

Is Every Child Gifted?

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Definitions of giftedness now tend to recognize creative talents, but the most recent techniques for assessing creativity, which rely on productivity, may have caused certain problems for gifted education. The requirement for gifted students to produce something, for example, assumes that all of them have the expressive skills that support their insights, and this may not be true. It also assumes that products can be accurately evaluated; but unless quantity is used alone and quality entirely ignored, some sort of social significance is introduced into the assessment. Social significance can be very subjective, so the assessment loses its objectivity. Most important is that the insistence on productivity relegates potential. Children who have potential talent but need support, encouragement, and practice will be overlooked in favor of those children who already know how to construct and present socially meaningful products. This article concludes that, although we must be careful with broad and inclusive definitions of talent, we should leave productivity requirements out of definitions of giftedness.

Creativity is often included in definitions of giftedness. Renzulli (1978), for example, suggested that gifted individuals should be identified in terms of their creative skills, motivation, and their general intelligence, and the Javits Gifted and Talented Education Act of 1993 specified "capability in intellectual, creative, and/or artistic areas." Albert and Runco (1986), Milgram (in press), and Tannenbaum (1983) have also recognized creativity in their definitions of giftedness.

With their explicit recognition of creativity, these definitions have the obvious virtue of enlarging the pool of students who can be considered for gifted and talented programs. There is, however, an obstacle that must be overcome before these more inclusive definitions can be utilized. That obstacle has not yet received wide attention. This article was written in an effort to bring more attention to it and to discuss the options. The obstacle is essentially a problem of assessment.

The most recent techniques for the assessment of the creativity of potentially gifted children are far from satisfactory. In fact, many of the recent techniques are inconsistent with the broad, inclusive definitions of giftedness cited above. They are also largely incompatible with a fundamental premise of education, namely that education should supply students with the resources necessary to fulfill potentials. Certainly, not all current assessment techniques are misguided. There is, however, a clear trend towards assessments that rely on products and productivity, and the rationale for product-oriented assessments is contrary to the idea of widely distributed potentials. Also problematic are the assessment techniques that require that the child do something that has socially recognized value.

This article first reviews the inclusive view of giftedness and then moves to discussion of the product approach to creativity. The costs and benefits of each are compared, with the assumption that such a comparison will contribute to a clearer definition of giftedness. This should, in turn, benefit everyone interested in identifying and recognizing children with outstanding potential. This article includes discussion of why both the broad and inclusive and product-assessments cannot be used together, and why the product approach is incompatible with educational assumptions about children's potentials.

The Broad and Inclusive View of Giftedness

For many years, general intelligence was emphasized in theories of giftedness, and the IQ was the only assessment used to identify gifted individuals. Some schools and gifted programs still rely on the IQ, but they are becoming the exception rather than the norm. This is in part because of the biases and limitations of IQ tests. Empirical research has, for instance, demonstrated that general intelligence is largely unrelated to creativity. Moreover, new theories of multiple talents offer attractive options to the view that only one general intelligence, assessed with the IQ, is important.

The most general concern with IQ tests may be an experiential bias whereby children with certain experiences perform well on the test because of those experiences and not just because they have high levels of ability. Worse yet is the situation when children perform poorly on a test solely because they lack particular experiences, and even though they have the cognitive potential to do well. Experiential biases may lead to unfair group differences which can be predicted from SES, verbal ability, or similar non-intellective factors. Proponents of IQ tests argue that children can only utilize experience if they have the abilities to do so, in which case the impact of experience is not a bias at all.

Even without any experiential bias, IQ tests are not sufficient when educators wish to know something about a child's creative potential (e.g., Albert & Runco, 1986; Milgram, in press; Renzulli, 1978). If creativity and general intelligence were strongly correlated, the latter could be used alone when attempting to identify gifted individuals. They are not strongly related, however, but are correlated only at the lower levels-below some moderate threshold (Runco & Albert, 1986).

The weak relationship is manifested when students do well on tests of intelligence, but then demonstrate only moderate or even low creative skills. The threshold noted above is most apparent when students who are manifestly creative

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have only moderate general intelligence. Creative students do not have exceptionally low intelligence test scores--there is a lower limit, which is, of course, the threshold. Significantly, exceptional general intelligence may actually preclude creative work (Hollingworth, 1942; Simonton, 1994). This occurs when students devote so much attention and mental energy to correct and conventional answers that they have difficulty considering unconventional and original ideas that might be creative.

Given that creative potential cannot be predicted from general intelligence, and given the strong possibility that IQ tests have certain biases, it is no surprise that multiple talents and student profiles are used more often now than is general intelligence in efforts to identify gifted students. Children might be average in certain areas of a profile, below average in others, and above average in still others. As Graber (personal communication, 2/96) put it, the individual need not be exceptional in any one area; what makes them exceptional is the combination of talents.

There are several ways to define multiple talents. The largest number of possible talents was suggested by J.P. Guilford (1983), who devoted his career to the psychometric confirmation of the specific facets of the structure of intellect. Late in his career, Guilford described 180 distinct kinds of ability. Several of these (e.g., divergent production, transformation) are specifically related to creativity.

A different tack was taken by Gardner (1983) when he suggested that talent can manifest itself in any one of seven domains. Each of these domains has its own core characteristics and developmental prerequisites. Gardner (1983) gave evidence for verbal-symbolic, mathematical-logical, kinesthetic, spatial, musical, intrapersonal, and interpersonal domains, and he recently acknowledged that there might be an eighth domain. Gardner called this a naturalist domain, with talented persons sensitive to flora and fauna. Gardner also described his misgivings about the possibility of a spiritual or moral domain or intelligence.

A slightly different kind of specificity is suggested by componential theories of ability. Davidson and Steinberg (1983), for example, suggested that gifted children rely on the selective encoding of information and its selective comparison and selective combination. In this view, gifted children excel in problem solving and in their aptitude for insight because they are careful about what information they process and how they process it. In parallel componential theories, Amabile (in press; Conti & Amabile, in press) focused on motivation, domain-specific skill, and domain-specific knowledge, and Runco and Chand (1995) described how the creative thinking that characterizes gifted individuals may depend on problem finding, ideation, and evaluation. Runco and Chand also discussed how problem finding, ideation, and evaluation are supported by motivation (both intrinsic and extrinsic) and knowledge (both procedural and declarative).

Interestingly, it is not just the conception of cognitive ability that has broadened and become more specific. Gardner (1993) included intrapersonal abilities, and Amabile (1990) and Runco and Chand (1995) included intrinsic motivation in their models. In this sense, the broadening of talent includes extracognitive tendencies and aptitudes. In fact, some theorists focus on extracognitive components of talent. Gallagher (1985), for instance, emphasized overexcitabilities in his work on academic achievement and creativity (also see Piechowski, 1985).

There are numerous examples of the broad view of talent influencing definitions of giftedness. The definitions of Renzulli (1978), Albert and Runco (1986), Milgram (in press), and Tannenbaum (1983), for example, assume that talent is more than just general cognitive ability, as does the Javits Gifted and Talented Education Act of 1993 and the empirical research which is designed to uncover the specific talents of gifted children (e.g., Davidson & Sternberg, 1983; Runco, 1986). The inclusive view is also apparent in suggestions that there are different kinds of giftedness. Sternberg and Lubart (in press), for instance, described a method for identifying three kinds of gifted individuals: analytical, creative, and practical.

Perrone (in press) described four types of giftedness. Type I is "generally high in achieving but not outstanding, somewhat sensitive...limited curiosity, slightly focused, unemotional, a little timid, passive, conforming...field dependent [and] quite dependent on adults for direction and recognition." Type II gifted are "high achievers in math and reading, highly assertive in their quest for knowledge, and energetic....Limited creativity and curiosity, conforming, neither adaptive nor introspective...more field independent." Type III gifted students are "high achievers, particularly in language arts...Very curious, adaptive, determined, venturesome, introspective, and creative. A little assertive, playful, energetic, and not very emotional...field sensitive and verbally assertive in their relationships with other pupils...leaders in different ways." Finally, Type IV pupils "show signs of underachievement...teachers [may be] concerned because of their disruptive classroom behavior....[They are] highly emotional, energetic, playful, and nonconforming....somewhat creative, venturesome, and curious...[with] little self-understanding or self control." Obviously Perrone (in press) was

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cognizant of important individual differences in social skills, assertiveness, and emotionality. This is noteworthy because, as noted above, the broadening of conceptions of talent does include extracognitive domains and aptitudes.

A broad view of talent allows assessment to use profiles rather than one single score. It should thus facilitate the accurate identification of gifted children and minimize identification errors. Talent is no longer defined solely in terms of general intelligence, and no longer a simply matter of some cutoff score (e.g., an IQ of 130 or performance at the 99th percentile). Such cutoff scores are necessary when using one index of talent, like the IQ, because the identification of gifted individuals is determined by one's standing relative to a particular point--the cutoff itself--on the continuum. But as Feldhusen (1995) put it, "whatever the construct of giftedness may be, it certainly is not a dichotomous variable or condition within a child."

Also noteworthy is that the inclusive approach is consistent with the educational and learning theories that emphasize the individuality of each student. Jean Piaget, B. F. Skinner, Jerome Bruner, and many other prominent educational and developmental theorists suggested that learning is optimized when the curriculum recognizes individual differences. Personalized systems of instruction exemplify this thinking, as does the growing body of research on learning styles (e.g., Milgram, Dunn, & Price, 1992). Indeed, learning styles provide yet more options for broadening definitions of talent.

Because these theories were based on empirical data, it is reasonable to conclude that the inclusive approach is not just a reflection of social or political affinities. This is an important point because it is possible that the broad and inclusive definitions of talent have become prevalent because American citizens--educators included--have a powerful affinity for democratic educational practices (Abra, 1988). It is comfortable for parents and teachers to believe that everyone has the right to receive appropriate education, and the right to develop his or her specific talents, even if those talents are idiosyncratic or unconventional.

The problem is that if new domains of talent continue to be proposed, and if the continuum representing those talents continue to be extended, there may be a point at which everyone has at least one exceptional skill or aptitude. If more and more dimensions are added to profiles of talent, eventually those profiles will be so extensive that everyone is above average in at least one domain. This is not all that unlikely a possibility, especially considering that some of the domains already recognized easily could be divided further. The interpersonal domain, for example, might include tactical leadership and unintentional charisma; the verbal and symbolic domain might be delineated such that different kinds of writing and speech are separated; and the kinesthetic domain might be divided into subdomains representing different sports and performance areas, such as the various kinds of running and the various forms of dance.

No doubt such extensive profiles would minimize the probability that talented individuals are overlooked. The problem is that they can confuse what is meant by gifted or talent. Those could become synonymous with individual differences. This blurring of giftedness and individual differences may be less problematical than the alternative, which requires that talented children are productive and thereby narrows rather than broadens the concept of talent.

Creativity as Productivity and Achievement

Product assessments have a long history in the field of creativity research. Taylor (1975), for example, described levels of products (e.g., "ultimate products" reflecting total career output), and O'Quin and Besemer (1989) proposed an extensive list of criteria for product assessment. The product approach is attractive because it is so objective.

The same logic can be found in the tendency to attribute creativity only to high-level achievements and the persons who bring them about. This is currently an extremely common point of view. It has the significant implication that only the talent of unambiguously creative individuals should be studied. After all, if there is an all-important need to be entirely certain about the subject matter, and if the highest level of certainty is found with the least ambiguous cases, research should be directed specifically at the geniuses of the world.

A number of problems arise with this view, one being the definition of what is required for creativity. If achievement is included in definitions, individuals must express their ideas and work in a manner that convinces others of its value, and they must produce something, some product. In fact, it is not just one product that indicates talent but the tendency to produce numerous things (Simonton, 1994). One single product could be accidentally creative or otherwise exceptional--which is as a matter of fact one explanation for the creativity of children (see Wolf & Larson, 1980). In this view, children do original things because they do not know any better! No such mistake will be made if talented individuals are productive over some period of time, and if they produce things on a regular basis.

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Sternberg and Zhang (1995) included productivity as one of the five criteria in their pentagonal theory of giftedness. The other criteria are excellence, rarity, value, and demonstrability. In the words of Sternberg and Zhang, "to earn the label 'gifted' without qualification, a person must accomplish something" (p. 90). They did acknowledge the possibility of a kind of qualified giftedness, but the need for accomplishment is nearly as troublesome as the need for productivity, at least if accomplishment requires convincing others of the value of one's work. Delcourt (1993) also emphasized actual productivity in her study of gifted secondary school students, and Baum, Renzulli, and Hebert (1995) focused on creative productivity in their intervention to "reverse" underachievement among gifted students. Productivity has become a concern among those studying gifted and talented youth.

Certainly creative accomplishment requires originality, and originality in turn is most convincing when compared to objective standards. This suggests that ideas given by one child are compared with those of his or her peers in order to determine originality. The problem is that if creativity is defined only against certain objective standards, creative efforts must be expressed, shared, and socially recognized (Runco, 1995). This is what precludes much of the creative work of children. Their efforts can be quite personal. A child's potentially creative work might very well be original and adaptive for that individual child, but not original against larger norms. It may not even be clearly expressed.

The logic of product assessments is that they are objective and reliable, and thereby allow more precise quantification. Again, if gifted children produce something, there is something everyone can examine and clear evidence of the talent. Products can be counted, for example, and unreliable inferences about ability can be avoided. This is in contrast to tests of ability, which require some sort of inference, such as an inference about how the examinee will perform in the future. These are inferences in that all we really know after a test is that the examinee has or has not done well on the test; we know very little about performance in the natural environment. In this sense the product approach offers an alternative to ability testing. Recall here the possible biases inherent in IQ tests.

A more realistic view requires that creation and expression be distinguished from each other. In this view, the act of creation is defined in terms of personal constructions and insight. The social and expressive aspects of creative work can be ignored. This approach focuses on the things children can do—the personal but insightful things. It should satisfy the scientifically minded because it is parsimonious. Creativity is a kind of actual creation, and productivity and social recognition are to be treated as distinct kinds of expressive talent.

Creativity is distinct from expression and impact when it is defined in literal terms. The logic here is that any thinking or problem solving which involves the construction of new meaning is creative. This may sound contrary to theories of creativity which emphasize originality and usefulness, but there is really no incompatibility because a personal construction is often original for and useful to that individual. This position is consistent with Piaget's theory of adaptation, although he described new understandings as constructions and structures, and he did not often use the term creativity (see Gruber, in press). The definition of creativity as construction of personal meaning is also consistent with the notion that creativity is a kind of self expression and self-actualization (Runco, Ebersole, & Mraz, 1992). Most significant is that the literal view is compatible with the idea that creativity is widely distributed. A wide distribution is implied because virtually every individual has the mental power to construct personal interpretations. Runco (1993) and Torrance (in press), for example, discussed the creativity of disadvantaged children and the wide distribution of talent.

The idea that creativity requires only personal constructions of meaning does not necessarily lead to the conclusion that creativity is entirely universal. (If it did, boundaries of talent and individual differences would again be blurred.) There are individuals who are extremely unfortunate in their basic endowments, and this may preclude creative thinking. Similarly, individuals in certain clinical populations have difficulty maintaining contact with reality, and although they can produce original insights, those insights may not be useful at all because they are so entirely unrealistic. The theory of personal creativity used in this article does maintain the tradition of defining creative ideas as original and adaptive, fitting, or somehow appropriate. The unique feature of personal creativity is that the originality of the ideas and insights, and their adaptiveness or usefulness, is defined relative to the one child and not by larger standards. Still, unrealistic ideas are not adaptive, and thus psychotic thinking is not creative. The theory of personal creativity allows children to be labeled creative, even if not very productive, but it does not mean that creativity is universal.

Conclusions

Two trends in the research on creatively gifted children were identified. The first trend is towards a very broad and inclusive definition of giftedness. The second trend, with its prerequisite of productivity, leads to a stringent and narrow definition. Admittedly, there is a potential problem with the first of these trends, which results from the increase in the number of dimensions suggested for profiles of potentially gifted persons. Ideally, this trend will lead to an optimal number of dimensions, with which the full range of possible talents can be recognized. That optimal number, which is at present an unknown quantity, would be large but not too large.

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The trend towards an increased number of recognized talents is laudable but will create serious problems if it continues to the point at which the number of talents is equivalent to the full range of possible individual differences. If that occurs, the identification of talent would involve nothing more than the recognition of any and all individual differences.

The problems with the second trend, the product view, are more pressing and serious. Products can be seen, counted, and judged--they are useful because they allow objective assessment. However, productivity alone says little about quality. When the quality of products is taken into account, the relativity of judgments becomes an issue. It is very difficult to say who is the best judge of an idea or product. In some instances experts may be required to offer judgments, but in other domains peers or even self-judgments may be most appropriate. The various groups may not agree (Runco, McCartney, & Svensen, 1994) and it may be very difficult to decide who is the most appropriate judge. Indeed, as Murray (1958) asked long ago, who is to judge the judges? And who is to judge the judges of the judges of the judges? This issue is magnified because many judges (especially the experts) may rely on traditional standards, but creative work is often surprising and novel. It may differ dramatically from what has been done before. Add to these issues the fact that children frequently rely on their own kinds of logic (Piaget, 1976; Runco, in press), and it is easy to see that their work may have some quality that judges cannot readily evaluate.

An equally serious problem for gifted education arises when accomplishment and productivity are taken as indicators of creative giftedness. Some creative children may be insightful but not expressive or productive. Does that mean this child is less creative? Certainly not, but it does suggest several educational objectives! The objectives would target the potential for insight and shape it such that the children will work to refine and express their ideas and insights.

The product approach to creativity has the notable advantage of being highly objective, but its cost may not justify its use. The most disconcerting cost is a loss of prospective students. The product approach takes us in the opposite direction from the broad view of giftedness. It restricts the possibility that children can be gifted. In fact, it essentially precludes it. Children are not going to change the thinking of experts about their field.

The product approach also relegates potential. Children who have potential talent but need support, encouragement, and practice will be overlooked in favor of those children who already know how to produce socially meaningful productions.

Given a choice, the narrower definition of giftedness should be used rather than the broader view. This is true in part because the broad view values individuality, and individuality should be respected for optimized and appropriate education. Individuality is especially important for creativity because with it comes variability, and variability in turn indicates room for original thinking and behavior. This should be emphasized because in practice it can be very difficult to accept and tolerate variability. Often individuals who contribute the most to this variability by virtue of their blatant originality are the most difficult to tolerate in a classroom or other group setting. They are outliers, and they are deviant, at least in a statistical sense (Richards, in press). They often distract others and detract from the smooth flow of activity within the classroom. It is too easy to view these unique persons as troublemakers. Certainly not all trouble-makers are creative, but just as certain is that all creative children are atypical, at least in their ideas, and perhaps in their manifest behavior. The point is that without the variability caused by originality and the traits of most creative children (most notably autonomy, nonconformity, and a questioning attitude), we would not have creative children.

Brodsky (1992) seemed to prefer a broad and less-restrictive definition of talent. She suggested that it might help current practice if we strengthen "attitudes and beliefs about the gifted that give them chances to make greater differentiations than past measures allowed." In some ways the broader conception is quite attractive; it should insure that we recognize each child as an individual with strengths and weaknesses. On the other hand, if talents are too broadly defined they become commensurate with individual differences. Surely it makes more sense to allow gifted children to maintain their status as creative and exceptional individuals.

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