempered with recognition that people high in self-esteem will tend to report more socially desirable patterns of behavior than people with low self-esteem. Also, self-reporting of specific behaviors is presumably more reliable than vague, general self-ratings.

Smoking

Smoking is widely recognized as detrimental to health. If high self-esteem could help prevent smoking, even just among young people, that would be a valuable contribution to individual welfare and society at large. It is also possible that smoking affects self-esteem rather than the reverse, because the self-esteem of smokers who feel stigmatized may suffer. Several large investigations have explored possible links between self-esteem and smoking, although smoking has generally been measured only by self-report, and findings that people with high self-esteem smoke less than others might be an artifact of self-report bias.

Three studies have suggested that low self-esteem is linked to smoking, but unfortunately none of them shows that low self-esteem clearly leads to subsequent smoking. Pederson, Koval, McGrady, and Tyas (1998) surveyed more than 1,600 Canadian eighth graders, distinguishing multiple categories of smokers. The current smokers had lower self-esteem than the adolescents who had never smoked. The self-esteem of ex-smokers was in between, and experimental smokers (i.e., those who tried out smoking occasionally without becoming regular smokers) had nearly the same level of self-esteem as the eighth graders who had never smoked.

In a younger sample of nearly 1,500 third-grade and fifth-grade students in central North Carolina, Jackson, Henriksen, Dickinson, and Levine (1997) found that children with lower self-esteem were more likely to admit to having smoked on occasion.

A longitudinal study by Andrews and Duncan (1997) tracked more than 400 adolescents, whose age at the start of the study was between 11 and 15, for 3 years. The researchers

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were particularly interested in whether self-esteem and other variables would mediate the relation between academic motivation and cigarette smoking (among other variables). Self-esteem did not mediate this relation, but it was an independent predictor of smoking. When self-esteem and smoking were measured at the same time, the average correlation between them was $-.18$. Lagged correlations across time yielded no clear pattern as to whether self-esteem predicted subsequent smoking or smoking predicted subsequent self-esteem.

Two additional studies have found that the link between self-esteem and smoking depends on gender. Lewis, Harrell, Bradley, and Deng (2001) surveyed 1,200 10- to 15-year-olds living in three tobacco-producing counties in North Carolina. Among girls, smokers had significantly lower self-esteem than nonsmokers. Among boys, the smoking and nonsmoking groups did not differ in self-esteem. A sample of more than 8,000 children (which shrank to 6,530 by the 4th year of the study) in Calgary, Alberta, Canada, was studied by Abernathy, Massad, and Romano-Dwyer (1995). These researchers found that for girls, low self-esteem in grade 6 predicted a substantially greater likelihood of smoking by grade 9. Indeed, girls with low self-esteem were about 3 times more likely to try cigarettes than other girls. Among boys, self-esteem had no relationship to smoking. This study is notable both for its large sample and for its prospective, longitudinal design.

In contrast, several large studies found no relationship whatsoever. The possible link between self-esteem and smoking was the specific and primary focus of research by Glendinning and Inglis (1999). They reported findings from two Scottish surveys (one national, one local), which included a total of nearly 3,000 young people aged 13 and 14. Noting weakness and inconsistency in past findings, they included several measures of smoking, such as frequency of smoking and having given up smoking versus never having smoked. They also sorted their respondents into various social categories, such as socially isolated, conventional, and peer oriented. Despite these efforts, the data showed no significant relation between self-esteem and smoking, even when social categories were taken into consideration.

A longitudinal study of a thousand young people in New Zealand was reported by McGee and Williams (2000). The researchers assessed self-esteem at age 12 and then inquired about an assortment of health-compromising behaviors at age 15. There was a slight trend toward greater smoking among individuals low in self-esteem, but it failed to reach significance, and given the large sample, a lack of significance must be taken as an indication that the relation was negligible.

As part of a prospective, longitudinal study of health patterns in a cohort of a thousand young Scots, West and Sweeting (1997) reported on the participants when they were 15. There was a slight tendency for the young people with the highest self-esteem to report less smoking than others, but this failed to reach significance despite the large sample. In another large sample (1,700) of rural Scottish youth, ages 14 and 16,

Glendinning (1998) found that self-esteem had no correlation with self-reported smoking.

A Canadian sample of more than 1,500 sixth graders was studied by Koval and Pederson (1999). In view of the generally weak findings from previous research on self-esteem and smoking, they measured stress in order to look for possible interactions (e.g., perhaps the combination of stress plus low self-esteem would lead to the most smoking, a pattern consistent with the predictions of the buffer hypothesis). Self-esteem did not have any significant relationship to smoking, either by itself or in interaction with stress. This investigation is notable because several other variables (including stress, rebelliousness, being in control of other aspects of one's life, and whether the child's mother smoked) did yield significant predictions, and so the failure of self-esteem is not due to any problem in measuring smoking.

A smaller sample of 183 eighth graders was surveyed by Dolcini and Adler (1994). They examined not only self-esteem but also membership in various so-called crowds. Global self-esteem was not related to cigarette smoking. Similarly, in a young adult (college student) sample, Sharp and Getz (1996) found no correlation between self-esteem and smoking.

Our study-by-study review suggests the need for a meta-analysis of the literature on self-esteem and smoking. There may be a small positive association moderated by gender. Given that the largest study (Abernathy et al., 1995) found a longitudinal effect for females, the possibility that low self-esteem is a risk factor for smoking in girls remains a hypothesis worthy of further study. Still, there was a preponderance of null findings, and the few positive findings could conceivably reflect nothing more than self-report bias, or could even indicate that recognizing oneself as a smoker leads to lower self-esteem. Self-esteem is either irrelevant to the causation of smoking or at best a weak risk factor in girls.

Alcohol and Other Drugs

Abuse of alcohol and other drugs is one of the most worrisome behaviors among young people, and there was ample reason to hope that boosting self-esteem would prevent it (e.g., California Task Force, 1990). In this view, people turn to drugs for solace because they feel bad, and low self-esteem is often essentially a matter of feeling bad about oneself. Boosting self-esteem would therefore remove the need for the escapist abuse of these substances.

However, other predictions are plausible as well. High self-esteem might contribute to drug use, too. Gerrard, Gibbons, Reis-Bergan, and Russell (2000) summarized evidence that young people with high self-esteem may become vulnerable to drug and alcohol abuse, albeit for reasons quite different from those of their peers with low self-esteem. As we have already noted, people with high self-esteem are prone to a variety of biases in how they interpret and understand events, and these biases conspire to make them feel better about themselves. Gerrard

et al. showed that adolescents with high self-esteem systematically distort their perceptions of how their parents judge their drinking so as to justify their actions. That is, for all adolescents, perceived approval by parents is an important correlate of drinking, but the direction of causation differs as a function of self-esteem. For teenagers with low self-esteem, perceived parental approval leads to more drinking. For those with high self-esteem, however, more drinking leads to perceiving greater parental approval.

Gerrard et al. (2000) also showed that individuals with high self-esteem tend to minimize their own vulnerability. They employ a variety of cognitive strategies to convince themselves that bad things will not or cannot happen to them, and ignore disagreeable information. Thus, they distance themselves from the potentially harmful consequences of risky behavior. All these patterns may make people with high self-esteem more prone to drink, take drugs, and engage in other risks (such as unsafe sex, a point to which we return later in this section). In short, these cognitive strategies might at least offset the factors, such as influenceability and need to escape from bad feelings, that could induce people with low self-esteem to do the same things, and as a result people with low versus high self-esteem might not differ in their tendency to abuse drugs.

The data do not consistently show that adolescent self-esteem causes or even predicts abuse of alcohol or other drugs. For example, the large-scale study by McGee and Williams (2000) found no relationship between self-esteem (measured at age 9 to 13) and drinking or drug use at age 15. A major longitudinal study of heavy drinking in Finland by Poikolainen, Tuulio-Henriksson, Aalto-Setälä, Marttunen, and Lönnqvist (2001) tracked 700 young people from late adolescence (age 15–19 at the start of the study) into adulthood 5 years later. They measured both alcohol intake and heavy drinking, with the latter defined as having 13 or more drinks on one occasion. Self-esteem as measured at the start of the study did not predict general alcohol consumption 5 years later ($r = +.08$ for males, $r = -.01$ for females), nor did it predict heavy drinking.

Likewise, a 7-year longitudinal study of 125 children (aged 7 to 13 at the start of the study) by Hill, Shen, Lowers, and Locke (2000) found no effect for self-esteem. In this study, alcohol intake was measured by both self-report and interviewers' assessments. The focus was on whether self-esteem (among other factors) might serve to buffer the individual against stresses, and Hill et al. carefully compared families with a history of alcoholism against other families without that risk factor. Self-esteem did not emerge as a significant predictor or moderator.

Even when findings do show a link between alcohol and self-esteem, they are mixed and inconclusive. The large study by Glendinning (1998; described earlier, in connection with smoking) found that high self-esteem was associated with more (rather than less) frequent alcohol consumption among young men but not women, and self-reported episodes of drunkenness were unrelated to self-esteem. Likewise, in a 4-year study

of 700 students, beginning in middle school, Scheier, Botvin, Griffin, and Diaz (2000) found that students with higher self-esteem in grade 7 reported more rapid rise in alcohol use over the subsequent years, although this effect appeared only in more complex analyses; simple analyses yielded no relationship between self-esteem and alcohol use. These authors were surprised to find that alcohol use was linked to high rather than low self-esteem, and they noted that several other patterns in their data rendered the issue even more obscure. In particular, across the entire group, the several years of middle school were marked by declining self-esteem and increased drinking, and these trends were interrelated such that more rapid decreases in self-esteem were accompanied by more severe increases in drinking. Hence, the apparent link between high self-esteem and escalating alcohol abuse might reflect the fact that the students with the highest initial self-esteem and the lowest initial drinking had the largest scope for change. It is a common statistical illusion for extreme scorers to tend to become less extreme over time, and it often does not indicate any genuine difference.

A cross-sectional survey of college students by Sharp and Getz (1996) found that those who reported having used alcohol in the past month scored higher on self-esteem than those who reported no alcohol use in the past month. The authors interpreted this to mean that using alcohol was a social strategy for making a good impression on peers and therefore in turn resulted in higher self-esteem, but given the correlational nature of their data, the findings could equally well mean that high self-esteem leads to greater willingness to drink alcohol.

The study of third and fifth graders by Jackson et al. (1997; described earlier) did find that self-rated self-confidence predicted lesser self-reported alcohol use. With teachers' ratings of self-confidence, no effect was found. Moore and Li (1998) found a weak correlation between low self-esteem and illicit drug use, which remained significant after controlling for other variables, in a cross-sectional survey of people with disabilities.

Alcohol use showed little relation to self-esteem in the study (cited earlier) by Andrews and Duncan (1997). Self-esteem did, however, predict marijuana use, and in particular was found to be a significant mediator between academic motivation (the study's main focus) and marijuana use. Essentially, the results showed that a decrease in academic motivation led to a reduction in self-esteem (possibly because poor schoolwork led to social rejection) and a subsequent increase in marijuana use. The relationship between self-esteem and marijuana use was rather weak, however.

Wills (1994) challenged earlier findings claiming that low self-esteem leads to drinking or drug abuse. He proposed that perceived control over one's life is more relevant and powerful. Because feeling oneself to be in control of one's life might overlap with both self-esteem and drug use, researchers might find correlations between self-esteem and drug use and mistakenly conclude that self-esteem, rather than feelings of control,

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was the important factor. Wills surveyed a large sample of nearly 1,800 students in eighth grade and then a year later. His measure of perceived control was, in fact, substantially correlated with self-esteem ($r = .67$). He then conducted statistical analyses to determine which was more powerful at predicting use of alcohol, tobacco, and marijuana. Because self-esteem and perceived control overlapped with each other, it was necessary to sort the data statistically in order to establish the unique contribution of each (i.e., the effect of each one independent of the other). The unique contribution of perceived control was more than 6 times as large as the unique contribution of self-esteem. Also, the only significant predictor of increase in substance abuse over time was lower levels of perceived control. Wills concluded that any findings linking self-esteem to substance abuse may well be inflated because at bottom they simply reflect the contribution of perceived control.

Interpretation of the findings regarding drinking and drug abuse is probably complicated by the fact that very different phenomena are lumped together. Some people experiment with drugs recreationally, whereas others become addicted. Some may approach the experience out of curiosity or thrill seeking, whereas others may use it to cope with or escape from chronic unhappiness. Emler (2001) concluded that high self-esteem leads to greater willingness to take physical risks, which may account for some of the findings that high self-esteem leads to more use of alcohol and other drugs.

Sexual Behavior

Sexual behavior is another sphere that seems to have potential for showing links with self-esteem. Some participation in sexual behavior, especially at a vulnerable young age, can be the result of succumbing to influence or even exploitation by others. High self-esteem might enable people to resist such influence.

Such simple predictions do not take account of possible complicating factors, however. For example, a person's level of self-esteem may be the result rather than the cause of sexual activity. Third variables may also play an important role. For example, being attractive and popular may lead to both high self-esteem and early or frequent sexual activity. Last, as we noted earlier, people high in self-esteem tend to discount various health risks (Gerrard et al., 2000), and this can certainly extend to the risks associated with sex. Smith, Gerrard, and Gibbons (1997) found that women with high self-esteem tended to dismiss and discount risks of unwanted pregnancy more than other women, and being reminded of the risks only increased the tendency for women with high self-esteem to believe that such misfortunes could not befall them. Similar conclusions were reached by Burger and Burns (1988), who showed that sexually active women with high self-esteem rated their chances of becoming pregnant as lower than those of other women (including women who were not sexually active!). Burger and Burns concluded that high self-esteem is

characterized by a pervasive illusion that undesirable consequences will not happen to the self.

In the California self-esteem project, Crockenberg and Soby (1989) looked for evidence whether self-esteem had any relationship to teenage sexual activity in general and pregnancy in particular. They found only one longitudinal and three cross-sectional studies. The longitudinal study found that high self-esteem led to more sexual activity among males but not females (Jessor & Jessor, 1975). Another study found a weak link between low self-esteem and sexual activity, but this was limited to active Mormons (B.C. Miller, Christensen, & Olson, 1987). A third study found no relationship at all (Cvetkovich & Grote, 1980), and the last found that high self-esteem was correlated with more permissive attitudes toward sex (Herold & Goodwin, 1979). Crockenberg and Soby did, however, think there was some evidence to support the notion that high self-esteem facilitates use of contraceptives and hence reduces teen pregnancy, although the evidence was mixed. They found only one longitudinal study that measured self-esteem and investigated its relation to subsequent pregnancy, and this study found no relationship (Vernon, Green, & Frothingham, 1983). Another investigation, however, used a measure of self-derogation instead of a standard self-esteem measure, and two different analyses (Kaplan, Smith, & Pokorny, 1979; Robbins, Kaplan, & Martin, 1985) found that the girls who derogated themselves more during the seventh grade were more likely to have a subsequent pregnancy.

The longitudinal study of New Zealand adolescents by McGee and Williams (2000) found no relationship between self-esteem at age 12 and self-reports of sexual intercourse by the age of 15. Paul, Fitzjohn, Herbison, and Dickson (2000) followed an equally large ($N = 1,020$) sample of New Zealanders from age 3 up to age 21. Self-esteem was measured at age 11. At age 21, the participants were asked whether they had had sexual intercourse before the age of 15. Simple analyses showed no relationship between self-esteem and early sexual behavior. More sophisticated (multivariate) analyses still found no link between self-esteem and early sexual initiation for males. For females, there was a significant effect, although in the opposite direction from what the advocates of self-esteem might have hoped: Girls with higher self-esteem at age 11 were more (rather than less) likely to start having sex by the age of 15. This effect was especially remarkable because the other predictors of early sexual intercourse tended to be socially undesirable or disadvantageous, such as being in trouble at school, planning to leave school early, and smoking cigarettes at an early age.

Thus, prospective work suggests that self-esteem is irrelevant to becoming sexually active at an early age or, if anything, high self-esteem leads to early sex among girls. In contrast, a survey of a thousand girls and women by Kalil and Kunz (1999) found that the unmarried teenage mothers were less likely than other girls and women to have high self-esteem. In this case, self-esteem was measured after the person had en-

gaged in sex and borne a child; in view of the prospective findings, Kalil and Kunz's results suggest that becoming an unwed teen mother causes a reduction in self-esteem.

However, in a large longitudinal survey of young people, Oates (1997) found no relationships between fertility in general and self-esteem. His sample included more than 10,000 young people, aged 14 to 21 at the start of the project and 23 to 30 at the end of it, and he sought to test both the idea that low (or high) self-esteem predisposes individuals toward having children and the converse hypothesis that having children affects self-esteem. No significant relationships were found. In particular, there was no relationship between self-esteem and the number of offspring. Oates acknowledged the theory that some people may have children as a way of boosting their self-esteem, but he concluded that even if that is their goal, these anticipated gains do not seem to materialize.

Some work suggests that self-esteem may be relevant to sexual behavior only in selected populations. Berry, Shillington, Peak, and Hohman (2000) used data from a national (United States) longitudinal study of risk factors for adolescent pregnancy. Self-esteem of 5,000 young women was measured during early adolescence, and 8 years later the women were asked whether they had become pregnant before age 19. High self-esteem reduced the odds of self-reported pregnancy among Black and Hispanic females, but not among Whites and American Indians. Even among Blacks and Hispanics, the effect was characterized by the authors as slight.

At-risk youth were also the focus of Langer and Tubman (1997), who studied a special sample of 120 substance-abusing adolescents. They were specifically interested in whether alcohol and other drug use would predict risky sexual behavior and whether factors such as self-esteem might moderate the effect—such as if it was mainly adolescents with low self-esteem who succumbed to engaging in risky behavior when intoxicated. Self-esteem had no effect.

Beyond these findings, a smattering of confusing results has emerged from different studies. Martin and Knox (1997) found that unstable self-esteem, unlike level of self-esteem, was correlated with gay and bisexual men's reports of engaging in unsafe anal sex.

People with high self-esteem report more frequent use of condoms, which might indicate a greater propensity to practice safe sex (Hollar & Snizek, 1996). Then again, they also report greater frequency of unsafe sex (Hollar & Snizek, 1996). There is also some evidence that they may be more likely to have abortions (Plotnick, 1992). These seemingly contradictory findings may be reconciled by proposing that they simply have more sex in general, a possibility that is supported by other findings (Strouse & Buerkel-Rothfuss, 1987). Walsh (1991) found that virginity was linked to low self-esteem among men but not among women. He also found that self-esteem was positively correlated with number of sex partners; the correlation was fairly strong for men ($r = .25$) and weak but significant for women ($r = .12$). As Walsh noted, the direction of causality re-

mains unclear, and both directions are plausible, although he favored the view that high self-esteem makes a person more willing to initiate sexual encounters because the threat of rejection is less daunting. Walsh also noted that changes in sexual norms may produce dramatic changes in the link between self-esteem and sexual activity, depending on whether sexual purity or sexual experience is more highly valued by the society.

Homosexuality is generally stigmatized in our society, and one might expect that homosexuals would end up with lower self-esteem than heterosexuals, although in this case the level of self-esteem would be the result rather than the cause. Lerner and Galambos (1998) found no difference in self-esteem between gay and heterosexual adolescents. In contrast, Stokes, Damon, and McKirnan (1997) found that bisexual men with high self-esteem were more likely to shift toward a full homosexual identification than were other bisexual men. This suggests a causal role for self-esteem, presumably indicating that some bisexual men may be resisting homosexuality because of social stigma and other factors, and that the greater self-acceptance of people high in self-esteem makes them more willing to accept their homosexuality. When homosexuals are attacked or victimized for being gay, however, their self-esteem drops afterward (Waldo, Hesson-McInnis, & D'Augelli, 1998). Thus, being victimized leads to lower self-esteem, which is consistent with the findings on bullying we reported earlier. However, Kendall-Tackett, Williams, and Finkelhor (1993) reviewed many empirical studies on sexual abuse of children and did not find evidence that low self-esteem consistently resulted from such abuse (cf. Emler, 2001). They noted that many theories about the impact of sexual abuse on children emphasize damage to self-image or self-esteem, but research findings had not substantiated that such damage occurs.

Some findings suggest that high self-esteem may reduce sexual inhibitions. Herold and Way (1983) found that women with high self-esteem were more likely to report that they performed fellatio. Hurlbert and Whittaker (1991) found that women who masturbated had higher self-esteem than other women. Herold, Corbesi, and Collins (1994) found that women with high self-esteem were more likely than other women to go topless on Australian beaches. Although these findings are correlational, we regard it as a priori unlikely that high self-esteem is the result of performing fellatio, masturbating, and showing off one's breasts in public, and so a causal role for self-esteem seems more plausible. Conversely, low self-esteem is correlated with erectile dysfunction among men (Herer & Holzapfel, 1993), but insofar as most erectile dysfunction is now considered to have biological causes, self-esteem seems more likely to be the result than the cause in this case.

All in all, the results do not support the simple view that low self-esteem predisposes people to more or earlier sexual activity. If anything, people with high self-esteem are less inhibited, more willing to disregard risks, and more prone to engage in sex. Many of these findings could stem from the greater popularity of people with high self-esteem (popularity could cause

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both high self-esteem and more sex). They may also reflect greater initiative among people high in self-esteem. Not surprisingly, however, bad sexual experiences and unwanted pregnancies may well lower self-esteem.

Eating Disorders

The literature on eating disorders very consistently documents that individuals with eating disorders typically have very low levels of self-esteem. A recent and particularly impressive demonstration of this association was reported by French et al. (2001), who examined the correlates of binge-purge and weight-loss behaviors among a sample of more than 48,000 girls and 47,000 boys in grades 6 through 12 who lived in 213 cities and towns in the United States. For both genders, self-esteem and similar variables were the strongest predictors of eating disorders. Similar results have been obtained in many other studies, including one by Williams et al. (1993), who found that anorexic and bulimic patients have lower levels of self-esteem than obese dieters, nonobese dieters, and normal controls.

Anorexics' thinking is pervaded by a discrepancy between their own view of themselves and other people's view of them: They frequently have many accomplishments, abilities, and interests, but according to anorexia theorists, they are unaware of their successes and capabilities. Bruch (1962, 1975, 1978) identified in these patients a paralyzing underlying sense of ineffectiveness that pervades their thinking and activities. Bers and Quinlan (1992) showed empirically that this is true, stating, "This disparity between interests and perceived abilities supports the common clinical observation that anorexics generally feel incompetent and unable to perform well, although they pursue many activities and objectively could claim many accomplishments" (p. 428).

Perhaps because bulimia is a much more pervasive problem than anorexia, more research has been done to investigate possible causes of bulimia. Mintz and Betz (1988) investigated self-esteem differences in a sample of undergraduate women who were categorized in one of the following categories: normals, bulimics, bingers (women who eat large amounts of food but do not engage in compensatory behaviors), purgers (those who purge but do not really eat huge amounts of food), chronic dieters, and subthreshold bulimics. They found that bulimics had much lower self-esteem than any of the other groups. Thus, the impact of self-esteem may be tied specifically to the pattern of bingeing and purging.

Bulik, Wade, and Kendler (2000) studied the relation between self-esteem and bulimia in monozygotic ("identical") twins. Although monozygotic twins have the same genetic predisposition to bulimia, it is sometimes the case that one twin has the disorder and the other does not. In a sample of such twin pairs, Bulik et al. found that the twin with bulimic symptoms had significantly lower self-esteem than the other. In a laboratory study of chronic dieters who were given a high-cal-

orie milkshake to drink, those with low (but not high) self-esteem ate considerably more ice cream later (Polivy, Heather-ton, & Herman, 1988). However consistent these findings are, a recent study calls into question whether raising self-esteem might be useful for treating already-established eating disorder patterns. In this study (Safer, Lively, Telch, & Agras, 2002), women who were binge eaters (though not purgers) received behavior therapy for 20 weeks and then 6 months later were re-assessed. At the follow-up, the difference in self-esteem scores between women who relapsed and those who did not was non-significant, and, indeed, those who relapsed had slightly higher self-esteem.

Although researchers have found fairly consistent associations between low self-esteem and eating pathology, there is some debate as to whether low self-esteem is a cause or consequence of disordered eating. There are some prospective studies that suggest self-esteem may play a causal role. For example, Button, Sonuga-Barke, Davies, and Thompson (1996) assessed self-esteem in 400 schoolgirls aged 11 to 12 and found that those with lower levels of self-esteem were significantly more likely to have developed an eating disorder at age 15 to 16. There is also some evidence that self-esteem may affect prognosis; in a 4-year prospective study of bulimic patients, low levels of self-esteem at admission were predictive of poorer outcomes (van-der-Ham, van-Strein, & van-Engeland, 1998).

Heatherton and Polivy's (1992) spiral model of binge eating, however, posits a bidirectional relationship between dieting and self-esteem. They stated that

because each dietary failure may produce lower self-esteem and because lower self-esteem may, in turn, make dietary failure more likely, individuals who undertake chronic dieting may enter a spiral in which each failure at dieting produces greater negative affect and precludes either successful acceptance or successful alteration of their bodies. (p. 139)

Another factor that must be considered is that women who become bulimic have additional problems that contribute to their vulnerability, and to the extent that these other problems are correlated with low self-esteem, the importance of self-esteem per se may be exaggerated when they are not taken into account. The best way to examine this hypothesis is to assess the relations between several vulnerability factors (including self-esteem) and the continuum of bulimic symptoms among women who have not sought treatment for bulimia. If this can be done in a prospective study, the causal direction of any link between low self-esteem and bulimic symptoms can be tested.

This method was employed by Vohs and her colleagues (Vohs, Bardone, Joiner, Abramson, & Heatherton, 1999; Vohs et al., 2001; for a summary, see Vohs et al., 2002), who conducted two prospective studies with a sample totaling more than 400. Vohs et al. (1999) measured self-esteem, perfectionism, feeling overweight, and bulimic symptoms at the initial assessment and then measured bulimic symptoms again an average of 9 months later. They found that although self-esteem

scores were significantly correlated with bulimic symptoms ($-.52$ and $-.36$ at the first and second assessments, respectively), self-esteem was not a significant predictor of change in bulimic symptoms in a statistical model that also included the effects of perfectionism and feeling overweight. Bulimia was not predicted by the combination of level of self-esteem with level of perfectionism or with feeling overweight. Analyses showed, however, that a combination of all three factors was a significant predictor of increases in bulimic symptoms. Specifically, the combination of high perfectionism and feeling overweight was predictive of increased bulimic symptoms across 9 months, but only among low self-esteem women. This finding suggests that low self-esteem is a risk factor for bulimic symptomatology, but only when it is accompanied by exceedingly high standards for oneself (perfectionism) and a feeling that those standards are not being met (feeling overweight).

A second study, across a 5-week period, showed the same pattern of results (Vohs et al., 2001). In this study, there were simple associations between self-esteem scores and bulimic symptoms, but the only statistical factor to predict increased bulimic symptoms was the combination of having low self-esteem, having high body dissatisfaction, and being highly perfectionistic. This study also examined the development of anxiety and depressive symptoms, and analyses showed that self-esteem did not, on its own, predict change in depression or anxiety when perfectionism and body dissatisfaction were taken into account. However, the results for depression mirrored the pattern seen for bulimia: The greatest increase in depressive symptoms occurred among women who had high perfectionism scores, high body dissatisfaction, and low self-esteem.

Taken together, these studies suggest that self-esteem does play a role in various eating problems. However, it is also important to consider that the role of self-esteem may be much more complex than is suggested by the simple correlations between constructs. Bulimics, in particular, may have low self-esteem, although low self-esteem may be both a predisposing cause and a consequence of the disordered eating. A recent study of obese women supports this idea. Matz, Foster, Faith, and Wadden (2002) found that self-esteem was second only to being teased in the ability to predict degree of body-image dissatisfaction. However, we again note that the influence of self-esteem on pathological eating patterns may be a consequence of the presence of other risk factors (such as perfectionism and body dissatisfaction) or of the interaction between low self-esteem and these other factors.

Conclusion

Most studies reviewed in this section relied on self-report, and the possibility of response bias is therefore substantial. Even so, the studies do not provide a great deal of evidence that high self-esteem can prevent undesirable outcomes. The most promising possibility is that high self-esteem might prevent bu-

limia, and there are some links to longevity and physical health that seem well worth further study.

Most studies on self-esteem and smoking have failed to find any significant relationship, even with very large samples and the correspondingly high statistical power. The studies that have found a relationship have tended to find it only in some analyses, such as only among girls and not boys, or only for some ages, or only for current smokers and not for ex-smokers or experimental smokers.

Self-esteem also does not seem relevant to use of alcohol and other drugs, although we did not find much highly rigorous data on use of illegal drugs, and it is conceivable that further studies might paint a different picture. Large, longitudinal investigations have tended to yield no relationship between self-esteem and either drinking in general or heavy, problem drinking in particular. The few studies that have found links point in different directions, with some linking alcohol use to higher self-esteem and others to lower self-esteem. Moreover, even if some correlations between low self-esteem and substance abuse could be found, they might well turn out to be based on third variables, such as perceived control (Wills, 1994). Whatever the causes of alcohol abuse and drug addiction, low self-esteem per se does not appear to be one of them.

Self-esteem does not appear to prevent early sexual activity or teen pregnancy. Some studies have found self-esteem to be unrelated to sexuality. Others have yielded small effects that sometimes point in contrary directions. One promising pattern suggests that high self-esteem reduces sexual inhibitions, enabling women to engage in various sexual practices more freely and enabling people to accept their homosexual tendencies. Still, the causal inference is speculative, and it is quite plausible that greater sexual freedom leads to popularity, which in turn boosts self-esteem, as the sociometer model might predict. Indeed, there are various signs supporting the hypothesis that popularity is the hidden variable behind the correlations between high self-esteem and greater sexual activity.

The data do, however, suggest a role for self-esteem with respect to disordered eating patterns. Concurrent and prospective findings indicate that low self-esteem is a risk factor in disordered eating, with evidence suggesting that the development of bulimic symptoms may be affected both directly by the presence of low self-esteem and indirectly by the interaction of low self-esteem with other factors (e.g., Vohs et al., 1999, 2001). However, eating disorders are usually preceded by chronic dieting and body dissatisfaction, which themselves are related to low self-esteem (see, e.g., Heatherton & Polivy, 1992; Matz et al., 2002). And it is also important to note that some women with eating disorders also have other disorders, such as anxiety and depression, that are also related to low self-esteem. In short, there is a complex set of relationships through which self-esteem has its effects on vulnerability to eating disorders. Nonetheless, on the whole, we conclude that low self-esteem is a concurrent and prospective risk factor for eating disorder symptoms.

GENERAL DISCUSSION AND CONCLUSIONS

Our goal was to survey the research literature in order to assess whether self-esteem has important consequences. The task was complicated by four main factors: (a) the many thousands of articles alluding to self-esteem; (b) the tendency of people high in self-esteem to rate themselves as superior on many dimensions (and the floccinaucinihilipilification among people with low self-esteem); (c) the difficulty of establishing the direction of causal relationships; and (d) the heterogeneity of high self-esteem. When possible, we restricted our search to studies with objective measures, and we have emphasized large longitudinal studies that offered some opportunity to assess the direction of causality.

Our particular interest was in the possible benefits of high self-esteem and the corresponding costs of low self-esteem. As we note later, this is not the only possible theoretical perspective, but it is the one that has characterized the self-esteem movement and indeed our own initial interest in self-esteem. Does high self-esteem make life better? Should parents, teachers, or anybody else seek to boost self-esteem whenever possible? We begin with a summary of our main findings.

Summary of Findings

High self-esteem does not reliably cause any improvement in academic performance. If anything, high self-esteem may be the result (but only weakly) of doing well in school. Other factors may underlie both self-esteem and academic performance.

People with high self-esteem do better than other people on some jobs and tasks, although most laboratory studies and many field studies have found no difference. Quite possibly, occupational success leads to high self-esteem rather than the reverse.

High self-esteem does improve persistence in the face of failure, especially when persistence is an adaptive strategy. People with high self-esteem are more willing than others to choose their own strategies, and they are more responsive to situational cues indicating when to persist and when to move on to a more promising alternative.

People high in self-esteem regard themselves as better liked and more popular than others, but most of these advantages exist mainly in their own minds, and objective data (such as ratings by peers) generally fail to confirm them. In some cases, such as after an ego threat, people with high self-esteem are actually disliked more than others.

There is relatively little known about the impact of self-esteem on close relationships. The evidence that is available indicates both advantages and disadvantages. Thus, wives complain more about husbands with low than high self-esteem, although the direction of causality is unclear. People with high self-esteem are more willing than others to terminate a relationship, but there is no sign that their relationships actually suffer more or end sooner.

People with high self-esteem sometimes perform better than people with low self-esteem in groups. They speak up more

and are recognized by peers as contributing more. There are some weak simple correlations between self-esteem and leadership, but analyses that control for other factors have found that self-esteem has little in the way of direct and unique causal impact. The possibility remains, however, that self-esteem has indirect effects that are mediated by other factors, such as leadership efficacy.

People with high self-esteem have a stronger tendency than those with low self-esteem to judge and treat their own groups more favorably than out-groups. (This may be regarded either positively, as in supporting group pride, or negatively, as in contributing to prejudice and discrimination.)

Self-esteem is essentially unrelated to aggression, although this overall pattern may conceal divergent trends for different kinds of high self-esteem. Some categories of high self-esteem (such as defensiveness or narcissism) are associated with heightened aggression. High self-esteem predicts being a bully and supporting a bully—but a different category of high self-esteem predicts defending victims against bullies. High self-esteem may thus amplify both prosocial and antisocial tendencies. Low self-esteem is associated with victimization, although whether the low self-esteem is the cause or consequence is not known.

Self-esteem has at best a weak relationship to delinquency. Many findings are tainted by possible self-report bias and by inconsistencies across studies. Some studies suggest that low self-esteem predisposes people to engage in more delinquent behavior later on (at least, by their own report), whereas other studies have found no effect. However, one recent study provided good evidence that low self-esteem leads to delinquency (Trzesniewski et al., 2002).

Likewise, there is little to connect self-esteem directly to antisocial behavior. If anything, some subcategories of high self-esteem are associated with antisocial behavior. Again, self-esteem may magnify both prosocial and antisocial tendencies.

Happiness appears to be the most desirable correlate of high self-esteem. Although research is needed to establish causality and to control for other variables, it seems quite possible that high self-esteem contributes to making people happy. Low self-esteem is linked to depression and may be a risk factor for it. However, the relationship is weak, inconsistent, and conditional on other variables.

The buffer hypothesis proposes that high self-esteem helps people cope with stress and adversity. There are some positive findings to support this view. Other findings, however, indicate that self-esteem is more relevant under low than high stress (low self-esteem poisons the good times). Yet other findings indicate no effect of self-esteem in either direction. Still, no findings show worse outcomes or poorer coping among people with high self-esteem than among those with low self-esteem. Thus, self-esteem may contribute to coping and adjustment after stress or trauma, although the precise nature of the relationship may be complicated and may depend on other factors.

Self-esteem is largely irrelevant to smoking. At best, to a small degree high self-esteem may lead to less smoking among

young females. Given the null findings in some large studies, self-esteem is probably not worth considering as a cause of smoking. Use of alcohol or other drugs also does not show a consistent relationship to self-esteem. If anything, young people with high self-esteem may be more willing than others to experiment.

High self-esteem does not prevent early, extensive, or risky sexual activity. If anything, people with high self-esteem display fewer inhibitions, more disregard for risks, and greater sexual initiative.

Low self-esteem is a risk factor that can contribute to eating disorders, especially bulimia. Its relation to bulimia may be especially strong in the presence of other factors, such as body dissatisfaction and perfectionism.

We conclude our summary of findings with some general points.

- 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).
- Moreover, the effects of self-esteem become weaker as the criteria for evidence become more objective. It is perhaps no accident that the strongest apparent benefit of self-esteem has been found for the most subjective outcome, namely, happiness. As we noted at the outset, people with high self-esteem seem sincerely to believe they are smarter, more accomplished, more popular and likable, and more attractive than other people, but some of those apparent advantages are illusory. But happiness can coexist well with illusions and may even be supported by them, so the fact that objective data disconfirm many of the subjective advantages people with high self-esteem believe they have is not necessarily a reason to dismiss self-esteem as useless.
- The research repeatedly attests to the heterogeneity of high self-esteem, and many researchers have invoked some sort of distinction between being conceited, narcissistic, and defensive, on the one hand, as opposed to accepting oneself with an accurate appreciation of one's strengths and worth, on the other.
- The effects of self-esteem are often enmeshed with the effects of other correlated variables, and so some apparent effects of self-esteem vanish when other variables are controlled for. The appropriateness of controlling for these other variables is debatable, however. One could argue that self-esteem deserves credit for so-called indirect effects, even if other variables are more directly related to the outcome.
- A final point, which is related to the others, is that it is far from clear that interventions aimed at boosting self-esteem will be sufficient to produce positive outcomes. The seeming benefits of self-esteem could be a product of other factors that overlap with self-esteem, of subjective bias, and of reciprocal causal relationships.

Implications for Understanding the Nature of Self-Esteem

The benefits of high self-esteem can be tentatively summarized in terms of two main themes, although these remain somewhat speculative and are contingent on further work supporting the conclusions we just summarized. First, high self-esteem appears to operate as a stock of positive feelings that can be a valuable resource under some conditions. In the face of failure or stress, people with high self-esteem seem able to bounce back better than people with low self-esteem. The general pattern of being happier and less depressed indicates a readiness to feel good. People with low self-esteem lack this stock of good feelings and as a result are more vulnerable.

Second, high self-esteem appears linked to greater initiative. We suggested that people with high self-esteem are more prone to both prosocial and antisocial actions (e.g., both bullying and defending victims against bullies), compared with people with low self-esteem. They initiate interactions and relationships (and perhaps exit them, too). They speak up in groups. They experiment with sex and perhaps drugs. They try harder in response to initial failure, but they are also willing to switch to a new line of endeavor if the present one seems unpromising.

There appear to be relatively few personal costs to high self-esteem. If anything, the costs of high self-esteem (and especially of certain subcategories of high self-esteem, such as narcissism) are borne by other people. People high in self-esteem or narcissism are prone to bully others, to retaliate aggressively, and to be prejudiced against out-group members. Self-enhancers are sometimes annoying or obnoxious to others. They may be willing to cheat and perform other antisocial, self-serving acts. The most palpable cost to the self is that of overconfident risk taking (see Emler, 2001), and the evidence supporting this possibility is quite sparse.

Thus, a tentative formula to integrate the diverse findings is that self-esteem confers some benefits on the self, including feeling quite good, while its costs accrue to others. Having a firm sense of privileged superiority over everyone else may well be a pleasant, rewarding state, but having to live or work with someone who holds such an inflated self-view may have its drawbacks. Indeed, the socially disruptive consequences of egotism may explain why people tend to be modest and self-effacing when interacting with friends (Tice, Butler, Muraven, & Stillwell, 1995) or when living in cultures characterized by stable, interdependent relationships (Heine et al., 1999). If self-esteem does benefit the self while carrying some cost to others, then its pursuit is more suited to an individualistic than a collectivistic culture.

What About Accurate (Not High) Self-Esteem?

In our review of the literature, we focused on investigating the benefits of high self-esteem. Given that these benefits are limited at best, it may be appropriate to rethink the basic question. Perhaps it is more valuable and adaptive to understand oneself honestly and accurately, even when this means feeling

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bad about oneself when that is warranted by unethical, harmful, socially undesirable, or otherwise inappropriate behavior. According to this view, self-esteem could serve valuable and helpful functions (such as for managing one's life) insofar as it is based on an accurate, rather than inflated, assessment of one's characteristics. That would mean that accurate self-knowledge would be more useful than high self-esteem.

Such an argument has been suggested by Kirkpatrick and Ellis (2001). They presented their ideas within an evolutionary framework, although other frameworks might also work. Their point was that an accurate understanding of self can save considerable time and energy. In the pursuit of mates, for example, it could spare people the wasted effort (not to mention disappointment and heartbreak) of pursuing mates who will reject them. By the same token, accurate self-knowledge might help people know what courses to take in school or what occupations to pursue, avoiding both ones that are too difficult (which would produce failure) and those that would be too easy (and hence would be unrewarding). Although people might prefer to hold highly favorable views of themselves, accurate views would almost certainly be more useful, insofar as accurate information is conducive to more effective decision making.

A new emphasis on self-esteem that accurately reflects capabilities and interpersonal characteristics would hardly mesh with the goals and efforts of the self-esteem movement. It would require that interventions be aimed at lowering some people's self-esteem, even while boosting others'. In fact, given the evidence cited earlier that self-esteem is mildly inflated in the modern American population, the pursuit of accurate self-esteem might well entail lowering self-esteem more than raising it. Conceivably, however, a new emphasis on cultivating accurate self-understanding would pay off in terms of better choices. Then again, if high self-esteem produces happiness, the relative value of happiness versus better choices based on accurate information could also be debated. As scientists, we are inclined to favor the pursuit of truth above all else, but we can recognize that some people might prefer self-flattering illusions over accurate knowledge.

Implications for Policy

Ultimately, should our society try to boost people's self-esteem? A case can be made for either answer. On the positive side, high self-esteem does have more benefits than costs, even if both are limited. If it produces happiness, initiative, and resilience, those are certainly positive outcomes that any parent might wish for his or her child. On the negative side, it is not clear that simply boosting self-esteem will in turn produce a lasting increase in happiness, initiative, resilience, or any other desirable outcome. There is even the possibility that boosting self-esteem will end up fostering narcissism or one of the other socially undesirable forms of high self-esteem.

In our view, a crucial issue for both research and policy is the heterogeneity of high self-esteem. Only a few of the many

studies we reviewed distinguished carefully between different categories of favorable self-regard, yet these few often found the distinction to be quite powerful. Indeed, sometimes opposite relationships existed, which summed to a deceptive appearance of no correlation when all forms of high self-esteem were lumped together. We recommend that researchers interested in self-esteem begin paying closer attention to narcissism, self-deception, stability of self-esteem, and other distinctions within the broad category of self-esteem. For practitioners, the implication is that high self-esteem as such may not be worth cultivating, because some forms of it are unhelpful and possibly harmful—but other forms or versions of it may be quite beneficial.

Although splitting high self-esteem into categories may be seen as fatal to the self-esteem movement, a more optimistic and charitable conclusion is that such splitting may yet hold the key to reaping some of the benefits that self-esteem advocates have long promised. Self-esteem per se is not the social panacea that many people once hoped it was, but if researchers can effectively identify the adaptive, desirable subcategories of high self-esteem, it may yet be possible to say that certain ways of thinking about oneself can cause good things to happen. To propose how thinking of oneself can bring about good outcomes is to go beyond the data we have reviewed, and so we confine such reflections to a final, overtly speculative section, which is presented next.

Concluding Reflections

Our views on the merits of boosting self-esteem have gone through multiple changes, and were further revised during the process of compiling this review. We conclude by offering our current view, with frank acknowledgment that it should be regarded more as informed expert opinion than as an unassailable summary of proven facts.

In some ways, the grandfather of the self-esteem movement was Carl Rogers, who promoted the idea of "unconditional positive regard" as a way of helping children avoid the feeling that their parents might stop loving them if they failed to perform up to high standards. Sadly, over time unconditional positive regard has taken the form of suggesting that parents and teachers should never criticize children and indeed should praise children even for mediocre or trivial accomplishments, or just for being themselves. Always praising and never criticizing may feel good to everyone concerned, but the data we have reviewed do not show that such an approach will produce desirable outcomes.

We have already indicated what the data do show. They suggest that the benefits of high self-esteem are far fewer and weaker than proponents of self-esteem had hoped. Still, there are some benefits, and the costs to the individual do not outweigh them. The possible costs to society, such as from having some people regard themselves as superior to others and hence entitled to exploit their fellows or demand preferential treat-

ment, may be another matter. Even so, these costs are associated with only particular subcategories of high self-esteem.

The heterogeneity of high self-esteem is central to our thinking, and it suggests that self-esteem per se is the wrong focus. There are many ways to think well of oneself, and some of these produce more desirable outcomes than others. Even such leaders of the self-esteem movement as Nathaniel Branden have begun to speak of the need for self-esteem to be linked in particular ways to other aspects of life (such as moral virtue or legitimate achievement). To them, perhaps, this strategy is a matter of cultivating genuine self-esteem instead of other forms. To us, all favorable views of self may be genuine self-esteem, and so self-esteem is inherently too broad a focus.

Thus, we recommend that instead of trying to find the right "kind" of self-esteem and perhaps dismissing other kinds as unreal, policymakers and practitioners should seek the right usage of self-esteem. High self-esteem feels good and fosters initiative. It may still prove a useful tool to promote success and virtue, but it should be clearly and explicitly linked to desirable behavior. After all, Hitler had very high self-esteem and plenty of initiative, too, but those were hardly guarantees of ethical behavior. He attracted followers by offering them self-esteem that was not tied to achievement or ethical behavior—rather, he told them that they were superior beings simply by virtue of being themselves, members of the so-called Master Race, an idea that undoubtedly had a broad, seductive appeal. We have found no data to indicate that indiscriminately promoting self-esteem in today's children or adults, just for being themselves, has any benefits beyond that seductive pleasure.

Hence, we think self-esteem should be used in a limited way as one of a cluster of factors to promote positive outcomes. It should not be an end in itself. Raising self-esteem will not by itself make young people perform better in school, obey the law, stay out of trouble, get along better with their fellows, or respect the rights of others, among many other desirable outcomes. However, it does seem appropriate to try to boost people's self-esteem as a reward for ethical behavior and worthy achievements. Although that may sound banal, we think it will require a basic change in many self-esteem programs, which now seek to boost everyone's self-esteem without demanding appropriate behavior first.

Using self-esteem as a reward rather than an entitlement seems most appropriate to us. To be sure, there may still be a place for unconditional positive regard, such as when a parent shows love for a child independent of achievement. But when achievement or virtue is involved, self-esteem should be conditional upon it. A favorable view of self should be promoted on the basis of performing well and behaving morally. By the same token, we think it appropriate and even essential to criticize harmful or unethical behavior and lazy or deficient performance, without worrying that someone's self-esteem might be reduced.

In particular, we think that success in modern society depends on lifelong learning and improvement—academically,

socially, culturally, and occupationally. We encourage linking self-esteem to learning and improvement. Learning is most effective when one receives both praise and criticism, contingent on current performance. The praise-only regimen of the self-esteem movement is ultimately no more effective for learning than the criticism-only regimen of the previous era (although praise-only may feel much more pleasant for all concerned). Praise that bolsters self-esteem in recognition of good performance can be a useful tool to facilitate learning and further improve performance in the future. Praising all the children just for being themselves, in contrast, simply devalues praise and confuses the young people as to what the legitimate standards are. In the long run, if such indiscriminate praise has any effect on self-esteem, it seems more likely to contribute to narcissism or other forms of inflated self-esteem than to the kind of self-esteem that will be best for the individual and for society.

A focus on improvement, in particular, allows people to compare themselves against themselves so that they do not have to boost themselves at the expense of others. Improvement strikes us as the ideal condition for boosting self-esteem: As the person performs or behaves better, self-esteem is encouraged to rise, and the net effect will be to reinforce both good behavior and improvement. Those outcomes are conducive to both the happiness of the individual and the betterment of society.

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