A HANDBOOK FOR PARENTAL EDUCATION ON CREATIVITY IN THE PRE-SCHOOL CHILD

by

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

E. Paul Torrance has said in his book:

> The Space Age is taking us places where old and comfortable ideas no longer apply. Much will be required of the creative potential of today's school children. Threats to man's survival challenge us to consider what man may become, at his best, and to search for new ways of helping children realize this creative potential.[1]

If it is true that much will be required of the creative potential of today's school children, then parents need to know what creativity is. They need to recognize and to know methods by which they can encourage the creative potential in their own children. These methods of encouragement need not be elaborate. Encouraging the creative potential in a child may be as simple as allowing him to pursue his own natural curiosity or taking time to answer a child's searching questions. Parents providing their children with inexpensive materials that can be used by them to construct objects their imagination dictates, may be another way of allowing a child's creative talent to develop.

It is of particular importance that the parents of the preschool child have some understanding of the creative process since much of the creative potential in children may be stifled before the

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[1] E. Paul Torrance, Guiding the Creative Talent (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962), p. 3.

child reeches school ege. And too, what creetiveness is left by the time the child reeches school is often choked by teaching methods thet require memory of facts, parrot-like enswers and "Pollyanna" behavior in the clessroom.

It is important for parents to realize that a child's ability to cope with life's problems will depend upon his ability to think independently and with flexibility of thought. He will need every resource to find novel ideas to fit the unique situations that life will thrust upon him. An individual with an inquiring mind, a vivid imagination, an independent persevering spirit, and adaptability in meeting problems will be better able to make adjustments in this changing world than one lacking in these areas. Torrance emphasized the importance of creativity when he said:

> As we studied creative behavior among both children and adults, it became increasingly clear that perhaps nothing could contribute more to the general welfare of our nation and the satisfactions and mental health of its people than a general raising of the level of creative behavior. There is little doubt but that the prolonged and severe stifling of creative thinking cuts at the very roots of satisfaction in living. This must inevitably create overwhelming tension.[2]

Children need to know that learning can be fun and they need to know the satisfaction that comes from learning for learning's sake. It is good for a child to realize the joy and satisfaction that comes from finding a solution to a difficult problem or from constructing

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[2]E. Paul Torranca, Rewarding Creative Behavior (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965), p. 12.

something like a play-house from scraps of wood or cardboard boxes. A child's natural curiosity needs to be nurtured and encouraged rather than stifled.

It is therefore, of great importance that parents have some understanding of the concept of creativity. Further, it is important that parents recognize creativity in their own children and to know ways in which they can encourage their children's creative tendencies. It would seem the earlier in a child's life that the parents are aware of this concept the more likely the creative manifestations in the child will be recognized and encouraged. The Handbook was written to aid parents in the understanding of creativity and its early manifestations.

THE PROBLEM

Statement of the Problem

It was the purpose of this study (1) to make a general review of available literature on creativity, to learn current theories explaining creative manifestations, to learn methods currently used and accepted in developing creativity in pre-school children; (2) to integrate materials from library research and investigation into a useful handbook for parental education on Creativity in the Pre-School Child.

DEFINITION OF TERMS USED

For the purpose of this study creativity has been defined as the ability to evoke into being something new; as the ability to see

unanswered problems or questions in one's environment and to seek answers to those questions; as the ability to see ideas or objects in different or unique relationships; and as the ability to be flexible both in thoughts and methods of adjustment.

SCOPE AND PROCEDURES

The nature of this research was a creative study which culminated in a handbook for parental education on creativity in the pre-school child. The handbook was based on the findings of studies and writings of psychologists and educators doing research in the area of creativity.

CHAPTER II

REVIEW OF LITERATURE

ELABORATION OF THE WORD NEW IN THE DEFINITION OF CREATIVITY

It was apparent in the reading of the literature that there was some controversy over the meaning of "new" in part one of the definition of creativity, which read, creativity is the ability to bring into being something new. It should be noted that the word new or the idea of newness was either implied or was implicit in the words, unanswered questions, different or unique relationships or flexibility in thoughts of parts two, three and four of the definition. For this reason it seemed further elaboration of the word "new" was necessary. The word new should not be construed to mean that any behavior that differs in the slightest from the norm or any product such as a picture or story should of necessity be deemed creative. Millard has said:

> Creative activity does not include every uninhibited word or act....such acts in themselves are not necessarily creative, and teachers should be skeptical of velidity of anecdotal data which characterize every little personality quirk. Deviations in thought word and actions provide important insights into personality, and in a sense may be the basis for creativity. Not all such differences in behavior, however, can be called 'creative.'[3]

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[3]Cecil V. Millard, Child Growth and Development in the Elementary School Years, (Boston: D. C. Heath and Company, 1951), p. 181.

To differentiate between a behavior or a product that is different and one that is creative, Eisner suggested that

> Creativity is not considered a mystic or spiritual force that, when left unfettered, bursts into human action, but is considered a product of both thinking on the part of the creator and judgment on the part of the viewer....This means that while a child has all sorts of creative experiences, in order for him to be considered creative he must produce some product, some object or idea that meets at least two requirements. First, it must be public; second it must be judged as novel, tenable and useful or satisfying to some group at some point in time.[4]

In addition to the suggestion made by Eisner that a creative product must be public and judged novel by some group in time, Millard has suggested that

> A creative act at best is accompanied by an affective, emotional state. This is what distinguishes creative acting from strictly scientific problem solving or reflective thinking. An emotional accompaniment and expression is perhaps its greatest value to its creator.[5]

To summarize the viewpoints of Millard and Eisner, creativity is the ability to bring into being something new, public, novel, tenable, and satisfying or useful to some group at some point in time. Such activity is accompanied by an affective emotional state on the part of the one who has done the creating.

Newness as an Extension of That Which is Known

Various other interpretations have been given to the word "new"

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[4]Elliot Eisner, "Research in Creativity: Some Findings and Conceptions," Childhood Education, 39:371, April, 1963.

[5]Millard, op. cit., p. 182.

in part one of the definition of creativity. MacKinnon used the word "novel" or "stetistically infrequent" as a necessary criteria for a creative product.[6] MacKinnon did not mean that a product had to be absolutely new, never before set forth in time; but rather, he did mean that the chances for the same product to appear were highly improbable. Millard said:

> Creative acts are not entirely original. Even the more important creations of art, science, and literature are developed from foundations provided by others. The individual contribution rests in rearrangement in some way or another, an insight projection, new alignment or addition to.[7]

Newness here is seen as the recombination of the old, an extension of that which is known.

Newness to the Individual

Margaret Mead added a different dimension to the word "new" when she said:

> I shall use the term creativity as a statement of a process in the individual; to the extent that a person makes, invents, thinks of something that is new to him, he maybe said to have performed a creative act. From this point of view, the child who rediscovers in the Twentieth Century that the sum of the square of the hypothenuse of a right angle triangle equals the sum of the squares of the other two sides, is performing as

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[6]Donald MacKinnon, "Nature and Nurture of Creative Talent," American Psychologist, 17:485, July, 1962.

[7]Millard, op. cit., p. 182.

> creative act as did Archimedes, although the discovery for cultural tradition is zero, since this proposition is already part of geometry.[8]

To Mead then, creativity is extremely personel, with criteria for newness being that the insight idea, or product is new to the individual, developed by the individual, ignorant of the fact that someone before him had brought forth e like product. To her, the creative process of Archimedes and the boy who later discovered Archimedes geometric principle, would be the same; the difference between the two discoveries would be the effect that each discovery had on society.

Kneller said of Mead's view:

> Nevertheless, I cannot agree with Mead here. For even if to take note of the most likely cese, the child were to construct this and its preceding theorems entirely by himself, he still would have the advantage over Archimedes of having absorbed from birth a cultural tradition that has profited from this and other mathematics for more than two thousend years. The highest kind of creativity is surely that, like Giotto's, which shatters the mold of custom and extends the possibilities of thought and perception. Indeed this is one reeson why it is hard to admire the works of art that imitate outdated styles.[9]

Kneller did not say that the boy who discoverad Archimedes geometric theorem was not creative, but he does say that it was a different kind of creativity than was shown by Archimedes, thus he suggested that there was more than one kind of creativity.

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[8]Margaret Mead, "Creativity in Cross-Culturel Perspective," Creetivity and Its Cultivation, (New York: Harper and Brothers, Publishers, 1959, pp. 221-222.

[9]George F. Kneller, The Art and Science of Creativity, (New York: Holt, Rinehart and Winston, Inc., 1965), p. 4.

Levels or Types of Creativity

Richard DeMile set forth this idea clearly when he said:

> Before the boom, creativeness was a fairly simple idea. It meant that something new and valuable had been produced. Creativity is a different beast. While it incorporates the ideas of the new and valuable, it incorporates also the ideas of the trite and trivial. The explanation is that what is trite and trival against an enduring cultural background might be new and valuable to the type just discovering it for himself. So we have creativity splitting up into two things--the creativity of the novice and creativity of the adept.[10]

The creativity of the novice did not need the approval of society in general or in part on its product. In fact, a product or idea did not have to be novel or valuable to society in order to be deemed creative - all that was important was whether the product was novel or valuable to the individual. Thus DeMile found agreement with Mead. However, DeMile went beyond Mead with his idea of creativity of the adept, which implied a high level of skill with an accordingly valuable creative product, not only to the individual but to society in general.

I. A. Taylor expanded the idea of levels of creativity beyond two levels and broadened the concept to include five different levels of creativity. They are as follows:

1. Expressive Creativity. Independent expression where skills, originality and the quality of products are unimportant, as drawings of children.

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[10]Richard DeMile, "The Creativity Boom," The Education Digest, 29:12, Feb. 1964.

2. Productive Creativity. Artistic or sciantific products where there is a tendency to restrict and control free pley and developing techniques for producing finished products.
3. Inventive Creativity. Inventors, explorers and discoverers, where ingenuity is displayed with materials, methods and techniques.
4. Innovetive Creativity. Improvement through modification involving conceptualized skills.
5. Emergentive Creativity. An entirely new principle or essumption around which new schools flourish.[11]

As clearly indicated, Taylor did not see creativity as an either/or proposition. His idee of levels was broad enough to include the idea that there is such a thing as private creativity where the individual is producing something for himself. This idee was incorporated into level one of Taylor's concept. Yet, Taylor's concept allowed for a precise, systematic type of creativity such as level three which included inventions that are brought under control of the United Statas Government's patent laws. By the use of Taylor's conception of lavels of creativity it was possible to understand how the drawings of an immature child (level I), the work of art of daVinci (level II) the inventions of Edison and the psychoanalytic theories of Freud can at one and the same time be deemed creative products. Taylor helped free mankind from the idea of limiting creativity to one type and he called attention to the fact that there were several types of creativity -- maybe even more than he had suggested. Such a concept of creativity made it easier to understand the idea that all people, not just a gifted few, have a creetive potential. Obviously not everyone

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[11]Irving A. Taylor, "The Nature of The Creetive Process," Creetivity, (New York: Hastings House, Publishers, 1959), pp. 54-60.

possesses the creative genius of a Bronte, Goethe, or an Einstein but this does not mean that everyone is without any creative ability. At an interdisciplinary symposia on Creativity held in 1959, eleven out of thirteen contributors regarded creativity as within the province of everyone, including all ages.[12]

Guilford supported the view that every individual is to a degree creative when he said, "individuals in general possess some degree of the same creative trait."[13]

Although it had generally been agreed that everyone possessed a certain amount of creativity it should be mentioned that certain levels of creativity demand a certain level of specialized skills. For one to be creative in the area of writing one must possess a skill in the use of language. Winston Churchill was not only an able prime minister of the British Commonwealth but was also a brilliant and prolific writer of English history. As a young student at Harrow, Latin seemed to be beyond his grasp but it was during this time that he spent three times as much work on English than did most of the other pupils at Harrow until he became thoroughly acquainted with the structure of

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[12]Harold Anderson, "Creativity in Perspective," Creativity and Its Cultivation, (New York: Harper and Brothers, Publishers, 1959), p. 249.

[13]J. P. Guilford, "Factors That Aid and Hinder Creativity," Studies in Adolescence, (New York: The MacMillan Company, 1963), p. 486.

the English sentence.[14] No doubt this was one reason why Churchill had the vehicle of language at his command to express his thoughts with ease.

In the Book, An Anatomy of Inspiration, Rosamond Harding said:

> In the man or woman of genius there is always present great technical skill and originality. The technical skill is usually built up from childhood. The first chapter, dealing with preparation stressed the fact that before anyone could give himself up to inspiration he must have acquired a mastery over his subject in order that technical aspect should be in no way a hinderance to him.[15]

Following the logic of Harding, to be creative in architecture one must first possess the requisite knowledge and skills necessary to become an architect. In order to be a creative scientist one must possess certain scientific knowledge and abilities. It is possible for one to be an architect, an artist, a writer or a scientist without being creative; but one could hardly be a creative artist, scientist, architect, or writer without the required skills and knowledge necessary for their particular endeavor.

THEORIES OF CREATIVITY

Many theories have been set forth in an attempt to explain creativity. There has been no one theory that has been universally accepted to explain creativity. It was impossible to examine all such

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[14]Winston S. Churchill, Great Destiny, (New York: P. G. Putnam, 1965), p. 25.

[15]Rosamond Harding, An Anatomy of Inspiration, (Cambridge, England: W. Heffler and Sons Ltd., 1948), pp. 1 and 101.

theories but a survey of a few of the important ones was made.

Creativity as a Divine Gift

Probably the oldest theory that has been set forth to explain creativity is that the creetor is divinely inspired. This idea was presented dramatically by Plato when he hed Socrates sey to Ion:

> The gift which you possess of speaking excellently about Homer is not an art; but as I was saying, an inspiration; there is a divinity moving you like that contained in the stone which Euripides cells a magnet--for all good poets epic es well as lyric compose their beautiful poems not because of ert but because they are inspired and possessed.[16]

As seen by Plato the poet was moved by divine power and wes told what and how he should write and this great ebility to write was in the absence of training and skill in the poetic arts.

Such a theory has important implications for one trying to understand the phenomenon of creativity. One implication is that one can not become a creetor of poetry by training skill, practice, experience or knowledge; but one becomes a creator only as the spirit of the gods dictates. Furthermore, if creativity is of divine origin, then it is futile to waste time seeking to understand the nature of creativity or how one can become creative or to try to understand things thatprevent one from being creative. Not wishing to enter a debate on raligion, it is conceivable that some creetive works may be of divine inspiration

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[16]Pleto, Ion, in The Dialogues of Pleto trans. by B. Jowett, I, (New York: Random House, 1937), pp. 288-289.

(especially to those that acknowledge divine guidance in their creative production) but surely not all that we know to be creative can be attributed to a divine source per se acting upon the individual. On this theme Guilford has said:

> Serious investigation of creativity by psychologists began only in recent years. For centuries the common idea had been that only the exceeding rare person is genuinely creative and that creativity is a divine gift. As such it was not to be investigated or at best, there was little hope of understanding it. Even after Darwin came upon the scene, when creativity came to be regarded as some kind of a rare hereditary blessing, there was still little incentive to attempt to understand it because it was thought there was little one could do about it. In addition to being very rare the highly creative persons behavior is sometimes eccentric.[17]

Creativity as Madness

Another theory alluded to by Guilford in the above quotation, conceives of creativity as being closely related to madness. Kneller explained:

> Often a hairline seems to separate genius, especially artistic genius, from madness. The artist's extreme sensitivity and his willingness to press his nature to its limits are a supreme test of his sanity. Some poets in the end have failed this test, like Holderlin, Nietzche and Nerval. Others have come close to madness.[18]

Freud amplified the theory of creativity as being closely related to madness when he explained, creativity originates in a conflict with

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[17]J. P. Guilford, op. cit., p. 485.

[18]George Kneller, op. cit., pp. 20-21.

the unconscious. When the unconscious reaches a solution that is in keeping with the ego or the conscious part of the mind, it will result in creative behavior and thought.[19] However, if the solution is at odds with the ego, either it will emerge as a neurosis or it will be repressed altogether. Thus, creativity and neurosis have the same source--conflict in the unconscious.

According to Freud, the unconscious is the energizing force of both the creative person and the neurotic. The creative person allows ideas from the unconscious to emerge into consciousness; whereas the neurotic person tries to repress the unconscious impulses or because the ego is so weak the unconscious impulses completely by-pass it. The person who is mentally ill is characterized as either being too rigid and unflexible or as being too spontaneous and bizarre.

At the heart of Freud's theory of creativity is the idea that the impulses for creativity arise from a conflict in the id. This means that energies for creativity come from unfulfilled biological drives in the id.

Although discussing whether to put the observable tendencies to explore and to be active on the part of humans in the category of drive, White says:

> Even with the loosening and broadening of the concept of drives, they are still, in important respects, different from hunger, thirst and sex. In hunger and thirst tissue deficits, humor factors,

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[19]Sigmund Freud, The Complete Psychological Works of Sigmund Freud, (London: Hogarth Press, 1963), Vols. 15 and 16, pp. 99, 375-377.

> and consummatory responses retain an important position. The mature sex drive depends heavily on hormonal levels and is sharply oriented toward consummation. Tendencies like exploration do not share these characteristics, whatever else they have in common with better known drives.[20]

White seriously questioned whether the tendency toward exploration should be considered as a drive since the tendency toward exploration is present in the absence of tissue deficit and consummation. In the same way it is highly questioneble that motivation toward creation can be the result of tissue deficit.

Returning again to the original subject of creativity as madness it is small wonder that the subject of creetivity was not considered fair game for investigation or that to be creative was not an ettribute to be sought after or to be desired. Einstein might have been different beceuse he could understand thoughts beyond the reach of a normal individual. His devotedness to his work precluded his participetion in some activities that are commonly considered normal or "the thing that is done." It is conceiveble that the very nature of genius makes the individual different or separated from the norm but surely all such differences can not be inferred to be madness.

Anderson again speaking for the euthors that participated in the Interdisciplinary Symposie on Creativity said:

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[20]Robert White, "Motivation Reconsidered: The Concept of Competence," Reeding In The Child Behavior and Development, (New York: Harcourt, Brace and World, Inc., 1964), p. 164.

> The consensus of these authors is that creativity is an expression of a mentally or psychologically healthy pereon, that creativity is associated with wholeness, unity, honesty, integrity, personal involvement, enthusiasm, high motivation and action. There is also agreement that neurosis either accompanies or causes a degraded quelity of one's creativity.[21]

Creetivity as Intuition

According to a later theory, creativity is the result of a wholesome highly developed form of intuition. The creative person is no longer seen as mad but a rere and somewhat different type of individual. The creative product is the result of direct perception of truths, independent of any reason, which comes to the creator. This theory might be taken lightly if it weren't for the fact that many creative people have attested that ideas came suddenly to them with no effort on their own part.

Ghiselin deecribed the creative process in the following manner:

> Frequently the creative worker experiences first neither this sheer readiness for the new nor that vague presentment of some novel development felt to be specific but ae yet undefined. The invention may appear spontaneouely and without apparent preliminerie, sometimes in the form of a mere glimpse serving as a clue or like a germ to be developed; sometimes a fragment of the whole, whether rudimentary and requiring to be worked into shape or already in its final form; sometimes essentially complete though needing expansion, verification or the like.[22]

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[21]Harold Anderson, op. cit., p. 248.

[22]Brewster Ghiselin, Ed., The Creetive Process, (New York: Mentor Books, 1963), p. 15.

Ghiselin quoted the mathematician Jacques Hadgmard as saying, a solution to a problem long searched for came suddenly to him without a moments reflection during the night when he had been awakened by a noise. Ghiselin told also of the mathematician Henri Poincare when he was unable to sleep.

> Ideas rose in crowds; I felt them collide until pairs interlocked, so to speak, making a stable combination. By the next morning I had established the existence of a class of Fuchsian functions, those which come from the hypergeometric series. I had only to write out the results, which took a few hours.[23]

If one accepted the intuitional theory of creativity as tenable, further study of the creative process would be of little value since the gift of inspiration fell on a few special individuals. Kneller, in speaking of the intuitional theory has said,

> Creativity, then, cannot be generally educated because it is unpredictable, non rational and posseseed by a few unusual people.[24]

Actually, what may be called creativity by intuition by some people, may be considered by others to be one phase in a more complicated process known as the creative act. In the book, The Art of Thought, Graham Wallas saw the creative act as having the following four stages: preparation, incubation, inspiration, and verification.[25]

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[23] Ibid.

[24] George F. Kneller, op. cit., p. 21.

[25] Graham Wallas, The Art of Thought, (London: Bulter and Tanner Ltd., 1927), p. 80.

After further studies were made on the creative act another stage was added, which was called first insight. Knellar described these stages as follows:

> The creative cycle seems to have five phases, which though logically separate, are rarely so distinct in experience. First there is an impulse to create. This is followed by an often lengthy period in which the creator gathers his material and investigates different methods of handling it (preparation). Next there is a time of incubation in which the work of creation proceeds unconsciously. Then comes the moment of illumination (inspiration) in which the unconscious mind suddenly announces the results of its labor. Finally, there is a process of revision in which the donnies (gift) of inspiration are consciously elaborated, altered, and corrected.[26]

Returning again to the theory on intuition it would appear that what was thought to be creativity by intuition may in reality be likened to the phase of illumination or inspiration of the creative act. Although at first it may appear that such inspiration had appeared independent of reason, actually much preparation, experience and purposeful learning had acted as a springboard from which the "inspired" idea or solution to a problem had developed.

Biological Theories of Creativity

Creativity - Man as a Creative Organizing Being. What happens during the stage of incubation and from the mixing of old experiences, ideas, and knowledge to bring forth a new idea is not clearly understood. The botanist, Sinnott, offered the following theory of creativity and

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[26]Knellar, op. cit., p. 57.

the reason for the unconscious to function as a creative agent when he said:

> What, then may we conclude as the biological basis of creativity? Simply this, I think that life itself is the creative process by virtue of its organizing, pattern-forming, questing quality, its most distinctive character --- when this same organizing quality is applied to behavior, its products are much more various; and when it operates in the unthinkable complexity of the human brain, with its billions of neurones and almost countless number of synapses, the possibilities of new patterns are almost infinite.[27]

Sinnott continued by saying that a process of organization takes place in the unconscious mind that is similar to the process taking place in the conscious mind. Among the throng of random thoughts, the unconscious mind selects those thoughts that are meaningful to the problem that needs solving. It seems that the unconscious mind has an advantage over the conscious mind because of the free association present in the unconscious mind and the ability to see things in new and creative relationships that are unseen in the conscious mind. To summarize Sinnott's views, man is creative because it is his nature to be creative, whether in the realm of the physical or in the realm of ideas. Man is constantly organizing and reorganizing, creating and recreating both physically and mentally. Man thus is not unlike a computer that solves problems from the vast store of information programmed into it because that is the kind of machine it is. Sinnott's theory of creativity answers in part why man is creative but does not tell how the creative potential is developed.

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[27]Edmund W. Sinnott, "The Creativeness of Life," Creativity and Its Cultivation, (New York: Harper and Brother Publishers, 1959), p. 28.

Creativity - Man's Highly Developed System of Neurons. Gesell, in a somewhat similar vein, suggested that creativity depends upon the arrangement and number of neurons that an individual has and the growth of these neurons. Gesell found that the number of neurons an individual has in his lifetime are present in embryonic form in the five month old fetus. The rate of growth and the amount of growth of the neurons will determine the rate of mental development of the individual. Gesell said,

> The growth potentials of the human nervous system are of highest significance. The nervous system not only registers and organizes the past experience of the organism but it brings into being new modes of reactions in the form of attitudes, goals, insights, decisions. These creative acts are of growth in the sense that they depend upon the capacity of the neurons to continue an embryonic type of development.[28]

Gesell suggested that the neuron development ended early in the life of Coleridge and the optimal time for his creative writing was "tragically brief." Lincoln on the other hand had a slow but prolonged period of neuron growth. According to Gesell, "Not until he (Lincoln) was in his forty-sixth year did his public utterance rise to the dignity, breadth, and sympathy which came to characterize his diction."[29] Gesell did not suggest that creative talents develop apart from cultural experience but he did suggest that it is the neuron development that makes it possible for one to experience mental growth and to utilize the experiences one has in one's environment.

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[28]Arnold Gesell, Studies in Child Development, (New York, Harper and Brothers Publishers, 1948), p. 159.

[29]Ibid., pp. 152 and 153.

Although the number of neurons in an individual are fixed prior to birth, Brisbane suggested that man only uses part of his potential. She said:

> It is highly unlikely that even the best of contemporary child-rearing and educational practices come near to utilizing the maximum potential. It has been demonstrated that man uses little more than half his brain.[30]

Brisbane, in keeping with Gesell, indicated that rarely if ever does an individual take advantage of the mental faculty with which one has been endowed. However, without the complicated neuron development that is present in each individual, it would be impossible for an individual to profit from experience as well as one does.

Psychological Theories of Creativity

Creativity as Becoming One's Potential. Less biological than the theories of Gesell and Sinnott, but more psychic was the theory of creativity held by Carl Rogers.[31] Rogers made a distinction between two general types of creativity -- one narrow and the other broad. In the narrow sense he referred to the spontaneous behavior which produced such products as works of art and thought. In the broad sense, he referred to the tendency of the individual toward self-realization. Rogers explained:

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[30]Holly E. Brisbane, The Developing Child, (Peoria, Illinois: Chas. Bennett Co., Inc., 1965), p. 230.

[31]Carl Rogers, "Toward A Theory of Creativity," Creativity and Its Cultivation, (New York: Harper and Brothers Publishers, 1959), pp. 69-82.

> The mainstream of creativity appears to be the same tendency to actualize himself, to become his potentialities. By this I mean the directional trend which is evident in all organic and human life--the urge to expand, extend, develop, mature--the tendency to express and activate all the capacities of the organism, to the extent that such activations enhances the organism or the self....It is this tendency which is the primary motivation for creativity as the organism forms new relationships to the environment in its endeavors most fullyto be itself.[32]

A. H. Maslow used the terms "special talent creativity" and "self actualizing creativity" to refer to the two types of creativity noted by Rogers.[33] The inner motivation of man to become his potential is the root of creativity, according to Rogers. Further he suggested that certain inner conditions are associated with a potentially creative act. These are:

(1) Openness to experience; extentionality. Rogers means an individual is open to stimuli as it is without any defensiveness on the part of the individual.

(2) Internal locus of evaluation. The creative person is more open to inner desires and values and to express these feelings without fear of criticism from others.

(3) The ability to toy with elements and concepts. The

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[32] Ibid., p. 72.

[33] A. H. Maslow, "Creativity In Self Actualizing People," Creativity and Its Cultivation, (New York: Harper and Brothers Publishers, 1959), p. 85.

creative person is able to play spontaneously with ideas, colors, and shapes.[34]

According to Rogers, every individual is creative to the extent that he is able to actualize his potential. Otto Rank graphically described the method by which one's potential is allowed to develop or how an individual can be prevented from reaching one's full potential.[35]

Rank's Will Theory - A Method of Becoming Ones Potential. In more of a psychoanalytic vein, Rank saw man as moving through life from the trauma of life to the trauma of death. The nature of the journey and type of personality that results depend on how the individual is able to resolve the conflict between the fear of life and the fear of death. The fear of life which is first experienced by the trauma of birth, is the fear of being separated, the fear of independence, the fear of having to stand alone. This drives the individual to seek union with the parents and later authority figures around him, to return to a safe place of union similar to that experienced in the womb.

But this life fear; the fear of separation and independence is opposed by the fear of death, the fear of union, the fear of dependence, the fear of loss of identity, and even of life itself. This drives the individual to be independent, to live a separate life.

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[34]Rogers, op. cit., p. 76.

[35]Otto Rank, Will Therapy and Truth and Reality (New York: Alfred A. Knopf, 1945).

Important to Rank's theory of development of the personality were his concepts of will and guilt. Will is seen as the integrating, unifying power of personality, "the positive guiding organization and integration of self which utilizes creativity as well as inhibits and controls the instinctual drives.[36]

It is experienced first as negative counterwill against the will of the parents. Along with this expression come also feelings of guilt and fear of being separated from the parents. If the parents accept these first expressions of will as essential to the individual growth, few guilt feelings will develop and the child will move toward an independent autonomous personality organization. Rank refers to the independent personality organization as the creative type.

If these first attempts at self-exertion of will are accompanied by feelings of guilt, and fear of not being accepted, the individual will become confirming to the will of the parents and later will conform to the will of society. This dependent type of personality organization, Rank refers to as the adaptive type. For the adaptive individual there will be no strong drive for individualization and no conflict over accepting the norms of society.

Between the creative type and the adaptive type, there is a third type of personality organization that Rank calls the neurotic type. He saw the neurotic type of person as being driven toward independence

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[36] Ibid., p. 112.

and at the same time suffering from guilt, self-doubt, and fear of exerting self. The will seemed unable to end successfully the conflict between the fear of dependency and the desire to be independent. Rank believed that the adeptive individual because of fear of being different would never be truly creative. The neurotic type of individual would be more creative than the adeptive individual, but would not be able to reach its full creative potential because of the failure of the will to resolve the conflict between the fear of life and the fear of death. Rank believed it was only the strong willed, integrated and independent individual that was able to reach his full creative potential.

Ranks Will Theory Verified. MacKinnon's[37] study of architects tended to support Renk's theory. In MacKinnon's study of architects, experts were asked to appraise a group of architects as to their creative ability. The architects as determined by the group of experts fall into three groups. In a summary picture, MacKinnon found that Group I of the architects were actualizing their creative potential more than the other two groups. They seemed free to set their own standards of merit and to guide their behavior in accordance with their own esthetic and ethical values. Group I seemed to have self-confidence, be self-accepting, and able to recognize and give expression to inner feelings and experiences thus realizing their own ideals. They seemed to personify

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[37]Donald W. MacKinnon, "Personality and the Realization of Creative Potential," American Psychologist, April 1965, pp. 273-281.

Rank's creative type.

> Architects III, on the other hand, appeared to have incorporated into their egos and into their images of persons they are and the persons they would like to be, the more conventional standards of society and their profession. They are more dependent upon the good opinions of others for their own good opinions of themselves, their goals and ideals, and to an important degree those of the group rather than uniquely their own.[38]

Group III strongly resembled the group Rank called the Adaptive type. Architect II seemed to resemble Rank's neurotic type or what MacKinnon preferred calling the "conflicted type." Group II seemed less creative than Group I, but significantly more creative than Group III. Group II showed an overlapping of traits of both other groups, and seemed to experience more conflict than the other two groups.[39]

Sinnott and Gesell laid the biological foundation explaining why an individual can be creative. In becoming one's potential, Rogers gave the individual a psychic motivation for creativity. Rank gave a theoretical schema for developing the individual to its full creative potential. MacKinnon's study of architects tended to give concrete support to Rank's theory. His theory gave important clues for child development if full creative potential is to be reached.

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[38] Ibid., p. 280.

[39] Ibid.

Creetivity as Divergent Thinking

J. P. Guilford set forth an entirely different theory of creativity than any theory thus far considered. His theory organized all the known and primary intellectual abilities found on the besis of fector analysis into a single system called the structure of intellect. Guilford cleimed that there are fifty intellectual factors that are alreedy known; and it is conceivable, according to his theoretical model, that there may be as many as a hundred and twenty. Although each fector is sufficiently distinct to be detected by factor anelysis, in very recent years Guilford found that the factors themselves can be classified in groups because they resemble one another in certain ways. One basis of classificetion is according to the basic kind of process or operation performed. Guilford found, on the besis of the kind of operation involved, a clessification conteining five groups of intellectuel abilities. They are as follows:

(1) Cognition - means of discovery, rediscovery or recognition.

(2) Memory - retention of what is cognized.

(3) Convergent thinking - the information leads to one right answer, to a recognized best answer or conventional answer.

(4) Divergent thinking - enswers reached and information received by searching in different directions than normally expected.

(5) Evaluation - decisions are reeched as to goodness, correctness, suitebly of what we know, what we remember and what we produce in

productive thinking (both divergent and convergent thinking).[40]

Of most cogent interest to the present study of creativity, is the group of thinking abilities that Guilford called divergent thinking. It is from the group of divergent intellectual abilities that novelty or uniqueness is purported to come. According to Guilford the primary traits related to creativity are as follows:

Word fluency - The ability to produce words each containing a specified letter or combination of letters.

Spontaneous flexibility - The ability or disposition to produce a great variety of ideas. For instance, the individual is to name all the uses possible for a common brick or coat hanger.

Associational fluency - The ability to name as many synonyms as possible for words such as good or hard.

Adaptive flexibility or originality - The ability to produce shift in meaning and to come up with some novel, unusual, or far fetched ideas when asked to write a title for a story or a caption for a cartoon.[41]

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[40]J. P. Guilford, "Three Faces of Intellect," Psychology and Education of the Gifted, (New York: Appleton-Century-Crofts, 1965), pp. 80-81.

[41]J. P. Guilford, "Traits of Creativity," Creativity and Its Cultivation, (New York: Harper and Brothers Publishers, 1959), pp. 145-147.

According to Guilford, creativity is one part of the total structure of intellect known as divergent thinking. Traits related to divergent thinking are word fluency, spontaneous flexibility, associational fluency, and adaptive fluency or originality. Guilford has with his multi-factor theory of intelligence challenged the long held single or general mental ability concept. It has served also to force psychologists and educators to take a long hard look at the practice of separating the high scoring student on an "I.Q." test and labeling him "gifted" to the utter disregard of the many other mental abilities, especially that of divergent thinking.

FACTORS RELATED TO CREATIVITY

Intelligence

Intelligence, as measured by the commonly used mental ability tests, shows little or no correlation with creativity. Torrance conducted a series of tests in eight schools ranging from elementary schools through graduate schools. In these schools he compared the top twenty per cent of pupils of high intelligence as measured by mental ability tests with the top twenty per cent of the pupils who scored highest on tests of creativity. He found that in all eight schools the highly creative students had a lower mean score on the intelligence tests than did the Intelligent Group. Of the highly Creative Groups most of them showed a mean score on the intelligence tests that was above average or superior. However, one school showed the Creative Group as having a mean intelligent score of 97.9

Torrance said:

> Many graduate advisors, including the author, would usually hesitate to accept as advisee's applicants scoring as low as the average member of these groups. In most groups studied, about 70 percent of the most creative would have been eliminated if a "gifted" group was being selected on the basis of the intelligence test or Miller Analogies.[42]

It was stated earlier that the concept of "giftedness" needs to be evaluated. If the findings of Torrance, that many highly creative people would be eliminated if a gifted group were selected on the basis of intelligence tests alone, were combined with the findings of Getzels and Jackson that teachers prefer the highly Intelligent Groups of students to the Creative Groups,[43] they might add up to the fact that many highly talented students are completely or partially ignored. Calvin Taylor stated:

> We should be deeply concerned about this point because there may be an above average drop out of those with creative talent through the academic program. Since early evidence suggests that fellow students and teachers may not favor, in fact may even disfavor, more creative students and, likewise, principals and supervisors may not favor more creative teachers. We should determine what the losses in creative talent are at each critical level through the present school system.[44]

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[42] E. Paul Torrance, Guiding the Creative Talent, (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1962), pp. 58-59.

[43] J. W. Getzels and P. W. Jackson, Creativity and Intelligence, (New York: John Wiley and Sons, Inc., 1962), pp. 30-31.

[44] Calvin Taylor, "Who Are the Exceptionally Creative?" Exceptional Children, Sept. 1962, p. 39.

It has generally been thought that in order to be creative, one must have at least everage intelligence or above. It might be said that in the areas of science, engineering, architecture and music because of the very nature of the materiel needed for mastery of the various subjects, e superior intellect may be required. However, does this mean that the slow student or the retarded student are incapable of creativeness? Tisdall found that educable mentally retarded children (having a Stanford-Binet I.Q. falling within the 60 to 85 range) scored higher on tests of originality (es measured by Torrance and associates' assessment of productive thinking in intellectually normal kindergarten and first grade children) than did the normal students.[45] The educable mentally reterded in the experimentel group were in a special classroom with teachers who were treined in teaching the educable mentally retarded and the children were encouraged to express themselves freely. The experimental group of E.M.R. scored better on all six measures of productive thought than did E.M.R. students in the regular classroom.

Teylor told of a student in Jablonski's fourth, fifth and sixth gredes research class, who

> . . . produced some ideas of his own that some of Jablonski's 'brighter' students in several high schools are now researching and thet even some of the university people are picking up and trying.[46]

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[45]William T. Tisdall, "Productive Thinking in Retarded Children," Exceptionsl Children, Sept. 1962, p. 39.

[46]Calvin Teylor, "Developing Creative Thinking," The Instructor, April 1964, p. 71.

The student who produced these ideas had an I.Q. of 86 and could not read very well.

It may very well be possible that many talented students are being overlooked because of a false value placed on an I.Q. score. The various intelligence tests do have value; but because of the nature of the tests themselves, they are not good measures of creativity. Mental abilities tests seem to place more value on memory, recognition and convergent thinking and less value on ideational fluency, originality, adaptive flexibility, and spontaneous flexibility that seem indicative of creative potential. Taylor suggested that in picking out gifted individuals

> we should extend the profile beyond the I.Q. score...as a worker in the field of measurement I feel we define by our I.Q. tests what we measure and mean by intelligence. I would like to keep these two tied together, and let the stretching of our meaning occur in the word "giftedness." Without confusing too much past literature, we can talk about the intelligent (or I.Q. type) giftedness, the creative type, the planning type, etc.[47]

School Achievement

It might be expected, if the commonly held hypothesis was correct, that the higher a student's I.Q. score, the higher would be the student's level of school achievements; the lower the I.Q. score, the lower the level of school achievement. Getzels and Jackson found

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[47]Calvin Taylor, "Who Are the Exceptionally Creative," Exceptional Children, 28:421-431, April, 1962.

> that despite the 23 point diffsrence in the mean I.Q. between the highly creative and the high I.Q., the achievement scores of the two groups are equally superior to the achievement scores of the school population as a whole.[48]

In six out of the eight schools tested by Torrance, he found that despite a sizeable difference in the mean I.Q. of the highly creative and the highly intelligent, both groups were equally superior to the general population that the samples were drawn from.[49] It would appear that despite the fact that the creative students had lower I.Q.'s than the group labeled high I.Q., they were able to learn and to profit from their learning situation as well as the high I.Q. The creative student seemed to learn in more creative ways than by pure authoritarian methods. When he was given an opportunity to learn in a creative manner, he achieved as well as those with superior ability taught in a more authoritarian manner.

Sense of Humor

Gatzels and Jackson found that the highly creative student possessed a marked sense of humor. Not only were their stories flavored with a brilliant sense of humor, but they were also rich in fantasy, stimuleted free themes, playfulness, and unexpected endings. The creative

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[48]Getzels and Jackson, op. cit., p. 24.

[49]Torrance, Guiding the Creative Telent, pp. 59-61.

students seemed to be able to free themselves from the stimulus, using it as a jumping off piece for self-expression; whereas the student with the high I.Q. seemed to focus on the materiel given and include it in their stories in a matter-of-fact manner. The following is a story by a highly creative subject:

> This man is flying back from Reno where he has just won a divorce from his wife. He couldn't stand to live with her anymore, he told the judge, because she wore so much cold cream on her face at night that her head would skid across the pillow and hit him in the head. He is now contemplating a new skid proof face cream.[50]

The stimulus for the above mentioned story was a picture of man most often perceived as a man sitting in an airplane reclining seat on his return from a business trip or a professionel conference. The story written by the creetive student is replete with humor, originality, and fantasy.

Spontaneity, Flexibility, and Originality

Almost ell psychologists and educetors writing on the subject of creativity have found that creative people are more flexible, spontaneous and original in their ideas whether it is on a test naming the novel uses for a brick, writing stories, or an erchitect doing his daily work. The quelities of spontaneity, flexibility, and originality do indeed separate the creative individual from the non-creative individuel. It is believed the highly creative person is more flexible

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[50]Getzels and Jackson, op. cit., p. 38.

because he seems less conforming to conventional standards, less inhibited because he is less interested in what others think of him and seems to be guided more by his own values and standards. McKinnon found that the majority of the creative writers, mathematicians and architects he studied were very open to experiences both within and without and were thus characterized by flexibility and spontaneity.[51]

Openness to Experience

Coleman stated:

> A number of investigators, including Rogers and Maslow, emphasized the importance of being open to new experience. Such openness is the exact opposite of defensiveness, where new experiences that are incompatible with or threatening to the self-structure are prevented from entering consciousness or are permitted entrance only in a distorted form. Openness to new experience implies a tolerance for conflict and ambiguity, a lack of rigid categories in thinking, a rejection of the notion that one has all the answers.[52]

It was said of Einstein that he was unable to take the commonplace for granted. His attention was focused on the unusual in what ordinary persons took for granted so that he was able to perceive and recognize missing pieces of knowledge. This element of looking expectantly for a bridge or link between that which is given and present and that which is not yet thought of, focusing habitually upon

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[51]MacKinnon, Nature and Nuture of Creative Talent, op. cit., p. 489.

[52]James Coleman, Personality Dynamics and Effective Behavior, (Chicago: Scott, Foresman, 1960), p. 392.

possibilities was a characteristic that MacKinnon found in 90% of creative writers, 93% of mathematicians, 93% of research scientists, and 100% of architects.[53]

Smock and Holt[54] conducting an experiment to determine children's reactions to novelty found that children who had a high index score of perceptual rigidity were the children that were the most curious and were most challenged by the new in their environment. An index score of perceptual rigidity was determined by the number of changes an individual could detect in a series of five cards in which a cat (card 1) was successfully modified so that a picture of a dog appears on card 5. The child who had a low perceptual rigidity showed less inclination to maximize additional perceptual contact. Girls on the whole tended to be more perceptually rigid than boys and thus were relatively less curious than boys. The reason for this difference between the boys and girls in the matter of curiosity may be accounted for by the fact that parental expectancies tend to be more rigid for girls than for boys. To summarize the findings of Smock and Holt, the more perceptual changes that one can see in his environment, the more contact the individual will want to have with his environment. The more opportunities a person has to manipulate

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[53]MacKinnon, Nature and Nurture of Creative Talent, op. cit., p. 489.

[54]Charles D. Smock and Bess Holt, "Children's Reaction to Novelty: An Experimental Study of 'Curiosity Motivation,'" Readings in Child Behavior and Development, (New York: Harcourt, Brace and World, 1964), pp. 155-163.

and explora his environment, the more aware he will be of perceptual changes.

Creativity and Freedom

Creative people tend to be able to perceive differences in their anvironment beyond what the average person is able to perceive. The ability to perceive differences in their environment seems to ba related to how much freedom a person has had to manipulate and explore his environment. Haimowitz and Haimowitz said:

> Indeed the creative person must be able to remain free from certain restraint. The very act of creating something new and different involves the courage to go beyond cultural limit. When we study the childhood biographies of creative artists, scientists, inventors such as the Bronte's, Fermi, Thomas Jefferson, Shaw, Whitney, Edison and Robert Burns we are impressed with the apparent freedom they experienced in their early lives even though it was often associated with parental neglect, death, or desertion. They seemed to live in the midst of broad areas in which to roam, with freedom to explore, with privacy to contemplate.[55]

MacKinnon found among creative architects that as children these architects were given more freedom to explore their environment because of the

> extraordinary respect for the child as an individual and confidence in his ability to do what was appropriate. Thus, the parents did not hesitate to grant him rather unusual freedom in exploring his universe and in making decisions for himself and this early as well as late.[56]

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[55]Natalia Haimowitz and Morris L. Haimowitz, "What Makes Them Creative?" Human Development, (New York: Thomas Y. Crowell Co., 1960), pp. 49-50.

[56]MacKinnon, 1962, op. cit., p. 491.

There is growing laboratory evidence that man by nature is a curious being and that novel stimulation is sought for its own sake and can serve as a motive for development.[57] Curiosity then is something that does not need to be implanted in the individual but is something that should be allowed to grow and not be stifled. A curious person may not of necessity be a creative person, but a creativa person must be a curious person as well. In fact, unusual inquisitiveness is one of the hallmarks of a creetive person. It would appear from evidence previously stated that the truly creative person is one who, being allowed to explore and manipulate his environment, has kept his initial curiosity alive and growing.

Creativity and Independence

The creative individual has been shown to be an independent individual. He was shown to lack dependency upon his family and was seen to lack close ties with his family. In this vein MacKinnon has said:

> The expectation of the parent that the child would act independently but reasonably and responsibly appears to have contributed immensely to the latter's sense of personal antonomy which was to develop to such a marked degree. The obverse side of this was that there was often a lack of intense closeness with one or both parents....There were not strong emotional ties of either a positive or a negative sort between parent and child, but neither

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[57] Frank Barron, "The Relationship of Ego Diffusion to Creetive Perception," Widening Horizons in Creativity, (New York: John Wiley and Sons, Inc., 1964), p. 80.

> was there the type of relationship that fosters overdependency nor the type that results in severe rejection.[58]

Continuing with the subject of creativity and independence, Haimowitz and Haimowitz have noted how many truly creative people such as Lincoln, Bach, Beethoven, Schubert, Schumann, Hitler, Leonardo daVinci have come from broken homes. They said,

> In many biographies, we find the absence of a parent of the same sex. Perhaps the trauma of the loss had its compensation in freedom, absence of parental coercion and less oedipal competition....Creativity thus appears to be associated with freedom in the self which arises from freedom in the family...[59]

As far as the creative individual is concerned the emphasis should be placed on the individual's freedom to explore his environment, to attain his potential, to develop his own individuality and not simply to become an extension of his parents rather than the fact that the individual came from a broken home. A child that is raised to be overly dependent on his family tends to be less able to develop a strong self-concept and to assert his individuality sufficiently to become truly creative.[60]

Creativity and Discipline

Watson in a study called "Some Personality Differences in Children

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[58] MacKinnon, 1962, op. cit., pp. 491-492.

[59] Haimowitz and Haimowitz, op. cit., p. 50.

[60] MacKinnon, 1964, op. cit.

Related to Strict or Permissive Parental Discipline," found that children brought up with an extraordinary degree of permissiveness showed significant differences from children from strict homes in the following areas:

> (a) more initiative and independence (except, perhaps at school tasks); (b) better socialization and co-operation; (c) less inner hostility and more friendly feelings towards others; and (d) a higher level of spontaneity, originality and creativity.[61]

From this one study it would appear that permissive discipline is helpful in the nurture of independence, originality, spontaneity and creativity.

MacKinnon found in the homes of creative architects that discipline

> was almost always consistent and predictable. In most cases there were rules, standards and parental injunctions which were known explicitly by the children and seldom infringed. In nearly half the cases, corporal punishment was not employed and in only a few instances was punishment harsh and cruel.[62]

Discipline that gave the child the feeling that not only was a misdeed wrong, but that he was wrong as a person weakened the child's self-concept. Discipline that showed the child what he did was in error, while he himself was still a worthwhile being, tended to strengthen a child's concept of himself.

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[61]Goodwin Watson, "Some Personality Differences in Children Related to Strict or Permissive Parental Differences," Human Development, (New York: Thomas Y. Crowell Co., 1960), p. 43.

[62]MacKinnon, 1962, op. cit., p. 492.

Creativity and Values

Torrance has said:

> Individuals tend to achieve along whatever lines they are rewarded. When rewarded for originality, children produced about twice as many original ideas as when they are rewarded for quantity.[63]

When value or importance is placed on an individual's creative effort, the individual tends to be encouraged in becoming more creative. In a classroom when emphasis was placed on neatness and correct grammar and spelling of written materials, stories suffered from lack of imagination and originality.

What was true of an individual was found to be true of societies. Mead found that the Samoan people placed less value on creativity than they did on preserving their historic ways of doing things and thus they were not a very creative people. She found that when a Samoan child made even a minute change in a tribal dance, the Samoan people rewarded the slight change so lavishly that any desire for further or great change was stilled.[64]

Torrance found that in the Samoan schools on the Ideal Checklist, the Samoan teachers placed higher value on being a good guesser, competition, promptness, haughtiness, physically strength, quiet, and on liking

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[63]E. Paul Torrance, "The Minnesota Studies of Creative Thinking," Widening Horizons in Creativity, (New York: John Wiley & Sons, Inc.), p. 139.

[64]Mead, op. cit., p. 225.

to work alone. They placed less value on adventuresomeness, a self starter, curiosity, determination, energy, independence in judgment, industriousness, self-confidence, self-sufficiency, sincerity, thoroughness and versatility than did teachers in any other culture studied. In general, this pattern of values is likely to support cultural continuity and generally a low degree of creativity.[65]

In this same study, Torrance found that in charting the developmental curve of creativity of students in the United States that between the fourth and fifth year of age, between the third and fourth grade in school, and between the seventh and eighth grade in school there was a marked slump in the creative thinking on the part of students. After making a cross cultural developmental study on the creative thinking abilities in other cultures, Torrance concluded that these slumps in the United States Developmental Curves were man-made cultural discontinuities. Torrance said:

> For years students of creative development have observed that fourth graders become greatly concerned about conformity to peer pressures and give up many of their creative pursuits; that beginning junior highs show a new conformity and their thinking becomes more obvious, commonplace and safe. Through the use of creative thinking tests, we have documented these discontinuities in the development of creative thinking abilities, especially those that occur at about the fourth and seventh grades. On the comparative studies in cultures outside the United States, we have concluded

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[65]Paul Torrance, "Cultural Discontinuities and Development of Originality of Thinking," Exceptional Children, September 1962, pp. 2-13.

> that these discontinuities in creative development are man-made and due primarily to discontinuities in our culture and in the educational program.[66]

It has already been pointed out that when individuals are rewarded for creative efforts, further creative efforts are attempted; likewise, when society rewards creative effort further creative efforts are attempted. According to Coleman, sociologists and historians have pointed out that some societies have encouraged and fostered creative efforts; whereas other societies have inhibited creative efforts. Coleman said:

> In Renaissance Italy, the time was ripe for great artistic flowering; in the United States at the beginning of the twentieth century the inventions and innovations of men like Ford and Edison were welcomed with open arms. But in medieval Europe freedom of scientific investigation was restricted, and in modern totalitarian states innovations in art have been suppressed.[67]

Speaking of the society of our time, Coleman said that we have tended to encourage and promote creativity that promises physical improvements in our daily living more than creativity that has only esthetic satisfactions.

CONDITIONS FOSTERING CREATIVITY

The nature of creativity is such that each individual has some potential to act creatively. Creative manifestations come not from

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[66] E. Paul Torrance, "Conditions for Creative Learning," Childhood Education, April 1963, p. 370.

[67] Coleman, op. cit., p. 393.

outside influence or by some magical formula, but from an inner condition that is allowed to grow and is encouraged to develop. Rogers has said:

> From the very nature of the inner conditions of creativity, it is clear that they cannot be forced but must be permitted to emerge. The farmer cannot make the germ develop and sprout from the seed; he can only supply the nuturing conditions which will permit the seed to develop its own potentialities. So it is with creativity.[68]

Belief in the Unconditional Worth of the Individual

Basic to the development of creativity is the belief in the unconditional worth of the individual. Rogers said:

> Whenever a teacher, parent, therapist, or other person with a facilitating function feels basically that this individual is of worth in his own right and in his own unfolding, no matter what his present condition or behavior, he is fostering creativity.[69]

The belief in the essential worth of the individual will manifest itself in the belief that an individual can develop into a worthwhile and contributing member in society regardless of his station in life.

Belief in the Individual as a Unique Being

Not only is the belief in the worth of the individual essential to fostering creativity; but closely related is the belief that the individual is unique, and as a unique being he has a right to become his

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[68]Rogers, op. cit., p. 78.

[69]Ibid.

potential. To a parent each child should be e "one-of-a-kind" individual with his own interests, talents, and ebilities rether than to be an extension of his parents or a creature to be made over into the image of his parents. MacKinnon speaking of the time in early childhood when a child first ettempts to assert himself in the form of negative counter-will to the will of the parents seid that

> if the parents accept the child as e more or less seperate individual, granting eutonomy, and opportunity to essert his own self the child moves healthly toward a secure sense of self, and the expression of positive will in selecting, orgenizing, modifying and recreating his own experiences.
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> If children are not eccepted by the parents as a seperete individual, they experience guilt rather than a growing ego strength. They feel rejected and thus are not able through an exercise of positive will to echieve for themselves that measure of seperetion which is a prerequisite for individuality.[70]

A teecher who wishes to foster creetivity in the students committed to her trust will view eech student es e unique individual with his own needs, interests, goals, and ebilities. Such a teecher will try to find ways in her classroom to provide time and materials for the students to pursue their own interests.

Children Have Their Own Rate of Development

As a continuetion of the belief thet the individual is unique is the recognition on the part of parents and teachers that each individual has its own rete of development. Gesell found that some children,

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[70]MacKinnon, 1965, op. cit., p. 276.

although passing through the normal steges of physicel development, did so at a much earlier time than did the average child. Gesell noted that this was one sign of genius.[71] MacKinnon observed that the creative architects were not forced to do certain tasks before they were ready, but were allowed to develop at their own rate.[72]

Children Need to be Listened To

Children need to be listened to. By listening to their ideas, parents and teschers are signifying to the child that he is important end that his ideas have value. Parents and teachers that do not take time to listen to their children are saying to the child, by their unwillingness to listen, that the child's ideas are not important, and in turn the child may feel that he is not important.

Answering Childrens Questions

Children ask many questions. This is particularly true of children about two years of age. Their environment is still offering many fresh stimuli that feed the child's curiosity and cause him to ask many questions. If the child's questions are answered patiently and to the best of the parent's ability, they become a source of knowledge to the child and a stimulant for further inquiry. Gardner has said:

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[71]Gesell, Studies in Child Development, op. cit., pp. 140-143.

[72]MacKinnon, 1962, op. cit., p. 493.

> A pra-school child can ask more questions than most adults can possibly find time or resources to answar. But these questions, even when impossible to answer thoroughly in every case, deserve a great deal of respect, encouragement and understanding. A child is not only learning the information provided when his question is answered with respect and consideration, he is also learning his question was a worthwhile endeavor. The attitude that he gradually builds up after experiencing that kind of relationship with adults carries over into his other efforts to understand his world. It is an attitude that assures him of the validity and significance of his curiosity about his world and helps him to feel that the only logical thing to do when problem arises is to seek the answer.[73]

Teachars and parants should encouraga children, not only to ask questions, but also to help children to become aware of unanswered questions or gaps in knowledge in learning materials or in their environment. Torrance has said:

> Quastions reflect a 'mind hunger' and this hungar must be satisfied lest the mind be starved. Although the need should be met immediately, there is much that teachers can do to enrich the period between the question and answer. In general they should tell the student only what they can not learn for themselves. This means that students need to be taught the skill of inquiry and rasearch. They need to laarn how to sustain a question, to play with it, toss it back and forth, rafine it, and accept the quastioning mood without the need for raady answers from the teacher.[74]

A child should learn the value of a question as a tool to further knowledge. However a child should not be so wrapped up in

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[73]Bruce Gardnar, Development in Early Childhood, (New York: Harper and Row Publishers, 1964), p. 221.

[74]E. Paul Torrance, "Are There Tops in Your Cages," Paper prepared for the Annual Meeting of Home Economics section, American Vocational Association Convention, Milwaukee, Wisconsin, Dec. 6, 1962, p. 6.

the knowledge gained from one question answered that he can not see any other questions that need answers. Creative people seemed to have the facility to see unanswered questions and gaps in present knowledge.

Children Need an Opportunity to Explore Their Environment

Children need opportunities to explore their environment if they are to become creative. A child shows early a desire to become familiar with his environment. A child motivated through curiosity or the motivation to interact effectively with its environment, needs opportunities to handle, and to manipulate his environment. Children learn early that there are limits of what and where they can explore; however, parents should provide a surrounding that is safe yet interesting to explore. Parents should realize that exploration and manipulation are an essential part of learning at all ages, but particularly to the very young child who can not yet use words to formulate questions about the things he sees. It is through smelling, listening, watching, feeling and even tasting an object that the child gains knowledge of his environment. Breckenridge and Murphy have said:

> Development of meanings through use of his sense organs is illustrated in the response of a six month old child to a rattle. He seizes a rattle and waves it about, following it with its eyes and turning to listen; he smells it, he puts it into his mouth, tasting and touching it; he explores it with every sense at his command. From this he learns about rattles, how big they are,

> their shape, how hard, how heavy, how near and what kind of noise they make. More than that he is associating all of these things together.[75]

A child denied the privilege of exploring and manipulating his environment and inhibitad with too many "no, no's" may suffer from a diminished curiosity and be deprived of necessary perceptual insights.[76] According to Torrance:

> Fundamentally, man prafers to learn creatively - by exploring, manipulating, questioning, experimenting, risking, testing, and modifying ideas. Learning creatively is the natural way of learning....A concerted effort on the part of parents and teachers is essential to make an environment that is safe for explorations, yet interesting, stimulating, broadening and enriching if creativity and curiosity are to be nurtured.[77]

Children Need Materials for Creative Expression

Children need to be provided with materials necessary for creative expression both in school and at home. Materials such as colored paper, clay, finger paints, crayons, blocks, paper clips, colored chalk, tempera paints, scraps of wood, and cardboard boxes can be the raw materials for imaginative play and expression. These materials, of course, should be appropriate to the age level of the child. As one condition for creative work, Lee and Lee suggested:

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[75]Marian Brackenridge and Margaret Murphy, Growth and Development of the Young Child, (Philadelphia: W. B. Saunders Company, 1965), p. 387.

[76]Smock and Holt, op. cit.

[77]Torrance, "Conditions for Creative Learning," op. cit., p. 367.

> Media and materials need to be available. Most obvious example of this concept is in the area of art. Easily accessible, they should be made easily available to children and should be encoureged to use them. The same is true of materials in science or in other areas. Either in school or home it is very easy for the problem of materials to become such an obstacle that the child drops his ideas and does not attempt to express them.[78]

Children Need to Solve Their Own Problems

Children should be allowed and encouraged to solve their own problems. According to Breckenridge and Murphy, children should be allowed to solve problems in keeping with the child's knowledge and experience and problems that are simple enough to assure the child a certain amount of success.[79] Children thet are allowed to solve their own problems with success will be more able to handle progressively difficult problems and to be stimulated by them. Also children should be allowed to make some decisions for themselves, in keeping with their own abilities. Brisbane has said:

> Opportunities for problem solving, making decisions and experiences with thinge, people and situations are necessary for the development of judgement and reasoning in the young child. Allow him to make reasonable choices; 'Would you like a story or a song before bed?' If a difficult situation is beyond him and his own ideas fail, give him just enough assistance before discouragement sets in. Show him how to continue. Perserverance, self confidence and willingness to test his own reasoning ability result from successful experiences.[80]

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[78]J. Murray Lee and Doris May Lee, The Child and His Development, (New York: Appleton-Century-Crofte, Inc., 1958), p. 441.

[79]Breckenridge and Murphy, op. cit., p. 397.

[80]Brisbane, op. cit., pp. 236-237.

Children Need Opportunities to Express the World as They Perceive It

Children need the opportunity to express the world as they perceive it. The child's problem may be, "How can I express what I see?" A child needs time to express the things that he feels and sees. Also an artistic child needs to be able to choosa his own media of expression. Children need to be able to experiment with their ideas without the fear of evaluation, especially on an adult level. The important thing is that children are able to express what they feel and see. Parents and teachers need to guard against suggesting to the child that there is only one way to draw a house, tree, or man. As children are taught increased skills in the use of artistic media, they need to be taught in such a way as not to interfere with creativity. According to Lee and Lee:

> The more creative person is more capable of using media and has more techniques than the noncreative person. However, it is very easy to be so concerned about the development of techniques that creativity is destroyed. Skills cannot be developed first and separately. One of the difficulties which teachers have is trying to accept the children's use of medium at his development level.[81]

Children Need to be Taught the Value of Their Original Ideas

It is often easier to praise a child who has the "right" answer according to an adult's way of thinking than it is to praise a child

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[81] Le and Lee, op. cit., p. 441.

who comes up with a different answer than is expected or is contradictory to adult thinking. Parents and teachers need to be flexible enough in their own thinking that they can eveluate a child's idea on its merit rather than whether it fits into a neat package of traditional thinking. At a conference on creativity, Arnold said,

> There are two general classes of problems in the World; those that have one right answer, and those that have no right answer.[82]

It might ba added here, that true wisdom is to know which problem is which.

Creative children are often not understood by their parents because of the child'e divergent thinking. Sometimes parents may make fun of a child's creative thinking simply because they do not understand the value of their child's thoughts. Torrance has said:

> One of the most tragic plights I have witnessed among highly creative individuals stems from the failure of their parents to understand them. Frequently destructive or incapacitating hostility is the result of this failure. When teachers fail to understand highly creative children, refusal to learn, delinquency, or withdrawal may be a consequence...the school should help parents recognize that criticism--making fun of the child's idea or laughing at his conclusion--can prevent his expression of ideas.[83]

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[82]John E. Arnold, "Creativity in Engineering," Creativity, (New York: Hastings House Publishers, 1959), p. 35.

[83]Torrance, Guiding the Creative Talent, 1962, op. cit., pp. 12-13.

Keeping the Child's Fantasy Alive

Parents and teachers need to help keep the fantasy of their children alive. Many times parents try to eliminate children's fantasy before they enter kindergarten or first grade. The reason for early elimination of fantasy Torrance said is because

> parents believe that fantasy is unhealthy and fail to recognize that fantasy can be useful in adult experience. We are of course interested in developing a sound type of creative problem solving and decision making. Fantasy must be kept alive until children achieve the kind of intellectual development that makes this kind of thinking possible.[84]

Imagination begins showing itself when the child is about two years of age, commented Brisbane. It is imagination that helps enrich the life of the young child. By drawing on the imagination the world takes on new meanings, chairs become trains, boxes are buildings, and closets become caves. Brisbane concluded,

> It is regrettable that this quality (imagination) is often stifled early in life by lack of understanding adults. When a three year old makes up a vivid story he isn't lying. With his vivid imagination he is not sure where reality ends and the unreal begins....Understanding parents will treat the high imaginative two to five year old child with easy going indulgence and realize that if a child's real life is satisfying enough time and growth will take care of the problems of exaggeration.[85]

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[84] E. Paul Torrance, Gifted Children in the Classroom, (New York: Macmillan Company, 1965), p. 56.

[85] Brisbane, op. cit., pp. 237-238.

Parents and Teachers Should Realize That Learning Can Be Fun

Parents and teachers are sometimes possessed with the idea that school work should be hard and that no fun should be connected with it. However, some part of the learning situation should be interesting, exciting, thrilling and even fun. Torrance said:

> There is not playing around in work. This appears to be one important reason why teachers do not give children more opportunities to learn creatively. Children enjoy creative experiences and their pleasures make teachers uneasy. School is supposed to be work and work is no fun. It has been the writer's observation, that in schools with an austere, no-fun atmosphere, there is the least evidence the creative thinking abilities are used in learning.[86]

Teachers should be alert to new, more interesting, and meaningful ways of learning classroom subjects. To nurture creativity a teacher needs to have an experimental attitude and the willingness to try new ways of teaching old materials even if the method is untried and somewhat unorthodox. Parents and teachers also should be aware of the constantly broadening field of knowledge and not be contented with outdated truths that they learned in the "good old days now gone by." Parents should be constantly challenged by what their children are learning in school. To keep up with the challenge of the ever growing body of knowledge, parents and teachers must realize that they, like their children, are ever in the process of learning. Creativity can rarely be fostered in children whose parents have stopped learning--who see no challenge in the changing world around them.

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[86]E. Paul Torrance, "Education and Creativity," Creativity: Progress and Potential, (New York: McGraw Hill, 1964), pp. 101-102.

CHAPTER III

THE HANDBOOK

A handbook for parental education on creativity in the preschool child may be found in the Appendix. The handbook is entitled A Spark of Creativity - Everyone. The purpose of the handbook was to introduce parents to the subject of creativity, to suggest the importance of fostering creativity in their child, and to indicate practical ways in which creativity can be nutured.

The outline for the handbooks is as follows: Introduction, Definition of Creativity, Conditions Nuturing Creativity, Developmental Characteristics of the One, Two, Three, Four and Five Year Old Child, and Appropriate Ways of Fostering Creativity at Each Level. The handbook was based on the Review of Literature. Authors who were of particular value in the writing of the handbook were: Breckenridge and Vincent,[87] Brisbane,[88] Gessell and Ilg,[90]

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[87]Marian Breckenridge and E. Lee Vincent. Child Development, (Philadelphia: W. B. Saunders Company, 1963).

[88]Brisbane, op. cit.

[89]Erik Erikson, "Eight Ages of Man," Readings in Child Behavior and Development, (New York: Harcourt, Brace and World, Inc., 1964), pp. 242-255.

[90]Arnold Gessell and Frances L. Ilg, Infant and Child in the Culture of Today, (New York: Harper and Brothers Publishers, 1943).

Larrick[91] and Lee and Lee.[92]

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[91]Nancy Larrick, A Parent's Guide to Children's Education, (New York: Pocket Books, Inc., 1964).

[92]Lee and Lee, op. cit.

CHAPTER IV

SUMMARY AND CONCLUSIONS

Creetivity was defined in this study (1) as the ability to bring into being something new; (2) as the ability to see unanswered problems or questions in one's environment and to seek answers to those questions; (3) as the ebility to see ideas or objects in different or unique relationships; (4) as the ability to be flexible both in thoughts and methods of adjustment.

DeMile, Mead, Kneller, Rogers end I. A. Taylor suggested that there is more than one type of creativity. Taylor's five levels of creativity made it possible to include under the term creetivity the immature drawings of the small child as well as the elaborate theories of Freud. While creativity can be evidenced in many ways the creative ect was thought to be the same regardless of the manifestetions. The steps of the creative act ere as follows: (1) first insight (2) preparation (3) incubetion (4) illumination or inspiration (5) evaluation or verification.

Most psychologists and educetors believe that every individual possesses some creative potential. To bring a creative product to fruition it is necessary for an individual to possess certain technical or ertistic skills that ere in keeping with the creative product.

Many theories have been set forth in an attempt to explain creativity. Among those thoeries explored were: crestivity as divine inspiration, creativity as madness, and creativity as intuition. Theories of more value were: Sinnott's biologicsl theory, which saw man as an organizing being and as such was constantly bringing forth that which was new both in the physical realm and in the psychic realm; Gesell saw that creativity was possible because of the rich neuron development; Rogers based the source of creativity on man's desire to become his potential; Rank pictured the creative individual as having successfully ended the struggle between the fear of life and the fear of death through the power of will to become an integrated individual, capable of becoming his creative potential; and Guilford indicsted that creativity or divergent thinking was one of the five bssic processes which made up his total structure of intellect. These five theories of creativity were not seen as opposing each other but were essential in explaining the many faces of creativity.

Creativity generally seems unrelsted to intelligence as measured by mental abilities tests. Some psychologists and educators felt that to be creative one must possess at least average or above sverage intelligence. In order for a person to be creative in the fields of architecture, science, engineering, he must have the mental capacity to learn the knowledge and skills that are requisite in each of the fields mentioned. In a study made by Tisdall, the Educable Mentally Retarded were capable of productive or creative thought. Research on creativity among

slow learners and the retarded children seemed to be lacking.

In studies made by Torrance, Getzels, and Jackson, creative students were found to be as capable of superior school achievement as the high I.Q. students who possessed a higher mean average I.Q.

Creative individuals were pictured as having a good sense of humor which was rich in fantasy, flexible, spontaneous and original in thought. They seemed open to experiences both to internal and external stimuli and were highly curious. Creative people appeared to be independent as children, were given much freedom to explore and to manipulate their environment, and were raised with more permissive discipline. They appeared to lack close ties with their families and were free from parental coercion.

Attitudes valuable in nurturing creativity were: belief in the essential worth of the individual, recognition of a child's uniqueness, the right of the child to become his own potential, and the understanding that each child has his own rate of development. Conditions fostering creativity were listening to and answering children's questions, allowing children to explore their environment, allowing children to solve their own problems, and allowing children opportunities to express the world as they see it. Parents need to help the child to value his original ideas, to keep the child's fantasy alive, to realize that learning can be fun, and as a parent to be in the swim of learning along with the child.

A handbook for parental education on creativity in the preschool child was made from the findings of the review of literature. The handbook is entitled, A Spark of Creativity - Everyone. The outline for the handbook is as follows: Introduction, Definition of Creativity, Conditions Nuturing Creativity, Developmental Characteristics of the One, Two, Three, Four, and Five Year Old Child and Appropriate Ways of Fostering Creativity at Each Level.

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APPENDIX

A

SPARK

OF

CREATIVITY

EVERYONE

P A R E N T:

D i d

y o u

k n o w

t h a t

y o u r

c h i l d

i s

a .....

ONE OF A KIND INDIVIDUAL,

with his own

interests

talents

abilities

and

creative potential

WHAT IS CREATIVITY?

Edison had it

daVinci had it

Mark Twain had it

and

so does your child

CREATIVITY IS THE ABILITY

to bring into being something new

to see questions that need answers in the world around

to see ideas or objects in different relationships

to be flexible in thought and methods of adjustment

SO

who needs it-----

C

r

e

a

t

i

v

i

t

y

t

h

a

t

i

s?

Industry needs it !

to help invent new products

to build a better mousetrap

Medicine needs it !

to help find new cures for old diseases

to help diagnois illness

Education needs it !

to help children learn in new and better ways

Politicans need it !

to help solve problems of slums, civil rights, taxes, Viet Nam

to build a better world

Artists need it !

to express on canvas the things they feel inside

to portray the world as they see it

Musicians need it !

to write new songs and music

to make old songs more enjoyable

Your child needs it !

to satisfy his inner feelings

to meet the everyday challenges of life as they come to him

SO

where

does

one

get

creativity ?

Creativity is like

a seed planted in the ground
which grows into a healthy
plant if conditions are right

Creativity is implanted

in the child at birth, waiting
to develop if conditions
are right

Conditions are right?

What conditions?

BY KEEPING A CHILD'S CURIOSITY ALIVE-----

A child, like a cat, is a curious animal. He wants to know the "why" and the "wherefore" of everything. By allowing your child to explore is one way to keep your child's curiosity alive. A curious child may not be creative, but c creative child will be c curious one

BY ALLOWING YOUR CHILD TO GET ACQUAINTED WITH HIS WORLD-----

That's what your young child is doing when he takes a rattle (or anything else that's loose) and moves it, shakes it, turns it upside down, "tastes" it ! By these movements, he learns how big it is, how hard, how heavy, and what kind of noise it makes. He is learning what his world is like by moving objects that he comes in contact with-or when he examines

Mother's kitchen cabinets

or

Daddy's bureau drawers !

BY PAYING ATTENTION TO AND ANSWERING YOUR CHILD'S QUESTIONS----

In attempting to answer your child's questions, you are

- giving your child information
- telling your child his questions are important
- telling your child that he is important

A child who is not encouraged to ask questions will probably not see much to question when he is an adult.

A creative person is one who sees things to question in his world, and to see gaps in present knowledge

BY ALLOWING A CHILD TO SOLVE HIS OWN PROBLEMS AND TO MAKE DECISIONS-------

In allowing your child to solve problems that he has in his day by day living, and in allowing him to make decisions, you are

fostering independence

helping him gain self-confidence

preparing him for more difficult problem solving in the future

Children learn to solve problems by actually solving them. If a problem is too difficult for your child to solve by himself, then he should be helped--but only to the point where he can manage the problem on his own.

A child who meets failure too often becomes defeated.

A child who gets help for tasks he could do for himself becomes an overly dependent child--unable to do things for himself.

Even a young child can make decisions such as

what he should play or do

whether he wants a story or a song before going to bed

choosing the outfit he wants to wear from two or three you have selected for him

An overly dependent child who is afraid to make decisions is not a creative child.

BY KEEPING YOUR CHILD'S FANTASY ALIVE-------

A child's ability to make believe transforms his real world into a magical world where

a bed becomes a boat

chairs become a train

closets becomes a cave

or where your child can become

a nurse healing the sick

a pirate on a ship

a ferocious lion

By keeping your child's fantasy alive you cre

making your child's world a more interesting place

making your child's life richer

laying the ground work for imaginative problem solving in the future

A creative person is a person with imagination.

Imagination unused--becomes no imagination at all

BY REWARDING YOUR CHILD'S CREATIVE EFFORT-------

Your child needs your praise. He is much more apt to continue the activity for which he is proised. By rewarding your child's creative effort you are

encouraging him to continue doing creative activities

approving his ideas that show originality

telling him that his creative efforts are as important to you as they are to him

A child's creative effort will not be perfect---far from it. But they are his---they are a part of him---and as such deserve your praise

BY GIVING YOUR CHILD TIME TO CREATE

Rome was not built in a day.

Neither can your child bring forth something creative on a moment's notice. Your child needs time to

experiment with materials

ask questions and receive answers

explore his world

play

be read or sung to

soak up or absorb the experiences that he has had

sort out his thoughts and reorganize them

Your child needs time to be creative

BY PROVIDING YOUR CHILD RAW MATERIALS[88]

A child needs moteriols like

clay
crayons
fingerpoints
tempero points
colored paper
plain poper
scraps of cloth
wallpoper
scotch tape
scrops of wood
poper clips
paint brushes

to express himself ond his imagination. "Do it yourself kits" ond color books may express someone else's creotivity--but not your child's !

To be creotive your child must be able to express himself

> Expensive and elaborate toys may be pleasing, but they don't feed the child's imagination like much cheaper raw materials.

A creative person is a person who can express his inner feelings through some media

CREATIVITY

IS PART OF A

GROWTH PROCESS !

A WHAT?

A Child grows by steps.

When a child successfully learns
one step then he can move to
the next step.

THE AGE HE LEARNS TO TRUST

From the uncontrolled movements of a newborn baby your child has learned to

sit up, stand up and soon to walk alone...grasp objects and to let them go...see, hear, touch and to blend these learnings so he can
look towards a sound
pick up or manipulate what he sees
pick up an object and move it to his mouth...
know that objects and people have meaning to him...
understand considerable language
...speak two or three meaningful words...make some decisions (spitting out food that he doesn't like) and solve some problems (to find a block that has been hidden under a cup)

The first year of life is the crucial time for your child to establish a sense of trust

in parents
by having his need of food, cleanliness, and love provided by his parents

in himself
by bringing his body under control he learns that he can use such movements to achieve his goals

in the world
by seeing something disappear and return again, such as objects in a game of peek-a-boo or when mother reappears when he cries; thus he grasps the fact that things continue to exist even though he does not see them, and hence that there is order and stability in the universe.

Parents if they love him, and sense his needs help him to develop trust not only in them but in himself

A creative child is one who has learned to trust his parents, himself, and his world.

During this first year creativity can be fostered by

providing colorful objects for a child's eyes to follow such as mobile birds or butterflies. These can be made by crossing two wire clothes hangers and attaching bright objects to them with string.

providing small unbreakable objects that o child con move, handle and put in his mouth (much a child learns comes from putting objects in his mouth) such as

rattles thot shake, rattle, and roll...blocks...smooth fruit juice cans...small soft rubber toys...meosuring cups... plostic bowl scraper.....

A variety in toys make for broadening experiences

by making your house a safe place
to explore and giving him freedom
to explore
kitchen cabinets with brightly
labeled can goods and pots
and pans makes a treasure house
for the young child

put away the antique candy dish
and other precious items until
your child is able to appreciate
them

talking and singing to your child--
your child enjoys your voice
and will learn to imitate your
sounds

reading short rhymes--
your child may not understand
your words but he will enjoy
the rhythm

looking at bright colored pictures
in a picture book---
plastic books and cloth books
are best so the young child
can learn to turn pages without
tearing them
giving him pots, pans and a wooden
spoon
this makes a simple musical
instrument

TWO YEARS

THE AGE YOUR CHILD DECLARES HIS INDEPENDENCE

Your two year old can

walk alone, walk backwards while pulling a toy...run... open doors...creep downstairs... push chairs in a position to reach things...undress himself... drink with one hand... help wash himself...cut with blunt scissors...string beads... turn pages singly and point to objects in a book... imitate vertical and horizontal strokes with crayon...recall events of yesterday...use two or three words in combination ...use approximately 275 to 300 words to express feelings, ideas, and comparisons

He likes

things that move and turn, such as cars and wheels... things that fit into each other-as blocks and cups... little things to examine-

pebbles, strings, and marbles... to talk about himself...to dawdle-he resists being rushed ...to play by himself or alongside another child

By the time your child reaches two and a half years, he

asserts his independence by resisting pressure to conform-sensitivity to being bossed, shown how or directed... expressing anger,fear, pleasure with violent emotion...being stubborn, domineering, and demanding...

is into everything-pokes in every nook and cranny... climbs on everything he can reach...opens bottles or other containers...pretends to pick food out of a magazine ...conducts a tea party without the aid of real water... is intrigued by water and likes to play in it....

From One to Three much of your child's energy will be centered around asserting that he is a human being--discovering his own identity. An unfavorable outcome of this stage of development results in a lasting sense of doubt about himself and others.

But he can develop a strong self-image by

allowing him to explore within limits of safety

permitting him to do things for himself, or at least trying

permitting him to make such choices as he can

learning to accept and tolerate restrictions when necessary

A Creative Child is an Independent One

Creativity can be fostered by

supplying him with

large crayons...paper at least, 18 x 20... clay, with supervision...pots, pans, and shakers for sandpile play...marbles and pebbles for dumping and throwing...beads or wooden spools for stringing...picture books that he can look at alone...toys to push, pull, ride or take apart, as trains, cars, trucks, Kiddie cars... telephone...blunt scissors and magazines...blocks of different sizes, shapes and colors-- blocks that fit into each other...cardboard boxes for crawling in and out of... wooden boxes to crawl upon and to jump from.....

reading to him

stories and rhymes that are rythmic and repetitious

simple stories of familiar subjects...books of simple information...allowing him to take part in reading the story by naming kinds of animals, etc., and filling in words or phrases he knows...

listening to records with pronounced rhythms such as band music...with short simple stories

taking him for walks around the block, giving him plenty of time to explore...on excursions to a nearby farm or zoo

allowing him to do as much for himself as he will such as, undressing...washing...feeding ...drinking...setting the table...running errands

patiently answering his questions

understanding his efforts to assert himself and to be domineering

having a sense of humor when he gets stubborn and negative

allowing him time for a leisurely bath and providing him plently of toys for his bath such as, boats, fruit juice cans, plastic detergent bottles, plastic measuring cups and bubble bath to make his bath a fun time

THREE YEARS

THE AGE OF MAKE BELIEVE

Your three year old child can

alternate feet going upstairs ...jump forward...stand on one foot...ride a tricycle... feed himself with little spilling...pour from a pitcher ...put on easier garments... put on shoes...draw a recognizable man or house...fashion crude objects out of clay... simple rhymes...count to three, perhaps without truly understanding the number concept... match puzzle forms--square, circle, and triangle...exercises high degree of self control--tries to please and conform... uses words with more confidence --likes new words--can dramatize by combining words and actions

He shows his imagination in such situations as

using blocks for trains, chairs for airplanes, closets for

houses...pretending he is eating mud pies...playing with dolls as if they were real babies...repeating actual experiences in verbal, imaginative play...playing with imaginary objects, animals, companions-imagination reaches its peak in the form of imaginary companions...impersonates animals

A Creative Child Is An Imaginative Child

Creativity can be fostered by

supplying him with

chalk and chalkboards...clay or modeling compound...tempera and finger paint...large uncomplicated puzzles... books he can "read" to others ...brooms, dustmops, ironing boards, doll furniture, dishes, dolls, fire engines, ranch sets, trucks, trains, hammer and nails- all provide imaginative outlets

reading to him

books of information about nature, transportation, etc., woven into story form... riddle and "Guess Who" books ...imaginative stories based on real people and animals like Little Black Sambo

listening to

musical and longer story records...acting out what is heard...using props such as scarfs, old curtains, hats to dramatize the action... jumping, galloping, running to the music

taking him

to the airport, railroad station, fire station, supermarket, zoo or farm...where he can watch men and machinery at work-carpenters, painters, mechanics, trucks, bulldozers, cement mixers, cranes...for a ride on a bus, train, pony

plonning

visits to onother child's home or lunch with grondmother

starting

o collection of odds ond ends- bottle tops, scrops of cloth, buttons, string, pieces of wire, rick-rack

understonding

thot your child's vivid stories ore not lies, but thot right now it's hord for him to distinguish between whot is reol ond whot is imoginory- oge ond more experience will moke the line of demorcation cleorer between whot is reol ond whot is fontosy...by not making fun of your child's imoginotive ploy or playmotes

entering into

this moke believe world yourself, ond thus encouroging further imoginotive ploy on the port of your child...forget the clock-let yourself go, ond

you will find that imaginative play can be fun for adults, too

FOUR YEARS
THE AGE OF SOCIABILITY

Your child of four

skips, jumps, climbs, hops on one foot...laces his shoes... dresses and undresses himself ...cuts on the line with scissors ...saws with a handsaw...can copy squares and circles... attempts to draw or paint an object from conscious effort- "now, I'm going to make a cloud" ...uses blocks as part of dramatic play...rapidly utilizes materials-especially paper, crayons and paste...prefers to draw free hand than from color books...is quite happy as long as he is amply supplied with plenty of materials...is beginning to admire products and wants others to like his creations...likes to have his pictures put up on a bulletin board

is a great talker

and likes to use new and

different words-to perpetuote
silly words like morty-warty,
batty-wotty, dooshy-wooshy...
questioning comes to o peak-
uses questions as devices for
speech ond listening rother
than for knowledge

is out-going or social

ond prefers ploying with other
children than by himself...
likes to orgonize into groups
of three or four-often
segregoting other boys ond girls
...pretends to be a fireman,
nurse, mother, doddy os port of
group ploy

Creotivity con be fostered by

supplying him with (besides those
moteriols mentioned previously)

yorn, cotton bolls, scrops of
woll poper, pipe cleoners,
toothpicks, sponges for pointing,
tongue depressors...breokfost
food ond crocker boxes, cardboord
food contoiners with lobels
intoct-to stock o ploy store...
pieces of hose so he con play

fireman or gas station attendant...a bulletin board to display his creations

reading to him

nonsense rhymes...humorous stories...poems using rhyming words...stories of exaggeration ...stories telling the function and growth of things...books of information-answering the why of things in his environment

listening

to the stories he creates-recording and reading or telling them back to him...helping the child to listen to sounds he hears and to discover their meaning-a teakettle whistling might mean, "Help, I'm too hot" or a dog's bark, "I'm hungry".

singing and dramatizing songs

play simple singing games... pantomime and shadow play... playing with simple puppets-hand puppets or figures glued on a stick

planning and taking him

on short bus, train or airplane trips-he not only likes to look at things but to know how they work...nature trips

FIVE YEARS
THE AGE OF INITIATIVE

Your child of five

ties shoe loces...skips on alternate feet...draws recognizable figures...skillfully picks up smoll objects such os BB'S...moneuvers smoll fasteners...moy enjoy collecting morbles, bottle cops, odd ond/or colorful stones...goes on hikes of explorotion...dresses up in costumes...delights in puzzles ...uses large planks and boxes to jump from ond build with... uses crayons ond scissors... does much cutting and posting ...constructs with wood-- producing something similar to a boot or toble the child has set out to moke...is capoble of self-criticism...likes to finish what he starts... concept of self is better defined...is conscious of how he looks and is unhappy if he is conspiciously different from other children

The Problem of the five yecr old is

one of Initiative

he has discovered, for the time being, that he is an individual in his own right

now

he wants to find out

WHAT HE CAN DO

he wants to test his own will without too much sense of guilt about his actions

Creativity can be fostered by

enlarging his boundary lines so he can explore on his own

accepting as a matter-of-fact that your child will leave home for kindergarten--he is ready, don't hang on to him

supplying planks of wood and boxes for his play...scraps of wood and nails with which to build

helping him to plant a garden of radishes, beans, lettuce--or fast growing flowers as zinnia or marigolds add an interesting and colorful touch ...watch a sweet potato or carrot grow

realizing he is no longer a baby

accepting some of his ideas although they differ from yours

praising him for his good ideas and his ability to solve problems

enjoying his ever broadening world with him, and the freshness of his experiences

CREATIVITY IS AN ON GOING PROCESS

YOU TOO CAN BE A PART OF IT

by

trying to write the story, paint
the picture, build the furniture
or whatever it is you have wanted
to do

but have been afraid to attempt
because

you might fail

you set too high standards
for yourself

or

of what others might say

being alert to the excitement of
your world around you
enlarging your experiences by

making acquaintance with a
larger circle of friends

reading magazines and books

taking art lessons or lessons in writing, cooking, interior decorating or woodworking that will help fulfill your inner desire

taking advantage of the museums, concerts, historical monuments, etc., that are nearby

getting into the swim of learning

with your child

willing to try things and realizing that there is more than one way to do them

YOU AND YOUR CHILD MAY NEVER BE A

EDISON

or a

daVINCI

or a

MARK TWAIN

but if you use your creative potential

your life

and

your child's life

should be richer and more

meaningful

A HANDBOOK FOR PARENTAL EDUCATION ON CREATIVITY IN THE PRE-SCHOOL CHILD

by

ADA LOU ROSE

B. S., Kansas State University, 1949

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

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This report was primarily a review of literature using the facilities of Kansas State University Library. The major purpose of this study was to make a general review of available literature on creativity and to integrate such materials from library research into a useful handbook for parental education on creativity in the pre-school child.

During the last two decades educators and psychologists have been greatly interested in the subject of creativity. Some of them feel the very survival of mankind depends on man's creative potential to find solutions to the challenging problems of today. Others feel that man's mental health depends on man's ability to become his creative potential.

If such importance is placed on creativity, then parents need to be informed on the subject. It is of particular importance that the parents of the pre-school child have some understanding of the creative process since much of the creative potential in children may be stifled before the child reaches school age. This handbook was written to aid parents in the understanding of creativity and its early manifestations.

Educators and psychologists have suggested that there is more than one type of creativity. They believe that every individual possesses some creative potential. To bring a creative product to fruition it is necessary for an individual to possess certain technical or artistic skills that are in keeping with the creative product.

No one theory of creativity was sufficient to explain its manifestation. Rather it was essential to accept an eclectic theory of creativity, which saw man as an organizing being and as such was constantly bringing forth that which was new both in the physical and psychic realm; creativity was possible because of the rich neuron development; the source of creativity is man's desire to become his potential; the creative individual was seen as having successfully ended the struggle between the fear of life and the fear of death through the power of will to become an integrated individual capable of becoming his creative potential.

Creative individuals were pictured as having a good sense of humor which was rich in fantasy, flexible, spontaneous and original in thought. They seemed open to experiences both to internal and external stimuli and were highly curious. Creative people appeared to be independent and as children were given much freedom to explore and manipulate their environment, and were raised with more permissive discipline. They appeared to lack close ties with their families.

Attitudes valuable in nurturing creativity were: belief in the essential worth of the individual, recognition of a child's uniqueness, the right of the child to become his own potential, and the understanding that each child has his own rate of development. Conditions fostering creativity were listening to and answering children's questions, allowing children to explore their environment, allowing children to express the world as they see it. Parents need to help the child

to value his original ideas, to keep the child's fantasy alive, to realize that learning can be fun, and as a parent to be in the swim of learning along with the child.

A handbook for parental education on creativity in the preschool child was made from the findings of the review of literature. The handbook is entitled, A Spark of Creativity - Everyone. The outline for the handbook is as follows: Introduction, Definition of Creativity, Conditions Nurturing Creativity, Developmental Characteristics of the One, Two, Three, Four, and Five Year Old Child and Appropriate Ways of Fostering Creativity At Each Level.