Is the Spirit in Man the Key to Creativity?

Ray K. Coward and Mervin Walton

The awesome faculty of man's mind and intellect has placed him at a plateau of achievement much higher and far surpassing that of any other living organism. Inherent in the mind of man is its uniqueness for creativity. Some definitions of creativity state that is is simple problem solving, while others conceive of it as the fullest possible realization of human potential.

For our purpose creativity is the ability to reorganize familiar or new concepts in a unique fashion with the resulting formation of a total new concept, and the ability to formulate new ideas from raw data. The product of this process must meet certain criteria also. Creativity, basically novel and original, must be produced and communicated to others after evaluation and elaboration. At the highest level, attained by few, it must "...create new conditions of human existence, transcending and transforming the generally accepted experience of man by introducing new principles that defy tradition, and change radically man's view of the world." This creativity sometimes occurs when an idea for the solution of or the solution itself suddenly penetrates the conscious mind.

Works on the study of creativity stress that it is a process, the creative process comprising of usually four basic stages--viz (a) Preparation (b) Incubation (c) Insight (d) Verification.

Preparation consists of the use of cognitive skills in the vigorous acquisition of techniques, ideas, data, and raw materials. This enables one to see the problem clearly. Harding cautions, "before anyone can give himself up to inspiration, he must have acquired a mastery over his subject. in order that the technical aspect should be in no way a hindrance to him." One cannot delve into a problem without some understanding of the nature of it and hence this stage is an extremely important one, necessitating much conscious cerebration.

Incubation is that subsequent period of ensuing unconscious activity relating to the problem after preparation has failed to produce the desired result or solution. This period may last for a few days, weeks or years. In formulating his theory of relativity, Einstein endured six years of puzzlement and failure to grasp fully all the conditions of the problem.
This relinquishing of conscious control and relegation of the problem to the unconscious allows the creative process to further proceed. Koestler observes that constraints which are necessary to maintain the disciplined routines of conscious thought may become an impediment to the creative process. He also describes the interaction between the conscious and the unconscious as a two-way traffic stream. As one stream moves downward we arrange new experiences into patterns...The upward stream "moves in the small fluctuating pulses from the unconscious which sustain the dynamic balance of the mind, and in the rare,

sudden surges of creativity, which may lead to a restructuring of the whole mental landscape." (Emphasis ours).
Crech provides a parallel viewpoint: "...the moment of creative insight is the result of a momentary union of conscious and unconscious levels in the personality."

Insight is that sudden awareness or knowledge or inclination of the desired results to the problem.
A famous example is the case of Otto Loewi who won the Nobel Prize in 1936 for his discovery that nerves do not directly control the heartbeat. The story of his discovery showe d that an idea may sleep for decades in the unconscious mind and then suddenly return to consciousness. In 1920, 17 years after he first disagreed with the accepted theory of nervous control, he had a dream which he wrote down before going back to sleep. The next morning he couldn't read what he had written. That night he had an identical dream, but on this occasion he went to his laboratory and prepared an experiment that demonstrated that nerves do not affect the heartbeat directly, but through a chemical. August Kekule, a noted German chemist of the 18th century pondered the structure of benzene for a long without solving it. He dreamt of a ring of snakes, each holding the other's tail in its mouth, thereby discovering the benzene ring structure, revolutionizing organic chemistry.
Robert Louis Stevenson discovered early in his life that he could dream complete stories and even go back to them on succeeding nights to change an unsatisfactory ending. His most significant dream came one night when he pictured a fleeing criminal who drank a potion that changed his appearance. The dream became Dr. Jekyll and Mr. Hyde.
Rene Descartes' dream began the philosophical and mathematical formulations that affected a profound change in the course of Western thought.
"Howard Fehr studied the working habits of his colleagues in mathematics. The majority of those who responded to his survey said they had solved problems in their dreams or thought that it was likely that they had done so..." remarks Krippner.
Niels Bohr, the Danish physicist, dreamt of a sun composed of burning gas surrounded by revolving planets. The burning gas cooled and solidified and the sun and planets crumbled. Bohr awoke and realized that he had conceived the model of the atom, much of the basic theory forming the foundation of atomic physics came from this dream.
Darwin recalled how he solved a particularly puzzling part of his theory of evolution after brooding over it for some time. He reported that the solution came spontaneously while he rode in a carriage.

Henri Poincare stated that the unconscious work is not possible, or not fruitful unless it is first preceded and then followed by a period of conscious work. This occurs during the fourth stage verication. Insight is often accompanied by feelings of certainty which are not always

valid, necessitating a period of objective evaluation, analysis, testing and criticism of the product of the unconscious cerebration. For the artistic endeavor this would involve editing, reworking or other adjustments. The scientific application involves the setting up of experiments to test the hypothesis. The concepts are transformed into objective, symbolic form, and can be communicated to others.

In examining works on the incubation and insight stages of creativity we have found emphasis placed on the unconscious as being responsible for them. How does incubation lead to insight? How do they occur? William James' explanation casts some light on the mystery. He suggests that "...some hidden process was started in you by the effort which went on after the effort ceased, and made the result come as if it came spontaneously." (1).

Maxwell Maltz, a Jamesian apparently, concurs with the above explanation and offers further that "creative ideas are not consciously thought out...but come automatically, spontaneously and somewhat like a bolt out of the blue, when the conscious has let go of the problem and is engaged in thinking of something else." They and others attest to the ability of the unconscious. (2).

That there should be such emphasis placed on the unconscious seems paradoxical. The idea of the unconscious certainly has its polar interpretations. For some time the Freudian interpretation of the unconscious was predominant. However, there also exists the divergent Jungian collective unconscious which can be vastly more positive and contributory in its psychic contents than the Freudian unconscious. (3). Groch notes " ... the gifts of the unconscious are sometimes terrifying, but they are also delightful, useful, and on occasion sublime...Contrary to Freudian theory and theological dogma, the humanistic psychologies maintain that the essence of man's nature is neither good nor evil..." The power of the unconscious, regardless of its label, can no longer be sidestepped or underestimated. Its significance is referred to continually throughtout the scope of the social sciences in support of various theses. (4). Certainly , it is true of psychology. Groch maintains that "Here in the unconscious lie the roots of creativity. more than a spawning ground for unacceptable ideas and wishes, the unconscious is the spawning ground of insight, the source of humor, of poetic imagery, and of scientific analogy."

The prevailing viewpoint shown in this paper and evidenced elsewhere is that the unconscious is solely responsible for these creative stages of incubation and insight. Haefele offers the theory of unconscious cerebration that "work goes on in the unconscious where the pieces of the puzzle supplied in the preparatory stage are fitted together and tied with

following the failure of conscious cerebration to produce the desired result, the end of which is evidenced by insight. As James explained, some "hidden process" must have been started. Something had to have gone on to produce the desired result.
Simnet describes incubation as a stage where although much mental work is done, choices made and ideas reorganized into new patterns, it all proceeds without conscious participation.

Based on the principle of duality threaded through the fabric of biblical texts, we submit, as the Spirit of God searches, explores, yes, investigates the deep things of God--but moreover searches--even so the Spirit in man searches, explores, investigates the things of man, correlating information for insight in the unconscious. (6).

Lest the role of the unconscious in the creative process be discounted because of the early Freudian misconception of the unconscious as essentially irrational, humanistic psychology rejects such an interpretation. Abraham Maslow observes, "certainly it is now obsolete to stigmatize this unconscious side of human nature as sick rather than healthy. That's the way Freud thought of it originally, but we are learning otherwise now." Groch asserts, "The unconscious is a receptacle for material too painful or dangerous to be admitted to the presence of the conscious mind. But it is also a quiet chamber in which are preserved fragile symbols of beauty, humor, and personal truth recorded...as experienced by the individual himself. In the refuge of the unconscious mind, delicate aesthetic images, perceptions of truth, morsels of wit and fantasy, and dense clusters of thought and emotions are protected from the harsh censure of the conservative, colonized outer world, which has established a branch office in the individual conscious mind...If the unconscious is a prison, it is also a sanctuary."

Many authorities credit the process of incubation and insight solely to the work of the unconscious. Our investigation of biblical texts showed the investigative capacity of the Spirit in man. We postulate that the Spirit in man, not the unconscious, is responsible for the stages of incubation and insight--mediating between the conscious and the unconscious. (7).
We stress that the preparation stage involves arduous, conscious cerebration and logical planning. In addition the product of incubation is no haphazard event but the result of a series of ordered events. Furthermore, verification is the process of reworking, testing and presenting the concept in a communicable fashion substantiates the validity of the insight eliminating irrational ideas.
As Edison reputedly said, "Genius is 99% perspiration and 1% inspiration."

FOOTNOTES

1. James' example was one of trying to remember a forgotten name. However, the product of incubation and insight is not, as in James' example, necessarily something we once knew--though it could be. Usually, it is an altogether novel occurence.

2. See Dr. Peter Nathan, Dr. Gregory Zilboorg, Stanley Rosner and Lawrence E. Abt, Judith Groch, et. al.

3. For Jung, the unconscious can be twofold (individual and universal). "...many complexes are merely split from consciousness because the latter prefer to get rid of them by repression (individual). But there are others that have never been in consciousness before and that therefore could never have been arbitrarily repressed (universal or racial). They grow out of the unconscious mind and invade consciousness..." From which he goes on to postulate the existence of a collective or racial unconscious--to which we do not subscribe.

4. Our study of works which referred to the power of the unconscious (some use the Jungian term archetype which infers the unconscious) also includes books on sexism, racism, and cultural/technological works.

5. Our theory is based on the already demonstrated presence of a Spirit in man's brain (Spirit in man) as shown by Dr. K. Kuhn.

6. E.g. first Adam, second Adam, N.T.,O.T. , earthly Jerusalem, heavenly Jerusalem.

7. Of further note is the advocation of meditation threaded through the Bible as well as accounts of revelations or "insights" occuring during sleep (Daniel 2:19). This parallels the reception of insight during times of relaxation and sleep recorded by many observers. Another parallel is apparent in the preparation stage; a person's mind has to be prepared for spiritual understanding also (Acts 7:2, 33).

35. Taylor, Calvin & Barron, Frank. Scientific Creativity: Its Recognition and Development. pp. 359-363. 1963.

36. Taylor, Irving PhD. "Nature of Creative Process." In Creativity--An Examination of the Creative Process. (Ed. Paul Smith) pp. 51-82. 1959.

37. Youtz, Richard, P. PhD. "Psychological Foundations of Applied Imagination." In A Source Book for Creative Thinking. (Ed. Parnes & Harding) pp 194-195. 1962.

38. Zilboorg, Gregory PhD. "Psychology of the Creative Personality." In Creativity--An Examination of Creative Process. (Ed. Paul Smith). pp. 21-32. 1959.

ADDITIONAL REFERENCES

1. Crutchfield, Richard. Contemporary Approaches to Creative Thinking. (Eds. Howard Gruber, et. al.) pp. 120-140. 1962.

2. Freud, Sigmund. Future of an Illusion. Translated by W.D. Robson-Scott. (Rev. and newly edited by James Strachey). 1964.

3. Ruitenbeek, Hendrik. The Creative Imagination. 1965.

4. Seidel, George. The Crisis of Creativity. 1966.