ABSTRACT

There are many myths about young children based on the definition of creativity as an innate capacity for openness to experience. This definition of creativity as a personality trait or attitude (creativity as expressiveness) has little relationship to creativity as the making of original and socially valuable products. Studies of children's art show the young child unable to transform raw materials from expressive gesture into final product. Children instinctively conceptualize and abstract but do not work with conscious purpose and intent, which is a mark of true creativity. The reported drop in creativity at age eight or nine is actually just a change in the quality of expressiveness; feeling becomes subservient to manipulation of form, to articulation of realistic detail, to concepts of appropriate match. A longitudinal study of 27 children from grade one through grade six found that creativity becomes more crystallized with age so that after age ten there is reasonable stability in the expression of it. (TS)
CREATIVITY IN YOUNG CHILDREN - ATTITUDE OR ABILITY

Stéphanie Z. Dudek, Ph.D.
University of Montreal

An examination of creativity in young children as reflected in journal articles and current texts on creativity reveals many myths about children's creativity, but no critical analysis of the concept. A few quotations will quickly reveal not only the nature and pervasiveness of the myths but also give a clue to the reasons for them.

Anderson (1959, p. XII): "In children creativity is a universal. Among adults it is almost non-existent. The great question is: What happened to this enormous and universal resource?"

Gowan and Demos (1967, p. 231): "Children are naturally creative and only require the right atmosphere to manifest it.

Maslow (1959): "A child creates at will and at a moment's notice".

Steinberg (1967, p. 126): "Every one is born with a high endowment of awareness; the creative attitude seems to have been built into the species".

Torrance (1967, p. 126): "What makes a child creative? Anything that makes him more alive".

In addition to the notion that creativity in young children is 1) universal and spontaneous and 2) that it is innate, there are some additional popularly held beliefs emerging from the same texts.

It is assumed that 3) children's creativity begins to dry out very early (around age 5), 4) as a result of society's strenuous pressures for conformity; 5) a serious drop in creativity occurs in grade 4, age 9, and another in grade 7, age 12; 6) creativity and mental health are...

---

1 The empirical research reported was accomplished with the help of a grant from the Canada Council (Ottawa).
closely interrelated; 7) by contrast with children, all adults are uncreative. Conclusion for adults: To see reality with a child's eyes again is a good much to be desired. None of these stridently stated and presumably factually founded beliefs are supported by evidence. I believe that the validity of these beliefs is highly questionable. The reasons for their popularity resides in the definition of creativity as an innate capacity of openness to experience, i.e. as a personality trait, or an attitude. This definition of creativity has little relationship to the definition of creativity as the making of original and socially valuable products. However, implicit in all our thinking about creativity is the notion of created novel products.

Although there are some fifty definitions of creativity, (all implying the concept of novelty and originality) it is clear that there are two basic ways of dealing with creativity: creativity defined as personality trait vs creativity as product. These definitions imply theoretically different positions and to some extent, they invoke different creative processes. Neither approach has been specifically attuned to creativity as expressed in young children, although obviously, creativity, defined as personably trait, needs no change in meaning when applied to children. To what extent is the definition of creativity, which uses the criterion of novel created products apply to, or is expressed in, young children's creativity? To answer this we would have to analyze both definitions of creativity more closely.

Bruner presents a lucid and succinct definition of creativity
as the making of products. According to him, the hallmark of creativity is that the created product produce affective surprise. The work must be novel and original, it must take us beyond the common ways of experiencing the world and it must be of some value. Additional characteristics, defining the process, and an essential part of this definition, are the following: the creative effort requires high motivation and persistence, passion and decorum, commitment and detachment; it requires intellectual, and emotional openness, and flexibility and fluency in thinking. The created object (idea) is a product of such a process. The creation of the product requires that the raw material, the initial inspirational sources, be transformed. This means that the artist(scientist) selects, changes, fashions the initial material by a process of will, of decision, into a final articulated form which, in the end, has little resemblance to the raw material, and is finally detached from his personal motivations. Inherent in this type of definition is the notion that creativity is, at least to some degree, an innate gift, talent and temperamental disposition.

Creativity defined in terms of personality is completely independent of created products, as well as of the idea of innate ability. It implies that creativity is a capacity which is inherent in the nature of man, and expresses itself as an attitude, a way of life. Thus creativity implies a process, not a product, and its distinguishing characteristic is the openness of the individual to experience and to his own inner thoughts and feelings. "The main motivation at the root of creative experience is man's need to relate to the world around him ...
This need is apparent in the young child's interest in all the objects around him, in his ever renewed exploration of and play with them ... without the basic need to relate to the world, without openness toward the world, the experience will not enlarge, deepen and make more alive the person's relation to the world, that is, will not be creative" (Schachtel, 1959, p. 241). Creativity is man's striving for self actualization, for the full use of his biological equipment (Maslow, 1959). According to this definition, the created product is always the person himself. The principle of creative living is to "make it new everyday". This basic principle leads to the development of maturity and of a happy, stable, self-realised, productive and constructive life. Creativity and mental health are therefore intimate bed-mates. However, Fromm indicates that "only if one has reached a degree of inner maturity which reduces projection and distortion to a minimum can one experience creatively" (Fromm, 1959, p. 47).

Creativity, as the making of original or novel objects has little necessary relationship to mental health, or to inner maturity. While some of the definitions of the creative person's personality and process overlap, the meanings are not the same. Thus, the creative maker of objects is also described as open to inner and outer stimuli, fluent, flexible, free from crippling restraints, unconformist. But he uses these energies in a very different way. He perceives reality in a new perspective, with perceptive sensitivity, with an open mind, but he puts all his energy into transforming his new perspective into an articulated symbolic form (whether in art or science). To do this he
generally relinquishes long-term intimate relationships, and the well-rounded self-actualizing life. He is obsessed by his work for long periods of time often turning his back on society, and certainly taking issue with established values. His self-actualization, if it can be called such, is entirely through his work. Many would call his way of life neurotic, or at best, eccentric. A glance at the life histories of creative persons will quickly confirm this impression. Thus the two definitions of creativity would seem to have less in common than it would seem at first.

What does this mean when we analyze the concept of creativity as it is applied to young children? What we call creativity in children would seem to fall under the definition of creativity as personality trait. As such it may be more appropriately covered by the term expressiveness. Expressiveness is an innate human capacity, which can become more skillful through training. Its characteristics are spontaneity, openness, outgoingness, aliveness.

It is true that some young children draw, paint, dance, sing, express themselves delightfully, spontaneously, in a large variety of ways. How universal is this expressiveness, how stable is it, what are the characteristics of this type of expressive creativity, and what relationship does it show to creativity defined by the criterion of created product?

I will deal first with the criterion problem using children's art in the analysis of this concept, since I believe this is the prin-
principal source of the myth of children’s unusual creativeness. A child’s art work is offered as the finished product. What leaps out of a child’s drawing is the freshness boldness, freedom, spontaneity and vividness of line and color; the unusualness or irrationality of the organization; the condensations of content which would not be envisaged by the adult; - in short, the total disregard of all conventional patterns. The painting carries a strong element of surprise; it is not how an adult would paint. But it is the way a child paints and this immediately makes it less unique - less original. Why do children paint this way? Because they are expressing the primitive qualities of a child’s mind. A child’s perception of objects is global, undifferentiated (Wapner and Werner,1951). The abstractness of a child’s painting comes from the fact that simple, global forms are apprehended more readily by a young mind. The concepts of relative size, distance, direction, perspective, organization are lacking. The child is not concerned with representation, nor is he concerned with the visual aspect of his painting. He draws as he feels, in terms of what interests him. A circle and two sticks will do as a percept of a man. An oval and 4 sticks will adequately represent a dog. The item he stresses or distorts in a drawing are generally a function of technical difficulty; e.g. in the execution of a hand it may become as large as a head, or look like a wheel with spokes because he cannot coordinate fine finger movements. He may focus his interest on the hand, perhaps because he just discovered that a hand has five fingers. Colors are used arbitrarily, in terms of feeling. He is not concerned about fitting color to object.
eyes accustomed to conditioned color-form-size relationships and color-
uance subtleties the total gestalt contains an element of sudden shock,
followed by pleasure. In a lively child no two drawings of the same
scene are likely to be the same. The echolalia of effort sets in when
he begins to worry about what objects really look like - when he tries
to catch the resemblance. The child has simply followed the freedom of
his thought processes in a free-association manner. What we see in the
finished product are evidences of primary-process thinking with all its
ambiguity, its boldness, its rawness of feeling, its lack of defensiveness,
and sometimes its dream-like organization. This is no doubt what pro-
vides the real excitement for the adult. But is this creativity? Is
the product a creative object? The manifestations of primary process
are the raw material of art. The young child is at the mercy of pri-
mary process, not yet having learned (or wished to) put it in the service
of the ego i.e. of his art work. The abstractness of his work has re-
sulted not by choice but by the nature of his global thinking. The
distinctions and condensations were a product of primary process, and
of technical difficulty. His egocentrism stands in the way of diffe-
rentiation even on a global level. The child's painting therefore lacks
true imagination. It is imaginative by the same process that a dream
is imaginative. Although the drawing looks free and spontaneous, the
child has actually worked hard and thought hard to put his abstractions
of his reality down on paper. But there has been no transformation of
raw material. The final product is not art. It is an expressive gesture,
telling us much about the child's mind and his immediate psychological
I don't mean to devalue children's art. It has all the attributes by which it has been described. However, I don't believe we can call it a creative product. The process may perhaps reflect the first step of a creative process, but few children go beyond this first step in a journey that may demand 10 or 100 steps.

Arnheim, eminent art philosopher and specialist on the psychology of art has suggested that "genuine art work requires organization which involves many, and perhaps all of the cognitive operations known from theoretical thinking" (p. 263). "Perceptually a mature work reflects a highly differentiated sense of form, capable of organizing the various components of the image into a comprehensive compositional order" (Arnheim, 1972, p. 269).

Analyzing Rembrandt's Christ at Emmaus, Arnheim writes "The basic compositional scheme, often considered a purely formal device for pleasant arrangement, is in fact the carrier of the central subject. It represents the underlying thought in a highly abstract geometry, without which the realistically told story might have remained a mere anecdote" (p. 269). And finally, "Works of visual art, on the other hand, are made exclusively for being perceived, and therefore the artist endeavors to create the strongest, purest, most precise embodiment of the meaning that consciously or unconsciously he intends to convey" (p. 270). It is doubtful if any child is capable of thinking in the fashion.
The most obvious difference between the child's spontaneous self-expression and the artist's creativity resides in the fact that the artist consumes the raw material — he works with conscious purpose and interest, to transform it into a harmony of concept and percept. (It is immaterial whether or not he is conscious of his concept.)

Naturally we would not expect the same goal from a child. But neither should we regard his art work as a manifestation of creativity. It is a delightful and necessary self expression, which moreover can serve as a valuable tool in the mastery of reality. It helps him to develop an awareness of his own feelings and thoughts, not rationally but intuitively. It is the first step toward the development of true creativity which will manifest itself when he has matured sufficiently to conceptualize and abstract by choice of will.

Much has been written on the art work which emerges ready-made. All the artist has to do is put it down. However, in this so-called intuitive flash of genius where basic truths of nature are revealed or solutions to scientific problems intuited, weeks, months, sometimes years of prior work have gone into the preparation of material for the final spontaneous emergence of the creative insight. This is not the process we see in the spontaneous creativity of the young child. The notion of a long laborious process of transformation of the germinal idea into an articulate form, detached from the personal motives which may have inspired it is completely lacking in the child's creativity. It is doubtful if the young child is at all capable of creativity before the stages of
operational and causal thinking have been mastered (age 8 or 9) (except in areas where child prodigies have been recognized - music, mathematics and chess).

On the other hand, age 8 or 9 is precisely where the drop in creativity is reported to occur in young children. First of all, I don't believe there is a drop in creativity (in the form that it exists at this age). I believe that what we see is a change in the quality of expressiveness. At age 8 or 9 the child begins to see and integrate reality in a differentiated as opposed to a global way. This has been occurring slowly but at age 8 he becomes free of perceptual dominance to a significantly greater extent. He is now at the stage of concrete operations, possessing concepts previously lacking; i.e., ariation, transformation, reversability, causality etc. (Flavell, 1963). He therefore begins to express his new cognitive mastery through a more differentiated, more realistic drawing and painting. He now begins to paint as he sees rather than as he feels; and he sees, as the adult does; grass is green, sun is yellow, brick is red, a house has a certain kind of perspective, a man has a certain kind of dimension. Feeling has not disappeared; it becomes subservient to manipulation of form, to articulation of more realistic detail, to concepts of appropriate match. (The greater subtlety of thought indicates actually more, not less, imagination. However, primary process material with its ambiguity and autistic logic is no longer as evident, and therefore the surprise and vividness is also missing. The adult concludes the painting shows little of its former creativeness. By previous standards it has lost its
freedom and spontaneity, but the acquired control reveals that the mind is now ready for more complex activity - possibly for creativity. However, it would seem that the child at this time needs to assimilate and to sharpen his tools before he can proceed to a fluent and free manipulation of them.

The next reported drop in creativity occurs in grade 7 (age 12). This coincides with the emergence of Piaget's formal operations (age 11 to 15) (Flavell, 1963). That is, with the emergence, for the first time, of true conceptual ability. In the operational child (age 7 to 11) thought was still tied to content. Having entered the stage of formal operations the child can begin to hypothesize, predicate, perform combinatorial analyses, imagine etc. It seems strange that creativity should drop at a point where the child acquires tools for abstract and symbolic thinking. However, Piaget has indicated that whenever a child has to cope with a new cognitive action egocentrism (and with it omnipotence of thought, idealism) increases. It is possible that this quality makes "doing things" seem unnecessary. In any case it is at this stage that the child is in greatest danger from social pressures to conform, to give up imaginative and fanciful thinking. It is also at this point that availability of adequate models for identification is crucial - models who will help the child to channelize his talents in a specific direction. He may choose to identify with a ball player or a scientist. In either case, he needs encouragement at this age to continue to use his imagination - to make use of his primary process rather than to fear it. However, following a drop in creativity at age 12, one
would expect a resurgence of it during the early teens, by virtue of the de-inhibition which occurs at this time. This is precisely what happens if repressive forces have not been too strong (Greenacre, 1957).

What evidence do we have for the belief that children are universally creative, as most adults would like to believe? The type of expressive creativity which a child demonstrates in behavior is difficult to assess – and we have no research data to report on its frequency. However, I believe it is more a myth than a reality. Few children are able to dance, sing, recite a poem or tell a story at a moment’s notice. We need only reflect on our own personal experiences as, and with children to realize how few children can do this easily (in contacts other than participation in games with peers). In fact, the child of 10 or 12 dies a thousand deaths as does the adult at the thought of having to perform before an audience. When it comes to created products, for example, such as drawing and painting we have slightly more objective evidence. The remarkable freshness of vision to which the articles on creativity refer as characteristic of children’s drawings are much less frequent than we are led to expect. Any art teacher will testify to this. Moreover, clinicians have accumulated drawings of house – tree – person in the thousands, both in color and in pencil, and the artistically vivid ones are not many. We clearly see that the distribution of ability in this domain, as elsewhere, follows the bell-shaped curve.

On test measures of creativity (divergent thinking) of the Torrance type we find again a bell-shaped curve distribution (Dudek, 1972).
This is evident in grade 1 and this pattern is maintained over the years.
Thus, as far as can be judged both by drawings and by creativity tests,
it is clear that creativity is no more universal in children than it is
universally absent in adults.

How stable is creativity in young children? Since the defini-
tion of creativity is intimately tied to openness, spontaneity, out-
goingness, freedom from inner restraints and positive mental health,
the speculation is that creativity would be as stable as the personality
traits which define it. What research evidence do we have to establish
that there is, in actual fact, a significant positive relationship
between measures of creativity and measures of such personality traits?
And do creative children remain open and/or creative over the years?

To answer these questions I will present the findings of a
longitudinal study of 27 children followed from grade 1 through grade 6.
Creativity was measured by means of Torrance’s Thinking Creativity with
Pictures (form A) while personality measures were taken by psychiatric
evaluation, and teacher’s classroom ratings of children in grades 1,
and 4; and by Cattell’s Children’s Personality Questionnaire in grades
1, 4 and 5 (Dudek, 1972).

There was a significant positive relationship between psychia-
trist’s evaluation of mental health and creativity scores in grade 1 but
this relationship was no longer evident in grade 4. On the children’s
personality questionnaire factors of out-going, conscientious, venturesome
and tenderminded were significantly related to creativity scores in grade 1. The factor structure changed in grade 4; positive relationships were now with emotionally stable and higher abstract intelligence; and negative relationships with doubting and with apprehensive. The impression is therefore still that creativity is related to greater emotional and cognitive development and maturity, and at least negatively related to maladaptive traits. By grade 5, however, there were no significant correlations between creativity and personality.

Finally, do the same children stay creative over the years?

The creativity correlations on our longitudinal sample are as follows:

<table>
<thead>
<tr>
<th></th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1 with grade 3</td>
<td>- .04</td>
<td>n.s.</td>
</tr>
<tr>
<td>Grade 1 with grade 4</td>
<td>.46</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Grade 1 with grade 5</td>
<td>- .30</td>
<td>n.s.</td>
</tr>
<tr>
<td>Grade 1 with grade 6</td>
<td>.23</td>
<td>n.s.</td>
</tr>
<tr>
<td>Grade 3 with grade 4</td>
<td>.23</td>
<td>n.s.</td>
</tr>
<tr>
<td>Grade 3 with grade 5</td>
<td>.56</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Grade 3 with grade 6</td>
<td>.35</td>
<td>n.s.</td>
</tr>
<tr>
<td>Grade 4 with grade 5</td>
<td>.44</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Grade 4 with grade 6</td>
<td>.32</td>
<td>n.s.</td>
</tr>
<tr>
<td>Grade 5 with grade 6</td>
<td>.61</td>
<td>&lt; .01</td>
</tr>
</tbody>
</table>

Creativity measures taken in grade 1 correlate quite poorly with measures of creativity taken in later years (i.e. 3, 5 and 6). Thus, correlations over long periods of time tend to be weak, but there
is a tendency for relationships over short periods to become stronger as the child grows older (e.g. grade 5 with grade 6). It would seem as if creativity, as measured by the Torrance tests of Creative Thinking, becomes more crystallized with age so that after age 10 there is reasonable stability in the expression of it. Positive mental health, on the other hand, was no longer found relevant to creativity by grade 5 (ages 10-11) although the relationship had been positive in grades 1 and 4.

To summarize, creativity in young children, defined as openness and spontaneity, may be better described as expressiveness rather than creativity. It defines an attitude or a personality trait, not an ability. It changes in quality as a child grows older perhaps more as a function of maturation and greater reality contact than as a function of conformity. There is little basis for the myth of universality of creativity in children. Measures of creativity by means of Torrance tests indicated that stability in the yearly years is not one of its characteristics although creativity as a trait seems to become more fixed by grade 5. There is a positive relationship between creativity and mental health and emotional outgoingness in the early years but this relationship is no longer evident by grade 5 (ages 10-11). While it is evident that creativity measures taken at an early age are not predictive of future performance it is also reasonable to conclude that if a child remains psychologically spontaneous and open, he is likely to function well on measures of creativity such as the Torrance tests. Defined as a personality trait, creativity in young children, has little relationship to creativity as the making of novel products in adults and may be better described by the term expressiveness.
REFERENCES


