The Assessment of Creativity: An Investment-Based Approach

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In this article, I review ideas about creativity and its assessment. I open with some general remarks on the nature of creativity. Then I present the investment theory of creativity. Then I describe prompts my colleagues and I have used to measure creativity. Next I describe some of the assessments we have used to measure creativity. The ultimate goal is that assessments such as those described in this article eventually will make their way into standardized tests of abilities, talents, and skills.

Creativity is a habit (Sternberg, 2006a, 2006b; Tharp, 2005). Behind all innovations one finds creativity, so innovations arise from a habit. When I speak of a habit, I refer to “an acquired behavior pattern regularly followed until it has become almost involuntary” (first definition of “habit” according to www.dictionary.com). That is, creativity becomes a way of life that one regularly utilizes so that one is hardly aware one is engaging in it. If we are to assess creativity, we need to assess it as a habit of ordinary life, not merely as something one can do at extraordinary times if challenged on a standardized test.

Many people associate creativity with the greats, such as Darwin, Picasso, Hemingway, Beethoven, and others of that ilk. But creativity comes in various kinds (Sternberg, Kaufman, & Pretz, 2002), as do theories of creativity (Kozbelt, Beghetto, & Runco, 2010). For example, Kaufman and Beghetto (2009) have distinguished among four levels of creativity: Big-C, the kind found in Darwin and others of that level; little-c, or everyday creativity; mini-c, or the kind found in the learning process; and Pro-c, the kind represented in the progression from little-c to Big-C. This article focuses upon little-c or everyday creativity (Richards, 2010), but much of it applies to the other kinds of creativity as well.

Schools sometimes treat creativity as a bad habit rather than as a good one. And the world of conventional standardized tests we have invented does just that (Sternberg, 1997a, 1997b). If students try being creative on standardized tests, they will get slapped down just as soon as they get their score. That will likely teach them not to try again.

Oddly enough, a distinguished psychometric tester, J. P. Guilford, was one of the first to try to incorporate creativity into the school curriculum, but his efforts show little fruit today (Guilford, 1950). Disciples of Guilford such as McKinnon (1965) and Torrance (1962) had little more success, except among a relatively small band of aficionados.

It may sound paradoxical that creativity—a novel response—is a habit—a routine response. But creative people are creative largely not as a result of any particular inborn trait, but, rather, through an attitude toward life (Maslow, 1967; Schank, 1988; Sternberg, 2003b): They habitually respond to problems in fresh and novel ways, rather than allowing themselves to respond mindlessly and automatically (Sternberg, Kaufman, & Pretz, 2002; Sternberg & Grigorenko, 2004; Sternberg & Lubart, 1995a, 1995b, 1995c).

Like any habit, creativity can either be encouraged or discouraged. The main things that promote the habit are (a) opportunities to engage in it, (b) encouragement when people avail themselves of these opportunities, and (c) rewards when people respond to such encouragement and think and behave creatively. One needs all three. Take away the opportunities, encouragement, or rewards, and one will take away the creativity. In this respect, creativity is no different from any other habit, good or bad.

This may sound too simple. But creative people routinely approach problems in novel ways (Albert &
Runco, 1999; Baer & Kaufman, 2006). Creative people habitually (a) look for ways to see problems that other people don’t look for, (b) take risks that other people are afraid to take, (c) have the courage to defy the crowd and to stand up for their own beliefs, and (d) seek to overcome obstacles and challenges to their views that other people give in to, among other things (Sternberg & Lubart, 1995b, 1995c; see also Kaufman & Sternberg, 2006, 2010; Sternberg, 1999; Sternberg & Grigorenko, 2007).

Educational practices that seem to promote learning may inadvertently suppress creativity, for the same reasons that environmental circumstances can suppress any habit (Sternberg & Williams, 1996). The result can be a stultifying of creativity in development (Russ & Fiorelli, 2010). These practices often take away the opportunities for, encouragement of, and rewards for creativity (Beghetto, 2010; Smith & Smith, 2010). The increasingly massive and far-reaching use of conventional standardized tests is one of the most effective, if unintentional, vehicles this country has created for suppressing creativity. I say “conventional” because the problem is not with standardized tests, per se, but rather, with the kinds of tests we use. And teacher-made tests can be just as much of a problem.

Many conventional standardized tests encourage a certain kind of learning and thinking—in particular, the kind of learning and thinking for which there is a right answer and many wrong answers (Gardner, 1983, 1991, 1993, 2006; Sternberg, 1997b, 2003a). To create a multiple-choice or short-answer test, you need a right answer and many wrong ones. Problems that do not fit into the right answer–wrong answer format do not well lend themselves to multiple-choice and short-answer testing. Put another way, problems that require divergent thinking are inadvertently devalued by the use of standardized tests (Plucker & Makel, 2010; Runco, 2010). This is not to say that knowledge is unimportant. On the contrary, one cannot think creatively unless one has the knowledge with which to think creatively. Creativity represents a balance between knowledge and freeing oneself of that knowledge (Johnson-Laird, 1988). Knowledge is a necessary, but in no way sufficient, condition for creativity (Sternberg & Lubart, 1995a). The problem is that schooling often stops short of encouraging creativity; teachers and testers are often content if students have the knowledge. Teachers have no choice at this point because they are beholden to the testers. They ignore the testers at their peril.

Examples are legion (see Sternberg & Grigorenko, 2007; Sternberg, Jarvin, & Grigorenko, 2009; Sternberg, Kaufman, & Grigorenko, 2008). If one is studying history, one might take the opportunity to think creatively about how we can learn from the mistakes of the past to do better in the future. Or one might think creatively about what would have happened had a certain historical event not come to pass (e.g., the winning of the Allies against the Nazis in World War II). But there is no one right answer to such questions, so they are not likely to appear on conventional standardized tests. In science, one can design an experiment, but again, designing an experiment does not neatly fit into a multiple-choice format. In literature, one can imagine alternative endings to stories, or what the stories would be like if they took place in a different era. In mathematics, students can invent and think with novel number systems. In foreign language, students can invent dialogues with people from other cultures. But the emphasis in most tests is on the display of knowledge, and, often, inert knowledge that may sit in students’ heads but may at the same time be inaccessible for actual use.

Essay tests might seem to provide a solution to such problems, and they might, but as they are typically used, they don’t. Increasingly, essay tests can be and are scored by machine. Often, human raters of essays provide ratings that correlate more highly with machine-grading than with the grading of other humans. Why? Because they are scored against one or more implicit prototypes, or models of what a correct answer should be. The more the essay conforms to one or more prototypes, the higher the grade. Machines can detect conformity to prototypes better than humans, so essay graders of the kind being used today succeed in a limited form of essay evaluation. Thus, the essays that students are being given often do not encourage creativity—rather, they discourage creativity in favor of model answers that conform to one or more prototypes. In the end, essay tests can end up rewarding uncreative students who spit back facts as well as creative ones (Sternberg, 1994).

Oddly enough, then, accountability movements that are being promoted as fostering solid education are, in at least one crucial respect, doing the opposite (Sternberg, 2004): It is discouraging creativity at the expense of conformity. The problem is the very narrow notion of accountability involved. But proponents of this notion of accountability often make it sound as though those who oppose them oppose any accountability, whereas, in fact, they instead may oppose only the narrow form of accountability conventional tests generate. The tests are not bad or wrong, per se, just limited in what they assess. But they are treated as though they assess broader ranges of skills than they actually do assess. In some environments, people who are creative are treated as though they are mentally ill. Although there are, in fact, associations between creativity and mental illness (Kaufman, 2001a, 2001b; Silvia & Kaufman, 2010), the overwhelming majority of creative people are mentally well, not ill!
If people want to encourage creativity, they need to promote the creativity habit. That means they have to stop treating creativity as a bad habit. They have to resist efforts to promote a conception of accountability that encourages students to accumulate inert knowledge with which they learn to think neither creatively nor critically. They need to assess not just analytical skills, but creative ones. The investment theory provides one theoretical basis for doing so.

THE INVESTMENT THEORY OF CREATIVITY

Together with Todd Lubart, I have proposed an investment theory of creativity as a means of understanding the nature of creativity (Sternberg, 2006c; Sternberg & Lubart, 1991, 1995a, 1995b). According to this theory, creative people are ones who are willing and able to metaphorically buy low and sell high in the realm of ideas. Buying low means pursuing ideas that are unknown or out of favor, but that have growth potential. Often, when these ideas are first presented, they encounter resistance. The creative individual persists in the face of this resistance, and eventually sells high, moving on to the next new, or unpopular, idea. In other words, such an individual acquires the creativity habit. The question is whether the creative thinker has the fortitude to persevere and to go against the crowd (Simonston, 1984, 1988, 1994, 2010). There are different kinds of creativity (Sternberg et al., 2002) and the most difficult kinds to win acceptance for are those that most defy the crowd.

According to the investment theory, creativity requires a confluence of six distinct, but interrelated, resources: intellectual abilities, knowledge, styles of thinking, personality, motivation, and environment. Although levels of these resources are sources of individual differences, often the decision to use the resources is the more important source of individual differences. Ultimately, creativity is not about one thing, but about a system of things (Csikszentmihalyi, 1988, 1990, 1996, 1999; Locher, 2010).

Intellectual Abilities

Intellectual abilities are generally acknowledged to be necessary but not sufficient for creativity (Kim, Cramond, & VanTassel-Baska, 2010; Renzulli, 1986). Three intellectual skills are particularly important: (a) the synthetic ability to see problems in new ways and to escape the bounds of conventional thinking; (b) the analytic ability to recognize which of one’s ideas are worth pursuing and which are not; and (c) the practical–contextual ability to know how to persuade others of—to sell other people on—the value of one’s ideas.

The confluence of these three abilities is also important. Analytic ability used in the absence of the other two abilities results in powerful critical, but not creative, thinking. Synthetic ability in the absence of the other two abilities results in new ideas that are not subjected to the scrutiny required to make them work. And practical–contextual ability in the absence of the other two may result in the transmittal of ideas not because the ideas are good, but, rather, because the ideas have been well and powerfully presented. To be creative, one must first decide to generate new ideas, analyze these ideas, and sell the ideas to others. A detailed analysis of cognition and intellectual processes in creativity can be found in Ward and Kolomyts (2010).

Knowledge

Concerning knowledge, on the one hand, one needs to know enough about a field to move it forward. One can’t move beyond where a field is if one doesn’t know where it is. On the other hand, knowledge about a field can result in a closed and entrenched perspective, resulting in a person’s not moving beyond the way in which he or she has seen problems in the past (Adelson, 1984; Frensch & Sternberg, 1989). Thus, one needs to decide to use one’s past knowledge, but also decide not to let the knowledge become a hindrance rather than a help.

Thinking Styles

Thinking styles are related to creativity (Kogan, 1973). With regard to thinking styles, a legislative style is particularly important for creativity, that is, a preference for thinking and a decision to think in new ways (Sternberg, 1997c; Zhang & Sternberg, 2006). This preference needs to be distinguished from the ability to think creatively: Someone may like to think along new lines, but not think well, or vice versa. It also helps, to become a major creative thinker, if one is able to think globally as well as locally, distinguishing the forest from the trees and thereby recognizing which questions are important and which ones are not.

Personality

Numerous research investigations have supported the importance of certain personality attributes for creative functioning (Barron, 1969, 1988; Feist, 2010). These attributes include, but are not limited to, willingness to overcome obstacles, willingness to take sensible risks, willingness to tolerate ambiguity, and self-efficacy. In particular, buying low and selling high typically means defying the crowd, so that one has to be willing to stand up to conventions if one wants to think and act in creative ways. Note that none of these attributes are fixed.
One can decide to overcome obstacles, take sensible risks, and so forth.

Motivation

Intrinsic, task-focused motivation is also essential to creativity (Hennessey, 2010). The research of Teresa Amabile (1996, 1999) and others has shown the importance of such motivation for creative work, and has suggested that people rarely do truly creative work in an area unless they really love what they are doing and focus on the work, rather than the potential rewards. Motivation is not something inherent in a person: One decides to be motivated by one thing or another.

Environment

Finally, one needs an environment that is supportive and rewarding of creative ideas (Sternberg & Lubart, 1995a; Sternberg & Williams, 1996). One could have all of the internal resources needed to think creatively, but without some environmental support (such as a forum for proposing those ideas), the creativity that a person has within him or her might never be displayed. Different cultures support creativity differentially and may even have different conceptions of what constitutes creativity (Lubart, 2010) so it is important to take the environment into account when assessing creativity.

Confluence

Concerning the confluence of components, creativity is hypothesized to involve more than a simple sum of a person’s level on each component (Sternberg & Lubart, 1991). First, there may be thresholds for some components (e.g., knowledge) below which creativity is not possible, regardless of the levels on other components. Second, partial compensation may occur in which a strength on one component (e.g., motivation) counteracts a weakness on another component (e.g., environment). Third, interactions may also occur between components, such as intelligence and motivation, in which high levels on both component could multiplicatively enhance creativity.

Creative ideas are both novel and valuable. But, they are often rejected because the creative innovator stands up to vested interests and defies the crowd. The crowd does not maliciously or willfully reject creative notions. Rather, it does not realize, and often does not want to realize, that the proposed idea represents a valid and advanced way of thinking. Society generally perceives opposition to the status quo as annoying, offensive, and reason enough to ignore innovative ideas. Creativity thus cannot be understood fully outside its societal context (Moran, 2010).

Evidence abounds that creative ideas are often rejected. Initial reviews of major works of literature and art are often negative. Toni Morrison’s *Tar Baby* received negative reviews when it was first published, as did Sylvia Plath’s *The Bell Jar*. The first exhibition in Munich of the work of Norwegian painter Edvard Munch opened and closed the same day because of the strong negative response from the critics. Some of the greatest scientific papers have been rejected not just by one, but by several journals before being published. For example, John Garcia, a distinguished biopsychologist, was immediately denounced (see Garcia, 1981) when he first proposed that a form of learning called classical conditioning could be produced in a single trial of learning (Garcia & Koelling, 1986).

From the investment view, then, the creative person buys low by presenting a unique idea and then attempting to convince other people of its value. After convincing others that the idea is valuable, which increases the perceived value of the investment, the creative person sells high by leaving the idea to others and moving on to another idea. People typically want others to love their ideas, but immediate universal applause for an idea usually indicates that it is not particularly creative.

**RESEARCH SUPPORTING THE INVESTMENT THEORY**

Research within the investment framework has yielded support for this model (Lubart & Sternberg, 1995; O’Hara & Sternberg, 2000–2001). This research has used tasks such as (a) writing short-stories using unusual titles (e.g., the octopus’ sneakers), (b) drawing pictures with unusual themes (e.g., the earth from an insect’s point of view), (c) devising creative advertisements for boring products (e.g., cufflinks), and (d) solving unusual scientific problems (e.g., How could we tell if someone had been on the moon within the past month?). This research showed creative performance to be moderately domain-specific, and to be predicted by the combination of resources specified by the theory (see Baer, 2010; Sternberg, 2009).

In another study, creativity was measured using open-ended measures (Sternberg & the Rainbow Project Collaborators, 2005, 2006). These performance tasks were expected to tap an important aspect of creativity that might not be measured using multiple-choice items alone, because open-ended measures require more spontaneous and free-form responses.

For each of the tasks, participants were given a choice of topic or stimuli on which to base their creative stories or cartoon captions. Each of the creativity performance tasks were rated on criteria that were determined *a priori* as indicators of creativity.

Participants were given five cartoons, minus their captions, purchased from the archives of the *New Yorker*. 

Collaborators, 2005, 2006). These performance tasks
The participants’ task was to choose three cartoons, and to provide a caption for each cartoon. Two trained judges rated all the cartoons for cleverness, humor, originality, and task appropriateness on 5-point scales. A combined creativity score was formed by summing the individual ratings on each dimension except task appropriateness, which, theoretically, is not a pure measure of creativity per se.

Participants were further asked to write two stories, spending about 15 minutes on each, choosing from the following titles: “A Fifth Chance,” “2983,” “Beyond the Edge,” “The Octopus’s Sneakers,” “It’s Moving Backwards,” and “Not Enough Time” (Lubart & Sternberg, 1995; Sternberg & Lubart, 1995a). A team of six judges was trained to rate the stories. Each judge rated the stories for originality, complexity, emotional evocativeness, and descriptiveness on 5-point scales.

Participants also were presented with five sheets of paper, each containing a set of 11 to 13 images linked by a common theme (keys, money, travel, animals playing music, and humans playing music). There were no restrictions on the minimum or maximum number of images that needed to be incorporated into the stories. After choosing

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<th>TABLE 1</th>
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<tr>
<td>Creative Kaleidoscope Prompts: Classes of 2011–2014</td>
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<td>1. History’s great events often turn on small moments. For example, what if Rosa Parks had given up her seat on that bus? What if Pope John Paul I had not died after a month in office in 1978? What if Gore had beaten Bush in Florida and won the 2000 U.S. Presidential election? Using your knowledge of American or world history, choose a defining moment and imagine an alternate historical scenario if that key event had played out differently.</td>
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<td>2. Create a short story using one of the following topics:</td>
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<td>a. The End of MT</td>
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<td>b. Confessions of a Middle School Bully</td>
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<td>c. The Professor Disappeared</td>
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<td>d. The Mysterious Lab</td>
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<td>3. The human narrative is replete with memorable characters like America’s Johnny Appleseed, ancient Greece’s Perseus, or the Fox Spirits of East Asia. Imagine one of humanity’s storied figures is alive and working in the world today. Why does Eric the Red have a desk job? Would Shiva be a general or a diplomat? Is Quetzalcoatl trapped in a zoo? In short, connect your chosen figure to the contemporary world and imagine the life he/she/it might lead. (Analytical &amp; Creative)</td>
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<td>4. Engineers and scientists like astronomer Edwin Powell Hubble discover new solutions to contemporary issues. “Equipped with his five senses,” Hubble said, “man explores the universe around him and calls the adventure Science.” Using your knowledge of scientific principles, identify “an adventure” in science you would like to study and tell us how you would design an investigation to address it. What solution do you hope to find and why? (Creative &amp; Wisdom)</td>
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<td>5. Create a short story using one of the following topics (Creative):</td>
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<td>a) One Way Ticket</td>
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<td>b) “Do Not Push”</td>
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<td>c) Gorillas or Guerillas?</td>
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<td>d) Toast</td>
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<td>e) The Back Seat on the School Bus</td>
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<td>6. Use an 8.5 × 11 inch sheet of paper to create something. You can blueprint your future home, create a new product, design a costume or a theatrical set, compose a score or do something entirely different. Let your imagination wander. (Creative &amp; Practical)</td>
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<td>7. Use one of the following topics to create a short story:</td>
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<td>a. The Spam Filter</td>
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<td>b. Seventeen Minutes Ago…</td>
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<td>c. Two By Two</td>
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<td>d. Facebook</td>
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<td>e. Now There’s the Rub…</td>
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<td>f. No Whip Half-Caf Latte</td>
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<td>g. The Eleventh Commandment</td>
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<td>8. It’s 1781 and the American colonies were just defeated by the British at Yorktown. Imagine history without the United States as we know it.</td>
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<td>9. Are we alone?</td>
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<td>10. French anthropologist Claude Levi-Strauss observed “The scientist is not a person who gives the right answers; he’s one who asks the right questions.” Using your knowledge of scientific and/or mathematical principles, identify a question whose answer you seek and tell us how you might go about investigating it.</td>
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<td>11. Kermit the Frog famously lamented “It’s not easy being green.” Do you agree?</td>
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<td>12. Share a one-minute video that says something about you, upload it to YouTube or another easily accessible Web site, and give us the URL. What you do or say is totally up to you. (Unfortunately, we are unable to watch videos that come in any form other than a URL link.)</td>
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<td>13. Write a short story using one of the following titles:</td>
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<td>a) House of Cards</td>
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<td>b) The Poor Sport</td>
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<td>c) Drama at the Prom</td>
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<tr>
<td>d) Election Night, 2044</td>
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<tr>
<td>e) The Getaway</td>
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one of the pages, the participant was given 15 min to formulate a short story and dictate it into a cassette recorder.

Six judges were trained to rate the stories. As with the written stories, each judge rated the stories for originality, complexity, emotional evocativeness, and descriptiveness on 5-point scales.

Rasch reliability indexes for the composite person ability estimates for the Written and Oral Stories were very good (.79 and .80, respectively). The judges for both the Written and Oral Stories varied greatly in terms of their severity of ratings for the stories. For the Written Stories, the judges also ranged in their fit to the model, although the reliability was still sound (rater reliability = .94). For the Oral Stories, all the judges fit the model very well, so their differences could be reliably modeled (rater reliability = .97).

Creativity-based performance tests formed a unique factor in a factor analysis. Furthermore, the creativity tests significantly and substantially increased prediction of first-year college grade-point averages for over 700 highly diverse students from 13 colleges and universities across the United States that varied widely in quality and geographic location. Prediction was almost doubled. The tests also substantially decreased ethnic-group differences. The reason is that different groups are socialized to be intelligent in different ways. For example, American Indians performed relatively poorly in comparison with other ethnic groups on the analytical measure of the battery but had the highest scores on oral-story telling.

In a more recent project, Kaleidoscope (Sternberg, 2007a, 2007b, 2007c, 2010; Sternberg & Coffin, 2010; Sternberg et al., 2009), over the last 3 years, we have presented to all of the roughly more than 45,000 undergraduate applicants to Tufts University, application essays designed to assess creative thinking (among other things). For example, they might be invited to say what the world would be like today if the Nazis had won World War II, or to create a short story with a title such as “The End of MTV” or “Confessions of a Middle-School Bully,” or to draw a design for a new product or to draw an advertisement. We found that we did not obtain the ethnic-group differences that are typical of university-admissions assessments when we used our tests, and that students who were accepted with excellent creativity scores on Kaleidoscope did just as well as students accepted as outstanding in other ways. Those who were rated for Kaleidoscope (i.e., who showed gifts in creative and related dimensions) outperformed other students academically after controlling for high school grades and standardized test scores. Those who excelled in Kaleidoscope also excelled, on average, in extracurricular and leadership activities during their first year of college.

In another project, Aurora, for children roughly 8–12 years of age, we are currently standardizing around the world an assessment that includes creativity items in the verbal, numerical, and figural domains (Chart, Grigorenko, & Sternberg, 2008; see Sternberg, 2007a). In this way, it will be possible to extend our work downward to a younger level. Examples of Aurora items are given later in the article.

### PROMPTS FOR ASSESSING CREATIVITY IN STUDENTS

In this section, we first consider some prompts to assess creative thinking.

Assessing creativity means evaluating students as they (a) create, (b) invent, (c) discover, (d) imagine if... (e) suppose that... or (f) predict (Sternberg & Grigorenko, 2007; Sternberg, Jarvin, & Grigorenko, 2009, 2011; Sternberg & Lubart, 1995b; Sternberg & Williams, 1996).
Consider some examples of instructional or assessment activities that assess students’ skills in thinking creatively.

1. Create an alternative ending to the short story you just read that represents a different way things might have gone for the main characters in the story. [Literature]
2. Invent a dialogue between an American tourist in Paris and a French man he encounters on the street from whom he is asking directions on how to get to the Rue Pigalle. [French]
3. Discover the fundamental physical principle that underlies all of the following problems, each of which differs from the others in the “surface structure” of the problem but not in its “deep structure . . . .” [Physics]
4. Imagine if the government of China keeps evolving over the course of the next 20 years in much the same way it has been evolving. What do you believe the government of China will be like in 20 years? [Government/Political Science]
5. Suppose that you were to design one additional instrument to be played in a symphony orchestra for future compositions. What might that instrument be like, and why? [Music]
6. Predict changes that are likely to occur in the vocabulary or grammar of spoken Spanish in the border areas of the Rio Grande over the next 100 years as a result of continuous interactions between Spanish and English speakers. [Linguistics]

EXAMPLES OF ASSESSMENTS

It might be helpful actually to display some of the assessments we have used and their results. In Table 1, I present items from the Kaleidoscope Project (Sternberg, Bonney, et al., 2010; Sternberg & Coffin, 2010) that are intended to assess creativity. Table 2 presents two stories in response to a prompt asking students to speculate on what the world would be like if some event in history had come out differently. Both responses are high in quality. However, one is higher in creativity than the other. Table 3 presents a sample verbal creativity item from the Aurora Project (Chart et al., 2008).

Figure 1 presents a response from Sternberg and Lubart (1995a) to a prompt asking students to draw the Earth from an insect’s point of view. The response is high in quality but not in creativity. Figure 2 presents a response to the same prompt that is highly creative,
showing different facets of an insect’s eye, each displaying a different threat. Figure 3 presents a collage from the Aurora Project, in which students must use colored tiles to produce a creative collage. This one was judged as highly creative. Figure 4 presents a cartoon that requires a caption. And Figure 5 presents a book cover, for which students are invited to suggest a book title.

FIGURE 4 From the Aurora Project: A cartoon for which the participant must provide a caption.

FIGURE 5 From the Aurora Project: A potential book cover. What might the book be about? (Figure is provided in color online.)

CONCLUSION

In conclusion, my colleagues and I have used the investment theory of creativity as a leaping-off point for designing assessments of creativity that vary widely. The assessments are both verbal and nonverbal, and are for ages ranging from later elementary school through adulthood. Our results with these assessments have been promising. But they are limited. They do not sample all domains and have been on limited populations. Moreover, we have studied individual creativity but creativity can function somewhat differently in groups (Sawyer, 2010). Our hope is that, sooner or later, assessments such as ours and going beyond ours will become standard parts of batteries used to assess student skills and talents.

REFERENCES


