people develop and display creativity while figuring out how to put people at ease, others while dealing with drunks, others while creating political turbulence—and so on almost ad infinitum. Creativity is a complex process in which aspects of the environment are ingested and cumulative and substitutable components of competence built together in a manner analogous to the way in which the organs of the body are assembled to enable the organism to function. However, note that creativity looks very different in different contexts (just as copper looks very different when combined with both sulfur and oxygen and when combined with oxygen alone) and is just as invisible in those contexts as copper is in its contexts until one develops appropriate analytic processes that start by asking, “What kinds of activity is this person strongly predisposed to carry out; what are his or her idiosyncratic motives?”

The authors of these articles focused on superstar creativity of a kind valued by, and therefore visible in, Western culture. For the reasons discussed above, psychologists tend to overlook the specific forms of superstar creativity displayed by each and every human being despite the fact that the development and use of all these forms of creativity—this diversity—are vital to the survival of society. Spearman noted the problem back in 1925:

> Every normal man, woman, and child is a genius at something. . . . it remains to discover at what. . . . It cannot be detected by any of the testing procedures at present in current usage. But these procedures are capable . . . of vast improvement. (p. 8)

Finally, let me return to my assertion that psychologists need a range of descriptors at different levels. At one level, human beings may be analyzed into patterns of motives and competencies interacting with their environments. At the next level, they may be viewed as wholes in the context of a wider pattern of groups and organizations. To characterize and differentiate these groups, organizations, and societies, psychologists need descriptors at a different level. Yet, as the case studies illustrate, the interactions flow both ways. Psychologists will not get very far in understanding the reasons why human organizations and societies are so dysfunctional by summing the properties of the individuals who compose them. No amount of evidence relating to the extent of human destruction of human habitat or of people’s awareness of the extent of that destruction will enable anyone to initiate the actions that are needed to fix it. That requires simultaneous analysis and description at different levels, especially in terms of the system of which the individuals form a part.

Readers interested in pursuing these ideas may refer to Raven (1997) and Raven and Stephenson (2001).

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Creativity and Confidence: Price of Achievement?

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In his outstanding article on Thomas Young and creativity, Martindale (April 2001) made several assumptions about the nature of creativity. Some of the traits that Martindale included as creative traits (such as intelligence, hard work, and a love of novelty) do indeed have both widespread anecdotal and empirical support. But Martindale’s inclusion of high self-confidence is not as clear-cut as he presented it to be, especially as it relates to creative genius.

Some additional insights about self-confidence can be found in research on people who suffer from depression. Those with depression are more likely to also suffer from low self-confidence, particularly when successfully engaging in an activity (Hancock, Moffoot, & O’Callan, 1996). One reason for this is that people who suffer from depression are more likely to cognitively distort their own abilities, assuming that they have a lower level of competence than they actually possess. Low self-confidence has also been associated with other psychiatric conditions such as anxiety (Ohannessian, Lerner, Lerner, & von Eye, 1999). In contrast, high self-confidence is associated with healthy peer relationships and fewer social and behavioral problems (Connor, 1994).

A reasonable assumption, then, might be that if creative people did have higher levels of self-confidence, they would be mentally healthier and less likely to suffer from such illnesses as depression. Yet many investigations (e.g., Jamison, 1993) have shown higher rates of mental illness in creative populations than in control populations. These findings have led some researchers (e.g., Kaufman & Sternberg, 2000) to wonder if there may truly be mental costs to creativity.

Creative genius, however, is not the same thing as creativity, and creative geniuses may very well have a different personality profile than more everyday creative people. There has also been some research on extreme eminence and mental illness: Ludwig (1995) examined over 1,000 eminent individuals—who were the subjects of major biographies written between 1960 and 1990. Consistent with earlier findings, he found a higher occurrence of psychiatric illness in his eminent sample (59%) than in the general population (32%). More noteworthy, however, are his findings about genius-level eminence. Ludwig used his Creative Achievement Scale to examine greater versus lesser degrees of eminence. He found that people in the upper quartile of eminent individuals (greater eminence) were significantly more likely to suffer from mental disturbances—particularly depression—than those in the lower quartile (Ludwig, 1995). This finding is consistent with Kaufman’s (2001) study of eminent writers, which used winning either the Nobel or the Pulitzer Prize as a measure of extremely high achievement. Kaufman found significantly higher rates of mental illness in the greater eminence condition than in the accomplished (but not genius) condition.

It is certainly true that possessing high self-confidence is a desirable trait—and a trait that might be assumed to be linked to creative success. Much evidence, however, suggests that creative eminence is more likely to be associated with lower self-confidence and depression. These findings suggest that outstanding creative achievements are particularly remarkable, for many of our most eminent creators may have been battling themselves in addition to a society that tends to frown on new ideas.

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Three commentators have suggested three different approaches to understanding creativity. Kashdan and Fincham (2002, this issue) have focused on a single attribute—curiosity—suggesting that more is better. Kaufman (2002, this issue) has also focused on a single attribute—self-confidence. He has suggested that, contrary to what some people may believe, lower self-confidence rather than higher self-confidence may be reflective of creativity. Raven (2002, this issue) has suggested that focusing on just one attribute may not be the way to go at all, whether it is just in one positive direction (per Kashdan & Fincham, 2002, regarding curiosity) or in two directions (per the exchange between Martindale, April 2001, and Kaufman, 2002, regarding self-esteem). Raven believes that psychologists need to look at the interaction of persons with environments and that, in doing so, they are likely to find that groups show emergent properties that go beyond the properties of individuals and that people are only creative when motivated by what they do.

I find it hard to disagree with any of these characterizations, and indeed, a bit of a problem in the field of creativity is that so many things seem to be true about at least some creative people, although not necessarily all of them. For example, some seem surely to be characterized by high self-esteem, but then others seem just as surely to be characterized by low self-esteem. What is to be done with the embarrassment of riches whereby so many traits seem to characterize some creative people and so few traits seem to characterize all of them?

I believe that, although creative people differ in an astonishing number of ways, there is, in fact, one key attribute that they all possess, an attribute consistent with the original articles in the American Psychologist’s special section on creativity (Sternberg & Hess, April 2001) and consistent with these new comments as well. This attribute is the decision to be creative. People who create decide that they will forge their own path and follow it, for better or for worse. The path is a difficult one because people who defy convention often are not rewarded. Hence, at times, their self-esteem may be high, at other times, low. At times, they may work in groups, at other times, individually. At times, they may feel curious, at other times, less so. But if psychologists are to understand and facilitate creativity, I suggest they must start, not with a kind of skill, not with a personality trait, not with a motivational set, and not with an emotional state, but rather, simply, with a decision. That decision may bring with it, over time, great intraindividual variation in personal, motivational, and emotional states and even, over time, the waxing and waning of certain skills. Hence, analyses of creativity may produce confusing and even seemingly contradictory results because intraindividual differences emerge over time. But for creativity to occur, it must be preceded by a personal decision to think and act creatively, with all the risks attendant on doing so.

If psychologists wish to teach creativity, they likely will do better to encourage people to decide for creativity, to impress on them the joys of making this decision, and also to inoculate them for some of the challenges attendant on this decision. Deciding for creativity does not guarantee that creativity will emerge, but without the decision, it certainly will not. As a mentor, nothing makes me happier than watching at least a substantial proportion of the students I have mentored make this decision. They decide that they may pay a price but that it is a price worth paying. By making this decision, they transform both their own lives and the lives of others. What greater reward can life hold?

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Do Not Discount Lay Opinion
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Kassin, Tubb, Hosch, and Memon’s (May 2001) survey is the latest in a line of surveys extending back about a quarter of a century that have purported to establish a case for allowing experts to give testimony in court about matters to do with eyewitness evidence. In particular, it is claimed (a) that potential jurors are likely to be ignorant or ill informed in ways that can lead them to misinterpret important aspects of the trial evidence and (b) that experts possess secure knowledge about many eyewitness phenomena that they can use to educate the jurors out of their mistaken views. However, in some ways, Kassin et al. might be seen as the latest in the line to have overstated the case.

To begin with, the way the opinions of potential jurors were arrived at was question-able: Experts were asked to give their opinion not only about the truth of each of 30 statements about eyewitness phenomena but also about whether “most jurors believe this statement to be true as a matter of common sense” (Kassin et al., 2001, p. 407). Not surprisingly, this method produced a large number of very marked discrepancies between the experts’ opinions and the putative lay opinions. However, if the opinions that were solicited directly from laypeople some years earlier by Kassin and Barndollar (1992) are compared with those of Kassin et al.’s (2001) experts, a rather different picture emerges. This can be illustrated by considering the first few phenomena that are listed in Kassin et al.’s Table 4 (Kassin et al., 2001, p. 412) and that had also featured in Kassin and Barndollar’s survey. For wording of questions, 98% of experts agreed that how a question was worded could affect an eyewitness’s testimony, but only 25% of experts thought this would be the view of most jurors—however, there had been a 90% consensus amongst Kassin and