was acquitted of criminal charges, the same percentage of African Americans thought he was innocent as the percentage of white Americans who thought he was guilty. In order for each group to understand the other's point of view, they needed to be able to interact. And did women, on average, view the Hillary Clinton candidacy differently than did men? If there were no women students on campus, or if there were no men, one could not find out, at least through direct dialogue.

Without diversity, the intellectual life of a campus is constricted. People may come to believe that their own point of view is the only sensible one, or even the only one. Parents sometimes fail to realize that, when they send their children away to college, they are paying as much for the fellow students their child will meet as they are for the professors and campus facilities. The fellow students will help shape the beliefs of the student and may become lifelong friends. If they all have the same point of view, the student will miss out on one of the most important aspects of a college education—learning how to understand and appreciate diverse points of view.

The greatest problem facing colleges and universities today—in their admissions, instruction, and assessment—is that many administrators are locked into an archaic notion of what it means to be intelligent. This dated notion has resulted in a tremendous waste of human resources, as well as the miseducation of millions of youngsters.

**WHAT IS INTELLIGENCE?**

What specifically is involved in intelligent thinking? Two symposia held in 1921 and 1986 tackled this question by trying to ascertain the key features of intelligence. According to experts gathered at these symposia, the critical elements of intelligence are the abilities to (1) adapt to meet the demands of the environment, (2) engage in elementary processes of perception and attention, (3) use higher-level processes of abstract reasoning, mental representation, problem solving, and decision making, (4) learn, and (5) respond effectively to problem situations.

But the symposia's findings are just one exchange in a long and contentious debate over what comprises intelligence. Some experts, such as Edwin Boring in 1923, have been content to define intelligence operationally, that is, simply as the intelligence quotient, or IQ. Originally, IQ was defined as a ratio of one's mental-age level of performance to one's chronological-age level.
of performance, but today IQs are computed simply in terms of how much one differs from the average. An average IQ is 100, and slightly more than two-thirds of IQs fall between 85 and 115.

Expert definitions rely on tests such as those originated by Alfred Binet and Theodore Simon in 1916 to measure judgmental abilities or of David Wechsler in 1939 to measure verbal and performance abilities.  Earlier tests proposed by Francis Galton in 1883 measured psychophysical abilities (such as sensitivity of hearing or touch). They proved to be less valid, because they correlated neither with each other nor with success in educational settings.

The most influential theories—those that underlie IQ tests and tests such as the ACT and the SAT—are psychometric ones— theories that are based on quantitative measurements. Although tests such as the SAT and ACT claim not to be measures of intelligence, they correlate so highly with IQ tests that they are essentially interchangeable with them. These tests are not the only ways in which admissions officers judge applicants' intelligence and credentials for admission, but they often form an integral part of these judgments. The psychometric theories are based on and often tested by analyses of individual differences in scores among people who take tests.

Conventional intelligence tests, which originated largely at the turn of the twentieth century, became especially popular during World War I as a means of screening soldiers. Then and now, the tests have tended, on average, to favor individuals of higher socioeconomic status and, in the United States, those who are European American or Asian American rather than African American or Hispanic American. There are many alternative explanations for these differences, but the large majority of scholars view them as being environmental in origin.

Among these theories, the earliest major one is that mentioned earlier, of Charles Spearman, who proposed that intelligence comprises a general factor (g) of intelligence common to all intellectual tasks, as well as specific factors (s), each of which is unique to a given test of intelligence. His 1927 proposal was based on his finding of a "positive manifold" among intelligence tests; all tests seemed to be positively intercorrelated, suggesting the existence of a general factor. Spearman's theory still has many proponents today, such as Arthur Robert Jensen, whose analyses of factor-analytic and other data suggest what he believes to be a single factor underlying virtually all intellectual performances. Back in 1938, however, Louis Leon Thurstone disagreed with Spearman, arguing that the general factor was an artifact of the way Spearman had analyzed his data. Thurstone suggested that seven primary mental abilities underlie intelligence: verbal comprehension, verbal fluency, number skills, spatial visualization, inductive reasoning, memory, and perceptual speed.

More modern theorists, such as Raymond Cattell and John Bissell Carroll, have attempted to integrate these two kinds of views, suggesting that intelligence is best understood hierarchically, with a general factor at the top of the hierarchy (that is, in a place more central to intelligence) and narrower factors under it. Cattell proposed two such factors: fluid intelligence, which is involved in reasoning with novel kinds of stimuli; and crystallized intelligence, or one's stored knowledge base.

What is the purpose of all this discussion of intelligence, given that no testing organization claims that its college admissions test is an intelligence test, and admissions officers do not see the tests in this way? Because, first, the distinction between these tests is the result of a carefully planted illusion that tests like the SAT measure distinctively different knowledge and skills than those measured by conventional intelligence tests. But the evidence against such a distinction is substantial. The SAT is divided into two sections, with the morning section called a "reasoning test." Most intelligence tests are, in large part, also reasoning tests. Most theories of intelligence have reasoning at their core. Indeed, Charles Spearman's formulation of the general factor fol-
lowed from his work on the qualitative and quantitative principles of reasoning. In my own and others’ research, it has been found that reasoning tests are highly correlated with intelligence tests because they are at the center of what intelligence tests measure. Indeed, Jean Piaget made this point long before I did—that intellectual development is in large part the development of inferential reasoning processes. What is often considered the most “pure” intelligence test, the Raven Progressive Matrices, is a test of inductive reasoning.

Underlying reasoning is, in part, working memory, measured both by intelligence tests and by college admissions tests, especially tests of reading comprehension. The testing companies have gone out of their way not to do the obvious—to report detailed correlations between college admissions and intelligence tests. The results would most likely undermine the companies’ creation of a vague but supposedly distinctly separate construct based on scores from their tests. The fact that the tests have different labels, and that people have gone to great lengths to duck their heads in the sand regarding what psychological construct these tests measure, does not change this basic fact. Moreover, tests can look very different on the surface but still measure the same construct. Different IQ tests, for example, such as the Stanford-Binet and the Wechsler, look different, but measure largely the same construct. Arthur Jensen, as well as Richard Herrnstein and Charles Murray, among others, have shown that despite all the differences in names, tests of reasoning such as the ones used in college admissions are largely intelligence tests. (And indeed, one can argue that in the case of the SAT, there is no real clear name. As mentioned earlier, “SAT” was first an acronym for “Scholastic Aptitude Test,” then for “Scholastic Assessment Test,” and is now an acronym for nothing at all.)

The biggest problem with the psychometric theories of intelligence that dominate our thinking is that they put the cart before the horse. Basically, investigators looked for tests that would predict school achievement, then declared those tests to be tests of “intelligence.” Because Binet’s job was to predict school performance, it is understandable that the roots of current testing would be tests that predict academic performance (as well as, to a lesser degree, job performance). But we do not have to look far to discover that the folk conception, or “implicit theory,” of intelligence as performance on highly structured academic tests is limited both by space (culture) and time (era)—for intelligence may be conceived in different ways in different cultures and by different generations. In an increasingly interactive world, we clearly need to view our policies in light of modern, global considerations. More and more students who are being admitted to universities are international students, and even American students from diverse cultural backgrounds may look at intelligence in a wide variety of ways.

INTELLIGENCE ACROSS CULTURES

Conceptions of intelligence seem to vary widely across cultures. Contemporary Taiwanese Chinese conceptions of intelligence, for example, span five areas: (1) a general cognitive factor, much like the g factor in conventional Western tests, (2) interpersonal intelligence (social competence), (3) intrapersonal intelligence (understanding oneself), (4) intellectual self-assertion—knowing when to show you are smart, and (5) intellectual self-effacement—knowing when not to show you are smart. By contrast, my colleagues and I have found that Americans’ conceptions of intelligence center on three areas: practical problem solving, verbal ability, and social competence. In both the Taiwanese and American cases, however, people’s implicit theories of intelligence seem to extend beyond what conventional psychometric intelligence tests measure.

Studies in Africa in fact provide yet another window on the substantial differences across cultures. Patricia Ruzgis and Elena Grigorienko have argued that, in Africa, conceptions of intelligence revolve largely around skills that help to facilitate and maintain harmonious and stable intergroup relations; intragroup
relations, too, are probably equally important and at times more important. Robert Serpell has found that Chewa adults in Zambia emphasize social responsibilities, cooperativeness, and obedience as important to intelligence; intelligent students are expected to be respectful of adults. Charles Super and Sara Harkness have found that Kenyan parents also emphasize responsible participation in family and social life as important aspects of intelligence. In Zimbabwe, the word for intelligence, ngware, actually means to be prudent and cautious, particularly in social relationships. And among the Baoulé people of Ghana and Côte d’Ivoire, service to the family and community, as well as politeness toward and respect for elders, is seen as key to intelligence.

The emphasis on the social aspects of intelligence is not limited to African cultures. Notions of intelligence in many Asian cultures also emphasize the social aspect of intelligence more than does the conventional Western or IQ-based idea. But even as the African and Asian cultures emphasize social skills in their definitions of intelligence more than the U.S. culture does, they also recognize the importance of cognitive aspects of intelligence. In a study of Kenyan conceptions of intelligence, for example, it was found that there are four distinct terms constituting conceptions of intelligence among rural Kenyans—rizko (knowledge and skills), luoro (respect), winjo (comprehension of how to handle real-life problems), and para (initiative). Note that only the first of these refers directly to knowledge-based skills, of which academic skills are just a part.

But remember too that there is no one overall U.S. conception of intelligence. Indeed, one study found that various ethnic groups in San Jose, California, had rather different ideas about what it means to be intelligent. For example, Latino parents of students tended to emphasize the importance of social competence skills in their conceptions of intelligence, whereas Asian and Anglo parents tended to emphasize the significance of cognitive skills. Teachers, who were often of Anglo background, also emphasized cognitive skills over social competence. The rank order of performance of students of various groups (including subgroups within the Latino and Asian groups) could be perfectly predicted by the extent to which their parents shared the teachers’ conception of intelligence. In other words, teachers tended to reward those students who were socialized into a view of intelligence that happened to correspond to the teachers’ own.

Similarly, when teachers write letters of recommendation for applicants to college, they apply their implicit theories of intelligence, so much so that the letters reflect these implicit theories as much as anything about the applicants themselves. But even if teachers do not reward social aspects of intelligence as much as the cognitive aspects, these social aspects may be as important as the cognitive, or even more so, to one’s success in later life.

In traditional admissions, certain groups tend to perform less well on traditional admission tests than do other groups. And the usual response has been to throw up one’s hands and conclude that a merit-based system will not work, because it will always disfavor members of groups that affirmative action is intended to serve. But we have given up too easily. A merit-based system is both possible and feasible.

SUCCESSFUL INTELLIGENCE DEFINED

The system I advocate here is based on my psychological theory of abilities, called the augmented theory of successful intelligence. Successful intelligence is the ability to succeed in life. People have different conceptions of success (for example, to be a successful scientist, athlete, actor, musician, writer, accountant, plumber, secretary, business executive), and a conception of intelligence needs to take into account that people work toward diverse goals and do so within different cultural milieus.

Successful intelligence involves three components of intelligence: analytical, creative, and practical. Analytical intelligence is what traditional IQ tests and SATs measure. Creative intelligence involves going beyond the given, and thinking flexibly and
adaptively in rapidly changing situations. And practical intelligence is the use of one’s abilities to make a difference in one’s everyday life.

In the everyday world, people are not smart merely in one way or another. That is, they are not merely adept in an analytical way, highly creative, or savvy in a practical intelligence sense—or none of the above. There is a continuum of levels of skill in each of these domains. So one person might rank fairly high in analytical ability, even higher in creative skill, and low in practical savoir faire, or another might have excellent analytical abilities but struggle in areas involving creative or practical skill. There is some correlation among the abilities because they are not completely independent. For example, a successful creative person needs not only to come up with novel ideas, but also analytically to assess which ideas are best as well as practically to figure out how to persuade others to accept them.

THE TACTIC DIMENSION OF SUCCESSFUL INTELLIGENCE

Significantly, practical intelligence draws largely on tacit knowledge. Tacit knowledge is viewed as knowledge that generally is acquired with little support from other people or resources. In other words, the individual is not directly instructed as to what he or she should learn, but rather must extract the important lessons from experience even when learning is not the primary objective.

Because tacit knowledge is an understanding of how to perform various tasks in different situations, it can be considered a subset of procedural knowledge that is drawn from personal experience. And as is the case with much procedural knowledge, it tends to guide action without being easily articulated. That is, when it comes to tacit knowledge, we often do not know what we know.

Part of the difficulty in articulating tacit knowledge is that it typically reflects a set of complex, multiconditional rules for how to pursue particular goals in specific situations (for exam-
villages suffer from parasitic illnesses, and they use their knowledge of these medicines an average of once a week in medicating themselves and others. The students' well-being depends on their being able to self-medicate; those who cannot self-medicate will suffer more from the parasitic illnesses. But this is clearly not a kind of knowledge that is important across all cultures. Middle-class Westerners who have no idea about these herbal medicines would probably find it challenging to thrive or even survive in these contexts (or, for that matter, in the U.S. urban ghettos often not distant from their comfortable homes).

We measured the Kenyan students' ability to identify the natural herbal medicines by where they come from, what they are used for, and what doses are appropriate. Based on work that we had done elsewhere, we expected that scores on this test would not correlate with scores on conventional tests of intelligence. In order to test this hypothesis, we also administered to the eighty-five students the Raven Coloured Progressive Matrices Test, which is a measure of fluid or abstract-reasoning-based abilities, as well as the Mill Hill Vocabulary Scale, which assesses crystallized or formal-knowledge-based abilities. In addition, we gave the students a comparable test of vocabulary in their own Dholuo language. The Dholuo language is spoken in the home, whereas English is used in the schools.

The results we encountered were surprising in terms of traditional theories of human intelligence. To our surprise, we found statistically significant correlations of the tacit-knowledge tests with the tests of crystallized abilities. The correlations, however, were negative. In other words, the higher the students scored on the test of tacit knowledge, the lower they scored, on average, on the tests of crystallized abilities. Tests of fluid abilities also showed correlations with practical intelligence in the negative direction.

These surprising results can be interpreted in various ways, but based on the ethnographic observations of the anthropologists on the team, we concluded that a plausible scenario would include families' expectations for their students. Many students drop out of school before graduation for financial or other reasons. Moreover, many families in the village do not particularly value formal Western schooling. There is no reason they should, because the students of many families will spend their lives farming or engaged in other occupations that make little or no use of Western schooling. Few if any will go to universities. Instead, then, the families emphasize teaching their students what they need to know to successfully adapt to the environments in which they will really live. Students who spend their time learning this indigenous practical knowledge of the community generally do not invest themselves heavily in doing well in school, whereas students who do well in school generally do not invest themselves as heavily in learning the indigenous knowledge—hence the negative correlations. In fact, in some cases the students who are most successful at school do not learn the indigenous knowledge because no one wants to teach them—that is, they may be perceived as the "losers" in the village.

The Kenya study suggests that the identification of a general factor of human intelligence on conventional tests, including those for college admission, may tell us more about how well an applicant's abilities match up with expectations from schools, especially schools based on Western patterns of education, than it does about his or her ability to succeed in life.

Further, our research shows that the context-specificity of intellectual performance applies not only to countries far removed from North America or Europe. One can find the same on these continents, as we did in our study of Yup'ik Eskimo students in southwestern Alaska.27

We were particularly interested in these students because their teachers thought that, for the most part, they lacked even the basic intelligence needed for success in school. Yet many of the students had tremendous practical knowledge that few, if any, of the teachers had. For example, the Yup'ik students could travel easily from one village to another in the winter on a dog sled because
they had the ability to recognize even the most subtle landmarks in the frozen tundra. The outsider teachers (and we the researchers), had we tried to do the same, most likely would have died after becoming lost in those same hundreds of miles of seemingly barren landscape.

My collaborators and I decided to compare the importance of academic and practical intelligence among rural and urban Alaskan communities. A total of 261 students were rated for practical skills by adults or peers in the study as well as by a test of tacit (informally learned) knowledge as acquired in rural Alaskan Yup’ik communities, and we measured academic intelligence with conventional measures of fluid and crystallized intelligence. Tests of fluid intelligence measured abstract-reasoning skills and tests of crystallized intelligence measured world knowledge, such as vocabulary.

The urban students generally outperformed the rural students on a measure of crystallized intelligence, but the rural students generally outperformed the urban students on the measure of Yup’ik tacit knowledge. The test of tacit knowledge was superior to the tests of academic intelligence in predicting practical and, particularly, hunting skills of the rural students (for whom the test was created), but not of the urban students. Thus, in terms of the skills that mattered most to the students’ everyday lives, such as staying alive in a challenging environment, the test of practical intelligence was the way to go.

I live in the West End of Boston. Students growing up in the largely middle-class area in which I live, or in wealthy suburbs such as Weston or Wellesley, will have had many opportunities to learn the academic skills that conventional tests value. They have a distinct edge in getting into the college or university of their choice, affirmative action notwithstanding. Just a few miles from where I live is Roxbury, the most economically challenged part of Boston and one with a relatively high crime rate. So what kinds of skills do these students develop? Actually, quite a few,

but not necessarily the skills measured by tests such as the SAT or the ACT. Like the Yup’ik Eskimo students, they develop skills that are exquisitely adapted to the environments in which they live. Some of them have to get between their home and school in the face of potential violence and other threats to their safety. They have to learn to deal with, and hopefully not become, drug dealers. They have to live with families that may be in disarray, in part as a result of economic and social challenges. How many of us comfortably could walk those streets, especially in the dark, and make it from point A to point B safely? How many of us would even try? Actually, some of us may end up having to learn. Recent upheavals in the society as a whole may encourage the development of a broader range of skills among students who move from the middle class to lower social classes as their parents lose their jobs and perhaps even their homes.

Students learn the skills they need to adapt. What we should be measuring is their ability to pick up adaptive skills, not merely their ability to pick up skills that happen to be on the tests.

SUCCESSFUL INTELLIGENCE AND STANDARDIZED TESTS

One could argue that standardized tests like the SAT and ACT are not supposed to tell us anything about the broader structure of human abilities. Instead, what the testing companies do purport to evaluate with their admissions tests are academic skills. This focus is largely a marketing decision, and a reasonable one, given the companies’ and colleges’ shared goals. It would be counterproductive to both their goals, given the current times, to label the tests “intelligence tests.” But statistically, conventional intelligence is largely what the tests measure. Verbal comprehension and reasoning (measured in verbal reasoning sections), mathematical/numerical skills (measured in mathematical reasoning sections), and verbal fluency (measured in writing sections) are factors that come directly out of Thurstone’s, Guilford’s, and
other scholars' theories of intelligence. Call them what you will—these categories are integral to traditional psychometric theories of intelligence.20

Throughout history and in many places still, schooling, especially for boys, takes the form of apprenticeships in which students learn a craft from an early age. The students are taught what they will need to know in order to succeed in a trade, but not a lot more. They are not simultaneously engaged in tasks that foster the development of the particular blend of skills measured by conventional intelligence tests. In particular, they do not typically study a variety of subjects from an early age as Western schoolchildren do, and because traditional intelligence tests typically measure skills in a variety of areas, they are thus at a disadvantage. Even more to the point, it is less likely that one would observe a "general intelligence factor" in their scores. Our research in Kenya bears out this assertion.

One might wonder what a study done in rural Kenya has to do with students in the United States, particularly those in urban settings. Actually, it has everything to do with them. Most students do not want to become academic superstars who later become professors to the next generation of academic superstars. Rather, they have a wide variety of goals in life. If a student wants to become an NBA superstar, an actor, a dancer, a violinist, an artist, or involved in any of a number of other occupations, it is not clear that getting into Harvard and then getting As in an academically challenging major such as physics is the right way to get there. In fact, going to Harvard and excelling academically may be precisely the wrong step. A ballet dancer has relatively little time in which to make his or her name, and generally cannot afford to take off four years to study academic pursuits. A potential NBA or NFL star will not get the kind of athletic training at Harvard that will propel him into the elite world of professional basketball or football. A violinist needs to spend countless hours practicing—not cramming for difficult exams—and unless he or she spends much of the time in deliberate prac-

rice, hopes of a professional career, particularly as a soloist, may go out the window.

In some jobs, the credential will make a difference for entrance. For example, some top investment banks or law firms will recruit only at the more prestigious colleges and universities. These cases point out that, to some extent, higher education has become a business of buying a credential in addition to an education. But although the origin of the credential may matter a great deal for initial placement, it will probably matter less for promotion, including to top management, legal, or other positions. At that point, it will be the actual education one received that matters rather than merely the name of one's alma mater.

Even as basic a skill as memory, which schools emphasize and which admissions tests measure, can develop differently in various cultures. One investigator asked Moroccan and North American individuals to remember patterns of Oriental rugs as well as pictures of everyday objects such as a rooster and a fish. In short, the Moroccans in the study, whose culture has traditionally involved experience in the rug trade, seemed to remember things in a different way from participants who did not have their skill in remembering rug patterns, and they were better at remembering those patterns.21 In a related study, Judith Kearns found that when asked to remember visuospatial displays, Anglo Australians used verbal (school-appropriate) strategies whereas aboriginals used visual strategies appropriate to their desert-nomad culture.22 Thus, students may develop different skills, or apply the same skills differently, as a function of their cultural background.

PRACTICAL KNOWLEDGE IN ACTION

Consider another example. A young man whom I'll call Adam was in a great business school. As an MBA student, he could expect a very bright future. While a student, he started a business that proved to be very successful. As Adam progressed through school, he spent more and more time on the business and less and
less time on his schoolwork. His grades, which were high at first, started to show where he was putting his time. The more successful the business became, the more his grades suffered. Then Adam was offered funding by a major venture-capital firm, but with the stipulation that he become a full-time CEO of the business. So there he was, in the position of a rural Kenyan schoolchild. He could spend his time on his courses in business school and neglect what he felt he needed to do to succeed in the real world, or he could let the academic work go. He let the academic work go and eventually dropped out of business school with only months left to go. The gamble paid off, and the business thrived beyond what anyone originally might have hoped. For this entrepreneur, academic development and success in the world of work had developed a negative correlation, and Adam chose the world of work, much as did the practically more successful students in rural Kenya. But he took a risk: if the business had failed, he might well have ended up back in business school.

Awhile back, I attended the commencement ceremony for Tufts University. The commencement speaker was Michael Bloomberg, the mayor of New York. He commented that he was pleased to be back in Medford, Massachusetts, where he grew up. He congratulated the president of the university on being first in his class, and then commented on how he, Bloomberg, was one of those who made the top half of the class possible. The audience laughed. Underlying the humor, however, was a serious message: success in life does not necessarily originate with academic success.

I used to spend a lot of my time fund-raising. Fund-raising involved meeting some of the most successful alumni of Tufts, as measured not only by their financial resources and, hence, giving capacity, but also by the contributions they have made to society. Many of the people I met were in business, but certainly not all or even almost all. One thing impressed me, as I am sure it has countless other deans and other fund-raisers in the past: many of the people with whom I met were not at the top of their class at Tufts, nor were they admitted with sky-high GPAs or SATs. Sometimes they had comparatively lackluster academic records upon admission, and often their academic records upon graduation were not much better. But many of them developed other practical skills that had enabled them to make a significant difference to the world with whatever resources were available to them.

When we admit students to colleges, one question we have to ask ourselves is why academic skill is as important as we make it out to be. If college grades are so important to success, why are top graduates thirty years later often not those who received the highest academic honors? According to the theory of successful intelligence, people succeed by capitalizing on strengths and by compensating for or correcting their weaknesses. There is no one formula for success. Everyone has to find his or her own, based on a unique pattern of strengths and weaknesses. This postulate, in turn, implies that abilities can be changed—that people can indeed correct their weaknesses if they set their sights on doing so.

Consider the best teachers you have ever had, and then ask yourself what made them so good. Chances are that they were great teachers in different ways. One teacher may have excelled in lecturing to large classes, another in leading seminars, another in mentoring one on one. Similarly, CEOs have different styles, but all can succeed if they find a fit between their style and the company they lead. In the end, no one is good at everything, and no one is bad at everything. People who are successfully intelligent are those who figure out their strengths and find a way to capitalize on them. People who are less successfully intelligent either never figure out what they do well, or, having figured it out, fail to find a way to make the most of it.

It is also important as well to figure out how to compensate for or correct weaknesses. Bill Clinton had the potential to be a president of historical proportions. Educated at Georgetown and Yale Law School, he was universally agreed to have a combination of intellectual brilliance, gregariousness, and personal cha-
risma that are rarely found in politicians at any level. He also had a weakness, which was an inability to resist extramarital adventures with women. For whatever reason, he was unable to correct this weakness during his leadership years, and ended up paying a steep price for it. So did the country, as Clinton spent more and more of his time enmeshed in scandal. As went Bill Clinton, so went John Edwards and Mark Sanford, two other brilliant politicians whose careers went down the tubes as a result of their sexual escapades. Similarly, George Bush had an education most people can only dream about: Phillips Andover Academy, followed by Yale and then Harvard Business School. Yet the greatest financial crisis since the Great Depression began on his watch, as did other serious problems, such as the scandal at the Abu Ghraib prison in Iraq. Although there are many reasons for these errors, one almost certainly was Bush’s periodic difficulty in learning from mistakes. Even many Republicans, toward the end of his term, were discouraged by his emphasis on big government and federal centralization. And his ability to anticipate reactions to his policies, domestically and abroad, bordered on the tone deaf. In the end, two presidents in a row with terrific educations proved to be surprisingly challenged leaders. Both had weaknesses, and neither figured out a way adequately to correct or compensate for these weaknesses.

All of us have weaknesses. For one person, it may be a bad temper or a tendency to shoot from the hip. I was once a consultant to a very successful executive who tended to be impulsive in his responses to bad news. At one point, he received a phone call telling him that he had been passed over for a promotion. His reaction was to explode and explain to his boss why the person who was moving up was a poor choice and why he would have been a better one. In the end, he not only lost a challenging job opportunity, but his job as well. His one notable weakness proved to be his downfall.

In college admissions, we seek not only well-rounded individuals who will be good at lots of things, but also young people with unusual strengths—in music, athletics, entrepreneurship, political work, acting, or whatever—and, moreover, the ability to capitalize on these strengths. In the end, those who can capitalize on a few strengths and compensate for (or remedy) their weaknesses will be those who achieve the greatest success.

It can be difficult for college admissions officers to pick up on which students will capitalize on strengths and compensate or correct for weaknesses. But there are ways to increase the probability of identifying such tendencies. One is to give applicants a variety of opportunities to show how they stand out. Even the very process of giving applicants multiple options will reveal whether they can figure out how to demonstrate their strengths. Moreover, if admissions officers do interviews, they can ask students about not only their strengths but also their weaknesses and how they deal with those weaknesses. The information provided will be tainted a bit by the student’s desire to look good, of course, but such questions can still provide insights useful to the college admissions process.

These principles apply to us all, including me. I was until recently dean of the School of Arts and Sciences at Tufts. One of my strengths, I believed, was that I came from outside the university. This outsider background enabled me to see opportunities for improvement that colleagues who had been at Tufts longer were unable to see. In any organization, people get used to the way things are, and can have trouble recognizing how things could be another way. But at the same time, and more unexpectedly, my outsider status was a weakness: because I was new to Tufts, I only had a rough idea of how things were done there. My solution? When openings for academic deanships arose, I chose insiders to fill them—people who had been at Tufts for a long time. And as I predicted, they did, on any number of occasions, save me from myself, preventing me from making mistakes that might have occurred because I did not yet fully understand the organizational culture.
CREATIVITY: STORIES FROM THE FIELD

While I was teaching at Yale, three graduate students with whom I worked provided a curious contrast in the types of skills that accompany—or fail to accompany—what we call intelligence. The first, whom I have come to call Alice, was brilliant academically and at the kinds of memory and analytical skills that conventional psychometric tests of intelligence emphasize. She started off our graduate program in psychology as one of the top students, but by the end of the program ranked near the bottom. The reason was transparent: Alice was brilliant analytically, but showed only the most minimal creative skills. I was not convinced that Alice was born creatively impaired. Rather, it seemed more likely that Alice had been so overly reinforced for her school smarts that she had never had any incentive to develop or even to find whatever creative skills may have lay latent in her.

Another graduate student in our program, “Celia,” was admitted not because she was spectacular, but because she appeared to have strengths in both analytical and creative areas. But Celia surprised us when, upon graduation, she was besieged with job offers. It turns out that she was the kind of person who could go into a job interview, figure out what her potential employers wanted to hear, and then give it to them. In contrast, “Paul,” a student who was analytically and creatively brilliant, received many job interviews but only one very lukewarm job offer after managing to insult his interviewers at every turn. He was as low in practical intelligence as Celia was adept in this very important area.

Still another student, “Barbara,” was marvelously creative, if we were to believe her portfolio of research work and the recommendations of her undergraduate professors, but her scores on the largely analytical Graduate Record Examination (GRE) were weak. Barbara was rejected from our program, but I hired her as a research associate, which gave her a chance to show her creative brilliance. Barbara was admitted as the top pick to our graduate program a couple of years later. Some years later, we did a study on twelve years of graduate students in psychology at Yale. The study showed that, although the GRE was a good predictor of first-year grades, it was a satisfactory predictor of little else, such as students’ analytical, creative, practical, research, or teaching abilities, or the quality of their dissertation. For men, the analytical section (since discontinued) had some predictive power for these other criteria; for women, none of the sections had significant predictive power.

Creativity is hard to sell in some schools. Here another true-life story comes to mind, although in this case the student is much younger. “Julia” was a student in a public school comprised of largely middle-class students. Her elementary school teacher was doing a unit on the planets. To acquaint students with the planet Mars, the teacher asked the class to imagine themselves as astronauts. They were to dress up as astronauts and decide what they would do when they landed on Mars.

Julia raised her hand to make a suggestion: what if she dressed up as a Martian and greeted the astronauts when they arrived on Mars? The teacher immediately mixed Julia’s idea, explaining that because it was known from space probes that there are no residents on Mars, it would not be appropriate for Julia to dress up as a Martian for the lesson.

When I heard about this incident, I was distressed. The teacher was certainly within her rights to reply as she did. But how many times do students have creative ideas, state them, and immediately get punished for doing so? And what is the lesson they learn from this kind of experience? They probably learn that the next time they have a creative idea, they should keep it to themselves. But surely this is not the lesson educators want students to learn.

The teacher’s behavior was understandable and no doubt well intentioned. For one thing, there probably are no Martians (although, for a variety of reasons, that is not certain—they might
live underground; they might be sending false feedback to space probes; they might be a life form that the space probes cannot recognize; and so on. And the teacher, like all teachers, probably had a staggering amount of material she was trying to cover during the term, an important consideration especially when her students’ performance on statewide examinations was at stake. Yet few teacher actions kill creativity more effectively than discouraging creative ideas when they are proposed.

The stories of Barbara and Julia help us understand why it is so hard to sell creativity, both in instruction and administration. We are a society that claims to value creativity, but we do not “walk the walk” when it comes to supporting it. The College Board added a writing test to the SAT, but its scoring is formulaic and it largely rewards cookie-cutter essays rather than creative ones. Creativity is outside the scope of the test and of what many teachers look for.

Indeed, some teachers may be put off by creativity. After all, creativity can be threatening. Although teachers probably know more facts than students and probably have more traditional academic skills at their disposal, they may not be more creative. Indeed, they may be entrenched in their thinking and, as a result, less creative. They therefore may see creative students as a threat to their self-esteem. Students may also threaten teachers’ sense of control. Creative students defy the crowd, and classroom discipline is about conforming to the crowd. Teachers may thus mistake creativity for disruptiveness.

Many teachers and administrators also are unconvinced of the importance of creative thinking; they see creativity as a byproduct rather than as a product of an education whose purpose, they believe, is teaching content within disciplines. Learning to engage in critical or creative thinking is often viewed as a highly peripheral add-on.

Finally, many teachers believe that creativity simply cannot be taught, even though we who study intelligence know that it can indeed be developed. Teachers may view creativity as a fixed, inherited trait, and hence believe that there is little they can do to influence it.

The very nature of creativity can help fuel these misunderstandings. Creativity is notoriously difficult to measure adequately through multiple-choice or similar tests that insist on “right” or “wrong” answers. Homework, too, can be an issue: creative students may have trouble with assignments that require narrow, hard-and-fast responses. Nor surprisingly, many teachers are uncomfortable with rewarding creative students whose answers fall outside of objective standards of assessment.

WISDOM: AN ESSENTIAL, AUGMENTED PART OF SUCCESSFUL INTELLIGENCE

In recent years, I have added wisdom to my theory of successful intelligence.33 Wisdom is defined as the application of knowledge, successful intelligence, and creativity toward the achievement of a common good through a balance among interpersonal, intrapersonal, and extrapersonal interests, over the short and long terms, through the infusion of positive ethical values.34 That is, wisdom is the skill of using one’s intelligence, as well as one’s knowledge, for a common good, today and long into the future.

Why is wisdom so important? Just consider what can happen when great intelligence is not accompanied by wisdom. Hitler, Stalin, and many other crackpot despots have shown how different intelligence and wisdom can be. Contemporary terrorists provide a further example. They may have the creative intelligence to select unexpected targets, the analytical intelligence to decide if they are good targets, and the practical intelligence to deliver their attacks. But they are not wise. On a more global scale, technology has progressed at a much more rapid rate than people’s ability to use that technology wisely. The world has available to it enormously destructive weapons without the wisdom to know how to control or get rid of them. It is probably
not an exaggeration to say that human life on the planet is at grave risk for annihilation, whether by nuclear, biological, or chemical weapons. Some leaders may think that they can use such weapons in a contained way. I am doubtful. If we do not develop greater wisdom soon, we—humankind—may never get the chance.

The difference between more and less wise thinking can be seen all around us, including in corporate America. Take just one example from the pharmaceutical company Merck. Under the leadership of former CEO Roy Vagelos, the company prospered and acquired an excellent reputation, in large part because of Vagelos’s intelligent and wise decision making around a single issue, Mectizan.

Mectizan is a drug developed by scientists at Merck that combats river blindness. It thus had the potential to cure tens of thousands of individuals afflicted with this debilitating disease. The problem was that the people who needed the drug could not afford it. Many of Vagelos’s advisers advised him to halt development of the drug because it was a sure money loser. Despite this advice, Vagelos decided to develop the drug and then to give it away—for free. The result was a flood of positive publicity for Merck. After Mectizan was distributed—at a loss—Merck’s financial bottom line actually improved. Good leadership, characterized by good decision making, had helped the company prosper.

Years later, the same company was faced with a different challenge under former CEO Ray Gilmartin. A blockbuster drug, Vioxx, was not looking good in clinical trials. Although it was effective at reducing pain associated with arthritis, it also seemed to be associated with risk of heart damage, particularly in people who had had heart problems in the past. Under Gilmartin, Merck chose to suppress and, in some cases, “reinterpret” the results of these clinical trials. The long-term result was roughly thirty thousand lawsuits against Merck, and a company seri-

ously damaged both financially and morally. Do more college faculty today teach one to think like Vagelos, or like Gilmartin?

In more recent times, the automobile maker Toyota discovered the error of its ways in neglecting reports of sudden acceleration and failed braking in some of its cars. The damage to its reputation as well as its bottom line has been incalculable. More important, people appear to have died as a result of their Toyotemade automobiles’ failures.

As defined earlier, wisdom is not just about maximizing one’s own or someone else’s self-interest, but also about balancing those interests with other “extrapersonal” aspects of the context in which one lives, such as one’s city, country, environment, or even God. Wisdom also involves creativity, in that the wise solution to a problem may be far from obvious.

If one is wise, one certainly may seek good ends for oneself, but also must seek good outcomes for others. If one’s motivations are to maximize certain people’s interests and minimize other people’s, wisdom is not involved—although a wise decision may lead to a common good that is better for some than for others. Consequently an evil genius may be academically intelligent and practically intelligent, but he cannot be considered wise.

Measuring an Applicant’s Wisdom

One might ask whether it is possible to measure wisdom-related skills in the seventeen-year-olds who apply for college. Karin Sternberg and I have designed an assessment that measures these kinds of skills. Here is an example of the kind of problem that appears on it:

A good friend of yours seems upset. You ask him why. He then confesses to you that he is using an illegal drug. He has hidden his drug use well: To your knowledge, he showed no obvious symptoms, and no one, to your knowledge, is talking about it. His concern is not with the effects of the drug, but rather with being found out. Never-
I was speaking about that main topic, I expected some of the students to raise their hands and demand. It didn't happen, and I was surprised. Then I decided to continue with the seminar. I told them, "I had just returned from a trip, and I felt that the instructor I was paid for my consulting on ethical leadership was less than I deserved. I tried to fill out the reimbursement forms, but the class was not interested. I told them about ethical leadership, and I expected them to learn something from it. I did not expect them to react as I had anticipated."

"Ethics, Wisdom, and Learning to Stand Up"
likely than other bystanders to help a person in distress who was in need of—a Good Samaritan.

It seems that it is far more difficult to respond ethically in real-world situations than one would expect simply on the basis of what we learn from our parents, from school, and from our religious training.

Eight Steps to Ethical Behavior

Ethical behavior involves multiple, largely sequential, steps—and unless all of the steps are completed, individuals are not likely to behave in an ethical way, regardless of the amount of training they have received in ethics, and regardless of their other skills. To behave ethically, the individual has to:

1. recognize that there is an event to which to react;
2. define the event as having an ethical dimension;
3. decide that the ethical dimension is of sufficient significance to merit an ethics-guided response;
4. take personal responsibility for generating an ethical solution to the problem;
5. figure out what abstract ethical rules might apply to the problem;
6. decide how these abstract ethical rules actually apply to the problem so as to suggest a concrete solution;
7. prepare for later possible repercussions of having acted in what one considers an ethical manner; and
8. enact the ethical solution.

Seen from this standpoint, it is rather challenging to respond to problems in an ethical way. Consider the example of the supposed double reimbursement.

1. Recognize that there is an event to which to react. The students were sitting in a class on leadership, expecting to be educated by a leadership expert. In this case, I did not present the problem as one to which I expected them to react. I was simply telling them about something I had done. They had no expectation that what I, the authority figure, said would require any particular kind of reaction, except perhaps for taking notes. So for some students, the whole narrative may have been a non-event.

This problem of not recognizing that a situation is important extends beyond this mere classroom example. When people hear their political, educational, or religious leaders talk, they may not believe there is any reason to question what they hear. After all, they are listening to authority figures. In this way, leaders, including cynical and corrupt leaders, may lead their flocks to accept and even commit unethical acts.

2. Define the event as having an ethical dimension. Not all students in the class defined the problem as an ethical one. It became clear during our later discussion that some students viewed the problem in a utilitarian way: I had worked hard, had been underpaid, and was trying to figure out a way to attain adequate compensation for my hard work. In this definition of the problem, I had come up with a clever way to make the compensation better fit the work I had done.

Cynical leaders may flaunt their unethical behavior—one is reminded today of Robert Mugabe, but there are other world leaders who might equally be relevant here. When Mugabe and his henchmen seized the property of white farmers, the seizure was presented as one of compensating alleged war heroes for their accomplishments. Why should it be unethical to compensate war heroes?

In recent times, the Chinese government apparently attempted to manipulate the media to downplay the huge ethical dimensions of an important national event. On May 12, 2008, an earthquake in Sichuan province killed an estimated ten thousand schoolchildren. But there was an irregularity in the buildings that imploded during the earthquake. Schools for children of well-connected party leaders as well as government buildings withstood the earthquake with no problem. In contrast, schools
housing poor children crumbled to dust. It turned out that the ill-fated schools had been built in ways that could only poorly withstand an earthquake. Presumably, the money that was supposed to have supported better construction went to line the pockets of Communist Party functionaries. The government did what it could to suppress these basic facts.

Lest one believe that only other governments attempt to obscure the ethical dimensions of events, Scott McClellan, former press secretary to President George W. Bush, claimed in a best-selling book that the president’s administration engaged in many half-truths and outright lies.38 His account suggests that members of the administration may have been unable to distinguish their lies from the truth, or may not have cared.

3. Decide that the ethical dimension is of sufficient significance to merit an ethics-guided response. In the case of my having sought double reimbursement, some of the students may have felt it was sketchy or dubious, but not sufficiently so to make an issue of it. Perhaps they had themselves asked for money twice for the same cause. Or perhaps they had sometimes taken what was not theirs—say, something small like a newspaper or even money they had found on the ground—and saw what I was doing as no more serious than what they had done. So they may have recognized an ethical dimension, but decided that it wasn’t significant enough to create a fuss.

Politicians seem to specialize in trying to downplay the ethical dimension of their behavior. John Edwards, while married, fathered a child out of wedlock and then tried to get a colleague to take the fall for him. A Massachusetts state senator, too, was arrested in June 2008 for allegedly attempting to grope a woman on the street.39 He apparently had a record of harassing other women over a period of years. Pleading innocent even after being caught red-handed, he also did something even more dramatically irresponsible and unethical: when asked his name, he gave the name of a colleague in the state senate instead.

4. Take personal responsibility for generating an ethical solution to the problem. The students may have felt that they are, after all, merely students. Is it their responsibility, or even their right, to tell a professor in a course on leadership how to act, especially if the professor is a dean? From their point of view, it was perhaps my responsibility to determine the ethical dimensions of the situation, if any.

Similarly, people may allow leaders to commit wretched acts because they figure it is the leaders’ responsibility to determine the ethical dimensions of their actions. Isn’t that why they are leaders in the first place? Or people may assume that the leaders, especially if they are religious leaders, are in a uniquely good position to determine what is ethical. If a religious leader encourages someone to become a suicide bomber, that “someone” may feel that being such a bomber must be ethical. Why else would a religious leader suggest it?

5. Figure out what abstract ethical rules might apply to the problem. Perhaps some of the students recognized the problem I created for them as having an ethical dimension. What if unethical rules? Have they ever had to figure out reimbursements? Perhaps not. And if so, they, might there be some circumstances in which it is ethical to be dually reimbursed? Maybe the university supplements outside reimbursements, as they sometimes do fellowships. Or maybe the university does not care who else pays, so long as they get original receipts. Or maybe what I meant to say was that I had some expenses paid by the university and others by the sponsoring organization, and I had simply been speaking. Especially in unfamiliar situations, it may not be clear what constitutes ethical behavior.

Most of us have learned, in one way or another, ethical rules that we are supposed to apply to our lives. For example, we are supposed to be honest. But who among us can say that he or she has not lied at some time, perhaps with the excuse that we were protecting someone else’s feelings? By making such excuses,
however, we insulate ourselves from the effects of our behavior. At first we might be able to argue that not hurting someone else’s feelings should take precedence over not lying. Of course, as the lies grow larger, we can continue to use the same excuse. Or politicians may argue that they should provide generous tax cuts to the very wealthy, on the theory that the benefits will “trickle down” to the rest of the population. This way, the excuse goes, one is still treating all people well—it’s just that some people are treated better and eventually the effects will reach everyone else.

6. Decide how these abstract ethical rules actually apply to the problem so as to suggest a concrete solution. Perhaps the students had ethical rules available and even accessible to them, but did not see how to apply them. Suppose they had the rule that one should only expect from others what one deserves. Well, what did I deserve? Maybe, in application, they saw me as deserving more because I said I did. Or suppose they had the rule that one should not expect something for nothing. Well, I did something, so perhaps I was only trying to get something back that adequately reflected my work. In the end, then, the students may have had trouble applying these abstract principles to the problem at hand—and then into concrete behavior.

This kind of translation is important. In our work on practical intelligence, we found that there is, at best, a modest correlation between the more academic, abstract aspects of intelligence and its more practical, concrete components. That is, often people have skills that shine brightly in a classroom, but they are unable to translate these skills into action. For example, someone may be able to pass a written drivers’ test with flying colors, but not be able to drive. Or someone may be able to get an A in a French class, but not speak French to passers-by in Paris. Or a teacher may get an A in a classroom management course, but be unable to manage a classroom. Translation of abstract skills into concrete ones is difficult, and may leave people knowing a lot of ethical rules that they are nevertheless unable to incorporate into their everyday lives.

If one follows reports in the media, there are any number of instances in which pastors who are highly trained in religion and ethics act in unethical and unscrupulous ways. They may be able to teach classes on ethics, but they fail to translate what they teach into their own behavior. One may tend to be quick to blame them, but as a psychologist, I know that there are also many competent psychologists who are unable to apply what they do in therapy to their own lives. Being a psychologist is no protection against personal strife, any more than being an ethicist is protection against unethical behavior.

7. Prepare for later possible repercussions of having acted in what one considers an ethical manner. One may hesitate to act because of possible repercussions. Perhaps students in my class saw me as grossly unethical, but did not want to risk challenging me openly and thereby potentially lowering their grade. In genocides, opposing the perpetrators may make one a victim. Or one may look foolish acting in an ethical way when others are taking advantage of a situation in a way to foster their personal good. Even before one acts, one may be hesitant because of the aftermath one anticipates, whether real or merely imagined.

We would like to think that the pressure to behave ethically will lead people to resist internal temptations to act poorly. But often, exactly the opposite is the case. In the Enron case, when Sherron Watkins blew the whistle on unethical behavior, she was punished and made to feel like an “outcast.” In general, whistleblowers are treated poorly, despite the protections they are supposed to receive.

8. Enact the ethical solution. You sit in a classroom and hear your teacher brag about what you perhaps consider to be unethical behavior. You look around you. No one else is saying anything. As far as you can tell, no one else has even been fazed. Perhaps
you are simply out of line. In the Latané and Darley work mentioned earlier, the more bystanders there were, the less likely one was to take action to intervene. Why? Because everyone figured that, if something was really wrong, then someone else witnessing the event would take responsibility. Thus you are better off having a breakdown on a somewhat lonely country road than on a busy highway, because a driver passing by on the country road may feel that he or she is your only hope.

Sometimes, the problem is not that other people seem oblivious to the ethical implications of the situation, but that they actively encourage you to behave in ways you define as unethical. In the Rwandan genocides, Hutus were encouraged to hate Tutsis and to kill them, even if they were within their own families. Those who were not willing to participate in the massacres risked becoming victims themselves. The same applied in Hitler’s Germany. Those who tried to save Jews from concentration camps themselves risked going to such camps.

While I write this, the Obama administration fairly recently enacted a health-reform bill. Whether the administration’s plan is a good one is obviously debatable, and as a novice in these matters, I cannot offer an opinion. What is interesting, however, is that opposing political figures mentioned the creation of “death panels” that will decide whether a given individual can live or must die. These death panels are total inventions of certain opposition figures that have nothing to do with the legislation. Many of these inventors of this blatant lie are those who speak most loudly about ethics.

Indeed, there seems to be an extremely large gap today between talking about ethics and enacting it. Consider the case of Mark Sanford, governor of Georgia. Sanford was one of the loudest advocates for ethics in government and, due to his marital infidelity and abandonment of his position, may well be one of the least ethical in his own behavior, both inside government and outside of it.
1. **Unrealistic optimism.** The person thinks he or she is so bright, or so powerful, that anything he or she does will turn out all right, regardless of how foolish or unethical it may be.

2. **Egocentrism.** The person comes to believe that his or her leadership or power is for purposes of self-aggrandizement. Tyco CEO Dennis Kozlowski, currently in prison for tax evasion, ran the company as though it were his own personal piggybank. Ethics took the back seat to Kozlowski’s desire to enrich himself and his family.

3. **False omniscience.** Some people come to believe that they are all-knowing. The surprising thing about the behavior of a Bill Clinton or a George W. Bush, in quite different domains, is not that they made mistakes, but rather, that they kept making the same mistakes over and over again. Clinton correctly viewed himself as very intelligent, and perhaps thought that his intelligence and excellent education gave him levels of knowledge that he did not have. George W. Bush appears to have believed that he could trust his gut. He was sometimes wrong, but seems to have lacked a higher level of intrapersonal intelligence and self-reflection that would better have enabled him to learn from his mistakes. Barack Obama, during his presidential campaign, made mistakes, but seemed to learn from them and not repeat them. He has since discovered, however, that it is far more difficult to learn from mistakes as president than as a candidate, and as a result his presidency has been marked by controversy.

4. **False omnipotence.** Napoleon’s failed invasion of Russia stands as one of the great historical monuments to false feelings of power. Napoleon believed that he was extremely powerful. His invasion of Russia was politically pointless and strategically flawed, but he wanted the prize nevertheless. The invasion was the beginning of the end for Napoleon. Like so many other powerful leaders, he overreached, and his feelings of omnipotence led to his doom.

5. **False invulnerability.** Perhaps Eliot Spitzer, as governor of New York State, felt himself not only extremely powerful, but invulnerable. As a former prosecutor, he must have known that police agencies had multiple ways of tracking patrons of prostitutes. He nevertheless engaged in a pattern of repeated reckless behavior, which eventually cost him the governorship.

All of the skills outlined here—creative, analytical, practical, and wisdom-based—are essential for success in today’s rapidly evolving, global community. The kinds of financial or other investments that may have been “smart” in 2007 are not necessarily smart in 2010, nor will they be in 2020. The social customs that were acceptable in 2000 would seem out of place ten years later. And the material you learn in school can be out of date even before you graduate. The world is changing more rapidly now than perhaps ever before. Someone who cannot cope with novel environments and, most of all, cannot be a lifelong learner, risks failure because the knowledge he or she brings to bear on situations is probably obsolete.

In particular, in life one needs creative abilities to cope with novelty and come up with innovative ideas, and sometimes even to handle familiar situations. One also needs analytical abilities to evaluate whether one’s ideas are good ones and practical abilities to execute one’s ideas and to persuade other people of their value. Finally, one needs wisdom in order to ensure that one’s ideas are ethical, that they will have positive consequences not just in the short term but also down the road, and that they balance the needs of different individuals and groups.

In the context of this broader framework for thinking about intelligence and life skills, current assessment practices for college
admissions seem terribly inadequate. Children growing up in challenging environments probably develop high levels of valuable creative and practical skills, because they need such skills to survive—to get to school safely, to study under challenging conditions, and so forth—but these skills are poorly measured by current tests and by high-school GPA. Meanwhile, affluent students enter the school and college sweepstakes with an enormous advantage. In particular, their parents and schools emphasize analytical and memory-based skills, which are easily identified by standard assessment measures, creating a mutually reinforcing, closed system whereby these students are taught what they need to know for standardized tests, score well, and are rewarded with additional opportunities for advancement.

If we are to serve students, colleges, and society well, we will have to break out of this closed system. We will have to insist that more and better tests be used to identify those students who truly have the qualities to lead us creatively, analytically, wisely, and effectively today, tomorrow, and long into this twenty-first century.

ASSESSING HIDDEN TALENTS

If students from diverse socioeconomic backgrounds indeed have substantial hidden talents that are relevant for success in colleges and universities, how can they show these talents to admissions officers?

The problem of documenting a combination of analytical, creative, and practical intelligence has been something of a stumbling block for merit-based alternatives or supplements to affirmative action. My colleagues and I believe, however, that we have derived a system, based on the theory of successful intelligence, that can show such hidden talents not only in students from lower socioeconomic backgrounds, but also in those from higher socioeconomic backgrounds who learn and think in non-traditional ways.

My view that we might have success in this realm dates back at least to a 1996 study in which my collaborators and I gave a test that we had devised to more than three hundred high-school students across the United States. The purpose of the test was to identify students with different patterns of strengths on the basis of analytical, creative, and practical abilities. The study, which is detailed in Chapter 6, showed that when students were taught in a way that matched their patterns of abilities, at least some of the time, they excelled. In other words, the creatively and practi-