

There are three things extremely hard: steel, a diamond, and to know one's self.

—Benjamin Franklin, *Poor Richard's Improved Almanack* (1750)

Over their lifetime, people base thousands of decisions on impressions of their skill, knowledge, expertise, talent, personality, and moral character. A teenage violinist applies to music school on the basis of some notion she holds of her musical virtuosity. A college student decides against a career in science because he believes math is a beast he would never slay. A military officer volunteers to command a dangerous mission because he has confidence in his own bravery, leadership, and grace under pressure. An elderly patient dismisses her doctor's suggestions because she thinks she knows best about her health. Self-assessments of skill and character play a sizable role along the gamut of choices ranging from small, such as which restaurants to patronize (Setterlund & Niedenthal, 1993), to large, such as what college majors to choose and which careers to pursue (Fouad, Smith, & Zao, 2002; Lent, Brown, & Hackett, 1994).

Thus, whether people decide well in life depends, at least in part, on whether their self-assessments are accurate, that is, on how successfully they follow the classical admonition from the Delphic oracles to "know thyself." To the degree that people judge themselves accurately, they make decisions, big and small, that lead to better lives. However, to the extent that people misjudge themselves, they may suffer costly consequences by pursuing wrong paths and missing opportunities to take advantage of special skills and resources they truly own. Sometimes, self-misjudgments may involve only lost time or effort. The would-be Broadway singer who fails to understand that a string of failed auditions provides a fair indication of his (lack of) singing talent suffers only a few months of misspent youth, with perhaps no long-run consequence other than wistful memories of youthful nearness to fame. At other times, the consequences of flawed self-assessment can be more severe, as in the case of a novice airplane pilot who thinks he can take off into the fog without his flight instructor's supervision. Moreover, such consequences are not constrained to the self. A doctor too assured of her expertise at diagnosing chest complaints exposes her patients to risks that might be life-threatening.

In this monograph, we review basic scientific research on the accuracy of self-assessment. In doing so, we assert that self-assessments of skill and character tend to be much more imperfect than people suspect. People fall prey to biases that leave their self-assessments flawed in systematic ways that carry significant implications. To be sure, we do not argue that self-judgments are valueless. However, we do argue that people's capacity to evaluate themselves and predict their behavior is usually quite modest and often much more meager than common intuition would lead one to believe.

In making this argument, we wish to provide evidence for two observations. First, the forces that influence social behavior, including self-behavior, are complex—and people rarely have all the information they need to render accurate self-judgments.

Therefore, achieving accurate self-knowledge is an inherently difficult task, as Benjamin Franklin sagely noted in the quotation with which we opened this review. Second, even when people do have in hand certain types of information that would lead them to more accurate self-assessments, they tend to neglect this information, which leads them to worse assessments than they are capable of. Thus, people in many substantive and consequential circumstances hold opinions of themselves that cannot withstand objective scrutiny (see Dunning, 2005, for a more extensive discussion).

In this monograph, we review data showing that people's perceptions of their skills, knowledge, personality, and character often do not mesh with objective reality. These misjudgments can take on two different forms. First, people's general evaluations of their skills and character—such as whether they are good leaders or verbally skilled—tend not to be tethered very tightly to objective performances in tasks that should reflect those skills and character traits. Second, when people offer specific predictions about how they will behave in a particular future situation, they make predictions that differ systematically from their actual behavior when that situation arrives.

Next, we turn our attention to psychological processes that produce flawed self-perception. Flawed perceptions may arise in various ways, so we provide no overarching theory of error in self-judgment, but we review major themes and variations uncovered in recent psychological research that explain, at least in part, why people tend to hold opinions of themselves that diverge from objective reality.

We then turn to three major domains of social life—health, education, and work—to examine how these themes play out for people confronting tasks central to their everyday lives. In this discussion, we examine the extent to which there is continuity between the findings of laboratory studies and judgmental patterns found in the real world. We also examine the real-world costs, and perhaps benefits, of erroneous self-judgment.

Such an investigation integrating lab findings with real-world behavior and consequences is valuable for two reasons. First, over the past 30 years, a growing body of evidence has shown that people fall victim to a number of systematic judgmental errors in laboratory settings (for reviews, see Gilovich, Griffin, & Kahneman, 2002; Hastie & Dawes, 2001; Nisbett & Ross, 1980). This research tradition, however, has not been without critics, who question whether such laboratory errors transfer to real-world contexts, arguing that these studies often involve artificial and unfamiliar stimuli that are not representative of what people confront in their everyday lives (Funder, 1987; Gigerenzer, 1996; Gigerenzer, Hoffrage, & Kleinboelting, 1991). If erroneous self-judgments found among college students in a psychological laboratory are also revealed, for instance, among doctors and CEOs—and if these errors are found to have real-world consequences—then the import of the laboratory research would be more firmly established.

Second, researchers may observe judgmental errors in their laboratory, but they sometimes lag in finding ways to prevent or

circumvent those errors. In the real world, where consequences for error are greater, individuals and organizations may have already found ways to begin to alleviate the problem of flawed self-assessment. Thus, as we examine self-judgment in real-world contexts, we also note instances in which individuals and institutions work to correct or repair such flaws.

### EMPIRICAL EVIDENCE ON FLAWS IN SELF-ASSESSMENT

Over decades of research involving a wide variety of domains and circumstances, psychologists have examined how accurately people judge themselves. The usual finding is that people have a modest level of insight, at best, into their skill and character. First, researchers tend to find fairly small correlations between perceptions of skill and objective performance. Second, people tend to be too optimistic about their talents, expertise, and future prospects.

#### Correlations Between Perception and Reality

When researchers correlate self-assessments of knowledge and skill against objective performance, the relationship they find is rarely strong. Typically, it is modest to meager, and sometimes it is null. For example, people's views of their intelligence tend to correlate roughly .2 to .3 with their performance on intelligence tests and other academic tasks (Hansford & Hattie, 1982).<sup>1</sup> Students' ratings of their academic skill during their first year of college correlate only .35 with the evaluations their instructors give them (Chemers, Hu, & Garcia, 2001). People's beliefs about their ability to detect lying among others correlate only .04 with their performance (DePaulo, Charlton, Cooper, Lindsay, & Muhlenbruck, 1997). In the workplace, the correlation between how people expect to perform and how they actually perform hovers around .20 for complex tasks (Stajkovic & Luchins, 1998).

It is in the health domain that divergences between self-perceptions of knowledge and reality have been most commonly documented. Adolescent boys' confidence in their knowledge about how to use condoms correlates only slightly with their actual knowledge (Crosby & Yarber, 2001). Family practice residents' self-rated skill at interviewing patients and soliciting relevant health information correlates roughly .30 with ratings provided by their instructors (Stuart, Goldstein, & Snope, 1980). The confidence of nurses in their knowledge of basic life-support tasks fails to correlate at all with their actual level of knowledge

(Marteau, Johnston, Wynne, & Evans, 1989). Physicians' self-rated knowledge about thyroid disorders also fails to correlate with their performance on a quiz on the topic (Tracey, Arroll, Richmond, & Barham, 1997). Perhaps the most sobering finding is that surgical residents' views of their surgical skill also fail to correlate with their performance on a standardized board exam (Risucci, Torolani, & Ward, 1989).

#### *Meta-Analytic Evidence*

These demonstrations are not isolated instances. In 1982, Mabe and West searched the literature for studies that had examined the relationship between self-perceptions of knowledge and objective performance and then analyzed the results of all these studies as a group (i.e., performed a meta-analysis). They observed a large range of correlations between self-perception and performance, but when they took the average of all these correlations, they found that self-perceptions correlated with objective performance roughly .29—a correlation that is hardly useless, but still far from perfection.<sup>2</sup> Some domains produced higher correlations than others. In athletics, where feedback tends to be constant, immediate, and objective, the typical correlation was .47. In the realm of complex social skills, where feedback might be occasional and is often delayed and ambiguous, it tended to be much lower (e.g., .04 for managerial competence and .17 for interpersonal skills). Other meta-analyses, one on the self-perceptions of students in the classroom (Falchikov & Boud, 1989) and one on the perceptions of employees in the workplace (Harris & Schaubroeck, 1988), found similar modest relationships between what people believe about their skills and the performances they achieve.

#### *Self Versus Peer Assessment*

An additional finding buttresses the conclusion that self-insight about skills and knowledge is modest. Complete strangers armed only with scant information about an individual can predict that person's skills and abilities almost as well as he or she can, despite the fact that the individual has a lifetime of self-information to draw upon. Borkenau and Liebler (1993) showed participants videotapes in which target individuals walked into a room, sat behind a table, read a standard weather report, and then walked back out of the room—actions that typically took 90 seconds to complete. Participants who viewed these tapes—and who had no additional information—provided ratings of intelligence that predicted the targets' scores on standard IQ tests almost as well as the targets' self-ratings. Similarly, Epley and Dunning (2004) asked college students to rate their current romantic relationship along five dimensions and to answer three quick questions about

<sup>1</sup>One way to assess the strength of these correlations in less technical terms is this: Suppose that among 100 people, 50 describe themselves as "above average," and 50 describe themselves as "below average." Now suppose that the correlation between perception and reality is zero. If that is the case, then 50% of these people will be right in their self-categorization, which is the same accuracy rate they would achieve if they judged themselves by flipping a coin. A correlation of .20 between self-categorization of "above" and "below" average and the reality would raise this accuracy rate to 60% (with 40% misclassifying themselves); a correlation of .40 would raise it to 70% (with 30% misclassifying). At a perfect correlation of 1.0, accuracy would be 100%.

<sup>2</sup>Mabe and West (1982) noted that the low correlation between perception and reality may be due, in part, to error in the measurement of self-evaluations and objective performance; that is, the measures used in the correlation may be unreliable to some extent. Thus, Mabe and West calculated what the perception-reality correlation would be if both variables were measured perfectly, without error. They estimated that the correlation would rise to .42—better, but still moderate in magnitude.