

The Relationship Between  
Creativity and Moral  
Judgment

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## ABSTRACT

### The Relationship Between Creativity and Moral Judgment

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A sample of 50 male and female subjects ranging in age from 12 to 73 were divided into three groups according to the scale of maturity of moral judgment developed by Lawrence Kohlberg. Subjects were also tested on a measure of creativity developed by Torrance after the formulations of Guilford in order to test the hypothesis that the relationship between creativity and maturity of moral judgment is curvilinear. Researchers have failed to develop any working hypothesis concerning the relationship between creativity and moral judgment or postulate any consistent theoretical framework concerning the possible relationship between these two constructs. The empirical investigation involved a scientific testing of a random selection of elementary subjects, high school adolescents, and creative adults. Tests included Kohlberg's Moral dilemmas and Guilford's Product Improvement Task.

A trend analysis was conducted to reveal whether or not a curvilinear relationship existed between the independent variable (Moral Maturity Stages) and the dependent variable (creativity performance under each level).

Curvilinear trends were observed in two out of four creativity subscales but were not statistically significant.

It was concluded that these contradictory findings were due to the relatively small number of subjects tested, the narrow range of moral judgment scores, and the limited conception of creativity defined by the creativity measure used (The Product Improvement Task).

It was suggested that an instrument assessing an identity status would be most useful as well as a creativity measure better suited for a theory of creativity essentially developmental in perspective.

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From this world to the next; from utility to creation. Instead of words as market-place utilities, brand names to advertise established items, the creative words which make it new. Words made new again, as on the first day of creation; eternity's sunrise. Words used not to interpret the world but to change it; not to advertise this world but to find another. To pass from this world to the next; from ordinary to extraordinary language.

Norman O. Brown, Love's Body, p.234.

## CHAPTER 1

### THE PROBLEM

#### Introduction

The traditional conception of the development of "moral character" rests on the assumption that moral development is a process by which amoral behaviour of the child is brought to conform with the values of the society and/or the culture. Such a position has lost favour up to the present and can no longer be considered tenable. However, the current indoctrination-relativism continuum of which many modern classroom teachers are faced has led to further confusion and a misunderstanding of how young people may learn to cope both socially and morally in a changing socio-cultural matrix.

In response to the void left by the rebuttal to character education, arguments for a less authoritarian and partisan conception of moral education have been put forth over the past 10 years by Lawrence Kohlberg and his followers. The work of Piaget (1932) formed the groundwork for a new generation of moral philosophers and researchers (Kohlberg, 1966; Turiel, 1966, 1969) in America and comparable research in Britain (Wilson, Williams and Sugarman, 1967). Contemporary research has stemmed from the premise of Dewey that "the educative process can be identified with growth, as growing or developing, not only physically, but intellectually and morally" (Dewey, 1938, p.37).

Presently, most faculties of education and teacher training institutions throughout North America patronize at least some "values education" experts who hopefully approach the notion of morality so as not to attempt to impart "virtues" or effect conformist attitudes, but to foster the implicit or "innate" tendency of the child to develop intellectually and socially through interaction with the environment in everyday life experiences. Teachers are being made aware of the "hidden curriculum" identified by Jackson (1968), and described in the process of schooling itself, and reflected in how students and teachers interact in the classroom and school. By the very nature of the teaching process itself, teachers may inadvertently inculcate the formation of values not intended by the teacher and educational institutions may teach values antithetical to our stated democratic beliefs in its emphasis on conformity.

The increasingly popular values clarification approaches (Raths, Harmin and Simon, 1966) acknowledge that values are not absolute. They ask descriptively what "is" rather than concern themselves with the prescriptive "ought". Although values clarification is a welcome alternative to moral indoctrination, it hardly contributes to the development of a consistent moral philosophy. It is viewed by developmentalists as perhaps a beginning but it doesn't go far enough.

Lawrence Kohlberg's research has emphasized a cognitive-developmental approach towards an understanding of moral maturity which rejects educational theories that feel a child's full potential already exists within him (maturationalist view) or that require adjustment or "socialization" to the prevailing norms (cultural transmission view). Kohlberg's theoretical

framework provides educators with a welcome alternative to the values-relativity syndrome inherent in various methodologies towards understanding morality, both past and present. Although Kohlberg accepts the notion of socialization process, he disagrees with the social learning theorist that all of us, and especially the young, are almost infinitely malleable, blank slates for moral conditioning. In this sense, Kohlberg is at odds with the classical behaviourist. For Kohlberg approaches moral maturity as a progressive attainment of greater logical complexity through an invariant sequence of cognitive stages and towards an appropriation of "higher" and "better" stages of moral thinking. This progression becomes, for Kohlberg, a process of relating to the world. A cognitive-developmental perspective offers mankind some security amidst the relativity of time, place, and customs of our modern universe in which we are groping for some form of universal principles which remain stable and around which individuals may organize their moral or value outlooks and priorities into a fundamental life-perspective. Mass industrialization, modern technology, and the nature of the electric media have confronted us with many different cultural perspectives and changes in perception which must be internalized and accounted for in developing our ethical principles. Kohlberg's "rational" approach to the question of morality provides a practical matrix from which it becomes possible to analyze and, to a great extent, "influence" our own consideration of ethical principles.

Kohlberg maintains that cognitive development, logical patterns, or structures of thinking result from the "dialogue"

between the child's mental structures and the complexities presented by the environment. Knowledge, therefore, becomes an active change in the individual's pattern of reasoning brought about by resolving a moral conflict or dilemma.

Kohlberg's developmental approach shares in common an acknowledgement of Piaget's claim (1932) that there is a predominate cognitive and rational component in the development of moral reasoning, and that the aim of moral education is to nurture the child's conception and understanding of the principles of justice and fostering autonomous moral judgement.

Emphasis on Piaget's cognitive-social component in moral development has been employed to the exclusion of thoughtful consideration in moral educational research to the role of the "creative process" and to its corresponding affective dimensions--identity status--in particular. To the educator, as well as the researcher, the theoretical interpenetration of creativity and moral thinking presents a unique situation in which the "affective domain" may be better reconciled within a moral developmental structure, and which, in turn, may possibly reveal a distinctive connection which may point beyond mere academic interest. As to what the possible "correlations" may prove to be comprise the empirical aspects of this study from which critical speculations ensue.

Attempt at a synthesis between creativity and morality within a developmental framework has not yet been entertained by researchers, and, to this extent, this author attempts to create a new species out of existing theoretical bodies of knowledge in moral philosophy and psychodynamic theory.

Such an attempt is understandably speculative yet becomes worthwhile if it does nothing more than direct attention to the lack of research given by investigators to the creative process as it affects the process of moral or ethical values or judgements. A study conducted by Getzels and Jackson (1962) undertook as a prime focus, the change in moral outlook and value emphasis from values emphasizing character to those emphasizing adjustment. Tests were constructed and applied in order to categorize those subjects who were 'high in moral character but not in adjustment' and, secondly, those who were 'high in adjustment but not in character'. Needless to say, the criterion of the 'moral' group was similar to a "bag of virtues" approach and consisted basically of the mother's perception of her child. It appears that 'adjusted' individuals tend, on the whole, to seek experiences that are immediately gratifying rather than eventually rewarding, to prefer social interaction to personal achievement, and, where there is a conflict of ideals, to sacrifice moral obligations to interpersonal harmony; the individuals in the moral group tend to reverse those trends, and to assert their own autonomy. In short, this study cites 'adjustment' as the analogue in the sphere of psychosocial behaviour corresponding to intelligence in the sphere of cognitive behaviour; both are essentially adaptive. Moral character, on the other hand, is the analogue of creativity; both are distinctive of an original and individualistic type of child.

Is there, in effect, a definitive relationship between the creative process and the ability to reason morally? Advances made in the realm of cognitive-developmental psychology as applied to moral thinking, and further research on the process of creativity hopefully will help us to begin an answer to that question.

In the pervading context of modern society that sometimes views creativity as non-conformist, social sanctions against creative in-

dividuals seem to reflect a presupposition that conformity with societal norms and values represents the desired end-point in creative thinking as well as moral behaviour. Viewed from this perspective, developing creative capacities in our orientation to a world-view, may prove either to be a useful tool in developing, for instance, individual role-taking capacities or adopting alternative ideologies (moral or otherwise), or a necessary evil which, taken to an extreme, produces non-conforming persons who become non-adaptive within the school system or society-at-large. In other words, society may view creative persons either with suspicion or reverence; in either case there are difficulties present in the social sphere, for creative individuals to overcome.

It appears reasonable and natural to ask whether or not the creative individual possesses an "unique" capacity for moral stage transition or conversely, for arrestment. It seems equally as logical to ascertain whether or not the creative capacities of an individual may influence or perhaps modify conventional moral thinking we normally think of as Stage 3 moral judgment based on Kohlberg's model. Is this relationship between creativity and morality congruently temporal; is it non-monotonic? Is creativity less evident in conventional moral thinking and greater in principled thought? These questions must be pursued and investigated if we are to arrive at an understanding of the role of creative thinking in moral thought.

Confusion about the compatibility of cognitive and affective dimensions of the creative process and relationships to moral thinking may encourage a reluctance on the part of a classroom teacher, to explore alternative strategies in order to stimulate moral perception as a direct challenge to the students' attitudes and feelings. Pedagogically sound programs which offer simply "objective" courses in moral education which divorce themselves from a consideration of the dynamics of the creative process would tend to become ineffect-

ual since, by ignoring the creative aspects of the individual students, such approaches exclude the student's own feelings, emotions and individuality and this may, in fact, inflict psychological harm.

There is reason to question the conventional assumptions about creativity which underly these educational misgivings. The literature of creativity contains numerous approaches from creativity as cognitive, rational and semantic (Hallman, 1963), personal and environmental (Dinkmeyer and Caldwell, 1970), mental health and openness (Shulman, 1966), Freudian (Rank, 1932), neo-Freudian (Gowan, 1965), to psychedelic (Masters and Houston, 1966) interpretations, and while there are important differences between these conceptions of creativity, an overall developmental scheme initiated by Gowan (1972) attempts to a theoretical placement of these multifarious and various viewpoints.

John Curtis Gowan (1965, 1972) has attempted to approach creativity from a developmental frame of reference taking into account both cognitive and affective elements. Gowan's approach to his topic differs from Kohlberg's approach since Kohlberg is predominately concerned with "cognitive-developmental" aspects of theoretical formulation. Gowan does not exclude the cognitive-developmental approach since he draws heavily from Piaget (1950), but by also including approaches by Erikson (1963, 1964, 1969), and Kubie (1958, 1965, 1967), Gowan's approach appears more eclectic, but is developed along organizational premises that allow, not only a comprehensive view of the creative process, but also a possibility of integrating other aspects of human development, moral thinking included. It is precisely because Gowan has used Piaget's structuralist formulations in his own model, that it becomes possible to chart out Kohlberg's moral Stages into Gowan's matrix on creativity.



One significant gap in both Piaget's and Kohlberg's structuralisms has been the area of the "aesthetic imagination" and the potential role it may play in the development of intellectual and moral understanding (Simpson, 1976). A more inclusive understanding of the relationship between creativity and moral thinking may open a more systematic placement for figurative knowledge in Kohlberg's structuralist frame, which Piaget seems to pass off as a lower form of intellectual development. It becomes increasingly important in an era of objective approaches in values education for teachers, especially, to accept the notion that value synthesis is not a science but probably encompasses, when done well, the virtuosity of an artist (Sullivan, 1977). Creativity, in contrast to stating principles in an abstract manner to achieve a universalization, can aid in the formation of imaginative symbolism that has a compelling "intensional quality" evoking action and commitment in a way abstract principles could rarely do, by "fusing" the concrete with the abstract (Sullivan, 1977). Sullivan illustrates this point using, as an example, a speech of Martin Luther King:<sup>1</sup>

I say to you today, my friends, let Freedom ring! From the hilltops of New Hampshire, from mighty mountains of New York...from every hill and molehill in Mississippi...Let Freedom ring from every house and hamlet, from every street in every city...When Freedom rings we shall be able to speed that day, when all God's children, black men and white men, Jews and Gentiles, Protestants and Catholics, will be able to join hands and sing in the words of the old Negro Spiritual. Free at last! Free at last! Great God Almighty, we are free at last! We got some difficult days ahead. Some people are concerned as to what would happen to me from some of our sick white brothers. Well I don't know what will happen to me now...But it really doesn't matter to me now...because I've been to the Mountaintop... Like everybody I would like to live a long life... Longevity has its place...But I'm not concerned with that now...He's allowed me to go to the mountaintop--and I've looked over and I've SEEN the Promised Land.

So, I'm happy now. I'm not worried about anything.  
 Mine eyes have seen the Glory of the Coming of the Lord.  
 (1977, p.25)

It could reasonably be assumed that imagery, used in a creative fashion, helps to foster a commitment to action. Seen in this way, creativity becomes a "catalyst" for moral behaviour. Conversely, where moral maturity appears arrested at a conventional stage, there is considerable cause to speculate whether or not creativity becomes diminished as well. A corollary to this would be to examine whether or not an increase in creativity is associated with advanced moral maturity.

Gowan (1972) has suggested that when creativity---defined in both psychoanalytic and psychometric terms---correlates positively and significantly with Piaget's (1950) logical stages, a distinctive pattern emerges that allows the investigator to consider both cognitive and affective conditions for this correlation. Since Kohlberg's stages of moral maturity have been developed from Piaget's logical stages, it becomes possible to chart Kohlberg's moral thinking stages into Gowan's synoptical grid. Further, it becomes important for the educator to realize the various ways moral commitment may possibly be stimulated by more creative measures than exist in abstract, universal or scientific hypotheses, and that practical strategies may emerge from the developmental formulation of creative and moral constructs which will foster, to a greater degree, the overall development of the individual in response to today's educational emphasis on creative and moral growth.

#### Statement of Purpose For This Study

The initial purpose of the present investigation is to examine

the most recent literature on creativity with a view to developing a working hypothesis concerning the relationship between creativity and moral judgement. This is undertaken since researchers have failed to examine this relation or develop any consistent theoretical framework concerning the possible relationship between these two constructs. Secondly, this study will attempt, on the basis of this rationale to investigate empirically the relationship between creativity and moral judgement. The empirical investigation involves scientific testing of a random selection of elementary (Grade 6) subjects, high school adolescents (Grade 13) and creative adults. Tests include Kohlberg's Moral Dilemmas and Guilford's Product Improvement Task (as used by Torrance in the Minnesota Tests of Creative Thinking). A trend analysis will reveal whether or not a curvilinear relationship exists between the independent variable (Moral Maturity Stages) and the dependent variable (creativity performance under each level). This will depend upon what higher degree equation is required to provide a satisfactory fit for the data, assuming that a trend does exist.

## Definitions

### 1. Creativity

For the purpose of this study, the operational definition of creativity is defined after the formulations of Guilford (1959)<sup>2</sup>

..... aptitude traits that belong most clearly logically in the area of creativity and that have been discovered by factor analysis, many of them within the past en years. These include factors of fluency of thinking and of flexibility of thinking, as well as of originality, sensitivity to problems, redefinition and elaboration.

..... a number of relationships between non-aptitude traits and creative performance in tests have been indicated. The two forms of flexibility of thinking seem clearly to be opposites to two forms of rigidity in thinking. Redefinition seems logically opposite to the quality known as "functional fixedness".

.....most of the aptitude factors identifiable as belonging in the category of creativity are classifiable in a group of divergent-thinking abilities. These abilities, by contrast to convergent-thinking abilities, emphasize searching activities with freedom to go in different directions, if not a necessity to do so in order to achieve an excellent performance. Convergent-thinking activities proceed toward one right answer, or one that is more or less clearly demanded by the given information. ,

Guilford's definition is one of several "independent systems" which Gowan (1972) cites as instrumental in a definition of creativity. Accordingly, a supplementary definition of creativity is patterned after the formulations of Gowan (1972). The purpose of this "supplementary definition" is to allow for a broader investigation of the creative process which includes perspectives ranging from psychometric views to psychodynamic and developmental focal points. This definition states:<sup>3</sup>

.....once a creative style of life has been established through contact with the preconscious, processes and techniques tend to persist as strategies available to the ego. They may even expand and proliferate at any stage under suitable conditions of mental health and environmental stimulation.

The definition continues:<sup>4</sup>

.....creative performance is the synthesis of several independent systems:

- (a) differential abilities and their stimulation as in the Guilford Structure of the Intellect Model.
- (b) mental and physical health
- (c) antiauthoritarian and nurturing tendencies in parents, teachers and others in the environment,
- (d) the life styles established in the third and sixth stages of development. (Gowan, 1972, p.68).

Gowan's comprehensive definition of the creative process allows for a better investigation of the correlation between creativity and moral maturity within Kohlberg's structuralist approach, at the same time supporting Guilford's definition.

By "establishing the preconscious" Gowan(1972) suggests that creativity is dependent upon the practice of making preconscious

experience defensible against the invasion of the other aspects of the psyche. The child, for instance, through exercising his fantasy to please his mother learns implicitly the rules of relaxation and free association and play which are "requisite for him to gain access into this shadowed area". (Gowan, 1972, p. 62)

Gowan uses alternate definitions of creativity from psychometric measures to new-Freudian descriptions. By focusing on Gowan's "cognitive-structural" and "psychometric" definitions of creativity it becomes possible to analyze the creative process into a hierarchy of affective reactions mediated by the child's cognitive judgments. In this manner, sufficient consideration is brought to bear on the "affective" dimensions of the psyche. This concept is in full accordance with the creativity measure used in the empirical investigation of this study and developed by Guilford (1962). The Product Improvement Task includes both the cognitive measures of fluency, flexibility, originality, and inventiveness and also allows for "preconscious regression in the service of the ego" by way of Kubie (1967), Kris (1953) and Gowan (1972).

## 2. Curvilinear

The revised edition of the Random House College Dictionary (1975) defines curvilinear as "consisting of or bounded by curved lines: a curvilinear figure". In this study the term curvilinear is used in the context of a graph which indicates a trend whenever the means of a dependent variable (creativity) are not equal for the different levels of the independent variable (moral maturity). A graphed curvilinear trend is shown on page 130. If there is no trend the line graphed will not be curvilinear.

## 3. Moral Judgment

This term assumes a cognitive-developmental or "rational"

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component and may be used interchangeably with "moral reasoning" and "moral thinking". Further, in this present investigation, moral judgement is defined and measured after Piaget (1932).<sup>5</sup> "By this we mean the theoretical moral judgement as opposed to that which occurs in actual experience." (Piaget, 1932, p.104)

#### 4. Moral Maturity

Kohlberg defines moral maturity as "...the capacity to make decisions and judgements which are moral (that is, based on internal principles) and to act in accordance with such principles" (Kohlberg, 1964, p.425).<sup>6</sup> Again, this definition is in accordance with the broadest objectives of cognitive-developmental psychology as patterned after Piaget (1932), and which appear to coincide with the general approaches of moral educational research which stress the "rational" and "autonomous" principles set forth by Piaget and Kohlberg. This definition is also in agreement with the concept of moral maturity used by researchers as quoted in this study.

#### Hypotheses to be developed

When creativity is defined as "differential abilities" as in the Guilford Structure of the Intellect Model, and viewed as cognitive mediation of affective reactions, it is predicted that creativity is likely to be "greater" at a "pre-conventional" and "post-conventional" level of moral judgement in Kohlberg's terminology, and will be "less severe" at the "conventional" level of moral maturity. Although this study does not attempt to prove whether creativity is a component of morality, itself, it bears in mind the remark made by Kohlberg that "there should be an empirical correlation between maturity on "affective" and cognitive aspects of morality, even if affective morality is assessed by projective test or interview methods, not explicitly focused on moral judgement" (Kohlberg, 1969).

The general hypothesis to be developed is:

( $H_{o_1}$ ) the relationship between creativity and moral judgement is curvilinear

In other words, it is assumed that creativity will correspond or covary, with varying height, with moral reasoning in a negative linear relationship to the lowest point (about middle range) beyond which the relationship is expected to change direction to a positive linear relationship.

Creativity has been shown to be reduced or stifled by guilt phenomenon (Rank, 1932); (Kubie, 1958); (Gowan, 1972). A study conducted by Roper (1973) revealed that large amounts of residual or "intro-punitive" guilt cannot co-exist with the "self-love" or "self-acceptance" prerequisite to the development of moral-autonomy and the sense of justice by which "post-conventional" moral reasoning (Kohlberg's stages five and six) is defined. Just as guilt phenomenon is specifically characteristic of a Stage 3 "interpersonal concordance" orientation on Kohlberg's hierarchy of stages in moral maturity, there occurs, simultaneously, an immobilization of creative potential. Guilt is often fatal for the creative impulse for the energy which should go into productivity goes instead into fighting the "inner conflict" or what Kubie (1958) refers to as the "neurotic distortion of the creative process". Therefore, for reasons of severe guilt and identity diffusion "resulting from the discrepancy between what the ego wants itself to be and what it finds it can be and do" (Gowan, 1972, p. 29)<sup>7</sup>, creativity as defined and related to a sample of all three levels of moral maturity is likely to be least characteristic of a "conventional" subject. The sub-sets of the general

hypothesis (HO<sub>1</sub>) may be stated as follows:

(HO<sub>2</sub>) there will be greater creativity as measured by the Product Improvement Task in individuals who are at the post-conventional stages of Kohlberg's scale.

It is assumed that post-conventional subjects will correspond to a greater degree with Gowan's "love-affiliation" stage 6 (see table 2, p. 64). It is felt that the "self-love" or "self-acceptance" qualities that Kohlberg views as a prerequisite to the development of moral-autonomy is closely allied to Gowan's Intimacy Stage 6 and Agape-Love Stage 9. The higher the moral stage of reasoning the less likely there would be an immobilization of creative potencies due to factors such as "intro-punitive" guilt or developmental arrestment in a Piagetian logical stage (e.g. concrete operations).

(HO<sub>3</sub>) there will be less creativity as measured by the Product Improvement Task in individuals who are at the conventional stages of Kohlberg's scale.

Roper (1973) has discovered that guilt phenomena are directly related to Stage 3 "interpersonal-concordance" orientation on Kohlberg's moral hierarchy. It is reasoned that creativity is more likely to be hindered or stifled by subjects experiencing greater guilt conflicts. Therefore it is assumed that creativity will be least characteristic of a Stage 3 moral thinker.



(H0<sub>4</sub>) There will be greater creativity as measured by the Product Improvement Task in individuals who are at the pre-conventional stage of Kohlberg's Scale.

Gowan's Initiative and Industry (Stages 3 and 4) are closely allied to Kohlberg's pre-conventional stages of moral development. The Initiative Stage 3 corresponds more closely to pre-moral thinking and it is not expected that subjects in this study will exhibit pre-moral thought. Gowan's Industry Stage 4, which is also linked to pre-conventional moral thought, on Kohlberg's scale, is not associated by Gowan with any significant creative growth. But it is still assumed that creativity will be higher in pre-conventional moral subjects than conventional moral thinkers on Kohlberg's scale. This is because it is felt that guilt phenomena and peer pressure working against creativity are greatest at Stage 3 on Kohlberg's scale (which corresponds to Gowan's Identity Stage 5).

Limitations

This investigation is primarily concerned with the creative process as it is manifested in individuals who possess normal mental health, as opposed to creative manifestations in neurotic or schizophrenic individuals. There appears agreement among researchers that neurosis **has a tendency to** cause a degraded quality of one's creative potential. According to Anderson (1959), such individuals who appear neurotic are pseudo-creative. They may have original ideas which, because of the neurosis, they do not consummate. This study does not attempt to take any one side of a controversy that has raged through human history about the source of inspiration--to what extent does creativity come from madness? Creativity is viewed in this research as a legitimate and healthy exercise of imagination. The dialectical relationship between the worlds of the painter, poet and musician **concerns both** subjective processes of consciousness and the objective pole of their inherited language, musical notes, and artistic medium involved. They are often protected from becoming neurotic or entering into madness in the process of radical creative emergence by the form of the media itself--namely the paints, the words, and the musical notes.

Origins of creativity will be expressed in psycho-dynamic terminology whereas visible products of creativity will be described in psychometric terms. The dialectical interplay between origins of inspiration and emergent products will use terminology from both disciplines. The

"process of creativity has both cognitive and unconscious components. Since unconscious images appear highly charged with emotions (Jung, 1965), creativity will also be described in "affective" contexts.

Guilford's Product Improvement Task and Kohlberg's Dilemma Situations will be used to empirically test these hypotheses. A detailed theoretical rationale for the hypotheses stated and the development of each are described in detail in the section Development of Hypotheses in CHAPTER 2.

A detailed description of the instruments used to test the hypotheses appear in CHAPTER 3 under the heading: Description and Pilot Study of Measures.

Testing had to take place during the final month of the school term. The fee to score the Moral Dilemmas was considerable and inter-rater reliability could not be established. Scorers for the Product Improvement Task who were suitable trained and qualified were difficult to find but were provided by the North York Board of Education free or charge--but constraints on their time were considerable and inter-rater reliability was, once again, not established.

Partly due to the fee required to score the Moral Dilemmas and the amount of time I had to conduct the testing, the number of subjects was limited. Consequently it was difficult to acquire a broad range of moral maturity in my results.

There were some reservations in using Kohlberg's and Guilford's instruments. In the case of Kohlberg' there is a tendency in his research to over-extend the claims for his stage theory. Without denying the possibility of his stages, there is the question of whether or not he has captured only

one facet of the moral reasoning process. R.S. Peters (1971) has reflected this concern: <sup>8</sup>

It may well be that some generalizations have been established about certain aspects of moral development, but these may be peculiar to the limited range of phenomena studied. It would be unfortunate if these generalizations were erected into a general theory of moral development without account being taken of the differences exhibited by the phenomena that have not been studied. (p. 237)

Although Kohlberg explores a particular aspect of the moral world which is reflected by certain historical moral philosophical positions to the relative exclusion of others (see Murdock, 1962), I still find Kohlberg's instrument for the assessment of moral judgment to be the most sophisticated and reliable instrument that psychological assessment devices have to offer. The instrument can be reliably scored and is valid within the context of cognitive developmental theory.

The Product Improvement Task has a reliability coefficient that exceeds .70. **The diversity** of samples and time intervals strongly suggests that the Product Improvement Task scales have useful reliability. Interscorer reliability is usually above .90 for individual scales scored.

Some critics of Guilford have stated that the results of the Product Improvement Task are hard to distinguish from assessment of general intelligence. In other words, while the test may function as a substitute for a general intelligence test, the user can be misled by the creativity label into believing that he is assessing something different from intelligence as usually defined. Critics feel that no convincing empirical separability from intelligence has yet been demonstrated.

It is my contention that the Product Improvement Task may not measure all aspects of creativity, it does measure aspects of the intellect that are not normally associated with general intelligence. Just how close the test comes to measuring creativity is speculated on throughout the study.

## FOOTNOTES ON CHAPTER 1

1. From a speech by Martin Luther King.
2. J.P. Guilford, "Traits of creativity," in Creativity and its Cultivation, H.H. Anderson (ed.), Harper, 1959, pp. 141-162.
3. J.C. Gowan, Development of the Creative Individual, R. Knapp, 1972, p. 68.
4. Ibid., p. 68.
5. J. Piaget, The Moral Judgement of the Child, Free Press, 1948 (first published, 1932).
6. L. Kohlberg, "Development of Moral Character and Ideology," in Review of Child Development Research, M.L. Hoffman (ed.), Vol. 1, Russell Sage Foundation, 1964, p. 425.
7. J.C. Gowan, Development of the Creative Individual, p. 29.
8. R.S. Pieters, "A Plea for Pluralism," in Cognitive Development and Epistemology, Theodore Mishel (ed.), Academic Press, 1971, p. 237.

Literal meanings are packaged commodities for passive consumers: in symbolist poetry the reader is incorporated into the work, actively participates in the poetic process itself---"the connection is left for the beholder to work out for himself." All the Lord's people become prophets.

Norman O. Brown, Love's Body, p. 246.

## CHAPTER 11

SOCIAL PERSPECTIVE, THEORETICAL BACKGROUND,  
REVIEW OF RELEVANT RESEARCH AND DEVELOPMENT OF HYPOTHESESIntroduction: The Technology of Morality: A Social Perspective

In terms of the cultural-psychological forces generated by today's modern technology and implicit in modern educational ideology, there has never existed a more urgent task for educators than to accept the existential reality that creative ways of implementing man's moral reasoning capacities has become an imperious issue confronting man's ability to direct and adjust to the changing world. No modern concept of psychology can ignore our relationship to the changing cultural forces and our loss with the identity of the past.

Individuals appear reluctant to embrace philosophies of permanence or security as traditional values disappear in an age of mass technology: 1

Learning...assumed a classic, static universe, a universe once created and set running like a clock wound up. This appears in Newton's cosmology. We can see that the stately universe of Newton rested on an assumption we can no longer accept. That was that time was the same, or contemporaneous, throughout the whole of the universe. The theory of relativity in this century made that assumption impossible. Time, what ever it may be, is instant and local only to the individual, and relative to all other locales of the universe and to all other kinds of time. We live in a universe running relative to time, to place, and to the customs of men. Whether we grasp this intellectually or not, that perception at least as revolutionary in its way than the New Learning was, pervades all our thinking and our lives



and therefore our learning and teaching. Knowledge is no longer a received corpus to be mastered; it is information grasped by a particular individual at a definite point in time and space, a point in constant motion with respect to the whole universe, past, present and future (Kerekes, 1975, p.67).

Mass industrialism and modernization has shifted our view of humanity from a parochial standpoint to a "Spaceship Earth" or a "Global Village" in which the media is not only able to give mankind a global perspective; it can construct meaning and reality in such a way causing deleterious effects in human perception, attitude, values and self-image. Change comes rapidly and without warning:

Electric circuitry has overthrown the regime of "time" and "space" and pours upon us instantly and continuously the concerns of all other men. It has reconstituted dialogue on a global scale. Its message is Total Change, ending psychic, social, economic, and political parochialism. The old civic, state, and national groupings have become unworkable. Nothing can be further from the spirit of the new technology than "a place for everything and everything in its place". You can't go home again. (McLuhan, 1967, p. 16).

We are living in a society which alienates us from our emotions by over-emphasizing them. The "data managers" and "data deliverers" of our culture in the executive world of advertising are telling us what is real, what is essential; they rob us of our sanity by setting themselves up as a mental wall between us and reality. They are creating a packaged version of the world, and it is a sterile and colourless kind of psychosis given to the "media studs" who wrap up our values and morality in a brand name gauze. Our culture tends to alienate individuals within it, not by downgrading the intellect but by deifying the product of its own publicity.

Our culture is alienating our emotions and intellects, the affective and cognitive aspects of our psychological processes. Trivia neuroses, the drama of uncovering your "own thing" or getting rid of "hang ups" occupy us more than the cultivation, for instance, of feelings towards other persons. In our present era's "technological shuffle" we have collectively defined our rational nature as to what can be measured or made visible. Although we can pass information from our senses directly into the convoluted, electrically connected, intellectually neuter pinches of our brains, we tend to lose touch with the "deeper side" of our nature.

Western culture tends to view reality in terms of its symbol-making. In ancient times the Church produced the major symbols in support of the myths that they wished to perpetuate.

Today, private governments and industry produce our symbols of reality on a mass production scale never before imaginable. The media of television, for instance, provides a far-reaching way in which society can perpetuate its own mythical harlequinade by means of the manufacturing of a symbolic cosmology that claims its own values, morality, ritualistic imagery representation, unifying philosophy of life, and predictable, synthetic, easy-to-follow formats. Accordingly, entertainment or "show business mentality", which runs rampant throughout most forms of modern electronic culture, manifests itself in the cultivation of a "conventional" morality as opposed to a "principled" morality in the Kohlbergian sense.

Research has empirically revealed that the rate of movement through the developmental stages of Piaget and/or Kohlberg

and the final stage of equilibration of a person or group are influenced by factors such as schooling, diversity of environmental stimuli and the modal cognitive-developmental level of their society or sub-society (Fowler, 1976).

### The Moral Technology of the School

Social forces resulting from technological changes in the environment are interrelated, often invisible to the individual, and constantly changing. The social environment, which has a profound psychological impact on each individual, must be critically examined and understood by teachers who wish to formulate relevant curricula in helping student's adapt to the changing moral views of modern society and increasing potential for mature moral thinking within a developmental and creative context.

As educators, we must examine the school as a "total institution", and, in so doing, agree or acknowledge that in many respects it resembles a prison wherein there exists involuntary clientele (students) and the staff who have real freedom of movement. Students often find that the criteria by which they are judged is arbitrary, artificial and often mysterious. Sometimes it is also equally mysterious to the teacher who receives criteria from the head of the department, principal, or superintendent. Students learn that in many cases the "game" is to discover what the teacher is looking for; real knowledge cannot exist outside the teacher's (often restricted) frame of reference or reality constructs. Accordingly, it is not surprising that many students fail to take a more dynamic

and responsible attitude towards their learning. The school can easily become a "paper jungle" in which the students resolve to get through no matter what the cost or moral scruples involved. Therefore, intrinsic notions of morality are often suspended in this process. Research over the last few decades has presented an abundance of evidence supporting the basic generalization that schools, for the most part, stultify the creative process within students, generate an acceptance of values relativity, abuse their authoritarian powers and subordinate the interests of the students to their own: 3

Getting through school also involves learning how to suppress one's feelings and emotions and to subordinate one's own interests and desires to those of the teachers. Up to a point, this, too, is useful--- a necessary aspect of learning to live in society. But schools tend to turn what could be a virtue into a fault by in effect excluding the child's interests altogether. The result...is to create a cultural schizophrenia in which the student is forced to choose between his own relation to reality and the one demanded by the institution (Silberman, 1975, p. 151-2).

John Dewey observed that children acquire great dexterity in exhibiting in conventional and expected ways the "form" of attention to school work while they reserve the "inner play" of their own thoughts, images, fantasies and emotions for subjects that are more important to them but quite irrelevant (1966).

Hartshorne and May's "Character Inquiry" (1928, 1930) implied that the "character" formation approach to moral education was simply ineffectual, that traits or virtues such as honesty were highly situation-specific in children, and not significantly amenable to institutional training. Hartshorne and May discovered that children's tendency to

cheat depended on the risk of detection and the effort required rather than on intrinsic notions of morality; non-cheaters were merely more cautious than the cheaters, but not more honest: <sup>4</sup>

These findings, which have been confirmed by a number of subsequent studies, reflect the primitive morality which the culture of the school activity cultivates. "While most elementary school children are aware of, and concerned about, the harm done others by acts of aggression or theft," Professor Lawrence Kohlberg of Harvard, the leading contemporary student of moral education, writes, "their only reason for not cheating is their fear of being caught and punished. Even at older ages, teachers give children few moral or mature reasons to think cheating is bad. Sixth grade children tell us their teachers tell them not to cheat because they will get punished"--the most primitive level of moral judgement--or because "the person you copied from might have it wrong and so it won't do you any good," a level of judgement only one step up on Kohlberg's hierarchy. Teachers are always and unavoidably moralizing to children about rules, values and behaviour, but rarely think about the values they are communicating. "Many teachers would be most mortified and surprised to know what their students perceive to be their moral values and concerns," Kohlberg observes. (Silberman, 1970, p. 151).

The behaviour technology of the schools themselves, are becoming more socially relativistic in adopting the value-neutral consulting model of Skinner (1971) which equates value neutrality with acceptance of value relativity (Kohlberg, 1971). Likewise, educational policies founded on cultural transmission ideologies ignore most moral principles by so often adopting the doctrines of social relativism. The assumption of an individual relativity of values underlies much of our educational foundation whether expressed in the behaviouristic terms of Skinner (1971) or the modern romantic libertarian and non-indoctrinative terminology of free-school advocates. Answers to these problems have been exposed by Kohlberg's theoretical research

(1958, 1963, 1966, 1973).

Philosophy of the times, in dealing with creative ways to adapt to the changing societal norms or in understanding the process of moral or ethical values or judgements, can no longer, as in the past, project the universality of reason and the humanity of men in an abstract way; the philosophy of our day must become more "concrete to deal with such matters.

A "post-critical" perspective proceeding on the assumption that our culture is in the thrall of a profound value crisis has recently been formulated by Sullivan (1977), who views such a crisis as the product of the development of advanced Western capitalism in which there exists a "hidden curriculum" whose values are more or less appropriated through an unquestioningly internalized form of socialization procedure. Unconsciously assimilated values must, therefore, be made subject to critical examination. This also calls for a serious questioning of the validity and consequences of the dominant assumptions about work, technology consumption, success and progress which are routinely transmitted in schools and classrooms. This, as Sullivan has made clear, cannot always be done within the liberal ideology of Kohlberg's research, but certainly Kohlberg's work can be used as an interpretive framework (Sullivan 1977).

Explicit consideration of questions involving moral judgements have been largely ignored in the educational process. However, both in response to the awakening to the ills of education and the need for a growing concern in the affective domain, theoretical research is beginning to address itself to the question of values education. Implicit value education (choice of reading assignments; class activities, evaluative techniques)

has always pervaded school curricula, and, to a great extent, is unavoidable. What we are seeing now, however, is conscious and specific. Education is beginning to come to terms with the multitude of conflicting value-claims and urgings which have left most of us in an uncertain state of confusion about what values, if any, to endorse. Educational research, by way of Kohlberg, is adopting the view that the classroom cannot afford to be value-neutral. The view of some educators that schools should only provide student's with opportunities to state their viewpoints on moral or social problems is currently under heavy criticism. For Kohlberg and his followers, the need to struggle with individual and social values and examine the social and moral problems of their culture in a systematic and open format is of paramount importance.

#### Towards a theoretical perspective

Amid the welter of speculation, elaboration and conjecture, research over the years has led to a developmental model of morality, which has become, as it were, the "inviolable genes" of moral education. Kohlberg's cognitive developmental model of moral development is aligned very much with Piaget's structuralism and offers the modern world a concept of justice which deals with the current dilemma of value relativity. While the concept of developmental theory is basic to this study, emphasis on the examination of the social basis of any psychological theory should not be ignored in conformation of the notion "that within a social context, psychological theories are tied to the infrastructure of a society or socially defined groups" (Morss, 1975; Buss, 1975).

Since the analysis of various psychological theories as they relate to the concepts of morality and creativity is the organizing focus for this present study, some consideration, if only peripheral, of the social premises which underlie much of this theoretical research, appears valid and useful.

### Cognitive styles

Emphasis on the "cognitive" or "rational" approach has always dominated educational research strategies in exploring the notion of learning. When research deals with the "affective" or "emotional" side of learning, it is usually within a framework consistent with the cognitive approach. Therefore, the growing numbers of people who are supporting values education as a "virtue" are doing so under the pretext of making moral education a new context, or a new indoctrination format by which current conceptual values can be transmitted to young people. Educators must be careful not to turn values into mere "facts" transmitted to students under new terminology such as "dilemma situations" or "clarification procedures". This turns moral education into a value-as-content prejudice.

Research models that try to put feelings, values and emotions into a conceptual matrix consistent with the study of the cognitive domain filter relevant information as many evaluation techniques in our classrooms filter reality. Can we really measure values and feelings? In other words, we must be cautious in avoiding the filtering of affective constructs through an analytical lattice or ideational labyrinth. Only then can we approach a truly humanistic view of man proposed by Kohlberg, Maslow, Fowler or Erikson. If we must pursue the affective domain (many researchers are considering this worthwhile), we should do so from differing perspectives to include a more



"comprehensive" view of man.

Towards a developmental approach to creativity

John Curtis Gowan (1972) has organized the theoretical contributions on creativity into four sections in terms of a rational-psychedelic continuum:

- (1) Creativity as cognitive, rational and semantic.
- (2) Creativity as personality factors and environmental.
- (3) Creativity as mental health.
- (4) Creativity as psychedelic or existential.

Creativity considered as a result of particular types of logical thought, growing out of combinational activity or new organizational patterns have been studied by Dewey (1910), Rossman (1931), Edwards (1968), Bruner (1962) and Guilford (1967). Guilford's structure of the intellect model explicated in his classic The Nature of Human Intelligence (1967) emphasizes creativity as a product of "divergent thinking".

Creativity as a personality correlate, especially of originality, energy, humour and self-concept is emphasized in the research of Hallman (1963), Springer (Mooney and Razik, 1967), Dellas and Gaier (1970).

Creativity as the result of environmental influence (especially parental rearing practice) is discussed at great length by Welsh (1967), and Hitchman (1956). Abdel-Salan (1963) found male adolescents creative, self-sufficient, alternately lax and exacting and a trusting, adaptable, surgent, easygoing cyclotheme. Ellinger (1964) obtained a correlation of .6 between creativity and home environment. Parents of creative children were found to be more involved in activities, read more to their children, and used less physical punishment.

Cross-cultural research supporting strong relationships between cultural, environmental and creative index has been conducted by Torrance (1969), Gowan and Torrance (1965), Torrance, Gowan, Wu and Aliotti (1970).

Researchers who contend that creative functioning is positively correlated with a high degree of mental health, openness to experience, and anti-authoritarian influences and tendencies in the individual's style of living tend to view creativity as a product of mental health. Maslow (1954), Rogers (1959), Jung (1967), Schachtel (1959), Hallman (1963), Fromm (1959), Hart (1950), Wilson (1954) and Zilboorg (1959) generally agree on four dominant characteristics of the creative individual:

- (a) problem sensitivity
- (b) ability to tolerate ambiguity
- (c) internalized locus of evaluation (destiny and self-image)
- (d) spontaneity

Creativity as a "thrust" from the unconscious and linked to sexual sublimation has been referred to by Freud (1938), Brill (1931), Deri (1939), Engleman (1952), Van Der Sterren (1952), Weiss (1953) and Schneider (1950).

Adler (1952), Jung (1916) and Rank (1932) all rejected Freud's sexual explanations and viewed creativity as a "life force", "compensation", or "collective unconscious".

Besdine (1968, 1970), Gowan (1965), Kubie (1958), Rutenbeck (1965), Winnicot (1965) Sears (1969), Singer (1961), and Weisberg and Springer (1961) place a great deal of emphasis on the oedipal crisis during the narcissistic period of the child as the genesis of creative function.

Fairburn (1938), Levey (1940), Schneider (1950), Segal

(1952), Simon and Gagnon (1969) and Spock (1970) feel that creativity is necessarily linked to sublimation of aggressive, phallic or incestuous desires (primary processes).

Those who view the "preconscious" as the "source" of creative functioning can be included among Kubie (1958), Happich (1932), Kris (1952), Getzels and Jackson (1962), Schneider (1950) and Gowan (1969).

Tart (1969), Masters and Houston (1966), Moriarity and Murphy (1967) and Pang and Fort (1967) regard creativity as explainable mainly in paranormal terms such as existential, hypnotic, mystical, change, becoming, ESP phenomena, and pre-cognition. Many of these researchers feel creativity can be enhanced by drugs or psychotropic chemicals such as lysergic acid.

Results supporting the notion that creativity is more often found in younger individuals and can be explained as a series of chronological stages have been reported by Wallas (1926), Ghiselin (1952), Vinache (1952), Hutchison (1949), Botwinick (1967) and Bjorkstein (1946).

#### The Psychometric emphasis

Scientific study of creativity began with Galton's (1896) study of mental capacities which were identified as hereditary and followed the other laws of "organic transmission" which may be ascertained by careful observation, and strongly influenced by family upbringing. Terman and Cox (1947) also emphasized the genetic basis of talents but stressed the role of environment and schooling as well as the role of superior personality factors rather than emotional abnormality. Also, "genius" was solidly linked to a high I.Q. Accounts by artists and scientists concerning their unconscious inspiration becoming refined and crafted led Wallas (1926) to formulate stages in which the thought

processes of the thinker are brought to bear on the conscious and voluntary effort of his art.

In 1954 Guilford published some hypothesis for research in which he used "factor analysis" to isolate specific aspects of the intellect which might account for creativity. Guilford (1959) defined the intellect as the collection of memory and thinking functions and processes. Intelligence is perceived as a very limited aspect of the intellect. According to Guilford's (1959) formulation, both aptitude and non-aptitude traits (temperament and motivation) are involved in creative thinking. Guilford sees creativity as essentially a cognitive process involving the adaptive traits of fluency, of words, ideational fluency, expressional fluency and originality. Research begun by Guilford led to further speculation by Getzels and Jackson. (1962) that creativity is most strongly, if not solely linked to I.Q. It was discovered by Getzels and Jackson (1962), however, that intelligence alone did not insure creativity. High level acts of creativity are performed by highly intelligent people, but nearly all people are capable of "some" creative acts. The research findings which support the notion that intellectual factors do not, in and of themselves, account for differences in creative ability correlate with Kohlberg's (1968) remark concerning moral thinking in which he maintains that intelligence may be taken as a necessary, but not sufficient cause of moral advance. Concerning both moral advance and creativity, it appears that the intellectual factors seem to be a somewhat necessary, but not sufficient ingredient.

Torrance (1959) found that I.Q. tests do not identify creative people. In fact, if the I.Q. test is used as the sole

criterion for selecting creative children, we lose 70% of the most creative. Just as Kohlberg (1973) emphasizes ego strength and role-taking abilities as necessary constructs in the process of moral judgement, so Torrance (1959) recognizes additional factors in the creative process such as flexibility, originality, depth of thinking and intuition, which cannot be accounted for by I.Q. alone. It appears that the essence of creative performance lay in the individual's ability to produce new forms, to risk conjoining elements that are customarily thought of as independent or dissimilar, or to go off in new directions. The creative adolescent, according to Getzels and Jackson (1963), seems to promote the ability to free himself from the usual, to diverge from the customary. The high I.Q. subjects seemed to shy away from the risk and the uncertainty of the unknown and to seek out the safety of the known: 5

The high I.Q. subjects tend to converge upon stereotyped meanings, to perceive personal success by conventional standards, to move toward the model provided by teachers, to seek out careers that conform to what is expected of them. The high creatives tend to diverge from stereotyped meanings, to produce original fantasies, to perceive personal success by unconventional standards, to seek out careers that do not conform to what is expected of them (Getzels and Jackson, 1963, p.172).

Guilford (1957) defines two kinds of thinking, convergent and divergent, and maintains that originality comes about through divergent thinking processes. He feels, therefore, that the I.Q. test is ineffective: 6

In tests of convergent thinking there is almost always one conclusion or answer that is regarded as unique, and thinking is to channelled or controlled in the direction of that answer...In divergent thinking, on the other hand, there is much searching about going off in various directions. This is most easily seen when there is no unique conclusion. Divergent thinking....(is)...characterized...as being less goal bound. There is freedom to go off in different directions... rejecting the old solution and striking out in some

new direction is necessary, and the resourceful organism will probably succeed (Guilford, 1957, p.19).

Depending on how you define creativity, different manifestations of it have been linked from early childhood years to adulthood. Tachistosopically presented tests were made by Andrews (1930) in order to observe the imaginative play of children from two to six. Grippen (1933) used constant contact methods with data and verbalizations while painting. Markey (1935) reported that no single test taps all the imaginative resources of the individual and that the same test of imagination is not equally valid at all age levels. She reports that the correlations between mental age and test scores were slightly higher than correlations between chronological age and test scores.

#### A psychodynamic emphasis

A prime spokesman for the relationship of creative functioning to psychoanalytic psychology is Carl Jung (1964). Jung felt that he had observed the existence of certain "archetypes" or universals that stemmed from the "creative forces" of a collective unconscious shared and tapped by all of mankind. In addition, Jung divided personality into persona, social mask, and ego; the conscious and unconscious parts of the personality responsible for personal behaviour.

Jung maintained that creativity is linked to imagination and intuition; the popular notion is that they are chiefly valuable to poets and artists and in "sensible" matters one should mistrust them. In Jung's viewpoint, creativity supplements the rational mind or intellect and, even in the higher forms of science, may be applied to a specific problem. Suppressing, for instance, our creative interpretation of important symbols and events, could lead to violent outbursts. Creativity is

linked to the symbol-producing function of the unconscious. This function brings the original mind of man into advanced or differentiated consciousness. Jung sees modern man as a cerebral monster with hypertrophied rational faculties. (The surrealists of the 1940's strongly reacted against the suppression of creativity by the logical faculties). Suppressing our symbol-producing potential has disastrous effects; man loses psychic energy and is unable to express himself by the symbolic process in his consciousness. Rationalism can destroy man's capacity to respond to numerous symbols and ideas and puts him at the mercy of the "psychic underworld". Jung (1964) upheld the notion that creativity cannot rationally be explained, but within their areas of action one can recognize the archetypal patterns as a dynamic background activity. Jung maintains that certain exceptional creative breakthroughs of artists, writers or scientists must take into account an area of interrelation between the unconscious psyche and biological processes. The mind's unconscious archetypes appear as agents of a "creatio continua".

Karl Gauss, the 18th century German mathematician experienced much of his creative insight as an unconscious order of ideas and that he found a certain rule in the theory of numbers which simply solved itself.

Henri Poincare, the French scientist, maintained that if one could perceive one's own unconscious at work it would be possible to visualize the unconscious activity partially becoming manifest to consciousness without losing its own character. This idea corroborates the Jungian notion that our conscious representations are ordered before they become conscious to us.

Accordingly, a satisfactory rational explanation of an event could be due to the fact that our conscious representations are ordered before they become conscious to us. As Von Franz (1964) points out, a satisfactory rational explanation of an event could be explained as a conscious idea in harmony with some preconscious constellation of contents in our unconscious.

One method recently developed for creative "problem-solving" which trains the conscious to utilize information from the unconscious or preconscious, is termed synectics. Synectics, a management creativity technique used in industry was developed by J.J. Gordon (1961), and is based on making an observational investigation into the nature and process of creative activity. By way of problem-solving technique, Gordon shows that in creativity it is the emotional rather than the intellectual, and the irrational rather than the rational elements that bring success to problem-stating and problem-solving situations. Among the working hypotheses developed by Gordon (1961) are the following:

- (1) creativity is latent in almost everyone to a greater degree than is usually expected.
- (2) when it comes to creativity and invention, the emotional and non-rational elements can be as important as the rational and intellectual.
- (3) the emotional, non-rational elements can be methodically harnessed through training and practise---especially in metaphorical thinking.

Although there are romantic and popular prejudices against the "mechanization of human creativity", synectics has identified four of these mechanisms each metaphorical in character: personal analogy, direct analogy, symbolic analogy and fantasy analogy.

An approach to creativity which differs from Gordon's (1961) conception and which rejects the Jungian concept of the collective unconscious as having a too ready-made solution, has been put



forward by Ernst Kris (1952). He has systematically examined the conditions under which ego-dystonic preconscious material may reach consciousness by assuming that the ego directs a "counter cathexis" against the id and is eventually drawn into the primary process (the basic assumption of psycho-analytic theory of dream formation). The reverse process of unconscious material becoming pre-conscious occurs when id derivations are cathected with ego energy and become part of pre-conscious mental processes. Here the "pre-conscious" differs from the "un-conscious" in that unconscious processes use mobile psychic energy; pre-conscious processes use bound energy. This theory can, accordingly, only be explained by assumptions concerning the nature of the prevalent psychic energy.

Lawrence Kubie's (1958) widely accepted theory of the origin of creativity centers around the contention made by Kris (1952) that the ego enrolls the primary process in its service (regression in the service of the ego) and makes use of it for its purposes. Kubie's theory maintains that, as we mature, cultural pressures and the drive for acceptance push many of our experiences into our preconscious mind. The role of the preconscious, according to Kubie's formulation, can be to warp the creative process. Kubie purports that a creative person is an individual who, in some manner (perhaps accidental), has retained his capacity to use his preconscious functions more freely than others who may be potentially equally gifted. Kubie asserts that both the pre-conscious and unconscious processes act in such a way as to effectively block the creative process. He feels that the essential quality of the creative person exists in his ability to allow preconscious material to readily achieve a conscious expression.

Harold Rugg (1963) stressed the concept that life should be viewed as a continuum ranging from the unconscious to the conscious and that many of the modern social forces or cultural drives may force many of our experiences into the unconscious. Modern society, equipped with many extremely rigid attitudes and taboos often keep us from dipping into the unconscious experiences. Accordingly, the creative process becomes blocked at both rigid ends of the continuum. However, Rugg proposes that between the conscious and the unconscious there exists a threshold over which creative people may pass bringing them to a "transliminal" chamber. Here, the creative mind is able to draw freely from both the conscious and the unconscious. People, therefore, who are able to put themselves in touch with their transliminal chambers are creative people. Whereas Kubie (1958) ascribes creative ability only to the preconscious, Rugg (1963) holds that there is some creative, imaginative capacity in all sections of the psyche's continuum.

Approaching the concept of creativity from a more developmental perspective, Jerome Bruner (1965) does not feel that the unconscious is capable of organizing, in an autonomous fashion, its symbol-creating power. Even if this were true, however, Bruner insists that it is highly unlikely that, on its own, the unconscious could be much of a creative source of thinking. For creative thoughts to arise, Bruner feels that the metaphoric process must be under some form of conscious control. Conditions required for creative problem-solving would, therefore, stand as follows:

- (1) a "defusing" of intellectual activity from the demands of immediate action, affect, and drive.
- (2) having an adequate competence model available

- (3) having the experience of intrinsic reward from increased competence that can lead to a career of "learning for its own sake."

Although Bruner's (1965) formulations have much in common with Piaget (1932), he does follow closely the ideas of Kubie (1958) and Kris (1952) when stressing the importance of awareness and developing a sense of play in directing unconscious activities towards creative usage.

Towards the view of creativity as a process

It has been pointed out that most of the widely held conceptions or theories of creativity have derived from such diverse sources as logic or philosophy, learning theory, Gestalt principles of thought, psychometrics, psychoanalysis and social perception as summarized by Gowan (1972), Getzels (1975) and Maddit (1975).

Dewey's "logically determined" five steps towards creative problem-solving with the apparent focus on reasoning (a felt difficulty, its definition, suggestion towards solution, development by reasoning of the bearings of the suggestion and observation and experiment leading to its acceptance or rejection) has been taken as an emphasis towards the central role of logic and rationality in creative thinking.

Associationists and learning theorists like Thorndike (1927) place the emphasis of creativity on past experience and habit---associations rather than reason---feeling these are the essential factors in thought. All thought, no matter how original, rests ultimately on associative stimulus-response principles which involve the outcome of conflicting action tendencies from past associative learning and the selection of previous associations to try out the new situation.

According to Wertheimer (1945, 1959) and the Gestaltists, traditional logic and classical associationism are piecemeal in comparison to innovative thinking which eliminates the structural trouble in the problem situation and produces a solution which is not only structurally better, but yields vectors in the direction of constant improvement.

The psychometric tradition identifies creativity with intelligence or distinguishes intellectual behaviour between convergent and divergent mental processes. Divergent thinking pertains to new information that is less determined by known information comprising a substratum for creative performance by involving fluency, flexibility, originality and elaboration.

Psychoanalytic theory points to a cleavage in all human thought between two basic processes, an unconscious primary process and a conscious secondary process. Both processes conflict with one another giving rise to defense mechanisms and repression. The primary process involves freely rising fantasies, daydreams and play which is characteristic of the creative individual. These primary processes become, according to Freud (1949), ego-syntonic in order for "achievements of special perfection" or creative functioning.

Kris (1952) has studied the access of primary process thought by the ego by way of the preconscious. Also arguing that the source of creativity is in the preconscious, Kubie (1958) view the preconscious as a mediator between the conscious and the unconscious.

Schachel (1959) adds still a further dimension to the issue to the problem of creativity by suggesting a social and perceptual psychoanalytic approach. Creativity, then, is not viewed as a

primary process or regression in the service of the ego but, rather, as an openness in the encounter with the world. In other words, a person's sensibilities are more freely receptive to new reflections of one's self and environment in various different aspects.

A compromise theory involving a dual process appeared in Hadamard's The Psychology of Invention in the Mathematical Field (1956) in which creativity is presented as involving both cogitation (letting ideas, impulses, memories, and fantasies rise freely) and intelligence (the process of choosing among the combinations).

Getzels (1975) has observed that by focusing only on the sociological and psychological dimensions of creativity, we have omitted other factors contributing to the behaviour of the creative individual: the biological dimension, the cultural or anthropological dimension and the group or social-psychological dimension. Accordingly, Getzels (1975) has begun to research creative behaviour under the criterion of organismic constitution, individual personality, social institutions, group settings and cultural values.

Although research on creativity has led to a tremendous scope of approaches, and an enormous diversity of treatment, certain basic features emerge. First of all, there is a questioning of the separated meanings of cognition and learning on the one hand and the priority which these have been given over emotion, personality, and motivation on the other

Hilgard (1972) found that personality variables were important to the study of creativity, even in the solution of simple laboratory type problems that seemed almost purely cognitive.

Guilford (1967) began his research in creativity with studies of "higher thought processes" as related to originality and creativity. Now he is suggesting (1975) that the same operations and products apply in the area of social intelligence or empathy.

Rollo May (1972) emphasizes the emotional involvement in creativity, and Stoddard (1972) deplores the lack of opportunity for affect or personal involvement in the child's school experiences in relation to creative production.

Creativity as process-- A dialectic between self and world and between world and self.

The search for that "someone" or "something" that creates has been the dualistic quest of Western scientific research on creativity. Perhaps it is the result of our English language subject-object structure of our thinking. Rather than venture into a linguistic approach to the topic, it seems worthwhile to acknowledge the views of Anderson (1972) and May (1972) in their perception of creativity as "process", a continual dialectical process that goes on between world and self, and self and world; one implies the other, and neither can be defined by omitting the other. Dow (1962) has explored the interrelatedness of individual rightness and social rightness which together constitute a way of living creatively. Murray's (1948) dyadic examples of creative components illustrate creativeness where human relating is superordinate.

Anderson (1954) has summed up the current attention towards the perception of creativity as "process" as opposed to simply "product":  
7

In the past creativity as product has been given greater attention or emphasis than creativity as process. The process is often obscure, unknown, unperceived, unverballed, even by the person

himself, and therefore uncommunicated to others. In fact, neither history nor science has developed a method or means for recording or evaluating process, except by the comparison of cross-sections in time. The struggle involved in learning or in conceiving and producing an object of creativity is inferred and not directly measured. Even the motion picture is an illusion of process and motion. The product and process are both important. Without the process there would not be the product. Without the product or evidence of action or achievement there might not be more than fantasy (Anderson, 1954, p. 243).

A comprehensive definition of creativity which stresses the interactive process has been given by Hallman: 8

...the creative act can be analyzed into five major components (1) it is a whole act, a unitary instance of behaviour; (2) it terminates in the production of objects or of forms of living which are distinctive; (3) it evolves out of certain mental process; (4) it co-varies with specific personality transformation, and (5) it occurs within a particular kind of environment. A demonstration of the necessary features of each of these factors can employ both descriptive and logical procedures; it can refer to the relevance of empirical evidence, and can infer what grounds are logically necessary in order to explain certain facts (Hallman, 1963, pp. 18-19).

#### A review of the relevant research on moral reasoning

Traditional conceptions of moral learning have been seriously challenged over the past decade as psychologists and learning theorists have approached child development from entirely different epistemological premises and methodology than, for instance, those outlined by Durkheim (1925). Modern moral philosophers such as Kohlberg (1958, 1963, 1966, 1973) no longer assume morality is a system of rules and values defined by a culture and that the individual child acquires these ready-made values by general cultural-transmission mechanisms such as reinforcement learning or identification. The assumptions of "character education" were exposed by Hartshorne and May's (1928, 1930) inquiries and proved ineffectual. Viewing moral categories as traits or virtues has been referred to by Kohlberg

(1966) as a "bag of virtues" approach. This definite shift in perspective from viewing moral instruction as character education, or a transmission to the child of traditional and socially approved traits, has given way in recent years to a consideration of a fostering of the child's own innate tendency to develop socially and intellectually through experience as proclaimed by Piaget (1932) and his followers (Kohlberg, 1966; Turiel, 1966, 1969) in America and similar research in Britain (Wilson, Williams and Sugarman, 1967). Conceiving moral maturity within a cognitive-developmental framework stood in direct opposition to the prevailing view of the social scientists who regarded all moral values as culturally relative due to the influence of the mass media which proclaims that our moral habits, customs and ideologies are only representative of a small number available.

Although there is growing interest today in "social cognition" (Livesley and Bromely, 1973; Michel, 1974), child psychology, until very recently, was dominated by the social learning approach (Sears, Macoby and Levin, 1957; Bandura, 1963) which views social development as an "internalizing" of information and social norms that he has observed or experienced in his environment. Learning theorists, because of their preference for observable behaviour as data for psychological experiment, are well known for their unsympathetic opposition to psychoanalytic theory with its purely theoretical constructs such as "super-ego" and its tendency to theorize at length about invisible, unverifiable forces thought to underly human behaviour. Eysenck (1960), an arch-adversary of psychoanalysis, applies Pavlov's theory of reflex or classical conditioning to the development of moral values. Eysenck, in contrast to Freud, finds it totally



unnecessary to presuppose the existence of certain mental structures or Oedipus complex and assumes that moral values are learnt and explainable by known facts and principles of modern learning theory.

During the past ten years, developmental psychologists have discarded the notion of the child as a "passive receiver" and reject the assertion that a child can directly absorb information from his social environment. They have replaced the social learning model of the child with a cognitive-developmental model in which the child actively constructs his social knowledge out of an interaction between his own unique experience in the world and his own conceptual abilities and limitations (Piaget, 1932; Kohlberg, 1963; Turiel, 1974).

Although schools are presently considering and implementing moral models into their curriculums which are based on the research of Kohlberg and his followers, there still persists among many school authorities, a high level of vacuous inanity and vagrant speculation manifested in the notion that moral reasoning programming should be ignored in the planning of school programs. Such curriculum designers seem almost overwhelmed by the rising tide of theoretical research propagating ~~fissiparous~~ sects through which individuals label themselves "Eriksonians", "Piagetians" or "Kohlbergians".

As far as psychoanalytic and social learning theorists are concerned, decisions about right and wrong are not based on reasoned judgements. Neither Freud nor Eysenck, for instance, would attach much importance to cognitive rational factors in morality or even moral judgement, and they would probably view pilot programs in schools based on Kohlberg's theoretical formulations as ineffectual. Learning theorists emphasize affective,

non-rational determinants of human behaviour. They view morality as practically synonymous with "conformity" to the standards and norms imposed on the child; moral judgement therefore merely expresses, to the learning theorist, the extent to which society (largely through the agency of parents) has succeeded in restraining and controlling the innately anti-social child.

Much of the inevitable dim view of character education and the consequent erosion of the partisan, authoritarian and indoctrinating assumptions upon which the "bag of virtues" approach was based was due to the attention of researchers to the seminal works of Piaget (1932) and Dewey (1938). These men created the emphasis on the cognitive-developmental approach towards understanding moral actions.

Although some researchers such as Sullivan (1977) are reconsidering the attributes of vices and virtues, claiming they act as two poles of a complex dialectic of moral emotions rather than static labels of praise or blame, it was in The Moral Judgement of the Child (1932) that Piaget provided the foundations for much of the current psychological research in cognitive-developmental approaches to moral development. Piaget's research challenged the psychoanalytic and behaviourist conceptions of the role of moral judgement, and the philosophical premises on which it is based. First, Piaget reaffirms human consciousness as a valid factor in human growth- the cognitive component. Since the psychoanalytic studies of the "superego", the Pavlovian emphasis on automatic anxiety responses and the claim of Neo-behaviourists like Skinner (1971) that "reinforcement" may account for moral development, it is easy to forget that "conscience" is defined as fundamentally a cognitive function, such as the "faculty of recognizing the dis-

inction between right and wrong." In fact, in Piaget's view, the child is only truly moral to the extent to which he has gone beyond conventional morality imposed on him by others (morality of constraint) to develop, through a co-operative interaction with society, a rational morality of his own (the morality of co-operation). Piaget discovered that a basic shift in the quality of the child's moral judgement takes place when he progresses from preoperational thought (age 7) and again (age 12) when concrete operational thought gives way to formal or abstract thought processes; the morality of the preoperational child is identified as moral realism and that of the adolescent as moral autonomy. During the later stage, the adolescent develops a sense of ethical and moral responsibility which, now that abstract thought is possible, is based on abstract principles of what is right and wrong: 9

This is true of the concept of social justice and of rational, aesthetic, or social ideals. As a result of the acquisition of such values, decisions, whether in opposition to or in agreement with the adult, have an altogether different significance than they do in the small social groups of younger children ...The possibilities opened up by these new values are obvious in the adolescent, who differs from the child in that he is not only capable of forming theories but is also concerned with choosing a career that will permit him to satisfy his need for social reform and for new ideas" (Piaget and Inhelder, 1969, p. 51).

Although Piaget's early work dealt mainly with the development of moral judgements in children, his "clinical method" offered a widely used standard for assessing moral reasoning (eg. Boehm, 1962; Turiel, 1966; Haan, Smith and Block, 1968; Kohlberg, 1969; Rest, 1973).

Piaget asserted that an individual's adult-perspective of justice was largely independent of adult influences and re-

quired nothing more than the mutual respect and solidarity which held among children themselves. Accordingly, when parental bonds loosened, and strong peer bonds developed, only at this time did the adult morality of mutual respect begin to develop.

Although the primary focus of inquiry, for Piaget, has centred on the individual's construction and reasoning about physical reality (the experienceable domain of objects, space, time, causal relationships) he has made some ground-breaking investigations concerning the child's use of language and symbol in play and imitation, the child's way of perceiving the origins of the visible surrounding reality, and the development of the ability to use reasoned judgement in the sphere of morality.

Early research on Piaget's theories of the development of moral judgement by MacRae (1950, 1954) sought to test his contention that "autonomy" and "heteronomy" actually constitute structural wholes and that empirical correlations exist between these two moralities and other variables such as social relations and authority.

Both Piaget and Kohlberg have stressed that cognitive structures tend to dominate over the "affective" dynamics and that only the cognitive structures can serve in describing the sequence of developmental transformations which they call stages. (Cartesian rationalism and Kantian formalism stand behind this approach). This approach ignores the research that psychoanalytic and learning theory perspectives direct toward the early childhood antecedents of "identification" which Freud believed constituted the dynamic factor in "super-ego" formation. (Freud, 1921, 1923, 1930). Both cognitive-developmental research and psychoanalytic and learning theory ( which isolates and assesses the child rearing practices of parents and variables such as

sex-role, conscience and superego strength) are essentially uni-dimensional. What is needed is a comprehensive view of moral development which considers both psychodynamic and developmental formulations. Piaget, however, never claimed to be a psychologist, but an epistemologist. While Piaget acknowledged the importance of emotional development, his concern was that of the genetic epistemologist.

#### Kohlberg's moral model.

Whereas Piaget's primary field of study is the development of successive transformations of mental structures in a logically necessary sequence (logico-mathematical and physical knowledge), Selman's (1976) research emphasizes the descriptive judgements in relation to social behaviour and institutions and Broughton (1976) stresses the study of social-cognitive epistemology, the thrust of the research of Lawrence Kohlberg (1958, 1963, 1966, 1973,) has been mainly that of a structural-developmental theorist. There is little doubt that, in North America, at least, research in moral judgement over the past twenty years has been dominated by Kohlberg's work. Kohlberg, inspired by Piaget, has revived and legitimized the empirical study of moral development by developing a major model of the "growth" of moral reasoning which has become a paradigm and the inviolate genes of the structural-cognitive approach through a systematic longitudinal, cross-cultural, social class, educational, political and religious field of reference (Kohlberg, 1963, 1969, 1966, 1973; Turiel, 1966, 1969; Kohlberg and Kramer, 1969; Blatt, 1972; Fontana and Noel, 1973; Sanderson, 1973; Kohlberg and Turiel, 1973, 1974; Rest, 1974; White, 1975).

While Kohlberg owes much to Piaget, the philosophical antecedents of his theory (he acknowledges with some pride) is

Plato. For Kohlberg challenges the social scientist's view that moral judgements are relative to a particular culture, and reasserts the absolutist principles of Socratic ethics long ignored by social scientists, and scorned, even today, by writers such as Eysenck. The fundamental difference between Kohlberg's approach to conscience and the maturationist and learning theory assumptions, is not so much psychological as it is philosophical. Kohlberg asserts (1968) that all theories of moral growth inevitably reflect definite ethical or epistemological premises about the meaning of morality and moral growth. Philosophical commitment (Deweyism in this case) is important to Kohlberg and his approach is closer to Piaget's descriptive system of the child's intellectual growth than it is to Piaget's conception of moral judgement. For Kohlberg, a structural-developmentalalist like Piaget, has developed a theory of moral development which reveals a sequence of stages in the way persons construct social or interpersonal reality. This is decidedly different from the premises of "inculcation of a bag of virtues" expounded in such stereotypical terms as "honesty", "service", and "self-control", adjectives prescribed by a culture with numerous affiliates in the educational system. Kohlberg's theory posed a problem for the associationist tradition, under the guise of learning theory, which assumed children acquired knowledge in small doses but as to the relationship between regularities experienced beyond these associations, no relation was hypothesized. Berkowitz (1964), for instance, assumed moral values are learned one by one in the order in which they are introduced by the environment to the child. Kohlberg's stages, on the other hand, provide a modern equivalent of older types of "natural law" theories of ethics which seriously jeopardize maturationist and association-

ist tradition: 10

We have contrasted the maturationist assumption that basic mental structures results from an innate patterning, with the learning theory assumption that basic mental structure is the result of the patterning or association of events in the outside world. In contrast, the cognitive-developmental assumption is that basic mental structure is the result of an interaction between certain organismic structuring tendencies and the structure of the outside world, rather than reflecting either one directly.

This interaction leads to cognitive "stages" which represent the transformations of simple early cognitive structures as these are applied to (or assimilate) the external world, and as they are accommodated to, or restructured by the external world in the course of being applied to it (Kohlberg, 1969, p.352).

Whereas Piaget's system of moral reasoning is based on two moral stages with an individual attaining moral maturity when he is capable of autonomous thinking, Kohlberg distinguishes three basic levels of moral development: the pre-conventional or pre-moral level, the conventional level and the post-conventional or autonomous level. These three levels comprise the existence of six "hierarchical integrations" or stages which Kohlberg has found to be present in the moral thinking of all the cultures he has studied (Taiwan, Mexico, Turkey, U.S. and Israel) and furthermore all these stages occur in the same developmental sequence. For, like Piaget, Kohlberg claims that the stages of moral reasoning, in their formal or structural characteristics, are sequential, hierarchical, invariant and universal. Kohlberg's subdivision of his three basic levels into two stages, creating a more differentiated and elaborate theory of six stages of moral development, has, according to Hampden, Turner and Whitten (1971) created a typology of moral orientation that has been applied to conservative, liberal and radical political orientations. Moral stages are seen as a hierarchy of cognitive structures each of which constitutes

both a transformation of the previous structure and a necessary prerequisite for the structural change which defines the next stage in the sequence. The progression of stages involves qualitative transformations in thinking over time in which new operations are integrated with, and in some cases come to supercede, older ones. The stages are hierarchical (each successive stage carries forward in modified and augmented form the operations of the previous stage) and invariant (because each stage builds upon the previous one, a stage cannot be skipped), The stages in their sequence seem, on the basis of wide empirical testing, to be universal.

Kohlberg has argued for the philosophical-ethical validity of his principled stages (5 and 6) as being based on principles of moral reasoning which are of demonstrably universal validity and appeal. Kohlberg questions: "Is it so surprising that psychologists never understood Socrates? It is hard to understand if you are not stage 6."

The following is a description of Kohlberg's stages of moral reasoning (Table 1): <sup>11</sup>

TABLE 1\*

#### Definition of Moral Stages

##### I. Preconventional level

At this level the child is responsible to cultural rules and labels of good and bad, right or wrong, but interprets these labels in terms of either the physical or the hedonistic consequences of action (punishment, reward, exchange of favours), or in terms of the physical power of those who enunciate the rules and labels. The level is divided into the following two stages:

Stage 1: The punishment and obedience orientation. The physical consequences of action determine its goodness or badness regardless of the human meaning or value of these consequences. Avoid-

\* Source: Kohlberg (1971) p. 164



ance of punishment and unquestioning deference to power are valued in their own right, not in terms of respect for an underlying moral order supported by punishment and authority (the latter being stage 4).

Stage 2: The instrumental relativist orientation. Right action consists of that which instrumentally satisfies one's own needs and occasionally the needs of others. Human relations are viewed in terms like those of the market place. Elements of fairness, of reciprocity, and of equal sharing are present, but they are always interpreted in a physical pragmatic way. Reciprocity is a matter of "you scratch my back and I'll scratch yours," not of loyalty, gratitude, or justice.

## II. Conventional level

At this level, maintaining the expectations of the individual's family, group, or nation is perceived as valuable in its own right, regardless of immediate and obvious consequences. The attitude is not only one of conformity to personal expectations and social order, but of loyalty to it, of actively maintaining, supporting, and justifying the order, and of identifying with the persons or group involved in it. At this level, there are the following two stages:

Stage 3: The interpersonal concordance or "good boy--nice girl" orientation. Good behaviour is that which pleases or helps others and is approved by them. There is much conformity to stereotypical images of what is majority or "natural" behaviour. Behaviour is frequently judged by intention--"he means well" becomes important for the first time. One earns approval by being "nice."

Stage 4: The "law and order" orientation. There is orientation toward authority, fixed rules, and the maintenance of the social order. Right behaviour consists of doing one's duty, showing respect for authority, and maintaining the given social order for its own sake.

## III. Postconventional, autonomous, or principled level

At this level, there is a clear effort to define moral values and principles which have validity and application apart from the authority of the groups or persons holding these principles, and apart from the individual's own identification with these groups. This level again has two stages:

Stage 5: The social-contract legalistic orientation, generally with utilitarian over-tones. Right action tends to be defined in terms of general individual rights, and standards which have been critically examined and agreed upon by the whole society. There is a clear awareness of the relativism of personal values and opinions and a corresponding emphasis upon procedural rules for reaching consensus. Aside from what is constitutionally and democratically agreed upon, the right is a matter of personal "values" and "opinion." The result is an emphasis upon the "legal point of view," but with an emphasis upon the possibility of changing law in terms of rational considerations of social utility (rather than freezing it in terms of stage 4 "law and

order"). Outside the legal realm, free agreement and contract is the binding element of obligation. This is the official morality of the American government and constitution.

Stage 6: The universal ethical principle orientation. Right is defined by the decision of conscience in accord with self-chosen ethical principles appealing to logical comprehensiveness, universality, and consistency. These principles are abstract and ethical (the Golden Rule, the categorical imperative); they are not concrete moral rules like the Ten Commandments. At heart, these are universal principles of justice, of the reciprocity and equality of human rights, and of respect for the dignity of human beings as individual persons.

The Moral Judgement Scale is derived from Kohlberg's doctoral dissertation, and is the only method present to assess the Kohlberg stages of moral reasoning. This scale is a structured projective test consisting of some hypothetical dilemmas which are presented in an effort to assess the reasoning behind specific judgements. Two methods of scoring the protocols have been cited in the literature: a global system and a detailed system. The results of these scores determine an individual's "stage" of moral development. Additionally, because of the hierarchical nature of the stages, the scale defines the individual's level of moral maturity.

#### Kohlberg's stress on cognitive constructs

Moral reasoning and creativity have both cognitive and affective components or aspects. One important aspect of the cognitive-developmental approach to moral growth is that "moral judgement stages or sequences are to be described in cognitive-structural terms, even in regard to "affective" aspects of moral judgement, like guilt, empathy, etc." (Kohlberg, 1969, p.390)

Kohlberg's stages are based on a cognitive theory of behaviour: 12

A cognitive theory of behaviour assumes that the first stage in the chain of events initiated by the stimulus situation and resulting in the behavioural act, is the construction of a cognitive

representation of the distal environment. The later events in the chain are investigated, modified and guided by this cognitive representation. The cognitive representation thus acts as the effective environment which arouses motives and emotions, and guides overt behaviour towards its target or goal. (Baldwin, 1969, p.326)

Within Kohlberg's rational scheme, even role-taking becomes a cognitive skill: 13

It is not empathy or role-playing and should not be confused with them. Role-taking is the ability to know that someone else's perspective may be different from one's own and only to some degree exactly how it may be different. Role-taking is then a gedankenor or thought-experiment. Facility at such intellectual experimenting is crucial to the talent of a reasoner, in a way it is not to a so-called sensitive or perceptive person (Puka, 1975, p.60).

According to Turiel (1975), however, accepting the assumptions of structuralism does not entail believing that there is one unitary structure that governs all thinking. Turiel does distinguish social-conventional concepts from moral ones, but, in all likelihood, logic or role-taking are more pervasive and more general than others even though they may only be partial systems within the structure of thought. Turiel reminds us to keep in mind the relationship between theoretical and practical social knowledge.

#### Some reservations about Kohlberg's theory

A criticism directed at Kohlberg's theoretical formulations by Puka (1975) has been the assertion that for the attainment of a higher stage to be better in the full ethical sense, it must be attained in co-ordination with the maturing of "other abilities" and the development of their regular use. It seems reasonable to consider that these "other abilities" which help comprise an individual's ego-strength may also include aspects of the

creative process both as a product of psychometric orientation and as influenced by the unconscious dynamics of the individual and collective psyche. Kohlberg, however, tends to ignore unconscious psychological processes.

Criticism of Kohlberg's lack of consideration for more affective psychological components in his essentially cognitive theory has appeared in response to Kohlberg's moral model (Sichel, 1976; Sullivan, 1977; Otto and Mann, 1969).

Sullivan (1977) has pointed out a gap in the conceptual elegance of both Piaget's and Kohlberg's structuralism in the area of the "aesthetic imagination." Development of what Norman O. Brown (1966) calls a "symbolic consciousness" could influence our moral commitment to action. In other words, the symbolic formulation of reasoning powers may cause us to identify more closely to what is being said. We must go beyond the literal, rational manifestations of words: <sup>14</sup>

To go beyond the reality-principle, through the looking glass of dialectical reversal, to the absurd truth. Overcome this world by a reductio ad absurdum; credo quia absurdum. From the shadow of typology to the night of paradox.

Norman O. Brown, Love's Body, p. 240.

Sichel's (1976) lucid remark that it is almost impossible to really analyze a concept or judgement merely in terms of the traditionally logical or "purely cognitive" as Kohlberg does, promotes growing concern to examine some of the psychological components that may be considered as a necessary precondition or pre-requisite for moral action.

Otto and Man (1969) contend that scientific over-emphasis on cognition and reason-giving often gives us a picture of the growing rationalist child in perfect shape to rationalize yet

with no necessary abundance of sensitivity or an emotional openness towards their own insides, The ability to become creative involves a deemphasizing of the cognitive and controlling aspects of the mind in order to stimulate preconscious and unconscious flux.

On Love, moral reasoning and creativity.

Growth toward new conceptualization or creative reorganization requires the release of the present conceptualization resulting in a fluid state (or relaxation of rigid cognitive structures) out of which arises, according to Gowan (1972), a new and higher organization. Prevailing theories of creativity summarized by Gowan (1972) and emphasized by the Neo-Freudians, cite the ability to dip into the preconscious as enhanced by love relationships and the expansion from narcissistic self-love through oedipal love of parents to generalized heterosexual love. A love ethic, love as a decision-procedure, or a system of morality based on universal principles of love rather than (or in addition to) justice would prove interesting to consider since Gowan (1972) has speculated upon an advanced stage of creativity, where agape love, in the manner of a Buddha or Messiah embraces all mankind. It may be that highly creative people operate from a teleological philosophical framework which often deemphasizes justice and accentuates happiness, human flourishing and social welfare. Kohlberg, true to his deontological roots, believes love to be a positive factor, but hardly an adequate procedure for moral decision-making.

Puka (1975) argues that Kohlberg's concept of justice is negatively oriented, which tells us in terms of duties and obligations what things we can't avoid doing in order to remain passably moral, ie., not immoral. Although Puka feels morality

viewed in terms of social interpersonal action must include more than mere justice or fairness, he cautions an emphasis on the positive side of morality: <sup>15</sup>

Can the positive side of morality, with its tendency to fanaticism, rigidity, puritanical purity, self-flagellation and crusading egomania be trusted so much more than the retributive punishment side? As tempting as it might seem, we should be cautious before buying even love as the answer (Puka, 1975, pp.61-62).

### Moral reasoning in adolescents

Children and adolescents move through Kohlberg's invariant and hierarchical moral stages with varying speed so that the relationship between chronological age and stage or moral judgment becomes less precise as one grows older: <sup>16</sup>

To give age approximations is no longer appropriate after the child has left stages one and two which are generally associated with childhood. The moral thinking of stages three to six can be found in adolescents as well as adults, and some adults never reach stage five or six. Stage five and six thinking is most commonly found in college-educated middle-class youth, and even they may regress to earlier stages of moral development after their college education has been completed. Only about 10% of the adults reach stage six, and many adults continue to function on the "law and order" level of moral development, giving that issue potency in election campaigns. Stages five and six, based on principled morality, do have as a prerequisite the attainment of abstract formal operations in mental development. Consequently, one cannot simply associate any one stage of moral development with adolescence. But since adolescent is a period of progression through several of these stages, all of Kohlberg's stages are relevant to a discussion of theories of adolescence. Much of Kohlberg's research deals with subjects in the age range of 10 to 16 and a follow-up in their twenties. Adolescents may be found at any one of Kohlberg's stages of moral development, though most have passed through stages 1 and 2, excluding individuals whose concepts of justice develops late or who are delinquent in their moral orientation. A few morally precocious adolescents may have already reached stage five, on in an exceptional case, stage six. However, adolescence is characterized by progression through at least some of these stages of moral thinking (Rolf E. Muss, 1976, p. 47).

Early research on moral reasoning in adolescents and young adults (Kohlberg, 1958, 1969, 1970; Haan, Smith and Block, 1968; Kohlberg and Kramer, 1969; Kohlberg and Blatt, 1972; Sullivan

and Quarter, 1972; Boyd, 1973; Fishkin et al., 1973) supported the notion that moral thinking of stages three to six could be found in adolescents as well as adults and that some adults never reached postconventional forms of moral reasoning. Tentative conclusions at that time supported the notion that no one stage of moral development could be associated with adolescence or adulthood. Erikson's functional stages were often used to describe morality in relation to adulthood. There was an assumption, however, that a few adolescents would, in fact, reach stage five or six in the Kohlbergian scale. Kohlberg's (1973) revision of this notion concluded that (a) none of his longitudinal subjects attains stage five before the age of twenty-three and (b) new modes of moral thought exist which develop only in adulthood. Adolescent moral reasoning can now be viewed as characteristic of conventional thinking whereas postconventional thought is not reached until adulthood. Evidence of "structural" stage change in adulthood (refuting any "functional" explanation) has been emphasized in Kohlberg and Turiel's (1974) longitudinal work. Kohlberg has ascertained that, in order for young adults to move towards postconventional thinking, certain conditions must be met, namely (a) experiences of sustained responsibility for the welfare of others and (b) conditions where the basis of this responsibility can be both questioned or affirmed on a universal human basis.

What is lacking, therefore, in adolescent morality is not the capacity for hypothetico-deductive reasoning or imagination which as Piaget remarked is highly characteristic of adolescent thinking (Piaget, 1964), nor the awareness of moral principles (Kohlberg and Kramer, 1969), but a commitment to a particular ideology or set of beliefs in the face of uncertain reality

situations. Life experiences become important for the development of an adult ethic. Formal intellectual operations, experience of a variety of social-role taking experiences and the questioning of one's own identity in the world must interact in order to reach principled moral thinking. <sup>16</sup>

In summary, personal experiences of choice involving questioning and commitment, in some sort of integration with stimulation to cognitive-moral reflection, seems required for movement from conventional to principled (Stage 5) thought. It is probably for this reason that principled thought is not attained in adolescence. The conditions for movement to fully principled or Stage 6 thought are probably even more of this order, though we have no real data on movement to this highest moral stage. (Kohlberg, 1973, p.41)

#### A focus on Gowan's developmental model of creativity

A comprehensive interpretive view of cognitive-developmental stage theory (structuralism) which combines the interaction of logical development (Piaget) with corresponding affective phases (Erikson) has been developed and applied to the creative process by John Curtis Gowan (1972). Gowan's synoptical bringing together of Eriksonian (ego stages) and Piagetian (logical stages) into a tripartite grouping with creativity allows for the possibility of charting moral maturity within his periodic table. Flavell has remarked that "Piaget's analysis both complements and significantly adds to Erikson's account" and "a sense of the whole child emerges more clearly in a stereoscopic integration of the two"(1963, p. 414).

However, Gowan's rather open-ended approach confronts the problem of speculation since there may be rarer or as yet unknown stages of cognitive development to go with the already formulated Eriksonian accounts. Also brought into consideration of cyclic or periodic succession of partial views, is how Gowan's putative stages fit the existing literature of creativity.



Rather than focus on the possible pitfalls entailing the rather eclectic approach developed by Gowan, it appears more worthwhile to concentrate on the comprehensive fusion of both psychometric and psychodynamic perspectives of the creative process into a transactive relationship between the cognitive and the affective aspects of the psyche in the creative growth of the individual. Both perspectives help the researcher observe the psychological process that become the precursors of creativity. Creativity becomes a direct outcome of self awareness once a certain developmental stage has been reached. This development, according to Gowan (1972), involves "escalation", that is, the emergence of a higher and more complex form of organization and synthesis. The interactional balance between thinking and emotion or thought and feeling is stressed in Gowan's model and results in positive mental health for the whole organism. However, a child may also become effectively blocked from advancing in Gowan's developmental staircase, therefore becoming "emotionally arrested" or a "cognitive under-achiever". In other words, interaction is reciprocal: emotional difficulties may underlie school failures and a lack of cognitive competence could create a poor self image and disrupt relations with others. In accordance with the research of Piaget, Erikson and Kohlberg, Gowan views development as a "quantum effect" with identifiable levels and states instead of a smooth curve of accretion. Moreover, "each stage contains characteristics appropriate for its full efflorescence and embraces the germinal material for the development of the next stage. Thus, each stage is the necessary, but not sufficient precursor of the next (Gowan, 1972, p. 28).

TABLE 2\*

		LATENCY 3 it, they THE WORLD	IDENTITY 1 I, me THE EGO	CREATIVITY 2 thou THE OTHER
64	INFANT	1 TRUST Sensorimotor none Drive-hope 0-1	2 AUTONOMY Preoperational imperative Self-control 2-3	3 INITIATIVE Intuitive optative Direction-purpose 4-6
	YOUTH	4 INDUSTRY Concrete operations interrogative Method-competence 7-12	5 IDENTITY Formal operations subjunctive Devotion-fidelity 13-17	6 INTIMACY (Creativity)  Love-affiliation 18-25
	ADULT	7 GENERATIVITY (Psychedelic) Production-care 26-40 (?)	8 EGO-INTEGRITY (Illumination) Renunciation-wisdom 40-onward	9 (AGAPE-LOVE)

Gowan's Developmental Stages of Creativity  
(After Erikson and Piaget)

\* Source: Gowan (1972) p. 28.

Gowan maintains that the environment is the sufficient cause for creative advance: its resources, the opportunities and dangers it offers determine if, when and to what extent the next stage will evolve. Although Gowan (1972), like Kubie (1958) explains the "source" of creativity in terms of the preconscious, he is still able to present creativity as a qualitative change with each successive transformation in the child's cognitively structured representation of the social environment. Thus, it becomes possible to view creativity in cognitive-structural terms although Gowan feels that certain psychodynamic descriptions may be appropriate explanations for different dimensions of the creative process. Gowan acknowledges that the development of creativity requires abilities identified by Piaget and Guilford (structure of the intellect model) as well as a high degree of mental health. A basic premise of Gowan's theory of creativity is its emphasis on the development of "valuing";<sup>18</sup>

A child needs to be valued and to have his ideas valued before he can value others or their ideas. Valuing is a stage in affective learning, previous stages of which are **receiving** the child and responding to the child. Children need to build their own value system, not take over ours. The values a creative child builds may be divergent ones; he may not wish to emulate his teacher or parent, and this may annoy us. The wise parent concentrates on helping his child to some value system, not necessarily the parent's (Gowan, 1972, p.76).

According to Gowan, valuing is charged with affective elements rather than basically a way of thinking. However, his conception would be in accordance with Kohlberg's in the sense that it steers away from the indoctrination characteristic of character education.

Gowan's conception of creativity centres around the idea that every inward preconscious state has an inherent tendency

form, but it lies supine until revitalized and expressed by the attention of the conscious mind. This "pressing outward" on the "latent plastic state" the cognitive properties of the conscious mind. About Gowan's stage three, children pass through the enactive, iconic stages and eventually arrive at symbolic representation similar to the experience described by Bruner (1966). According to Gowan, attainment of symbolic representation allows a child to make his experience intellectually negotiable. In other words, the child is able to describe and articulate his experiences. There occurs a "consensual validation", a child may have the relief of discovering he is not alone in his experiences and is offered reassurance and a measure of ego-strength.

Cognition, or conceptualization of the external world is an important aspect of Gowan's model as are his oedipal explanations of the origin of creativity. The chief "cognitive method" in creative development is described as the "ability to form an intellectually negotiable concept, more or less isomorphic to external experience out of a series of encounters with that experience, each of which is consensually validated through contact with others. It involves skills of cognition, memory, convergent and divergent thinking production and evaluation"(Gowan, 1972, p.44).

Following Kelly's (1955) postulation that our perceptions of reality are constrained by the way in which we anticipate events, Gowan feels that "reality exists in the transactional relationships in our minds and conceptualization, therefore, is not an artifact of culture, but a necessary condition of consciousness. Gowan approves of Piaget's "middle position" of interactionism which attempts a synthesis between the Nomalist argument that reality resides in our structuring of the world and the Realist position that there is an independent reality. There is a relationship

between the knower and the known, each affecting the other, so that it is not just the way the environment is conceptualized by the child, it is also the developmental level which affects the reality he perceives and organizes. Thus, the child's cognitive development through concrete and formal operations to creative functioning involves proper organization of matter and material in the previous stages of growth. For instance, for a child to become creative in the symbolic or semantic contents area, he must master linguistics in order to give conceptual order to experience.

Certain aspects of Gowan's research which Gowan uses as supplementary descriptions but has yet not clarified in terms of stage development have been given the term "escalation". According to his definition, Gowan views escalation as a raise in the level of action by discrete jumps which embraces five different yet interrelated aspects of development: succession, discontinuity, emergence, differentiation and integration. Gowan uses each of these characteristics to analyze concept formation in the developing child and the interrelations between cognitive and affective developmental systems in producing mental health and the possibility of creativity.

Gowan's (1972) research owes much to Bower and Hollister's (1967) study of the transactive effect of cognitive and affective aspects of concept formation. The focus of their research was "ego strength" as the prime organizer of concept formation. Symbolization, as one ego skill through which the child organizes, binds and utilizes knowledge as a tool to understand the world, must be precise enough to yield a firm construction, yet broad and loose enough to yield creative insights or transformations.

Bower (1968) has identified five ego processes as follows:

- (a) differentiation--the separation of objects, symbols and feelings.
- (b) fidelity-distortion--tying symbols to objects, words and actions.
- (c) pacing versus overloading--regulating inputs and unloading actions.
- (d) expansion-constriction--seeking new metaphors, meanings and uses.
- (e) integration-fragmentation--assimilating and interconnecting ideas.

These ego processes enable the child to deal, in an efficient manner, with experience. Fidelity is the representation of the experience in its reality and gives a truer picture inside the child's mind as to what is going on in the outside. Creativity rests on the high fidelity of replication of experience. When experience becomes stereotyped, little creativity can emerge.

Anderson (1959) helped lay the foundation for another aspect of Gowan's developmental approach to creativity. He expanded and articulated the meanings of differentiation and integration in the developmental process as having five aspects:

- (1) confrontation of differences
- (2) integration
- (3) a yielding up or giving up the old for a new reorganization.
- (4) a process of differentiation
- (5) a positive directionality.

Differences emphasizing uniqueness in individuals combine into new original patterns; originality is intrinsic in creativity, so "creativity is an outcome of development"(Gowan, 1972, p.54).

Creativity becomes an emergent and characteristic outcome of the theory of developmental stages when the requisite degree of mental health is present. Gowan maintains, along with Kubie (1958), that creativity is a product of preconscious activity which is re-vitalized and expressed by the attention of the conscious mind

which is then made visible through cognitive properties. Higher cognitive stages add new degrees of freedom to ego functioning. This newly acquired freedom, in turn, helps integrate preconscious association more effectively and with less apprehension. It is important that the preconscious ward off the attacks by ego and superego prohibitions and still fulfill its capacity to select and rearrange the data of experience into creative and innovative forms.

Gowan's model (1972) views creativity as occurring most strongly in stages 3 and 6. This corresponds roughly to stages 2 and 6 on Kohlberg's scale (see Table 4). Gowan suggests creativity first develops in the initiative stage (3) from the control over the environment experienced through the affectional approach of the opposite-sexed parent (1965). A similar feeling occurs in the intimacy stage (6) when adolescent creativity is normally enhanced through the inspiration of the opposite-sexed figure. In the latter instance, however, biological consummation can in some cases reduce the high energy potential aroused so that it is more often when this consummation is delayed, or prevented, at least, in part, that creativity flourishes.

Gowan's model provides an excellent reference for framing the hypotheses of this study. A comparison to Kohlberg's moral model provides an initially remarkable stage correspondence that appears to indicate coeval stories, theoretically, at least. Insofar as a measure of interpretive data is useful, it appears that a broad theoretical base for comparison can be established within a matrix that offers a comprehensive view of a possible coextensive relationship between creative functioning and moral maturity.

Gowan's placement of the Freudian (sexual libido), Eriksonian (ego strength) and Piagetian (cognitive development) theories into a developmental perspective helps to conceptualize the inclusiveness of developmental stage theory in a significant manner than has been heretofore realized. In order to fuse a moral construct into Gowan's tripartite synoptical grouping, it is necessary to examine Kohlberg's moral model with references to Piaget and Erikson, respectively.

TABLE 3\*

Relations Between Piaget Logical Stages and Kohlberg Moral Stages (all relations are that attainment of the logical stages is necessary, but not sufficient, for attainment of the moral stage) 19

<u>Logical Stage</u>	<u>Moral Stage</u>
<u>Symbolic, intuitive thought</u>	<u>Stage 0</u> , The good is what I want and like.
<u>Concrete operations, Substage 1-Categorical classification</u>	<u>Stage 1</u> , Punishment-obedience orientation.
<u>Concrete operations, Substage 2 Reversible concrete thought</u>	<u>Stage 2</u> , Instrumental hedonism and concrete reciprocity.
<u>Formal operations, Substage 1 Relations involving the inverse of the reciprocal.</u>	<u>Stage 3</u> , orientation to interpersonal relations of mutuality.
<u>Formal operations, Substage 2</u>	<u>Stage 4</u> , Maintenance of social order, fixed rules and authority.
<u>Formal operations, Substage 3</u>	<u>Stage 5A</u> , Social contract, utilitarian law-making perspective. <u>Stage 5B</u> , Higher law and conscience orientation. <u>Stage 6</u> , Universal ethical principle orientation.

\*Source: Kohlberg, 1971, p.1071.



Kohlberg contends that the movement from conventional to principled morality is one which must be considered as a matter of personal choice and as a choice of a self which is different from earlier stages of moral development. Accordingly, Kohlberg hypothesizes that an Eriksonian "identity-crisis" and its resolution might be a necessary part of this movement. Although Kohlberg maintains that Eriksonian stage progression plays a part in moral progression, he feels that ego progression would be far from sufficient to produce principled morality. Kohlberg (1973) implies that ego progression could occur without the moral progression, and both the ego progression and moral progression could be absent in persons permanently conventional and non-questioning of identity.

TABLE 4\*

A loose fit between ego and moral

<u>Ego "Stages"</u>	stages	<u>Moral Stages</u>
Ascribed identities accepted		Conventional morality
Identity crisis or moratorium		Traditional or "retrogressed" relativism
Identity achievement		Principled morality

\*Source: Kohlberg and Turiel, 1973, p. 47.

TABLE 5

An Approximation of Kohlberg's Moral Stages in Relationship to Eriksonian Ego Progression, Piagetian Logical Progression and Gowan's Creative Stages

Erikson	Piaget	Kohlberg	Gowan
EGO STAGES	LOGICAL STAGES	MORAL STAGES	CREATIVITY
Trust 1	Sensorimotor	Pre-moral (0)	not significant (1)
Autonomy 2	Pre-operational	Pre-moral (0)	not significant (2)
Initiative 3	Intuitive	Pre-moral (0)	creativity high (3)
Industry 4	Concrete (Substage1) Concrete (substage2)	Stage 1 Stage 2	not significant not significant (4)
Identity 5	Formal (substage 1) Formal (substage 2)	Stage 3 Stage 4	not significant not significant (5)
Intimacy 6	Formal (substage3)	Stage 5 Stage 6	creativity high creativity high (6)
Generativity 7	Formal (substage 3)	Stage 5	Psychèdèlic Creativity high
Ego-Integrity 8	Formal (substage 3)	Stage 6	Illumination creativity high
Agape-Love 9	Formal (substage 3)	Stage 6 (??)	creativity maximum

Piaget logical stages, Kohlberg moral stages and Creativity

Piaget's stages of cognitive development and Kohlberg's stages of moral development bear a point-to-point relationship: <sup>21</sup>

The equilibrium of affective and interpersonal schema, justice or fairness, involves many of the basic structural features as the equilibrium of cognitive schema logicality (Kohlberg, 1971, p.1070-71).

The operational child who is concerned with categorical classifications is related to the punishment-obedience orientation of stage one moral thinking. Kohlberg's stage two of an instrumental relativistic moral orientation bears a direct relationship to Piaget's operational logical stage. The basic Piagetian shift from concrete to formal or abstract thought processes has its analogue in the Kohlbergian transition from preconventional to conventional morality constituting the basic difference between child and adolescent moral structure. Piaget's inverse of reversibility stage (early formal operations) corresponds to Kohlberg's interpersonal concordance orientation (Stage 3). Piaget's rather advanced substage of formal abstract operations is related to Kohlberg's stage four orientation towards authority, law and order and paves the way for stages five and six. Although it is true that the attainment of logical thought is a necessary precondition for the corresponding level of moral thought, Piaget's logical stages are not sufficient conditions for the attainment of moral progression.

Freud's affective developmental stages fit into the chronological ages of Piaget's five cognitive stages, and since Erikson has built four more stages out of the last Freudian (genital) stage, it is interesting to see how Gowan (Table 2) accounts for the emergence of creativity as greater at the points of convergence of these three developmental stages. Gowan views stages 3 and 6 (initiative and intimacy) as dealing with the love relationship and its ex-

pansion from narcissistic self-love through oedipal love of parents to generalized heterosexual love, to fixation on some individual person. The corresponding Piagetian stages are the "intuitive" and "formal operations". Rather than stressing a cognitive-intellectual relation between Piaget's stages and creative production or occurrence, Gowan (1972) emphasizes the importance of Piaget's logical stages in the concept of free play. Piaget (1951, p147) states that "the underlying structure of play is constituted by a certain reorientation of the ego to reality." Gowan feels, accordingly, that each Piagetian stage also emphasizes an avenue to the preconscious.

Kubie (1965, p. 565ff) has explored the playful and preconscious aspects of creative behaviour, Kubie (1958, p.39) tells us that the free play of preconscious process simultaneously accomplishes two goals:

1. It supplies an endless stream of old data rearranged into new combinations of wholes and fragments on grounds of analogic elements.
2. It exercises a continuous selective influence not only on free associations, but also on the minutiae of living thinking, walking, talking, dreaming, and indeed every moment of waking life.

Sadler (1969) emphasizes the relationship of playful perception to focal attention in the development of creativity:

It is also a perceptual mode that pertains to play. The creative edge of perception whereby we remain open and sensitive to new meanings and increasing awareness of life possibilities originates in and is sustained through play... Play reveals itself as a basic existential form to keep one's world open, not defensively, but creatively.

Lieberman (1967), Wallach and Kogan (1965) and Jackson and Messick (1964) have all connected playfulness in their research with a sense of humour, a personality correlate often noted in creative persons.

According to Gowan (1972), the process of regression to the preconscious through free play and daydreaming fantasy gets its start during the third (initiative stage) when the child with an oedipal or electral attachment to the parent of the opposite sex develops the ability to dip into the preconscious. The preconscious becomes, the, the "source" of creativity.

Gowan also emphasizes the importance of creative development as cognitive-developmental (assimilation-accomodation), formulated by Piaget (1932) and conceived as the constant interaction between environmental stimulation and concept formation. Developmental process with moderate environmental stimulation and some openness in life style carry the child naturally toward creative expression. According to Gowan, environmental stimulation gives the individual the "something" which with to escalate: <sup>24</sup>

Societies concerned with cognitive competence may need to reconsider the degree of environmental stimulation and early success experiences provided by their national institutions in the light of what Piaget said about the development of concept formation. Will the boy, for example who is facile with concrete operations at eight (and hence judged to be intelligent), develop into the young man who is equally facile with formal operations or creativity at twenty? What kinds of educational stimulation are most likely to ensure this escalation?

It is all very well to talk about the child's cognitive development through concrete and formal operations to creative functioning, but the child must have something to escalate. To operate, much less be creative, in the symbolic or semantic contents area, the child must master linguistics. In creating, the child gives conceptual order to his experience. Hence the proper organization of matter and material in the prior concrete operations stage is a necessary precursor of verbal creativity (Gowan, 1972, pp. 46-47).

Gowan sees the individual's cognitive escalation fused to the modes of grammar. Apparently, around adolescence, the child escapes the tyranny of the fact by discovering the "subjective mode" and the power of hypothesis making through "if-then"

relationships during the formal operations of the fifth developmental stage. Gowan sees Piaget's concrete-operational child tied to the tyranny of the interrogative mode--the reality of what actually is. The formal operational child escapes into the freedom of contingency; he discovers the subjunctive and is thus free to become creative in "if-then" hypotheses making.

Since formal operations are a necessary but not sufficient a prerequisite for principled thought in Kohlberg's scheme, it would be logical and reasonable to assume that most Stage 5 and 6 moral thinkers are higher in the concept-formation type of creativity (subjunctive mode) which Gowan has described. However, the shift and reorganization of concepts required as the child goes from one cognitive level to another may demand a great deal of energy or impose a strain which temporarily diminishes creative performance. This may account for the observation made by Torrance (1962, 1964) that there are drops at fourth and seventh grade in creativity test scores since these grades mark the beginning of new developmental stages. The "if-then" subjunctive contingency of the formal operational child adds new degrees of freedom to ego functioning, and creates the possibility of higher and more complex creative thought.

#### Morality, Identity Status and Creativity---Some Conceptual Overlaps

Although the concept of identity is not used as an empirical construct in this present study, it is worthwhile to consider the relationship between morality, identity and creativity constructs especially since identity in the form of Eriksonian stage theory appears as an integral theoretical construct in Gowan's (1972) developmental model of creativity. Accordingly, a detailed examination of the relationship between morality and identity is

further justified since Gowan's model offers an operational description of the overall developmental process necessary to creative functioning.

Erikson (1956) maintains that, over the course of a lifetime, an individual experiences a series of psychological crisis each of which reflects the self in interaction with society. Erikson postulates eight developmental stages and notes that each stage is characteristic of a conflict that has two opposing possible outcomes. By working these conflicts out in a productive manner, a positive and constructive characteristic is built into the ego and a basis for further healthy development is made possible or enhanced. Negative aspects incorporated into the personality due to unresolved ego conflicts become a real possibility. The period of adolescence and young adulthood is characteristic of the period when the identity crisis is most pronounced, even though Erikson stresses that identity is facilitated by the satisfactory resolution of all previous stage crisis. According to Erikson (1964, 1968), there are specific cognitive and affective characteristics of adolescents which are not found during earlier or later stages of ego development: <sup>25</sup>

In their search for a new sense of continuity and sameness which must now include sexual maturity, some adolescents have to come to grips again with the crisis of earlier years before they can install lasting idols and ideas as guardians of a final identity (Erikson, 1968, p.128).

Adolescence becomes the phase during which the self must construe a sense of personal identity and avoid the dangers of role diffusion (identity confusion). An "adolescent ideology" begins to develop: <sup>26</sup>

Thus youth becomes ready--if often only after a severe bout with moralistic regression--to envisage the more universal principles of a highest human good. The adolescent learns to grasp the flux of time, to anticipate the future in a coherent way, to perceive ideas and assent to ideals, to take--in short--an ideological position for which the

younger child is cognitively not prepared. In adolescence, then, an ethical view is approximated but it remains susceptible to an alternation of impulsive judgement and odd rationalization (Erikson, 1964, p.225).

When an adolescent has accepted a particular ideology and brings it into question through his life experiences, an adult ethic is shaped which is understood and consistent with behaviour. Therefore, neither the awareness of moral principles (Kohlberg and Kramer, 1969), nor the capacity for hypothetic-deductive reasoning (Piaget, 1964) is lacking in adolescent ideology. It is the actual commitment to a particular ideology in the face of unique and possible conflicting reality situations. This "psychosocial moratorium" during which alternative occupations and ideologies are to be considered implies that the individual must, in a sense, become responsible to himself, that is, assess what his liabilities and assets are and how he wants to make use of them. Erikson stresses that "functional" crises such as parenthood, unemployment, etc. do provide significant changes in one's role in life, and he also maintains that supposed "structural" resolution of the adolescent or young adult identity crises is a strong indicator of successful adulthood. Erikson (1968) further argues that the achievement of identity should involve the consideration of alternatives with an ultimate commitment to an ideology and occupation.

Roper's (1973) study on guilt and moral maturity which found severe guilt associated with Kohlberg's Stage 3 subjects suggested that corresponding identity (Eriksonian) stages found these adolescents prone to bouts of self-doubt and shame, morbid and "often curiously preoccupied with what they appear in the eyes of others" (Erikson, 1968, p.128). Stage 4 subjects experienced slightly less guilt which was more likely to be experienced with



with reference to the violation of a rule--legal, moral or religious--and which may signal the development of an "adolescent ideology."

Kohlberg notes that "while Erikson's stages cannot be defined, measured, or logically handled in the same sense as cognitive-developmental stages, suggestive empirical relations between ego identity terms and moral stages are found" (Kohlberg, 1973, p.1077). Furthermore, both Kohlberg and Turiel (1973) stress that an adolescent is capable of awareness of universal ethical principles but only the adult or young adult can consistently be ethical.

A study by Podd (1972) which related Kohlberg's stages of moral development to Erikson's stages of ego-identity revealed that "foreclosure subjects", or subjects that experienced no crisis but are committed to goals, showed a strong tendency to use a conventional mode of moral thinking. For the most part, Kohlberg's Stage 3 corresponds to the Eriksonian stage where "ascribed identities are accepted" (Table 3) and where Roper (1973) has discovered the severest guilt along the moral maturity continuum. This location of moral and ego correspondence relates most significantly to Gowan's (1972) stage 5 along the creativity continuum in which individuals are busy "examining their own navels" with an overemphasis on introspection and moodiness which results from the discrepancy between what the ego wants itself to be and what it finds it can be and do. Although this may not be a time for psychosocial moratorium, some kind of ethical perspective may be taking place. Creativity, at this stage, however, is far too ego-bound to flourish. This would seem to support the hypothesis that creativity is less evident at the Stage 3 point of the moral maturity continuum. Such individuals have not yet experienced an identity crisis and a resolution where affectional impulses are at their

height and one gives the identity that one has discovered to another, as in Gowan's stage 6.

Theoretical Considerations in Approaches to Creativity and Morality

The theory of developmental stages has provided the organizing perspective for developing the hypotheses in this study and interpreting the empirical research findings. Accordingly, an overall developmental focus will tend to bring into a synthesis, any disparate aspects seemingly endemic to an interpenetration of moral maturity and creative functioning since "the transformation and focusing of energy...is the essence of both the developmental and creative process" (Gowan, 1976, p.26). Some reference, however slight, has to be made by drawing attention to the bifurcations and dichotomies inherent in the methodology of structuralism itself, but only insofar as they relate to further developing a more interactive approach to morality and creativity than is offered by Kohlberg and psychometric theoreticians such as Guilford. To try and infer theoretical correlations between moral reasoning and creativity, a framework for comparison must grasp the fact that intellectual and emotional development are interdependent and basic to both our understanding of the process of moral reasoning and creativity. Up to the present, major theories of creativity have emphasized either the cognitive at the expense of the affective, or vice versa. Therefore, a more comprehensive theory which integrates both intellectual and emotional development is needed. Attention should be drawn to the work of those who have proposed approaches to morality which differ from Kohlberg's in order to draw a balanced viewpoint such as work by Raths, Harmin and Simon, 1966; Oliver and Shaver, 1966; Newman and Oliver, 1970; Hunt and Metcalf, 1968; Fraenkel, 1973; Scriven, 1966, 1971, 1975; Shaver,

1976). Similarly, in the area of creativity research, a balanced viewpoint could be achieved by an examination of the works of cognitive approaches such as Hallman (1963) and mental health approaches by Maslow (1954) and Rogers (1959). Fortunately, Gowan's (1972) model of creativity deals with all types of approaches. However, it proves difficult to test empirically without emphasizing more than a single viewpoint. On the other hand, Kohlberg's theoretical approach may ignore important affective concerns but his instrument for the assessment of moral judgement is, in the opinion of many researchers, the "most sophisticated and reliable instrument that psychological assessment devices have to offer...the instrument can be reliably scored and its validity is argued within the perspective of cognitive developmental theory ...although its major focus is on moral reasoning, this limitation may be an advantage" (Sullivan, 1975, p.95).<sup>27</sup>

In focusing upon creative thinking and its relationship to moral reasoning, one is left with rather fragmented or multifaceted perspectives on a possible connection. Consequently, we are left with a "mixed bag" of theoretical overlaps, some developmental, some contemporaneous. While there do seem to be some conceptual overlaps between creativity and morality which reflect the plausibility of logical integration, empirical overlaps are impeded by the lack of previous research to date. Further problems in conducting this type of research are discussed in CHAPTER V.

#### Creativity, Morality and Ego Strength

According to Kohlberg, the development of moral character is related to an individual's "ego strength" which includes the development of basically "cognitive" abilities such as the in-

telligent prediction of consequences, the tendency to choose a greater long-term reward over a lesser but more immediate short-term reward, the ability to keep one's attention focused on a given topic or item for a fairly extended period of time. Kohlberg maintains that the encouragement of these attentional ego capacities is not a task of moral education as such but of general programming of classroom learning activities (1966).

Fraenkel (1973) has elaborated on what he regards as strategies to develop a student's ego strength: comparing and contrasting, generalizing, predicting and explaining, offering alternatives, describing, synthesizing, making judgements according to previously established criteria, and divergent thinking based on techniques developed by Guilford (1964), Torrance and Myers (1970) and J.W. Getzels (1964). There appears to be a close connection between what Kohlberg refers to as describing "ego strength" and the cognitive, rational and semantic approaches in developing creativity which Fraenkel (1973) uses to develop this ego strength.

According to Gowan (1972), the vital role of his stage 3 (initiative) in the development of creative performance involves ego abilities which become stronger and more integrated through to stage 8 (ego-integrity) which involves improved "self-concept" grasped through the mastery of cognitive abilities.

It appears that many of the "ego capacities" involved in the Kohlbergian concept of "ego strength" refer to components which may be described as partaking of the psychometric definition of creativity. It would appear reasonable to assume that although advanced ego capacities are necessary but not sufficient factors in principled thinking, conventional moral reasoners probably have not developed ego strength to the degree of autonomous moral thinkers (Kohlberg's Stages 5 and 6).

### Socialization and Cognitive Style

When examining social relationships and the process of moral reasoning and creative functioning, we should keep aware of the fact that our Western culture possesses a pervasive "cognitive style" and can be observed in the values of a culture which are, in essence, the structuring principles of the social process. Such a regulating effect imposed by a cognitive societal orientation imposes an often invisible set of constraints which limit our potential experience and compel our behaviour. Societal situational structures resulting from such a cognitive social process were thought by Kant to give causal connection to accidental subjective perceptions. Frames of references such as intuition, time and space were felt to be "sociological aprio ris" or necessary forms of the social synthesis. However, today we realize that the cognitive perspectives in the context of which persons develop their views of social realities vary widely and cannot be simplified into convenient Kantian formalist categories,

Hegel expresses moral unity as a "reflexive social relationship" in which the first person gains knowledge of himself through the eyes of another. Kohlberg refers to this process as "role-taking". Identity becomes the growing realization that the identity of the self and learning diverse roles are two aspects of the same process. Selman (1976) feels that the link between intellectual development and moral development may be found in the ability of a person to take an increasingly differentiated view of the interaction between oneself and others. The development of the ability to see oneself from the viewpoint of others becomes increasingly important. Kohlberg (1971) sees role-taking as an essential factor in the development of moral reasoning and a necessary pre-condition for moral development. Moral conflict or "cognitive dissonance"

occurs as a result of one's own point of view being confronted by a different perspective. If people could not assume the role of others they would see no conflict. Social relationships and interaction forms the basis of each person's primary role-taking opportunities (Kohlberg, 1969). Selman (1976) refers to social role-taking as the structural aspect of empathy. He has developed four levels of social role-taking ability in TABLE 6.<sup>28</sup>

TABLE 6\*

## Social Role-Taking Stages

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 Stage 0 --- Egocentric Viewpoint

(Age Range 3-6)

Child has a sense of differentiation of self and others but fails to distinguish between the social perspective (thoughts, feelings) of other and self. Child can label other's overt feelings but does not see the cause and effect relation of reasons to social actions.

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## Stage 1 --- Social-Informational Role-Taking

( Age Range 6-8)

Child is conscious that each individual is aware of the other's perspective and that this awareness influences self and other's view of each other. Putting self in other's place is a way of judging his intentions, purposes and actions. Child can form a coordinated chain of perspectives, but cannot yet abstract from this process to the level of simultaneous mutuality.

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## Stage 3---Mutual Role-Taking

( Age Range 10-12 )

Child realizes that both self and other can view each other mutually and simultaneously as subjects. Child can step outside the two-person dyad and view the interaction from a third-person perspective.

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 Stage 4---Social and Conventional System  
 Role-Taking

( Age Range 12-15)

Person realizes mutual perspective taking does not always lead to complete understanding. Social conventions are seen as necessary because they are understood by all members of the group (the generalized other) regardless of their position, role, or experience.

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\* Source: Selman, 1976, p.309.

As Paolitto and Hersh (1976) point out, the teacher in a moral education class is the primary role-taker in the group whose duty becomes the nurturing of an increasingly more differentiated and integrated social role-taking perspectives in his/her students. Higher stages of role-taking than those presented in TABLE 6 have been defined by Byrne (1973).

Research conducted by MacKinnon (1972) reveals that many creative persons are independent, and such "independence" appears to have been fostered by parents who, very early, showed an extraordinary respect for the child and confidence in his ability to do what was appropriate. The family provided a plentiful supply of diverse and effective role-taking models with whom the child could make important identifications. The family seems to have a similar effect on moral growth in that its positive effects upon development are primarily due to the provision of role-taking opportunities provided by the peer group, school and society. It seems reasonable to assume a connection between the home as fostering individuality and autonomy as well as providing role-taking opportunities conducive to creative functioning and moral reasoning.

#### Creativity, Morality and the Imaginative Dimension

It is difficult to offer grounded speculation upon exact relationships between the creative process and moral reasoning.

If we limit our view of creative thinking to "divergent thinking" it becomes easier to suppose certain relationships do, in fact, exist. A psychometric perspective allows a more convenient comparison of divergent thinking and moral reasoning since we are not concerned with the source of the processes involved nor the psychodynamic ramifications. The psychodynamic terminology of the unconscious could, quite adequately, elaborate on the subtleties and nuances excluded by cognitive or rational descriptions. For the purpose of empirical research the best criterion available to the researcher in the spheres of creativity and moral maturity is the cognitive domain. However, if we speak of the psychology of human development as the study of "parallel behavioural areas of structural development" then it becomes most evident that there are many different cognitive domains which must be taken into preliminary consideration such as logico-mathematical reasoning, social perspective taking, moral judgement and socio-moral conduct (Gibbs, Kohlberg, Colby and Speicher-Dubin, 1975). Divergent thinking could be one component, which, to some extent, may influence other components such as social stage, moral stage, moral action or ego strength. All the various cognitive domains most likely influence each other, and this interpenetration plays an important part in the creative process. Accordingly, it becomes difficult to discover specific or definitive correlations between divergent thinking and prescriptive moral judgements made by individuals or groups of individuals. Yet, it is possible and worthwhile to speculate upon broad or more general correlations.

The emergence of each Kohlbergian moral stage has been seen to correspond to a Piagetian logical stage, an Eriksonian ego state and structured further by simultaneous social perspective-



taking or the appreciation of different social orientations. Each successive moral stage follows a pattern of principles in which the child makes logical sense out of ordered subsets of relationships and their ordering principles. It also appears that hypothetical states of possible alternative systems of social order may become an "entry point" for principled moral thinking which seems to require more than just simple cognitive thought process. In other words, it is possible for individuals to imagine different social orders as alternatives to the existing social order during the nurturing of principled thinking. The imagination, may, in fact, prove instrumental in resolving cognitive dissonance. Cognitive conflict in principled thought may partake, therefore, of a more aesthetic or imaginative dimension. The more creatively and imaginatively hypothetical situations or universals are perceived or apprehended, the possibility of a stronger moral commitment may result. (Note the speech by Martin Luther King in CHAPTER 1). There is a good reason to assume that divergent or creative thinking processes aid in the structuring of various social perspective taking or achieving an appreciation for various social orientations by forming alternative concepts to the existing social order,

Creativity, Morality and Personality Traits

Kohlberg has maintained that cognitive stages represent "ways of moral thinking" according to his moral model, and not kinds of personality (Kohlberg et al, 1975, p.41). Yet personality traits have been assigned by researchers to post-conventional moral thinkers describing their radical political attitudes, strong intellectual and aesthetic interests, high tolerance for ambiguity and need for independence. They also have been described as having a low practical orientation (Sullivan and Quarter, 1972). Although there does not appear to be definitive correlations between person-

ality characteristics and moral ideology, certain "creative types" of individuals may be identified and assigned to either characteristics of conventional or post-conventional moral thinkers. In this way it is possible to speculate upon the assumption that creative thinking plays a role in the specification of stages as they emerge in ontogenesis. It is possible that creative thinking is one mechanism influencing moral stage transition. Using the Piagetian "equilibration" model, cognitive conflict is said to be an essential mechanism of stage transition (Turiel, 1969). Sullivan (1972) has ventured the notion that conflict, cognitive or otherwise, is generated by the personality makeup that a person has at his present stage or some carryover factors from earlier stages. Personality characteristics described as "creative" should be influential or significant in determining, for instance, whether Stage 4 moral subjects are likely to accommodate alternative reality situations into their existing moral perspective and advance to Stage 5 or whether they would tend to rule out certain imaginative alternatives and become arrested at that particular Stage. A highly creative individual with a strong ego and independent personality is far more likely to experience cognitive conflict than a dependent personality who is very conformist to societal norms and expectations. Sullivan (1972) also asserts that personality characteristics should also influence the postconventional "path" that someone with conventional orientation takes. It would appear more likely for a creative individual to become, say, a principled absolutist or an instrumental relativist than move on to a straight contractual stage.

Creative personalities and their motivational aspects have been seen as emanating from deep-seated unconscious conflicts of significance in the life of the individual. It has been pointed

that the early learning of the creative individual has eventuated in a self-image as a lonely searcher and crusader for fulfillment against conformist obstacles. The risk the creative person runs is valuable because it confirms or negates his expectations of himself and others. He has a broader basis for thrusting himself into conflict with social forces; the creative individual can thereby reap the benefit that emerges from the antagonism. He not only expects the conflict but looks forward to it as a kind of fulfillment (Maddi, 1972). It would seem, then, that a creative individual would be best apt to handle the cognitive dissonance arising out of conflicting moral ideologies as well as various political and social perspectives. Creative persons also attempt to avoid alienation by creating a locus of meaning for one's life outside the traditional, familial or religious values that indicate conventionality or a limited engagement in self-reflective thought. Creative personalities construct a personal framework of meaning rather than imposed externally. Such individuals have developed their human facilities of self-reflective thought to such a high degree that the alienation which results becomes assuaged through producing their own unique and individualistic meaning (Maddi, 1975).

It appears likely that creative individuals correspond, by reason of personality variables, more closely to principled moral thinkers than to conventional moral thinkers.

#### The Concept of Justice---Creative and Moral Perspectives

Unfortunately there has been next to no research on social creativity and its most important impulse---our innate, deeply ingrained feeling of justice. The tendency of most psychoanalytic writing to date, even in regards to creativity, is to consider the notion of justice merely as a projection of the superego.

Such a view, however, discounts the importance of a balanced sense of justice. A most informative examination of justice through the medium of a psychoanalytic theory of creativity is presented by Anton Ehrenzweig (1967). He considers the body social or the womb of society in terms of the basic metabolism of "expulsion" and "containment" and examines social justice in terms of their balanced interaction. Containment in this sense is linked to life (Eros) which involves redifferentiation while death (Thanatos) is linked to de-differentiation (excretion, expulsion). According to Ehrenzweig, it is useful to measure the health of a society and its social cohesion by the strength of its resistance against fragmentation and expulsion of deviant and marginal members. Minorities, criminals, lunatics, old and dead people tend to be marginal and alien elements capable of provoking expelling and fragmentation tendencies in any given society: <sup>29</sup>

Rich internal differentiation and a variety of classes and 'institutions' (Malinowski) in a society indicate great strength of social cohesion while envious egalitarianism point to weak social health. The less the power of containment in a society, the more easily will a deviant member be treated as an 'alien' element that ought to be expelled. The excessive need for sameness and equality in modern society has led to the now all too frequent displaced person, a sinister symptom of social illness. The criminal, by deliberately putting himself outside society, invites the role of the scapegoat, to be duly expelled, a willing target for fragmentation tendencies active within a society (A. Ehrenzweig, 1967, p.236).

Since at no other time does the human body come nearer to being an excrement than after death, the social cohesion of a society could be well measured according to the treatment it metes out to its dead. Hence, the improper treatment of the dead and fugitives is apt to arouse our sense of justice. Our "innate" sense of justice, according to psychoanalytic theory, cannot simply be explained as a projection of our superego. The ego's sense of justice serves to modify the primitive superego's extreme, near

psychotic aggressions. Justice is achieved by the assistance of the ego in its struggle to sustain **itself** against an over-aggressive oral and anal superego. Therefore, the superego alone, is not projected but interacts with the ego. And, as Ehrenzweig points out, the ego must be able to modify and assuage the severity of the primitive ego through its growing creativity. The ego, as it develops its creative production is able to sustain a proper balance between superego and ego which is monitored by the ever-swaying battle between the forces of Thanatos and Eros. Psychoanalytic theory has often referred to society as a "womb" into which individuals project parts of their selves in order to sacrifice their individual existences in the supra-individual process characteristic of creativity and social creativity in particular. Society makes good this loss by receiving and containing safely, the surrendered parts of the individual. Creativity, in psychoanalytic literature, acts as a mediator between the ego and superego.

Kohlberg's principle of justice as fairness provides a philosophical matrix into which his cognitive-developmental formulations of moral thinking develop. Kohlberg's concept of justice differs in perspective and focus from traditional Freudian or psychoanalytical approaches such as the description offered by Ehrenzweig. Kohlberg's moral judgement stages entail a process of role-taking, or taking the point of view of others conceived as subjects and co-ordinating these points of view and a distinctive and central principle of justice as fairness which operates in moral situations in which disequilibrium brings about a condition of unresolved conflicting claims. A resolution of the situation is one in which each claim is given its due according to some principle of justice that can

be recognized as fair by all the conflicting parties involved. Kohlberg's "equilibrium" assumptions have been linked to the philosophic tradition from Kant to Rawls (Sullivan, 1976).

Criticisms have been directed at Kohlberg's "formalist" position of liberal ideology which view Kohlberg as treating the individual subject as an isolated, independent entity in the data of social analysis and social policy (Duncan, 1973). Although there seems to be some potential merit in exploring an analysis of Kohlberg's alleged "bourgeois" and abstract hypothetical contract theory from a radical historical perspective, it is not the intention of this present study to undermine Kohlberg's rather "ideal" social arrangements, but merely to emphasize the distinction between Kohlberg's structuralist position and those of the Freudian school. Kohlberg's psychologism is scientific in essence and identified with Kantian formalism whereas psychodynamic tradition aligns justice to expulsion and projection heavily invested with anal aggression.

Both Kohlberg's theory and the formulations of Ehrensweig emphasize the social basis of justice. It is, according to Ehrensweig, this social basis from which we must never separate the creative process:

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The child's creativity accompanies and sustains his developing human relationships. In order to enrich ourselves as individuals we have to re-shape and change our human relationships without respite by projection and introjection. A frequent failure in human relationships is due to the same ego rigidity that impedes creativity. We have to give our substance freely, project it into other people or creative work for further transformation. As in creative work we must be humble and grateful to receive back for more than we ourselves have put in. Our personalities will grow through this creative interchange, which underlies the metabolism of our social life. This may be the moral of Ibsen's Faustian play Peer Gynt and his hero's quest for self-realization. Peer went round the world in order to find himself. His search ended in the lap of his mother-wife who had wanted to receive and contain him all her life. Creativity, then, may be self-creation, but impossible only through social intercourse, whether with other individuals as happens in social creativity in the narrower sense of the word, or

through the medium of impersonal creative work. The social aspect of creativity cannot be over-emphasized (A. Ehrenzweig, 1967, p.235).

Development of Hypotheses

Kohlberg (1973) has agreed that moral development and cognitive development are part of a broader unity, that of ego development. Erikson's concept of ego development as a universal sequential phenomenon serves as useful guide in viewing creativity in conjunction with Piaget's corresponding logical stages (Gowan's model). Definite stages of ego development defined by Loevinger et al (1970), van der Daele (1970) and others, imply step-by-step parallels to Piaget's cognitive stages, although they include more references to social-emotional content. Both Piagetian cognitive stages and Eriksonian ego stages are necessary but not sufficient conditions for moral progression. All individuals at a given ego stage must have attained the parallel cognitive stage, but not all children at a particular cognitive stage have organized their self-concept and corresponding social experience at the parallel ego stage (Kohlberg, 1972). Kohlberg maintains that "premature development to a higher ego stage without a corresponding decalage throughout the child's world and life presents problems" (Kohlberg, 1972, p.493).

Conversely, ego stages remain arrested in individuals who never go through an identity questioning (Kohlberg, 1972). In all likelihood, this "arrestment" is due to social forces and peer pressure affective the individual at that particular time.

According to Kohlberg (1973), to have questioned conventional morality, you must have questioned your identity as well. The relativistic questioning of conventional morality is central to an individual's identity concerns. Since morally conventional subjects have a considerable likelihood of never having experienced an identity-crisis, we can speculate that, in conventional moral thinkers, many of our society's coercive influences against



divergent attitudes, beliefs and kinds of thinking may contribute to the incidence of identity foreclosure associated with conventional moral maturity. In fact, it appears possible that conventional morality may be directly related to a repression of creative needs. Creative individuals are more likely to experience identity moratorium simply because creative individuals have been described as those who often question the societal norms and prevailing attitudes of the community and culture. Factors such as guilt, school atmosphere, peer acceptance and personal fears have all been shown to correlate with an individual's tendency to avoid situations which involve exploration or a testing of individual abilities.

Gowan (1972) mentions that a youth who has not solved the identity crisis of the fifth period (Stage 5) can hardly be expected to make the cognitive escalation from formal operations into the creativity accompanying the sixth stage (intimacy). This is, Gowan maintains, a common complaint of the "square person" or conformist, who is capable of fitting into a conventional job but who has great difficulty in finding out who he is operationally. Sometimes this individual (in his thirties) works his way out of the identity crisis and escalates and achieves a new kind of creative power. However, if he does not, he may carry on until the mental or physical breakdown of old age sets in. And this is more or less sanctioned by our society. The authoritarian who formulates idealism towards an "in-group" leader or maintenance of social authority (Kohlberg's conventional stage or Gowan's fifth stage) suffers a possible psychological displacement in which creativity is expressed through the wrong channels and vented on the wrong objects at the wrong place and time. Gowan feels

much of the violence in our culture is caused by a perverted creativity. It would not be incredulous to imagine a conventional adult (in the Kohlbergian sense) allow the goal of a leader or President to overshadow all other imperatives and value systems so that it is proper (in the case of war) to kill, bomb, rape, or do anything else to members of the "out-group" who must first be vilified. Members of the opposition could be, in this case, members of the same community such as pacifists or non-conformists.

Erikson feels that psychic disorder is related to developmental status (Evans, 1966, p.56). Erikson believes that a crisis in each stage is necessary before a resolution to a higher stage can occur. Gowan essentially agrees with Erikson's account but feels extreme guilt or other psychopathic, obsessive-compulsive disorders must be grasped by the "periodicity" of the crisis brought about by characteristics shared by developmental periods three stages removed from one another and, hence, in the same columnar family.

Increased guilt or anxiety, as the ego attempts to make sense out of its previous involvement in the world of experience during the trust, industry and generativity periods respectively, tends to stunt the ability of the ego to develop sufficient power to bring conceptual order and organization to experience.

The critical question, according to Gowan, is for individuals to ask themselves: "Am I in control of my environment through the support of my beloved, or is my environment in control of me?" (Gowan, 1972, p.75).

The individual who progresses through to the final stage of creativity has done so primarily through the nurturing affects of love. His cognitive capabilities become ready to reason in a guilt-

free, spontaneous and insightful fashion. Such an individual would be able to perceive, question and assume an ultimate moral position based on a universal justice principle.

Decreased creativity, according to the traditional psychoanalytic view occurs in the instance of extreme guilt feelings (Rank, 1932). Gowan supports this notion and associates guilt with a definite decrease in creative production. Research by Roper (1973) offers promising evidence for the cognitive-developmental claim that guilt can be defined by internal cognitive structures and varies qualitatively and may, therefore, be expressed along a dimension of maturity in moral thought. Roper used a sample of 29 male and female adolescents (aged 15 to 18) and divided them into three groups according to Kohlberg's scale of maturity in moral judgement. Subjects were also tested on two measures of guilt--a story completion test, and the Mosher Guilt Inventory--in order to test the hypothesis that the relation between guilt and maturity of moral judgement is curvilinear. Roper argued that guilt can no longer be understood or measured strictly quantitatively since, with ego-development, there are corresponding changes in the type of situation which arouses guilt affect. Roper's empirical testing finds subjects whose moral orientation is approval-centred rather than "law and order" centred tend to exhibit more severe guilt than Kohlberg's other stages. The higher Stage 3 guilt scores may be interpreted as providing support for the premise that what is conventionally regarded as guilt is a highly specific affect defined in terms of the Stage 3, interpersonal concordance moral orientation.

For Kohlberg, the character of moral anxiety is determined by the maturity of the child's cognitive structures and changes qualitatively with each successive transformation in the child's

cognitively structured representation of the social environment. Roper maintains that, in this context, where guilt is assessed as a polar trait along a dimension of severity, it is regarded by Kohlberg as indicating only a "milestone" in the moral development of the child. What Kohlberg refers to as a "milestone", Roper's (1973) study reveals as Stage 3 moral maturity. Intensity along this dimension of guilt was seen to rise until this milestone is reached, and then diminished with further advance on the hierarchy of moral maturity.

According to writers like Hartmann (1960) or Erikson (1964) the presence of a capacity for more flexible humanistic moral judgement, or "moral and ethical sensitivity" (Erikson, 1964, p.221) presupposes a reduction in guilt and shame.

If we view Roper's (1973) evidence in conjunction with the indications of Rank (1932), Maslow (1963) and Gowan (1972) which state that severity of guilt correlates positively and significantly with a reduction of creative functioning, then it appears logical and reasonable to suppose that, whereas guilt and moral maturity have been found to bear a curvilinear relationship, a curvilinear trend will also be found between creativity and moral maturity.

For the reasons given, it is first hypothesized that:

(H<sub>01</sub>) The relationship between creativity and maturity of moral judgement is curvilinear.

This hypothesis is further supported by an examination of the relationship between Gowan's (1972) theory of creativity and its relationship to Kohlberg's (1973) model of moral maturity. Gowan's developmental Stage 5 has been linked to Kohlberg's Stages

3 and 4. An examination of this relationship reveals that creative functioning is "not significant" at Kohlberg's conventional moral level. Yet, a curvilinear relationship could be suggested by the observation that Gowan's Stages 3 and 6 in which creativity is at an optimum, correlate with Kohlberg's pre-moral level and Stages 5 and 6 respectively.

The Kohlbergian Stage 6 individual who follows self-chosen ethical principles and who believes as a rational person in the validity of universal moral principles and a sense of personal commitment bears a close resemblance to Maslow's (1973) "self-actualized" or extremely creative individual. Creativity in this sense is viewed as the ability to "perceive of the deeper facticity but also, at the same time, of the oughtiness of the object" (Maslow, 1972, p.118). Maslow has reported that self-actualizing people were 1) very good perceivers of reality and truth, and also 2) that they were generally unconfused about right and wrong and "made ethical decisions more quickly and more surely than average people" (Maslow, 1972, p. 117).

One of Maslow's helpful techniques of bringing individuals or groups into free creative flow is called a "hostillectomy" session involving participants learning to "value" one another. Some sessions involve brainstorming, problem-solving or dilemma situations not unlike Kohlberg's.

Gowan(1972) suggests that the stages towards creative self-actualization are characterized by "complexity of value and transition from egocentric to altruistic concerns" (Gowan, 1972, p.96). Gowan perceives that these "concerns" require continuous or recurring crisis situations with strong emotional valence and demand the courage and energy to face incessant challenge. This description

corresponds closer to situations which are present in the nurturing of principled morality as opposed to conventional morality: <sup>31</sup>

In summary, personal experiences of choice involving questioning and commitment, in some sort of integration with stimulation to cognitive-moral reflection, seems required for movement from conventional to principled (Stage 5) thought. It is probably for this reason that principled thought is not attained in adolescence. The conditions for movement to fully principled (or Stage 6) thought are probably even more of this order, though we have no real data on movement to this highest moral stage (Kohlberg, 1973, p.41).

Roper(1973) argues that large amounts of residual or "intro-punitive" guilt cannot co-exist with the "self-love" or "self-acceptance" prerequisite to the development of moral autonomy and the sense of justice by which "post-conventional" moral reasoning (Kohlberg's Stage 6) is defined. Insofar as creativity is linked to an absence of guilt mediated by the individual's cognitive structures, it seems logical to assume that creativity has a better chance to flourish at the principled level of moral thinking.

The "self-acceptance" prerequisite to principled thought can only be achieved with the advent of an adolescent ideology. Erikson (1964) uses the phrase "adolescent ideology" to distinguish adolescent morality from fear-based "infantile morality" and the more consistent and integrated "adult ethics". It is only when an ideology which the adolescent has accepted is brought into question through his life experiences that an adult ethic is shaped which is not only understood but consistent with behaviour as well.

Considerable attention has been given to the social relationships of creative individuals--those subjects who do well on divergent thinking measures (Haddon and Lytton, 1968).

Torrance (1962) has suggested that the creative child will be lacking in popularity and that social pressures may well be

a factor inhibiting his divergent thinking abilities. If Torrance is correct in assuming that social pressures to conform to peer groups and societal norms cause a reduction in creative (divergent) thinking, then it appears likely that creative thought, when compared to Kohlberg's moral model, would be least evident in relation to an orientation to interpersonal relations of mutuality and maintenance of social order, fixed rules and authority which characterize conventional moral reasoning (Stages 3-4). At this level "maintaining the expectations of the individual's family, group, or nation is perceived as valuable in its own right, regardless of immediate and obvious consequences...the attitude is not only one of conformity to personal expectations and social order, but of loyalty to it, of actively maintaining, supporting, and justifying the order and identifying with the process or groups involved in it"(Kohlberg, 1972, p.343). Accordingly, it seems plausible to assume a correlation exists between factors which retard creative thinking or production and those which fixate, in Piaget's terms, an "autonomous morality."

Since structural moral stages represent general forms of thinking, both the capacity for higher stages and the preference for higher stages develop relatively fast in a "cognitively and socially rich environment" (Kohlberg, 1973, p.35); it appears that an environment that encourages creative thinking could positively and significantly influence vicarious symbolic experience (role-taking) in promoting moral stage development. In other words, an environment conducive to "role-taking opportunities" (Turiel, 1973) would be one in which restraints on creative thinking would be at a minimum. Creativity, in this sense, may be viewed as a type of "catalyst" for moral advancement.

Another aspect of the early life space of creative subjects according to MacKinnon (1967) points to the idea that, in addition to the mother and the father, the larger familial sphere of the creative individual also provided a plentiful supply of diverse and effective models with whom the child could make important identifications: grandfathers, uncles, aunts and others who occupied prominent and responsible positions within their community. Since the main experiential determinants of moral development seem to include the amount and variety of social experience and the opportunity to take a number of roles and encounter other perspectives (Kohlberg, 1972), the familial sphere of the creative child would also encourage a sensitization of the child to a more ready identification and experiencing of other people's perspectives. It seems, then, that moral development in creative children results in an increasing ability to organize and integrate social experience.

Independence of creative subjects appears to have been fostered by parents who showed an extraordinary respect for the child and confidence in his ability to behave appropriately (MacKinnon, 1967). In a similar context, studies indicate the opportunities for moral role-taking appears to be what is most important in the contribution of the family to moral development. Children who were advanced in moral judgement had parents who were also advanced in moral judgement (Holstein, 1973). Related to the child's maturity, however, was the parent's tendency to stimulate reciprocal role-taking and the parents who sought the child's view and who elicited comparison of views in dialogue. Such parents had more morally advanced children.

MacKinnon (1967) believes creativity can be fostered in a university setting that most resembles the family where there exists clear standards of conduct and ideas as to what is right and wrong



but at the same time encouraging active participation, active exploration and internalization of a framework of personal conduct. The university can achieve this, apparently through a deep appreciation of the theoretical and aesthetic ways of thinking.

According to Kohlberg (1973), the experience of leaving home and entering a college community presents one of the two different types of "personal" as opposed to vicarious-symbolic experience important in movement to principled thought. The student must enter into a community of conflicting values (eg. moratorium), identity questioning and the need for commitment. The second type of "personal" experience involves experiences of moral responsibility and moral reflection leading to principles. This occurs when the universally human (as in war) disrupts responsibility accepted on a conventional basis (Kohlberg, 1973). It seems that from a preliminary standpoint, implications for the nurturing of creativity are similar, and in some respects, identical to those conditions which stimulate moral reasoning.

Sadler's (1969) notion that equates play and creative perception is linked to Piaget's formulation of play as the function of assimilation and Kubie's (1958) conception of cogitation. If we give credence to Kubie's idea that creative performance involves both cogitation (to shake ideas together) and intelligence (selection from among ideas), it becomes possible to imagine that creativity may be an essential factor in the resolution of cognitive conflict in the solutions to moral dilemmas.

A possible explanation for the incidence of less intelligent children rarely becoming creative is that they do not reach Bruner's (1965) level of symbolic representation (when ideas become intellectually negotiable because one can recount experience) until nearly the end of the initiative period (Gowan, 1969). In contrast,

the bright child reaches this stage about the middle of this period when creative motivations can cogitate the symbolic representations of experience. Freudian, Piagetian and Eriksonian views expressed in Gowan's (1972) theory appear sufficient to be able to explain the "motivations" which produce the cogitation. Creative people who have achieved an integrated identity are perhaps better able to attain higher moral stages, or are more apt to make the transition to principled thought, considering all the other requirements have been met. Gowan (1972) links creativity to an achieved identity. Identity status, which forms the background or "milieu" in which one structures his cognitive ability to reason both morally and creatively provides a meaning to the self in relation to the surrounding society. It is not improbable that creativity and moral development may be congruently temporal in stage progression.

Erikson (Evans, 1966, p.56) feels that psychic disorder is related to developmental status. Development involves escalation over time and is not merely progression but the unfoldment of new ideas and motifs. Gowan describes development as a quantum effect with identifiable levels and states instead of a smooth curve of accretion. Moreover, each stage contains characteristics appropriate for its full efflorescence and embraces the germinal material for the development of the next stage. Thus each stage is the necessary, but not the sufficient precursor of the next. According to Gowan "the environment is the sufficient cause; its resources the opportunities and dangers it offers determine if, when and to what extent the next stage will evolve." (Gowan, 1972, p.106) Gowan has created a chart related to a taxonomy of developmental psychopathology associated with Erikson's eight stages (Table 7):<sup>32</sup>

The diagram related Eriksonian concepts to developmental arrests distinguishing two types of failure--failure at differentiation of task and failure at integration of an overly successful stage into preceding ones. (It would have

been possible to have constructed a more elaborate chart with each of the seven kinds of developmental outcomes sketched, instead of the polar two at the continuum ends.) The first column represents approximate ages; second comes the Eriksonian stage; third is the typology caused by failure to differentiate (achieve the task); fourth is the typology caused by failure to integrate the task (move to the next stage). Finally the governing morality is indicated. This may be defined as the ethos value or emotional complex which has contributed to the individual's failure at the task or makes him unable to go on to the next stage (Gowan, 1972, p.107).

According to Table 7, obstructions, distortions or arrest depicts a hierarchy in which failures at the first two stages produce psychotics and neurotics; at the next two stages, give rise to problems in school, and in the third two, cause difficulties in university and adult life. Also, the table infers that some problems are not developmental but cultural, among these aggression, delinquency, drugs and dropouts.

An identity crisis of the fifth period leads to the obstruction of cognitive escalation from formal operations into the creativity accompanying the sixth stage (intimacy) according to Gowan (1972). This leads to the conformist, "square" or conventional individual. However, this kind of arrest is more or less sanctioned by our society and this kind of person (Kohlberg's Stages 3 and 4) will feel that he is normal and hence in the right, and he must misinterpret his experience and the motives of others to account for his lot. This unresolved identity crisis leads to an extensive projection of blame and an internalized hostility. This crisis could also lead to an external hostility as seen in a politician's (often a Kohlbergian Stage 3 or 4) aggressiveness in waging war on other nations when in fact what is wrong with the politician is that he is unable to find out operationally who he is.

A conventional adult having achieved identity now able to deal with formal operations even though he may never advance to

TABLE 7\* Eriksonian Stages and Their Counselling Problems

APPROXIMATE AGE	STAGE	FAILURE AT DIFFERENTIATION	FAILURE AT INTEGRATION OF A SUCCESS INTO NEXT STAGE	MORALITY
0-2	Trust	Schizoid person	Overdependent neurotic	Fear
2-4	Autonomy	Neurotic doubt of self worth	Anal person	Shame
4-7	Initiative	Guilt immobilized person	Creative nonconformist	Guilt
7-M	Industry	Underachiever	Overachiever--grind type	Puritan ethic
Teens	Identity	Alienated introvert	Moody, "Permanent adolescent" "Social butterfly"	Socialization
20's	Intimacy	Don Juan man Frigid woman	Nonpaternal man Nonmaternal woman	Sexual love
30's	Generativity (parental)	Parent who competes with child	The child-oriented woman of fifty	Children
40's	Ego integrity	The senior depressive	(Modern'saints' such as Eleanor Roosevelt or Dr. Schweitzer)	Altruism

Ideally each person should go through life as a croquet game, passing each wicket, One can fail to negotiate wickets (failure at differentiation) and also stop and play rover (failure at integration). The latter person has been so successful at a particular stage that he keeps at it instead of incorporating it into the next stage of on-going development.

the intimacy stage or beyond. This individual still gets by as a normal or "conventional" person. However, according to Gowan (1972) "those who resist full development and remain at a regressed level are condemned to some sort of immature behaviours characteristic of those who have stopped growing and who have started to atrophy." (Gowan, 1972, p. 101)

The conventional individual, therefore, is in contrast with the creative individual's open-ended dynamic lifestyle becoming, in many instances, subject to incipient authoritarianism, which expects simplistic answers to complex questions. Rage and destructiveness is often the outcome of the inner authoritarianism of the conventional individual, and is a common scene in contemporary society. In a sense then, the conformist in our culture is a result of perverted or arrested creative development.

The conventional individual described by Gowan (1972) in the preceding passages bear a close correspondence to Kohlberg's subjects at Stages 3 and 4 of the moral maturity continuum (Conventional moral reasoning). This relationship is also charted out in Table 5. This evidence and the research carried out by Roper (1973) which links severe guilt with Conventional moral thought (specifically Stage 3) points to the growing evidence that creativity is least likely to be found in individuals arrested in Erikson's ego stages where ascribed identities are accepted (see Table 4) and which correspond to Kohlbergian Conventional morality. Creativity, according to Gowan's (1972) formulation is "not significant" at this stage of development (see Table 5). For these reasons, it is hypothesized that:

(H<sub>02</sub>) There will be higher creativity as measured by the Product Improvement Task in individuals who are at the post-conventional stages of Kohlberg's scale.

Furthermore, it is hypothesized that:

(HO<sub>3</sub>) There will be lower creativity as measured by the Product Improvement Task in individuals who are at the conventional stages of Kohlberg's scale.

(HO<sub>4</sub>) There will be greater creativity as measured by the Product Improvement Task in individuals who are at the pre-conventional stage of Kohlberg's scale.

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It is only those few who have enough courage to take up the conflict within themselves and make it conscious who are the creative ones and who can help us to avoid the total war which threatens all of us.

Marie-Louise von Franz,  
C.G. Jung, His Myth in Our Time, 1975, p.166.

## RESEARCH DESIGN AND PROCEDURE

SAMPLE

Originally sixty-four subjects were tested for moral maturity using 5 Kohlberg Dilemma Situations. Nine subjects did not record enough information to score. Five subjects who were administered the Kohlberg Dilemma Situations did not complete the Product Improvement Task. Therefore, fifty subjects completed both the creativity measure and the moral measure. Eighteen of these fifty subjects attended Driftwood Elementary School in Toronto's West End at the time this research was conducted. Driftwood services a predominately working-class community with a large degree of single-parent dwellings and Ontario Housing (government subsidized). The local high school (Westview Centennial) supplied twenty-one grade 13 subjects. The remaining eleven subjects were contacted by a friend, Robin Collyer, a prominent Toronto sculptor. These subjects were chosen for their creative qualities exhibited in art and media. None of the subjects were familiar with Kohlberg's theoretical work on moral reasoning. The sample consisted of thirty-one males and nineteen females. No attempt was made to obtain a homogeneous sample in age and I.Q. since the I.Q. scores of the subjects were not made available to the writer and, it was felt that in order to obtain representation in the sample of each moral judgement level (pre-conventional, conventional, post-conventional), a broad age spectrum was desirable. The subjects ranged in age from eleven years to seventy-three.

Kohlberg's Major Levels of Moral Judgement

Level 1 (Preconventional)	-Stage I: Punishment and obedience orientation
	-Stage II: Naive instrumental hedonism
	-Stage III: "Good boy" morality of maintaining good relations, approval of others
Level 2 (Conventional)	-Stage IV: Authority maintaining morality
Level 3 (Postconventional)	-Stage V: Morality of contract and of democratically accepted law
	-Stage VI: Morality of individual principles of conscience

It is possible, however, that two subjects at the same structural stage, may differ to a great extent in the content of their judgements. It is also (conversely) true that the same verbal content may be found to derive from a totally different moral structure. Both "pro" and "con" statements about the Heinz dilemma (situation III) illustrate how a different content may emanate from the same cognitive moral structure. This is illustrated by TABLE 8 (reproduced from Kohlberg, 1969).<sup>1</sup>

TABLE 8

Motives for Engaging in Moral Action

Stage 1: Action is motivated by avoidance of punishment, and "conscience" is irrational fear of punishment.

Pro--If you let your wife die, you will get in trouble. You'll be blamed for not spending the money to save her, and there'll be an investigation of you and the druggist for your wife's death.

Con-- You shouldn't steal the drug because you'll be caught and sent to jail if

you do. If you do get away, your conscience would bother you thinking how the police would catch up to you at any minute.

Stage 2: Action motivated by desire for reward or benefit. Possible guilt reactions are ignored and punishment viewed in a pragmatic manner. (Differentiates own fear, pleasure, or pain from punishment consequences.)

Pro--If you happen to get caught, you could give the drug back and you wouldn't get much of a sentence. It wouldn't bother you to serve a little jail term, if you have your wife when you get out.

Con--He may not get much of a jail term if he steals the drug, but his wife will probably die before he gets out, so it won't do him much good. If his wife dies, he shouldn't blame himself, it wasn't his fault she has cancer.

Stage 3: Action motivated by anticipation of disapproval of others, actual or imagined hypothetical (for example, guilt). (Differentiation of disapproval from punishment, fear, and pain.)

Pro--No one will think you're bad if you steal the drug, but your family will think you're an inhuman husband if you don't. If you let your wife die, you'll never be able to look anybody in the face again.

Con--It isn't just the druggist who will think you're a criminal, everyone else will too. After you steal it, you'll feel bad thinking how you've brought dishonour on your family and yourself; you won't be able to face anyone again.

Stage 4: Action motivated by anticipation of dishonor, that is, institutionalized blame for failure of duty, and by guilt over concrete harm done to others. (Differentiates formal dishonor from informal disapproval. Differentiates guilt for bad consequences from disapproval.)

Pro--If you have any sense of honor, you won't let your wife die because you're afraid to do the only thing that will save her. You'll always feel guilty that you caused her death if you don't do your duty to her.

Con--You're desperate and you may not know you're doing wrong after you're punished and sent to jail. You'll always feel guilty for your honesty and lawbreaking.

Stage 5: Concern about maintaining respect of equals and of the community (assuming their respect is based on reason rather than emotions). Concern about own self-respect, that is, to avoid judging self as irrational, inconsistent, non-purposive. (Discriminates between institutionalized blame and community disrespect or self-disrespect.)

Pro--You'd lose other people's respect, not gain it, if you don't steal. If you let your wife die, it would be out of fear, not out of reasoning it out. So you'd just lose self-respect and probably the respect of others too.

Con-- You would lose your standing and respect in the community and violate the law. You'd lose respect for yourself if you're carried away by emotion and forget the long-range point of view.

Stage 6: Concern about self-condemnation for violating one's own principles. (Differentiates between community respect and self-respect. Differentiates between self-respect for general achieving rationality and self-respect for maintaining moral principles.)

Pro--If you don't steal the drug and let your wife die, you'd always condemn yourself for it afterward. You wouldn't be blamed and you would have lived up to the outside rule of the law but you wouldn't have lived up to your own standards of conscience.

Con-- If you stole the drug, you wouldn't be blamed by other people but you'd condemn yourself because you wouldn't have lived up to your own conscience and standards of honesty.

The illustration provided by TABLE in which both "pro" and "con" statements about the Heinz dilemma (situation III) seem to emanate from the same stage of cognitive moral structure emphasizes the fact that two subjects at the same structural stage may differ widely in the content of their judgements. The example of the same verbal content which seems to derive from a totally different moral structure is illustrated by the case of one boy who agreed that Heinz should steal the drug to

who agreed that Heinz should steal the drug to save his wife's life. When asked, "Why?", he replied, "Because then there would be no-one to cook his food" (stage 2). It is important that the examiner stress to the subjects at the outset of answering the moral dilemmas that the responses should be of adequate length. Hopefully, the responses will be "scorable" in the sense of being of sufficient length and commitment on the moral issues raised to reveal structure of moral thought. The instrument and the six stages which define them are only useful to the extent that they tap the underlying structure of the subject's moral judgement.

The five dilemmas used in this study are produced in APPENDIX A.

#### Product Improvement Task

The description of the Product Improvement task given here follows closely the description given by Torrance (1962) in his book Guiding Creative Talent. Torrance's "Minnesota Tests of Creative Thinking" fall under three major categories: non-verbal tasks, verbal tasks using non-verbal stimuli, and verbal tasks using verbal stimuli. The Product Improvement Tasks are verbal tasks using non-verbal stimuli. This "test" is a rather complex task with a high degree of face validity. This task quite often "makes good sense" to teachers and to parents since it is possible to recognize what they consider a "desirable" type of thinking. Administration and scoring of this task is straightforward and direct. This task, especially, offers interesting possibilities for scoring on a variety of dimensions: fluency, flexibility, originality, inventiveness, and the like.



The Product Improvement Task allows the subjects to "regress in the service of the ego" which is an important development from a psychodynamic point of view. The variety of cognitive dimensions scored such as fluency, flexibility, originality and inventiveness offers important data from a psychometric standpoint. Hence, this task inherits developments that take into account Guilford's structure of the intellect model and Kubie or Kris' psychological formulations. This task is a "fun" task and is generally regarded as interesting by most subjects. It enables them to play around with ideas which they would not dare to do in a more serious task. Accordingly, there exists possibilities for Bruner's emphasis on "creative play". With each response, the question is asked, "What kind of thinking did this idea require?"

#### Testing Materials

Thus far, four different toys have been used by researchers in connection with this test: a toy nurse kit, a friction fire truck, a stuffed small toy dog, and a stuffed small toy monkey. Originally, the first three toys were used with each subject. Only one of the toys, the stuffed dog or the stuffed monkey, is included in batteries in current use.

In addition to the toy, the materials required include a test booklet for recording responses and observations, a table and chair for the subject, a chair for the examiner, and a stop watch. In the group administration, a coloured slide or a picture on the response sheets are used. For this study a black and white drawing of a dog was used with a written description appearing under the drawing. This can be seen in APPENDIX B. It is also desirable

to display the toy itself in the group administration, even though subjects do not have a chance to manipulate it.

In addition, the test booklet contains a general orientation to be used by the examiner in establishing rapport, the key instructions for the task, and space for observations.

The nurse kit was used as a typically "girl's toy" and includes a variety of items suitable for playing the role of the nurse: plastic cap, candy pills, absorbent cotton, eye chart, tongue depressor, hypodermic needle, thermometer, stethoscope, spoon, and spectacles. The items are contained in a cardboard box illustrated with drawings of a nurse.

The friction fire truck was selected as a typically "boy's toy" and is of an inexpensive variety with a number of defects. It has rubber wheels, is painted red, and has an extension ladder. There is no driver in the cab, no hose, no sirens, and no safety net.

The toy dog was selected for this study because of its appropriateness for both boys and girls. Early experimental work did show that boys in the first grade gave fewer responses than girls for the nurse's kit and more responses than girls for the fire truck. Beginning with the second grade, these kinds of differences tend to fade out, and by the third grade boys gave more responses than girls for all three toys, including the nurses's kit. It was partially for this reason that most of the developmental work by Torrance (1962) has been done with the toy dog and monkey. Neither seems to have any "sex taint." The monkey can be used as the stimulus for an alternative task. For the purposes of this present study, only the toy dog was used. A black line drawing of the dog and a written description appears at the top of the answer sheet and may be examined at APPENDIX B.

Administration and Scoring of Measures

"Pure" measures of creativity and moral variables are important in correlational design in order to support the hypotheses concerning the relationship between them. Consequently, in addition to cautioning students to refrain from discussing test-content before the gathering of data was completed, the administration of tests were widely spaced (about one or two weeks). In this way it was hoped that the possible influence of one test situation on another would be minimized. Variance in scores due to inter-test influence was further controlled by distributing it across the sample. This was achieved by administering the two instruments in six different sequences as shown in TABLE 9.

TABLE 9

## SEQUENCE OF TEST-ADMINISTRATION

Testing Sequence	No. of Subjects
Dilemma Situations---Product Improvement Task	10
Product Improvement Task---Dilemma Situations	11
Dilemma Situations---Product Improvement Task	11
Product Improvement Task---Dilemma Situations	10
Dilemma Situations---Product Improvement Task	11
Product Improvement Task---Dilemma Situations	11

### Kohlberg Dilemma Situations Scoring

The moral dilemmas were conducted in groups of no more than eleven. Subjects were told that the purpose of the dilemmas was to find out the subject's opinions about some stories. They were also informed that they were participating in an investigation of individual attitudes and that their names would not be revealed when the findings were reported.

Each subject was then asked to read silently a copy of the dilemma situation while the experimenter read the story aloud. Questions on each story followed and the same procedure was followed for the remaining four dilemma situations.

A detailed scoring system has been used where scores are assigned to the 'fusion of all thought content' expressing a single moral idea based on thirty 'elements of morality' (Kohlberg, 1963). Complete 'Issues scoring procedure' in which each dilemma was given a separate rating of the subject's modal stage could be derived as follows:

To obtain a Moral Maturity Score from stage ratings of individual dilemma situations, arithmetic (stage weighting values) are given to each rating as follows:

Pure Score --- 3 points  
 major Score --- 2 points  
 minor Score --- 1 points  
 (enclosed in bracket)

The arithmetic value is determined for each rating by multiplying the stage rating by the appropriate number of points. For example:

$$3 = 3.3 = 9$$

$$3(2) = 3.2 + 2.1 = 8$$

$$2(3) = 2.2 + 3.1 = 7$$

$$2 = 2.3 = 6$$

These values are then summed, divided by 12 ( the minimum total possible ) and multiplied by 100. This yields a score with a possible range of 100 to 600. In the hypothetical example above,

$$9 = 8 = 7 = 6 \times 100 = \frac{30}{12} \times 100 = 250$$

This Moral Maturity Score is midway between pure Stage 2 and pure Stage 3.

In June, 1973, a shorter "standard form" scoring procedure had been developed to facilitate research on larger samples. A global, more simplified version of the Kohlberg scoring system uses ratings based on intuitive weighting of the nine content areas reflected in the responses and which, in some cases, implies a "feeling" for the type of reasoning as a whole and as a part. Reports of scores on each dilemma reflects a dominant stage-score (pure) as well as a minor stage-score (mixed) with an overall, global score given by way of the following:

- (1) a final score is given for each of five dilemmas by way of nine content areas
- (2) a weight of 3 is given to a pure score
- (3) for a mixed score, a weight of 2 is given to the major stage and 1 to the minor stage (eg. 2(3), 4(5) and
- (4) the totals for each stage are added and converted to percentages.
  - (a) If 50% or more of an item is at a given stage, this was noted as the major stage in the global score,

- (b) if 25% or more of the item is at a given stage, this was noted as the minor stage in the global score.
- (c) this same procedure is used to arrive at an overall global score involving a weighted measure of all five dilemmas: this final measurement results in the individual's stage and level of moral reasoning.

Kurtines and Grief(1974) conclude after 15 years of research that (1) interrater reliability correlations indicate an 'acceptable' degree of reliability, (2) there may be some evidence of predictive validity for this model but there is no clear demonstrating connecting moral judgement and moral action vis-a-vis the Moral Judgement Scale, (3) there is little evidence of construct validation for this scale.

#### The Product Improvement Task Scoring

The ideational fluency score is obtained by simply counting all of the separate responses given by the subjects, regardless of the quality. The flexibility score for each task is obtained by counting the number of approaches used in improving the product. Guides for scoring flexibility are included in the section which follows. The inventilevel score was devised by adapting the criteria used by the U.S. Patent Office in assessing inventilevel. Redefined, these criteria are as follows: stride forward, newness, challenging and thought provoking, rarity, constructiveness, and surprisingness. The scoring guide follows. The originality score was developed from a tabulation of the frequency of responses given.

INVENTILEVEL

The "inventilevel" concept was adapted from U.S. Patent Office usage, suggestions made by McPherson at the 1955 Utah

Conference on the Identification of Creative Scientific Talent(1956) Rossman (1931), and others. Interscorer reliability have been consistently in the .90's and upper .80's. The following criteria have been found useful for the toy dog task:

#### CHALLENGING AND THOUGHT PROVOKING

Does the idea lead to new and additional ideas? Does it, or can it generate new ideas? Examples: Improvements---Have him growl with a record inside; have leg scratch ear; make paws shake hands, etc. Unusual Uses---Puzzle (make it in very small pieces); camera (twist tail for shutter release); character in a good book; communication device.

#### RARITY

Is the idea different from those generally given? Is it produced by only a few individuals? Examples: Improvements---Make his eyes/nose light up, sparkle, glow in dark; squirt water from mouth; smelly nose; holes in nose; make him able to lick face. Unusual Uses---Toilet paper dispenser, lint remover (give it an electrostatic charge); squeeze bottle (made out of plastic).

#### CONSTRUCTIVENESS

Does the idea tell how to bring about the change or how to apply the principle or how to solve the problem? Examples: Improvements-- Have him stand by pushing button, or pulling his tail. Unusual Uses ---Make a sleep inducer by adding a tape recorder inside; give it an electric brain so he can be a computer, can answer questions, etc.

#### SURPRISINGNESS

Does the idea produce astonishment, wonder, or surprise? Does the idea introduce reasons to produce feelings of astonishment or

surprise? (The suggested idea must not be a part of any toy dog insofar as you (the scorer) know). Examples: Improvements---Make him wet or warm to touch; make him have doggy smell. Unusual Uses-- Back scratcher, decoy, burglar alarm, nose as a horn.

#### STRIDE FORWARD

Does the idea present a new and original plan? How useful is the idea? Does this usefulness extend in a practical, realistic direction? Examples: Improvements---Give him a beard and/or mustache; have him do acrobatics. Unusual uses---Make him into a barrette or brooch; Make him into an ear muff.

#### NEWNESS

Is the idea unusual. remarkable: Is it of recent origin? Does it show innovation, new effects? Examples: Improvements---Give him a doggy smell, make him inflatable. Unusual uses---Make an autograph dog, a garbage disposal, a kitchen timer, a penulum weight, fire starter, etc. from him.

#### FLEXIBILITY

Twenty or more general principles may be used in thinking of new ideas of improving almost any product, process, organization or plan. The flexibility score is the number of different principles or approaches used in responding to the task. Their application is used in the following illustration of categories for the toy dog:

1. Adaptation---Change it to a cat, mouse, etc. Uses other than as a toy dog.
2. Addition---Leash, ribbon on ear, squeaker for nose, hat with flowers, toes, collar and licence, "wee-wee" thing to go to bathroom, motor, dog sweater, carrying a bone, decoration.
3. Change Colour---All red, all black, brown all over, more like real dog, like a particular kind of dog, pink dog, yellow nose,



different colored eyes, red ribbon instead of green ribbon, etc.

4. Change Shape---Hold ears up, make rear stick up, change shape of nose more like real dog, fatter neck, floppy ears, tongue inside mouth, etc.

5. Combination--- Put with dog house, puppies, mommy, master, mate, bag for dog and house, car for master and dog, cat to chase, road to go on, stake for hitching dog, a bowl, remote control.

6. Division---(Thus far, we have no responses using this approach).

7. Magnification--- Bigger: dog, head, tongue, hind legs; longer: tail, legs, tongue; wider: ears; so big you could sit on it.

8. Minification---Smaller: mouth, etc; shorter: ears etc.; baby dog.

9. Motion---Legs so that they bend or move; eyes move, open, close; jump around; sniff; wag tail; wind up toy; touch button and runs by himself; wheels on feet; ears that move; mouth that opens and closes; grins, shows teeth.

10. Multiplication---Litter of dogs, pairs, etc.

11. Position---Sit up, stand up, lie down, stand on head, stand up straighter.

12. Quality of material---Make it out of rubber, ears should be strings, real dog fur, flexible material, etc.

13. Rearrangement---Eyes on same level, detachable parts, etc.

14. Reversal---Put head where tail is etc.

15. Sensory Appeal---(ear)---Marble in ear so it makes a noise, barks, makes a noise when you push it; squeeze ears and he barks; tape recorder in order to sing a song; tiny computer to translate

human speech into dog language, etc.

16. Sensory Appeal (eye)---Nose that glows, eyes that glow, eyes that light up, etc.

17. Sensory Appeal (nose) Make it smell sweet; put catnip on it to make it a toy for cats, etc.

18. Sensory appeal (touch)---Holes in nose; a cold nose; nose made of sponge that stays moist, etc.

19. Substitution---Collar in place of ribbon, chain in place of ribbon, ears like bean bags, etc.

20. Subtraction---Take seal(tag) off, take bow (ribbon) off etc.

#### ORIGINALITY

In order to develop information to construct some measure of originality or unusualness of response, Torrance (1962) made tabulations of the responses of 146 elementary school children from grades one through six and 448 high school students. Frequencies and percentages were computed, and on the basis of these weighted values were assigned to each response for the elementary level, the high school level and the elementary and high school combined. The procedure used to score originality is to award one point to each response having a value of four or for each response having a value of three or four.

The following is the list of the most common responses. It is suggested that a score of zero be assigned to each of these responses, and that a score of one be assigned to all other appropriate responses showing evidence of creative intellectual energy:

Bark, speak  
Bells on it  
Bigger  
Change Color

Fuzzy or hairy  
Hat on head  
Leash, add  
Legs move

Clothing on it, cap, shoes, glasses  
Collar, add  
Ears flap  
Eyes roll (when tongue is pulled)

Mouth move  
Squeak when squeezed  
Tail longer  
Tail wags

Children are encouraged to write down all of their responses no matter how irrelevant or fantastic they may seem. This material is essential in assessing irrelevance and fantasy. If a subject obviously runs out of responses or can give no further responses before the eight minute deadline, he is not pressured to do so and may hand in his paper. With exceptionally shy and inarticulate children who do not grasp the idea of "changing or improving the toy so that it will be more fun to play with," an alternative may be used. One of the more successful is, "If you had a magic wand and could make this toy be any way you wanted it to be, how would you make it different?"

### Description of Trend Analysis

Once the MORAL MATURITY SCORES and the CREATIVITY SCORES have been calculated, a trend analysis will reveal whether or not a curvilinear relationship exists between the independent variable (Moral Maturity Stages), and the dependent variable (creativity performance under each level). The trend analysis will shed some light on the nature of the relationship between the independent and dependent variables which will either support or negate the hypotheses stated in this study. If the treatment levels represent a quantitative variable, the ensuing types of questions may be posed:

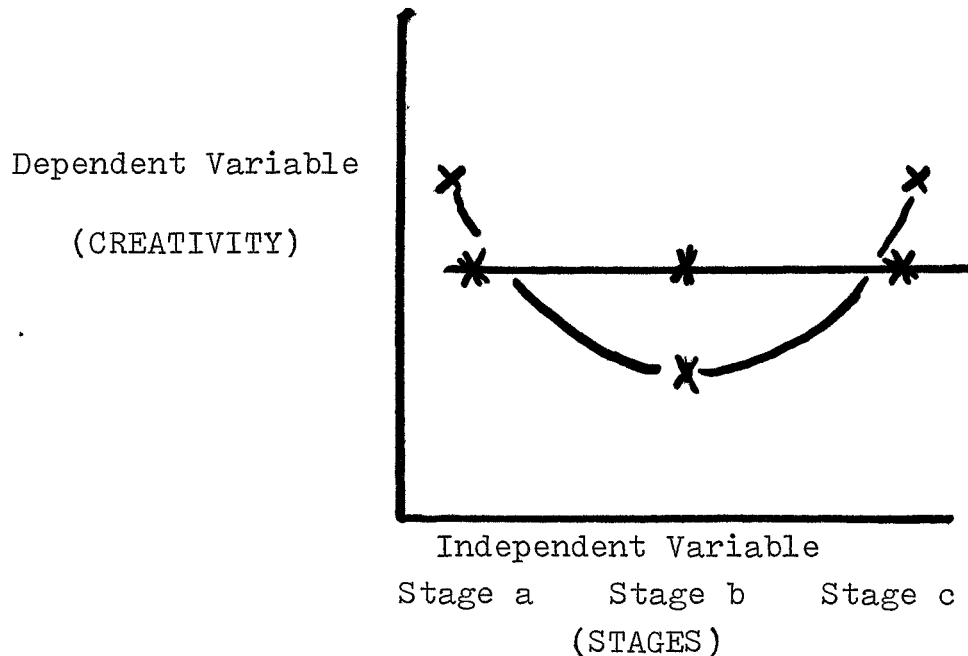
- (1) Is there a trend in the data? In other words, are the means for the dependent variable influenced by the changes in the independent variable, STAGES?
- (2) Is the trend of the dependent variable means LINEAR or NON-LINEAR?
- (3) If the trend of the dependent variable means is NON-LINEAR, what higher degree equation is required to provide a satisfactory fit for the data?
- (4) Do the means for the dependent variable follow a trend that has been derived from the data? That is, does a particular equation based on the data provide a satisfactory fit for the data?

Test for the presence of the trend:

An answer to the first question, "Is there a trend in the data?" is provided by the ratio:

$$F = \frac{MS_{\text{between groups}}}{MS_{\text{within groups}}}$$

$F_{.05, V_1, V_2}$  it is concluded that the measures of the means for the dependent variable are influenced by changes in the independent variable. If there is no trend, then the data will have the appearance shown below by the \*'s. A trend is illustrated by the x's.



A trend is indicated whenever a dependent variable's means are not equal for the different levels of the independent variable. If the F test indicates a trend, the nature of the trend may be either linear or non-linear and finding the simplest "fit" or equation for the data can be achieved most easily through the utilization of orthogonal polynomials: A given set of data can often be described by many different equations. A polynomial equation containing one less component than there are treatment levels,  $K-1$  terms will always provide a fit for the data.

In regression analysis, a first-degree (linear) equation is used as the first approximation to the relationship between two variables. Second-degree (quadratic), third-degree (cubic), and higher degree equations are used if the fit of the linear relationship does not prove to be satisfactory. When there are equal numbers of observations in each of the treatment classes, and when the treatment classes form equal steps along an ordered scale, the work of finding the degree of the best-fitting curve is simplified by use of comparisons corresponding to these curves. Once the degree of the best-fitting polynomial is found, the regression coefficients for this curve are also readily obtained. The most complete set of coefficients is in the work of Anderson and Houseman (1942). The Fisher and Yates tables (1953) also have an adequate set. A numerical example will be used to illustrate the application of individual components of variation to the problem of finding the degree of the best-fitting curve.

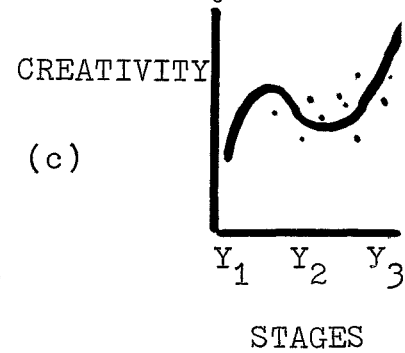
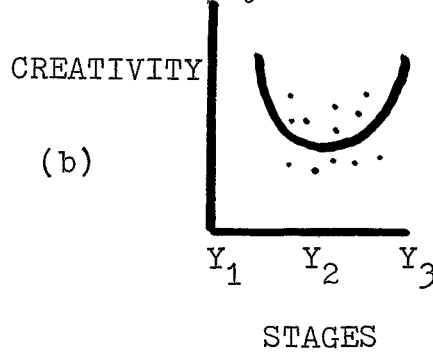
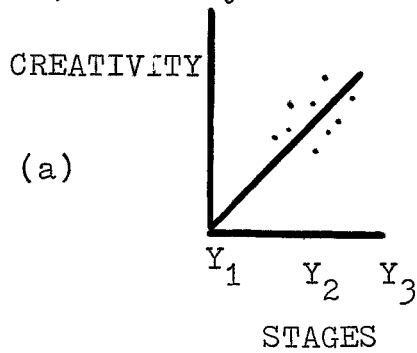
Use of orthogonal polynomials in fitting a trend:

A polynomial is an algebraic expression containing more than one term. For example,  $X = a + bY + cY^2 + dY^3 + \dots + jY^n$  is a nth degree polynomial containing:

a=constant  
 bY=linear component  
 cY<sup>2</sup>=quadratic component  
 dY<sup>3</sup>=cubic equation component  
 jY<sup>n</sup>=nth degree component

An equation of the form  $X = a + bY$  is a first degree or linear equation,  $X = a + bY + cY^2$ , is a second degree or quadratic equation, etc. These equations, when graphed, have the general form shown below:

(Polynomials may be used to "approximate" exponential or logarithmic curves)  
 $X = a + by$                        $X = a + by + cY^2$                        $X = a + by + cY^2 + dY^3$



Orthogonal polynomial coefficients are derived so that each set represents one and only one trend or form of the relationship. If  $K=4$ , the best prediction equation is of no higher degree than  $k-1$ . The coefficients for linear, quadratic, or cubic trends are shown below.

\* COEFFICIENTS FOR LINEAR, QUADRATIC or CUBIC TRENDS

Treatment Level	Y <sub>1</sub>	Y <sub>2</sub>	Y <sub>3</sub>
Linear	-1	0	+1
Quadratic	+1	-2	+1
Cubic	NOT APPLICABLE (Only 3 levels)		

The derivation of orthogonal polynomial coefficients is undertaken only if there is a trend in the data. Example "b" is the curvilinear relationship that is predicted in the hypothesis of this study. In other words, it is assumed a quadratic relationship will be able to fit the predicted trend.

\* Thanks to Roger Crane of Brock University who advised the author on how to conduct an analysis of trends.

## FOOTNOTES ON CHAPTER 3

1. L. Kohlberg, "Stage and Sequence: the Cognitive Developmental Approach to Socialization," in Handbook of Socialization Theory and Research, D. Goslin (ed.), Chicago, 1969, p. 12.



Moral judgement is always present and carries with it characteristic psychological consequences. I have pointed out many times that as in the past, so in the future the wrong we have done, thought, or intended will wreak its vengeance on our souls. Only the contents of judgement are subject to the differing conditions of time and place and, therefore, take correspondingly different forms. For moral evaluation is always founded upon the apparent certitudes of a moral code which pretends to know what is good and what evil. But once we know how uncertain the foundation is, ethical decision becomes a subjective, creative act.

C.G. Jung, Memories, Dreams, Reflections, 1961, p.331.

## RESULTS

Analysis of Data

A far narrower range of moral judgement scores (see TABLE 10) was distributed than expected (Stage 2 to Stage 4). Stage 1, Stage 5 or Stage 6 were not represented at all. There was only one subject (the eldest) who had even any percentage (7%) of principled thought. Therefore, it seemed necessary to adjust the scale in such a way that differences within each stage may be used to further sub-divide the stages. This technique has been used by Ruma (1967) in order to assign "mixed" scores to a single stage for comparison purposes. A sub-division of the present sample produced a scale of eight categories: 2, 2(3), 3(2), 3, 3(4), 2C, 4(3), and 4 where the number in brackets represents between twenty-five and fifty percent usage of the designated stage, and 2C represents a sub-stage midway between Stage 2 and Stage 3. A highly uneven representation results, however, rendering inferences about individual stages highly suspect since, for example, there are only two examples (subjects) in Stage 2(C) and another in Stage 3(4). It becomes questionable as to whether there is any real qualitative transformation between, for instance, 3(4) and 3. This is especially true since the five dilemmas provide only an "estimate" in determining the subject's modal stage and certainly no marked change in the estimate (eg. Stage 2 to Stage 3 or 4) would be anticipated if further moral issues were presented. Kohlberg (1971 p. 166) lists 11 moral issues.

It seemed more feasible, therefore, to distribute the subjects into three groups in order to obtain divisions of approximately equal size but also to ensure that only "pure" Stage 3 usage would be classified as Stage 3. Less than pure Stage 3 subjects were classified as "pre-Stage 3" and those who showed more than

TABLE 10

ANALYSIS OF RESPONSES ON  
MORAL DILEMMAS

% of Response at Stage

PERSON	2	3	4	5	MMS
tm	7	27	66		359
sm	28	72			272
nu	14	87			277
rg	11	88			288
lc	11	88			288
cm	4	92	4		300
tm	47	53			253
nm	11	88			288
an	11	84	5		
mm	20	80			280
wr	26	74			274
dr	20	66	14		294
id	7	80	13		306
ra	50	42	8		258
vr	14	86			286
rm	4	58	38		334
av	11	88			288
pt	11	88			288
Im	7	93			293
kv	25	75			275
jf	22	77			277
ds	73	27			227
mb	71	29			229
co	60	40			240
sm	80	20			220
af	67	33			233
al	75	25			225
pb	77	23			223
rd		100			300

## % of Response at Stage

PERSON	2	3	4	5	MMS
sv	79	21			221
ja	70	30			230
It	83	17			217
fd	55	44			244
ag	50	50			250
Im	75	25			225
ap	50	50			250
oc	83	17			217
ts			100		400
kr		42	58		358
mf		33	67		367
vg		86	14		314
dd		93			213
ek	7	14	72	7	379
jm		14	86		386
im	7	73	20		313
sw		20	80		380
rc		14	86		386
rb		86	14		314
sa	74	26			226
bb	20	80			280

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The Kohlberg dilemmas were scored by Susan Pagliuso, March 22, 1978. Ms. Pagliuso taught graduate students at OISE the scoring system from 1973 to 1975 and held workshops for teachers on the stages of moral development, 1973, 1977. She is the author of over ten books and publications on moral educational issues and projects.

TABLE 11

ANALYSIS OF RESPONSES  
ON  
PRODUCT IMPROVEMENT TASK

Name	Ideational Fluency	Flexibility	Inventilevel	Originality
Jim	5	3	2	5
Lindsey	13	10	2	5
Trevor	7	5	3	3
Leonard	9	5	2	3
Robert	6	5	2	2
Vince	5	4	1	1
Robert A.	9	5	0	0
Albert	3	3	0	1
Marilyn	7	4	3	4
Wanda	5	5	0	1
Nandanie	5	4	0	1
Carla	4	3	1	3
Sonia	6	4	2	2
Richard	5	5	1	0
Dave	9	7	3	4
Karen	6	6	1	4
Viola	11	7	2	3
Michael	11	8	2	6
Ed	7	5	3	3
Tom	18	10	5	5
Jim	5	3	1	3
Danny	9	5	1	1
Shirley	7	4	2	5
Robin	8	4	1	2
Ron	5	4	2	3
Ian	5	3	2	2
Barbara	8	4	1	2
Lily	13	7	0	2
Alex	3	2	0	0
Shelley	7	5	2	4
Norma	6	4	0	2
Angelo	7	3	0	1

Name	Ideational Fluency	Flexibility	Inventilevel	Originalit
Ivana	6	4	0	0
Peter	7	4	2	3
John	6	2	1	2
Pamela	9	5	1	4
Leo	4	3	2	3
Dale	7	3	1	4
Frank	8	5	2	4
Monica	11	6	2	3
Richard	5	4	2	0
Sandy	6	4	1	1
Jeff	4	3	0	1
Patricia	9	3	0	2
Anna	12	4	0	3
Reggie	7	3	0	0
Steve	7	4	1	0
Christine	17	11	0	4
Audrey	10	6	2	1
Paula	2	1	0	0
<hr/>				
Mean	7.14	4.55	1.26	2.29
Standard Dev.	3.22	2.00	1.07	1.65

Creativity measures were scored by the Research Department of the North York Board of Education, Toronto.

TABLE 12

## DISTRIBUTION OF MORAL JUDGEMENT STAGE RATINGS

Category	Modal Stage	No. of Subjects
"pre-Stage 3" (n=21)	2	5
	2(3)	10
	3(2)	4
	2(C)	2
"Stage 3" (n=20)	3	20
"post-Stage 3" (n=9)	3(4)	1
	4(3)	3
	4	5

T=50

TABLE 13  
 MEAN CREATIVITY SCORES AND F RATIOS FOR  
 EACH VARIABLE OF THE PRODUCT IMPROVEMENT TASK  
 BY STAGE OF MORAL JUDGEMENT

Source of Variation	Mean Creativity Scores			F ratios
	pre-Stage 3 (n=21)	Stage 3 (n=20)	post-Stage 3 (n=9)	
FLEXIBILITY	4.86	4.50	5.78	1.179
INVENTILEVEL	1.05	1.35	2.00	2.42
IDEATIONAL FLUENCY	7.86	6.75	8.87	1.28
ORIGINALITY	2.33	2.4	3.44	1.48

\* significant at .05 level



pure Stage 3 usage were classified as "post-Stage 3". This type of division was used by Roper (1973) in his study which sought to determine the relationship between guilt and moral maturity. Three groups were divided as follows:

- (1) "pre-Stage 3," modal stages 2, 2(3), 3(2), 2(C).  
(n=21)
- (2) "Stage 3" modal Stage 3 only (n=20)
- (3) "post-Stage 3," modal stages 3(4), 4(3), 4  
(n=9)

Relationship Between Maturity of Moral Judgement and Creativity as Measured by the Product Improvement Task

( $H_{0_1}$ ) In order to test hypothesis one--"the relationship between maturity of moral judgement and creativity is curvilinear"--mean creativity scores were computed for each moral judgement stage (pre-Stage 3, Stage 3, and post-Stage 3), and compared as a function of these categories. The results of the test for the presence of trends in all four categories of creativity (originality, ideational fluency, inventiveness, flexibility) are presented in TABLE 13. In each case the  $F_{obs.}$  is less than  $F_{.05, V_1, V_2}$  and, therefore, no trend is observed, linear or otherwise. In other words, it is concluded that the measures for the means of the dependent variable (creativity) are not influenced by changes in the independent variable. Since the data did not indicate a trend the test for linearity of trend, the derivation of orthogonal polynomial coefficients for linear, quadratic or cubic trends or the derivation of coefficients for linear components was not undertaken. For example, the X values (Fluency) for the data are 7.86, 6.75, 8.67. If these values are multiplied by the  $C_1$ ,  $C_2$  and  $C_3$  coefficients in the table, the following

sums are derived: 7.86, 0, 8.67. Thus, in this case, neither the linear, nor the quadratic sum to zero. This indicates that neither the quadratic, nor the linear are useful in describing the trend. Since there are unequal n's, however, the use of orthogonal coefficients can not strictly be used and a derivation of the linear components would have to be undertaken. One procedure which could have been used is described by Gaito (1965) and this requires computation involving the solution of a series of simultaneous equations. However, since the F test revealed no trend, any further analysis of data is merely peripheral to the hypotheses. Therefore the first hypothesis ( $H_{01}$ ) is not retained.

( $H_{02}$ ) there will be greater creativity as measured by the Product Improvement Task in individuals who are at the post-conventional stages of Kohlberg's scale. It was assumed that post-conventional subjects will correspond to a greater degree with Gowan's "love-affiliation" stage six which is characteristic of greater creativity.

Inspection of Figure 1 and Figure 3 indicates the predicted curvilinear trend is clearly evident. Furthermore, throughout Figures 1 through 4 the creativity curves are noticeably highest in the post-conventional (post-Stage 3) moral judgment categories.

In Figure 1 and Figure 3 subjects categorized as pre-Stage 3 and post-Stage 3 manifested greater creativity (Flexibility and Ideational Fluency) on these components of the Product Improvement Task than the Stage 3 subjects. Since the F test revealed no trend, the second hypothesis ( $H_{02}$ ) is not retained. ( $H_{03}$ ) there will be less creativity as measured by the Product Improvement Task in individuals who are at the conventional stages of Kohlberg's scale. An inspection of the arcs of the creativity curves reveal that they are noticeably lowest in the Stage 3 moral judgment categories. This trend would appear to support the third hypothesis of this study that suggests reduced creativity is associated with Stage 3 moral judgment. Roper (1973) discovered that guilt phenomena were directly related to Stage 3 "interpersonal-concordance" orientation in Kohlberg's moral hierarchy. It was reasoned, therefore, that creativity is more likely to be hindered or stifled by subjects experiencing greater guilt conflicts. Greater guilt conflicts suggest lower creativity. Therefore it was assumed that creativity will be least characteristic of a Stage 3 moral thinker. However, since the F test reveals no statistically significant trend, hypothesis ( $H_{03}$ ) is not retained.

( $H_{04}$ ) there will be greater creativity as measured by the Product Improvement Task in individuals who are at the pre-conventional stage of Kohlberg's scale.

Conversely, a look at Figure 1 and Figure 3 indicates greater creativity in the pre-conventional moral judgment scale than appears at the conventional level. This would seem to support the fourth hypothesis of this study that suggests greater creativity is associated with pre-conventional moral judgment.

However since the F test indicates no significant trend, hypothesis ( $H_{04}$ ) is not retained.

It seems, then, from a preliminary examination of the Figures, that all four hypotheses have been supported by direct empirical evidence.

However, a comparison of the group means computed to test the significance of the observed trends as revealed by the F test results in no statistically significant difference between group means.

The trends observed throughout Figures 1 to 4 are not therefore sufficiently greater than chance expectations to provide conclusive support of either Hypothesis 1 ( $H_{01}$ ), Hypothesis 2 ( $H_{02}$ ), Hypothesis 3 ( $H_{03}$ ), or Hypothesis 4 ( $H_{04}$ ).

An examination of Figure 2 (Originality) and Figure 4 (Inventilevel) did not reveal a curvilinear trend. However in each of

four Figures, creativity seems to increase in post-Stage 3 moral judgement. Although not statistically significant it is interesting to note that the mean creativity scores on all functions of creativity presented in the Product Improvement Task are numerically greater in post-Stage 3 subjects.

It was decided that a pooling of test scores (Originality, Ideational Fluency, Inventilevel, Flexibility) to obtain an overall creativity score may obscure important differences between scores on the subscales and was not undertaken. However, certain results from an analysis of Torrance's scoring procedures raise the serious question as to whether any attention should be paid to the separate scores or whether a single overall creativity score would be more appropriate. From each of his tests Torrance extracts scores for fluency, flexibility, originality and inventilevel. Fluency is simply the number of relevant responses given; flexibility is the number of different categories of response; originality is a sum of credits where some routine responses count zero, less common responses get a unit score, and, in some cases, responses too infrequent to be on the list in the manual get a credit of two; and the inventilevel score is the sum of the point values of all responses in six categories. Thorndike(1972) points out that, under these circumstances, it is not surprising that the fluency, flexibility, and originality scores tend to be highly correlated, since all are accumulated over the same set of responses given by the examinee. Also, evidence for the consistently different meaning for the fluency, flexibility and originality scores is almost vanishingly small. According to Thorndike, scoring and norms emphasize the separate scores, but much of the research on validity of the instrument seems to use a total score as a variable, or contrasting groups formed on the basis of a total score.

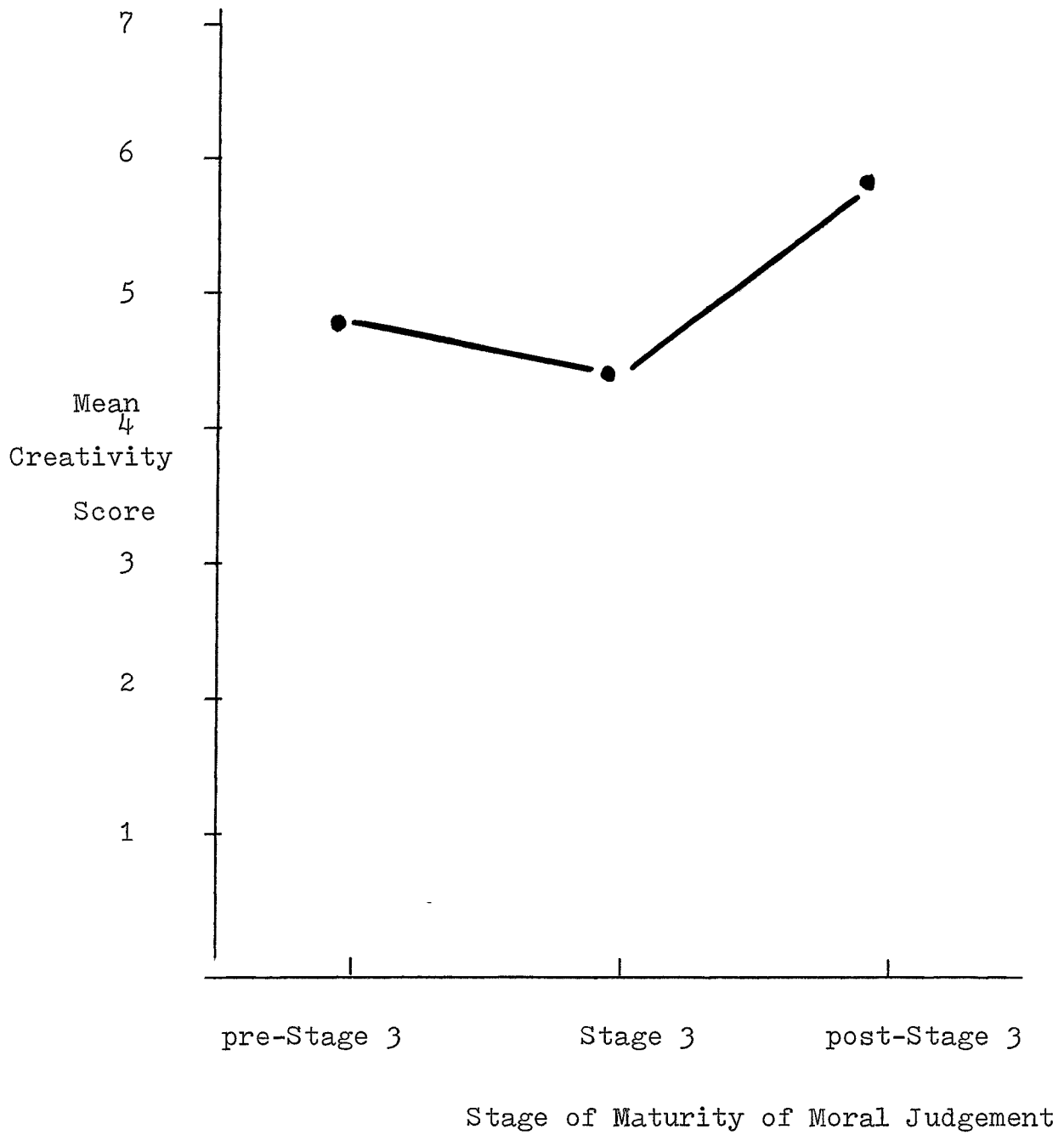


Figure 1. Graphic Representation of Relation between Moral Judgement Stage and Mean Flexibility Score.

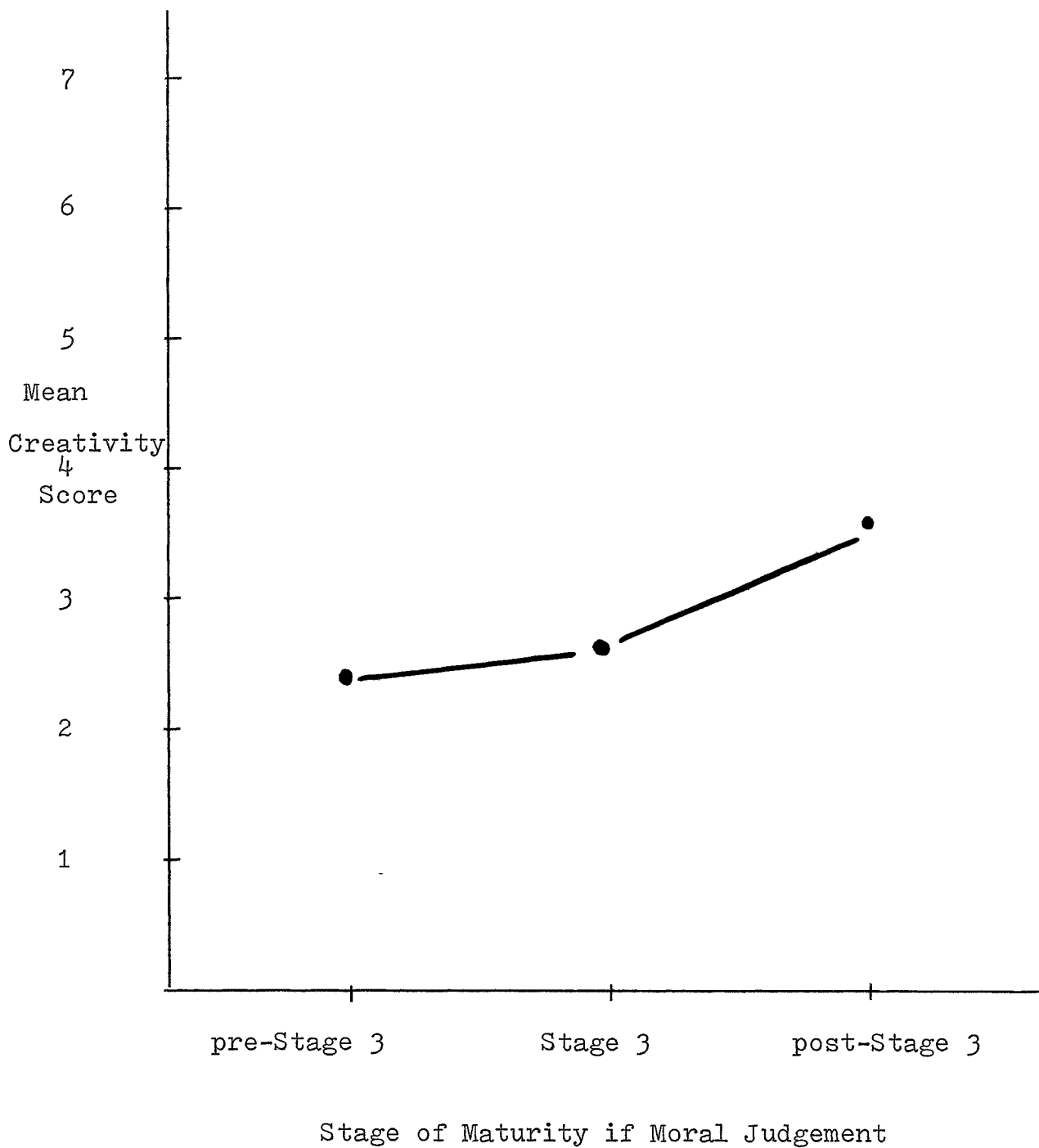


Figure 2. Graphic Representation of Relation of Maturity of Moral Judgement and Mean Originality Score.

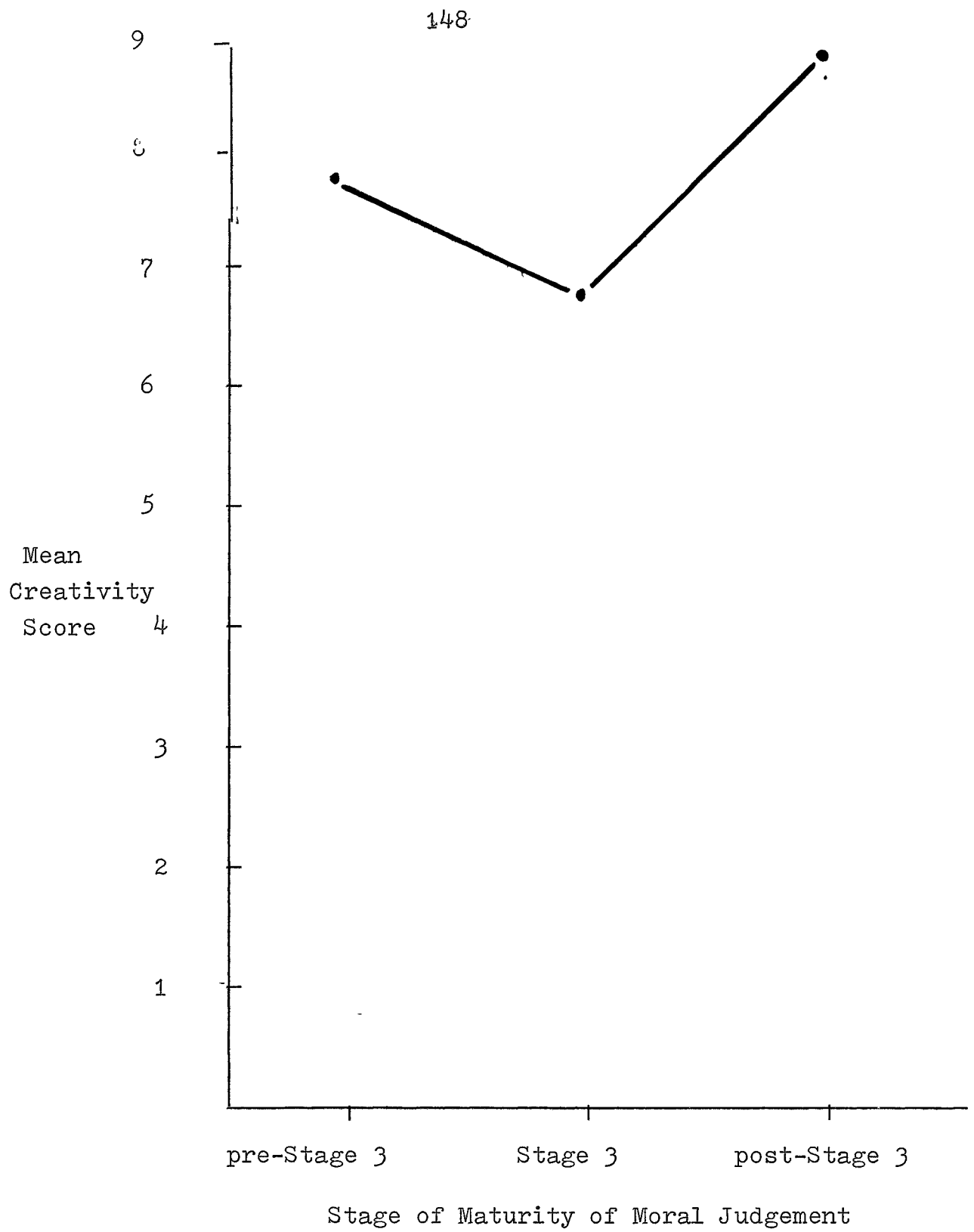


Figure 3. Graphic Representation of Relation between Moral Judgement Stage and Mean Ideational Fluency Score.



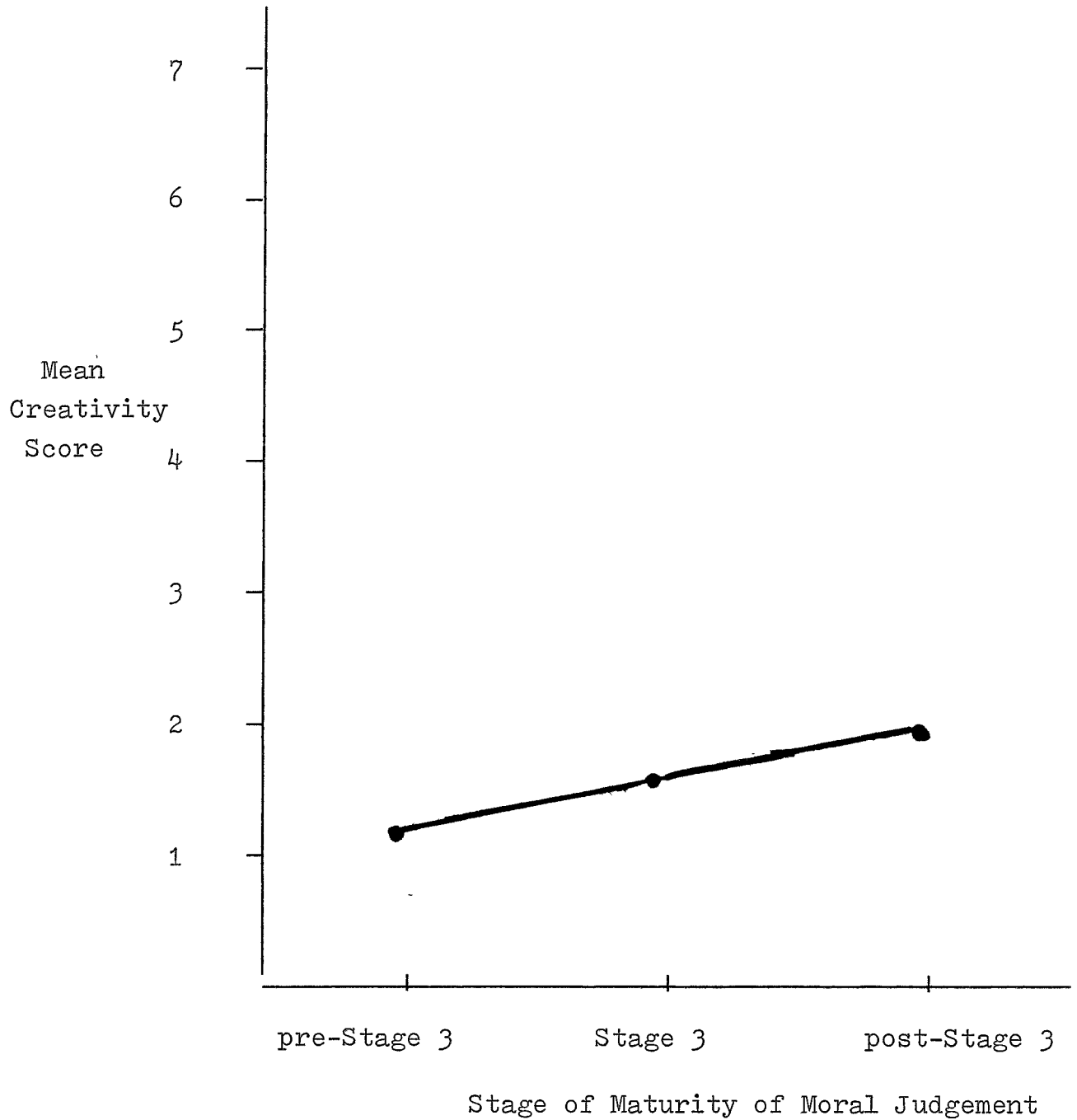


Figure 4. Graphic Representation of Relation between Moral Judgement Stage and Mean Inventilevel Score.

The dead letter. The dead metaphor. It is only dead metaphors that are taken literally, that take us in (the black magic). Language is always an old testament, to be made new; rules, to be broken; dead metaphor, to be made alive; literal meaning, to be made symbolical; oldness of letter to be made new by the spirit. The creator spirit stands in the grave, in the midden heap, the dunghill of culture (as in Finnegans Wake); breaking the seal of familiarity; breaking the cake of custom; rolling the stone from the sepulcher; giving the dead metaphor new life.

Norman O. Brown, Love's Body, p.207

The purpose of this study was to develop a preliminary synthesis between morality and creativity using Kohlberg's model of moral maturity and Gowan's model of creativity. Both these theories have much in common. The major component which seems in accordance with both approaches is the emphasis on developmental stage theory.

It could be maintained that the Product Improvement Task measures only one aspect of creativity as expounded by Gowan--Gowan's approach was an eclectic and multi-disciplinary one. However, the Product Improvement Task seemed to be the best choice of creativity instrument since it allowed the subject to regress in the service of the ego as well as take affirmative cognitive action in reaching the results.

Fifty subjects were tested using Kohlberg's Dilemma situations and Guilford's Product Improvement Task and the results were examined in the light of both Kohlberg's theoretical model of morality and Gowan's perspectives on creativity as outlined in his developmental model.

Results could have been more interesting if more of the subjects tested had been principled moral thinkers. If that were the case, a strong argument for hypothesis three ( $H_{03}$ ) "that there will be greater creativity as measured by the Product Improvement Task in individuals who are at the post-conventional stages of Kohlberg's scale" could have been made.

The trend analysis resulted in preliminary confirmation of all hypotheses but it was soon ascertained that the results were not statistically significant and could have arisen due to chance.

## Conclusions

A possible explanation for the low correlation between creativity components (dependent variables) and moral judgement (independent variable) concerns the validity of the Product Improvement Task as a measure of creativity. Ultimately, the interpretation of the Product Improvement Task is determined by the 'agreed upon' understanding and orientation to the meaning of creativity (eg. Guilford).

While the curvilinear trend observed in Figs. 1 and 3 were not statistically significant, it is remarkable, considering the relatively small N, the narrow range in moral judgement scores, and the imprecision of the test, that the trend emerged at all. It would be rash to speculate that were such procedural difficulties surmounted, observed trends would be confirmed statistically. The results cannot even be taken as minor support for Hypothesis 1 and 2. The finding of lower creativity scores in Stage 3 subjects may be explained in terms of this tentative conclusion. However, it is possible, had there been more post-Stage 3 subjects, that support for the speculation of increased creativity in principled thinking would be statistically evident. This question could be approached if an appropriate number of Stage 5 or Stage 6 subjects could be found.

Creativity itself was seen by Gowan (1972) as an emergent and characteristic outcome of the theory of development stages. When the requisite degree of mental health is present, creativity becomes an inevitable outcome of developmental process. Maslow (Anderson, 1968, p.84) speaks of creativity as a "universal heritage

of every human" and one which "covaries with psychological health." The individual with an achieved identity (Erikson, 1964) and mental health (Gowan, 1972) as he goes through the developmental process exhibits increasing creativeness. The Product Improvement Task in no way attends to the question of the specific cognitive and affective developmental aspects related to creativity in Gowan's (1972) synoptical fusion of creativity constructs. If anything, The Product Improvement Task taps the characteristics which Fraenkel (1973) has described as "ego capacities" which are related to the Kohlbergian notion of "ego strength. Such characteristics have been cited as: comparing and contrasting, generalizing, predicting and explaining, synthesizing, making judgements according to previously established criteria, and divergent thinking based on techniques developed by Guilford (1964), Torrance and Myers (1970) and J.W. Getzels (1964). This is a rather limited aspect or view of the creative function in relation to consideration of Freud's affective developmental stages, Piaget's five cognitive stages and Erikson's identity processes (ego stages). It seems that the Product Improvement Task may prove useful in the context of a creativity indicator only if it is used as one of many different approaches. There is no indication that a new cognitive domain of "creativity" in thinking is being sampled but rather that this test offers an alternate measure of general intelligence. M.A. Wallach (1968) has been able to find little evidence in support of the Torrance tests that would construe them as "creative thinking" rather than simply as "thinking." According to Wallach, that the Torrance

tests seem to be functioning essentially as a battery of general intelligence assessors should come to no surprise in the light of the Torrance definition of creative thinking which is quite close to the traditional concept of intelligence, including everything, say, that Wechsler's definition of general intelligence includes, with the addition of greater specific emphasis upon hypothesis-search activities in seeking problem solutions. Torrance's Product Improvement Task gives emphasis to a uni-dimensional conception of creativity centred upon general intelligence which Gowan's (1972) developmental model has been moving away from. Researchers have taken the opposing view and sought to contrast high I.Q. subjects with highly creative subjects based on measure designed by Guilford and used by Torrance. Getzels and Jackson (1963) study proposed that the high I.Q.'s tend to converge upon stereotyped meanings, to perceive personal success conventional standards and to seek out careers that conform to what is expected of them. The high creatives tend to diverge from stereotyped meanings, to produce original fantasies, to perceive personal success by unconventional standards and to seek out careers that do not conform to what is expected of them. In this light, Getzels and Jackson suggest that Guilford's (and subsequently Torrance's) factors of convergent and divergent thinking are highly relevant. Whichever opposing camp you adhere to, it seems that the four aspects of creative thinking measured by the Product Improvement Task only begin to come to grips with the considerably larger universe of behaviour described as creative thinking. Baird (1972) suggests that without better norms, Torrance's creativity tasks (eg. Product Improvement Task) should be used with extreme reservation. He suggests better studies of

predictive validity and anchoring of the test to real-life creative behaviour is mandatory.

### Research Problems In Creativity

Usually creativity as "product" has been given greater attention than creativity as "process" since the evaluation of process is often obscure, unknown, unperceived, unverbilized, even by the person himself, and uncommunicated to others. In fact, "neither history nor science has developed a method or means for recording or evaluating process, except by the comparison of cross-sections in time. The struggle involved in learning or in conceiving and producing an object of creativity is inferred and not directly measured" (Anderson, p.243, 1959).

Part of the complex problem involved in describing creativity or reaching some kind of consensus as to what creativity "is" involves the difficulty of the subject-object structure of our language. The concept, for instance, of the ego as the central organizing principle of consciousness, is bewitched by the grammatical convention that the verb must have a subject, and that a knowing requires a knower. Concepts concerning creativity in the light of psychological interpretation suffer from a reification (or thingifying") of the ego. Also, Freud's use of the term (noun) "the unconscious" is dubious and which Lance Whyte better termed "unconscious process with conscious aspects". If something is created, we are required to look for a cause or a "someone" who creates. In fact, as was pointed out in CHAPTER 11, creativity may be a continual dialectic process between world and self, and self and world; one implies the other and neither can be defined by omitting the other (May, 1959). Murray (1959) offers some dyadic examples which illustrate creativity as two interdependent regions of imagination operating as a single system. Generally

creativity may be evaluated

- (1) externally
- (2) internally
- (3) through a mutual dyadic participation

Although aware that outside judgement or the use of external criterion of novelty and value may even be detrimental to the process of creativity itself (Rogers, 1959), this present study has concentrated on the more "measureable" (external) aspects of creativity as defined by Guilford. Keeping in mind that "external evaluation is distinguished from internal and dyadic evaluations only as it is related to power over the innovator" (Anderson, 1959), there is no attempt in the empirical testing of the subjects in this study to achieve a predetermined conformity by the individual to any set external standards. However, this study does not attempt to avoid external criteria completely since validity is still a basic tenet of a correlational study and external criteria are theoretically most desirable. Yet, it would be wise to consider in future studies the warning of Cronback (1957) that: <sup>1</sup>

the two disciplines of scientific psychology (ie. correlational and experimental) need new methodologies. Correlational psychology studies only variance among organisms; experimental psychology studies only variance among treatments. A united discipline will study both of these, but it will also be concerned with the otherwise neglected interactions between organismic and treatment variables...From observations we must infer a psychological description of the situation and present state of the organism. Our laws should permit us to predict, from this description, the behaviour of the organism-in-situation.

Although establishing criteria for measuring extensionality or openness in two-way relating is difficult in an empirical study as this present research indicates, future analysis of data should, at least, consider the free interplay and possibilities of difference out of which is developed the permeability of boundaries characteristic of environmental-organism interaction necessary in a two way



relating process.

In summary, any creative "process" which is linked to the cognitive-developmental process of reaching principled thought should take into consideration creativity constructs more closely related to the environmental and developmental functions such as Piaget's logical stages or identity formation. Creativity measures which are based on Piagetian formulations have not been devised. However, it would be of great methodological and theoretical concern that an identity component be empirically derived to substantiate and reify Gowan's synthesis of identity status and creative functioning. This could be attempted following the pattern used by Podd (1971) in which ego-identity interviews were given to 134 subjects as well as moral judgement interviews. Following J.E. Marcia, the identity interview covers occupational choice, religious beliefs, and political ideology. "Crisis" and "commitment" are assessed in each of these areas and serve to define each identity status. When an individual undergoes active consideration of alternative goals and values he is said to have experienced a "crisis". "Commitment" is the extent to which an individual had invested himself in his choices. The identity statuses operationally defined are: (1) identity achievement--has gone through a crisis and is committed; (2) moratorium--is in crisis with vague commitments; (3) foreclosure--has experienced no crisis but is committed to goals and values of parents and significant others; (4) identity diffusion--has no commitment regardless of crisis.

Michey (1976) concentrated on the interrelation of three developmental constructs: faith status, moral reasoning and identity status. Identity, described as the consideration and commitment to alternative ideologies providing "meaning to self in relation to society" and the "backbone" of one's faith orientation, is a developmental construct that plays a key role in creative development, as examined in Gowan's (1972) model. Identity status, used as an empirical construct in the present paper would have given this research more scope and greater depth in an examination of creativity in its social context involving social and peer group pressure.

Further Comments----- --- Some Reservations and Educational Considerations

It has been suggested that if creativity could be assessed functionally using the various constructs of identity status, logical stages and Gowan's neo-Freudian stage descriptions, a more relevant correlational design could be worked out in conjunction with Kohlberg's cognitive-developmental approach to moral maturity. Diagnostic tests and sufficient data are not yet readily available for this suggestion to be approached practically. Hopefully, this present paper is an "initial step".

Because a scientist's point of view generally affects the interpretation of his data, it is important to analyze the various theories and epistemological perspectives of researchers attempting to study moral reasoning. Kohlberg (1973) has divided these scientists into the following camps:

- (1) Romantic educational ideologists

(2) cultural transmission ideologists

(3) progressive ideologists

Diametrically opposed are the cultural transmission and romantic ideologies---in fact, they represent opposite "poles" of thought. The cultural transmission view evaluates educational change from children's performances--- not feelings and thoughts. Social growth is defined by "objective" educational/psychological measurement in relation to particular cultural standards such as honesty and industriousness. Yet the romantic view, also criticized by Kohlberg, emphasizes too strongly, the inner "subjective" feelings and states of the individual. Kohlberg prefers to assess experience functionally as opposed to self-projection. Kohlberg sees the cognitive-developmental view as an attempt to "integrate both behaviour and internal states in a functional epistemology of mind" (Kohlberg, 1975, p.461). For a "progressive" such as Kohlberg, a more objective test of the effects of experience on later behaviour is required before deciding whether or not that particular experience is "developmental". Consequently, Kohlberg frowns upon the humanistic approaches of "self-development" or "self-actualization". Kohlberg's concern is for development, not merely enjoyment and liberty, which, however, Kohlberg feels are important.

Although Kohlberg feels he has achieved a synthesis of romantic and cultural-transmission ideologies, thereby taking into account both internal and external experience, there are certain dualistic bifurcations that result. Sullivan (1977) outlines some of the apparent dualisms inherent in Kohlberg's

structuralism. These can be summarized as follows:

- (a) Kohlberg's penchant for form over content--the more abstract the stage, the purer the form.
- (b) Kohlberg's systematic preference of structure (abstraction) over content (the concrete context) in his methodological attack.
- (c) the "decentring" effect of the development of abstraction vis a vis Kantian Formalism
- (d) Kohlberg's formulation of universalization is sentimentalized to the jurisprudential model concretely developed in Western societies (cultural bias).
- (e) "decentred autonomy" as a singular ideal creates the possibility of the moral agent decentring him/herself from any concrete moral commitments.
- (f) the fusion of the figurative (concrete) and the abstract is essential for moral commitment. Kohlberg's model, in lacking this fusion, disregards the role of the imagination.
- (g) Kohlberg's theoretical formulations lend themselves to thought/action, form/content, abstract/concrete dichotomies.

Summarizing some of the criticisms in Kohlberg's structuralist approach to morality in no way attempts to denigrate Kohlberg's work. Such criticism, however, points to a possible new consideration when attempting a feasible interactive synthesis between creativity and morality. Not only must a creativity test be developed along structuralist lines, a recentring of Kohlberg's structuralism must also take into account the affective dimension to a greater extent, thereby creating a much stronger dialectic tension between psychodynamic and cognitive constructs.

### Some Educational Considerations

If the distribution of moral maturity scores obtained in this study is representative of grade six students and high school students in general, then most high school students are at the conventional level of moral reasoning and the grade six students reason as instrumental relativists. The highest score for an adult was Stage 4 "law and order" morality. This proved interesting since most of the adults were rather "avant-garde" artists who would probably consider their own moral standards to be more sophisticated and superior than the general population. (See TABLE 14).

Results of this investigation suggest that the elementary school teacher who wishes to conduct a moral education program in a Grade 6 class would find a large proportion of Stage 2 thought. The teacher may have to shift the student's attention away from their own immediate needs and emphasize the logic and justice of helping others. Similarly, high school teachers who find a large proportion of Stage 3 moral judgements in the moral thought of an average class of adolescents may have to force the shift of the student's attention away from his own approval or disapproval of **his** behaviour, to broader concerns where the logic and justice of conforming to win approval is challenged and the logic of submission of rules becomes a focal point for class discussion. If these results are fairly representative of the adolescent population at large, it would not be too realistic to expect to find principled thought, but some work may be done (for those who reason at Stage 4) to prepare students for future movement towards a more autonomous and principled morality. Conditions for the development of a principled morality have been discussed in CHAPTER 11. As creativity measures and identity constructs become available,

TABLE 14

## DISTRIBUTION OF MORAL JUDGEMENT STAGE RATINGS ACCORDING TO AGE

Category	Modal Stage	No. of Subjects
"age 11-12" (Grade 6)  (n=19)	2	5
	2(3)	9
	2(C)	2
	3(2)	1
	3	2
"age 18-19" (Grade 13)  (n= 19)	2(3)	1
	3	15
	3(2)	3
"over 20 years"  (n= 12)	3	3
	3(4)	1
	4(3)	3
	4	5

it would seem worthwhile to pursue the investigation further into the domain of creative and moral thought.

### Future Research Considerations

Dualistic thinking, typified by the opposed views of the biological determinants and the socioculturalists, and inherent in Kohlberg's attempt to synthesize and integrate these **disparate ingred-** ients into a cognitive-developmental mould, tends to be representative of the dichotomized thinking of Western rationalists who bisect natural wholes---nature versus culture, innateness versus learning, body versus mind, woman versus man, etc. This type of thinking also presents problems when trying to arrive at a comprehensive definition of creativi- ty. Is it the product or the process, or both? But scientists are discovering that the nature-culture dichotomy is not intrinsic to man; that behaviour is the inventory of all that an individual does, and there is a unity of the organism within it context. But with- in intellectual and theoretical ideologies, dualistic thinking is not easy to change. It is simplistic and reduces complex phenomena to polar opposites, categories that are readily understood. The history of dualism reaches back as far as patriarchal civilization and the class- stratified society, in which people find themselves placed in opposition to each other, in groups and as individuals; and people and culture are alienated. from nature.

Research in creativity and moral thinking must emphasize the ultimate interconnection of both cognitive and affective processes. We know now, through advances made in quantum physics, that all natural phenomena are ultimately interconnected, and in order to explain any one of them we need to understand all the others, which is obviously next to impossible. What makes scientific research so successful in the domain of physics or psychology, is the discovery that approximations

are possible. If one is satisfied with an approximate 'understanding' of nature, one can describe selected groups of phenomena in this way, neglecting other phenomena which are less relevant. Thus one can explain many phenomena in terms of a few, and consequently understand different aspects of nature in an approximate way without having to understand everything at once. This is the scientific method; all scientific theories and models are approximations to the true nature of things, but the error involved in the approximation is often small enough to make such an approach meaningful. Current theories of morality and creativity are still partial and approximate theories, present theories often becoming more accurate approximations than previous theories, but none of them representing a complete and final account of psychological processes. Quantum physics advocated by Geoffrey Chew (1964) has indicated that it is likely elementary particles are actually processes. This "bootstrap" philosophy starts from the idea that nature cannot be reduced to fundamental entities, such as elementary particles or fundamental fields. It has to be understood entirely through its self-consistency, with its components being consistent both with one another and with themselves. This has arisen in the context of S-matrix theory and is known as the "bootstrap" hypothesis. Such a hypothesis views natural phenomena as a dynamic web of interrelated events. None of the properties of any part of this web is fundamental; they all follow from the properties of the other parts, and their overall consistency of their mutual interrelations determines the structure of the entire web.

Scientific theories approaching the domains of creativity and morality will undoubtedly change and modify existing views. It is evident that, at least from a philosophical basis, new breakthroughs in scientific methodology may allow present research to adopt different methodological perspectives in the hope that the total dynamics of



the processes which underlie creativity and morality may be explained more accurately than present dualistic approaches which tend to separate creativity into process/product and moral thinking into cognitive/affective dichotomies.

### Future Research Considerations Specific to this Study

The present study has indicated that a strong theoretical correlation exists between creativity and moral thinking. However, it remains to be seen whether or not there are instruments available that can do an adequate job of empirically testing out these correlations.

Research into creativity and moral maturity is still strongly divided into different camps. There will probably never be a unilateral agreement among the experts when it comes to precisely defining the terms "creativity" and "moral reasoning". Each bit of research conducted adds to the prospect that one day the scientific community will be able to move closer to an understanding of these complex processes.

There are several steps specific to this study which I feel could be taken by a future researcher to come to a better grasp of the possible correlations between creativity and moral reasoning.

1. Follow the pattern used by Podd (1971) in which ego-identity interviews were given to a large sample of subjects as well as moral judgment interviews.
2. Use a variety of creativity instruments and procedures which assess qualitative aspects of intellectual functions and differ from the traditional psychometrically assessed functions.
3. Projective and non-projective character tests as well as personality inventories could be considered to explore the relationship between personality traits and creative and moral

components.

4. Double the number of subjects tested to include at least 100 subjects.
5. Test a larger number of adults from a sample that might indicate a greater number of post-conventional subjects.

I feel that research pertaining to the concepts of creativity and moral thinking is still in its infancy. Yet the importance of connecting the two processes is a worthwhile consideration for future research. Each step along the way is belaboured by pitfalls and difficulty. It is hoped that the future will provide better instruments and information in order to complete a more detailed and reliable approach to these most important issues.

## FOOTNOTES ON CHAPTER 5

1. Cronback, "The Two Disciplines of Scientific Psychology", American Psychologist 12, 671-684. 177. 1957.

Literal meanings are spirits solidified into matter; animae become trees, like Daphne; or stone maidens, Caryatids.

Norman O. Brown, Love's Body, p.223

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Cognition then, as well as politics, is mediated through representative institutions. Correspondence is then a relation of likeness, or copying, or imitation, between internal image and external reality; instead of correspondence as sympathy, or action at a distance, or active participation; methexis and not mimesis. "The principal reason which Levy-Bruhl, Durkheim and others assign for the fact that primitives 'do not perceive with the same minds' as ours, is that in the act of perception, they are not detached, as we are." Primitive participation, participation mystique, is self and not-self identified in the moment of experience.

Norman O. Brown, Love's Body, p. 121.

APPENDIX A

KOHLBERG DILEMMA SITUATIONS

## APPENDIX

## A

NAME \_\_\_\_\_

OCCUPATION (OR SCHOOL) \_\_\_\_\_

AGE \_\_\_\_\_ DATE \_\_\_\_\_

## Instructions for Decision Stories and Questions

The purpose of these stories and questions is to get at your opinions and ideas. Please write down all the ideas or feelings they bring to mind rather than giving "yes" or "no" answers. Each story is printed on a separate page and is followed by a page of questions for you to answer. If there is not enough space after the question use the other side of the page to continue (writing the number of the question you are answering). The answers can be written or typed.

Note: A few pages are missing from this questionnaire, and the sections are not in order. This has been done on purpose. Do not worry about it.

## III

In Europe, a woman was near death from a special kind of cancer, There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost him to make. He paid \$200 for the radium and charged \$2,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about \$1,000 which is half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So Heinz got desperate and broke into the man's store to steal the drug for his wife.



## III

20. Should Heinz have done that? Was it actually wrong or right? Why?
23. Is it a husband's duty to steal the drug for his wife if he can get it no other way? Would a good husband do it?
25. Did the druggist have the right to charge that much when there was no law actually setting a limit to the price? Why?

Answer the next two questions only if you think he should steal the drug.

- 23a. If the husband does not feel very close or affectionate to his wife, should he still steal the drug?
24. Suppose it wasn't Heinz's wife who was dying of cancer but it was Heinz's best friend. His friend didn't have any money and there was no one in his family willing to steal the drug. Should Heinz steal the drug for his friend in that case? Why?

Answer the next two questions only if you think Heinz should not steal the drug.

Would you steal the drug to save your wife's life?

If you were dying of cancer but were strong enough, would you steal the drug to save your own life?

30. Heinz broke in the store and stole the drug and gave it to his wife. He was caught and brought before the judge. Should the judge send Heinz to jail for stealing, or should he let him go free? Why?

## IV.

The drug didn't work, and there was no other treatment known to medicine which could save Heinz's wife, so the doctor knew that she had only about 6 months to live. She was in terrible pain, but she was so weak that a good dose of a pain-killer like ether or morphine would make her die sooner. She was delirious and almost crazy with pain, and in her calm periods, she would ask the doctor to give her enough ether to kill her. She said she couldn't stand the pain and she was going to die in a few months anyway.

IV 40.

Should the doctor do what she asks and give her the drug that will make her die? Why?

When a pet animal is badly wounded and will die, it is killed to put it out of its pain. Does the same thing apply here? Why?

Answer the following questions only if you think the doctor should not give her the drug.

41. Would you blame the doctor for giving her the drug?

42. What would have been the best for the woman herself, to have had her live for six months more in great pain or have died sooner? Why?

43. Some countries have a law that doctors could put away a suffering person who will die anyway. Should the doctor do it in that case?

Everyone should answer the remaining questions.

47. The doctor finally decided to kill the woman to put her out of her pain, so he did it without consulting the law. The police found out and the doctor was brought up on a charge of murder. The jury decided he had done it, so they found him guilty of murder even though they knew the woman had asked him. What punishment should the judge give the doctor? Why?

48. Would it be right or wrong to give the doctor the death sentence?

49. Do you believe that the death sentence should be given in some cases? Why?

The law prescribes the death penalty for treason against the country. Do you think the death sentence should be given for treason? Why?

While all this was happening, Heinz was in jail for breaking in and trying to steal the medicine. He had been sentenced for 10 years. But after a couple of years, he escaped from the prison and went to live in another part of the country under a new name. He saved money and slowly built up a big factory. He gave his workers the highest wages and used most of his profits to build a hospital for the work in curing cancer. Twenty years had passed when a tailor recognized the factory owner as being Heinz, the escaped convict whom the police had been looking for back in his home town.

VIII. 80. Should the tailor report Heinz to the police?  
Would it be right or wrong to keep it quiet? Why?

81. Is it a citizen's duty to report Heinz? Would a good citizen?

84. If Heinz was a good friend of the tailor, would that make a difference? Why?

82. Should Heinz be sent back to jail by the judge? Why?

I. Joe is a 14 year old boy who wanted to go to camp very much. His father promised him he could go if he saved up the money for it himself. So Joe worked hard at his paper route and saved up the \$40.00 it cost to go to camp and a little more besides. But just before camp was going to start, his father changed his mind. Some of his friends decided to go on a special fishing trip, and Joe's father was short of the money it would cost. So he told Joe to give him the money he had saved from the paper route. Joe didn't want to give up going to camp, so he thought of refusing to give his father the money.





Joe had an older brother named Alex. Several years later, the grown up brothers had gotten into serious trouble. They were secretly leaving town in a hurry and needed money. Alex the older one, broke into a store and stole 500. Joe, the younger one, went to a retired old man who was known to help people in town. Joe told the man that he was very sick and he needed 500 to pay for the operation. Really he wasn't sick at all, and he had no intention of paying the man back. Although the man didn't know Joe very well, he loaned him the money. So Joe and Alex each skipped town, each with 500.

VII.

70.

If you had to say who did worse, would you say Al did worse to break in the store and steal the \$500 or Joe did worse to borrow the \$500 with no intention of paying it back? Why?

74. Would you feel like a worse person stealing like Al or cheating like Joe?

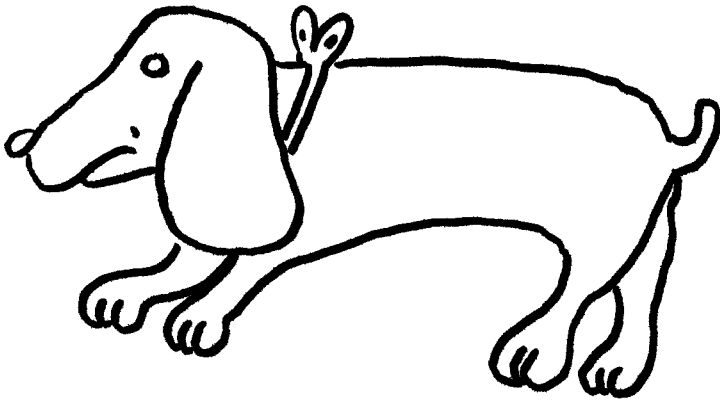
71. Why shouldn't someone steal from a store anyhow?

75. Who would feel worse, the storeowner who was robbed or the man who was cheated out of the loan? Why?

73. Which should the law be more harsh or strong against, stealing like Al or cheating like Joe? Why?

APPENDIX B

THE PRODUCT IMPROVEMENT TASK-----



Name \_\_\_\_\_  
School \_\_\_\_\_  
Age \_\_\_\_\_  
Grade \_\_\_\_\_  
Occupation \_\_\_\_\_  
Date \_\_\_\_\_

The above picture represents a stuffed toy dog covered with red and blue velvet. The tail is very short, the long, droopy ears are of black velvet; the nose is of a hard black substance; and the eyes are made of yellow and blue felt.

INSTRUCTIONS:

List below the cleverest, most interesting, and most unusual uses you can think of for changing the toy dog so that children will have more fun playing with it. Don't worry about how much it will cost---just so it would be more fun to play with.

(Time limit: 8 minutes)

APPENDIX C

DESCRIPTION OF PILOT STUDY

AND

MAJOR CONTENT AREAS OF KOHLBERG'S MODEL

Description of Kohlberg's Major Content Areas and  
Description and Pilot Study of Measures  
The Moral Maturity Measure

Subjects were assigned to stages in maturity of moral judgment on the basis of Kohlberg's Dilemma situations 111, 1V, V111, 1, V11 (in order of presentation to subjects). While in its elaborate form the test consists of nine hypothetical dilemmas, few researchers have used all of them because of the time factor in administration. Consequently, a five dilemma written version of the scale was used (See Appendix for the five dilemmas used). The outcome of the dilemma situations are not specified. The subject is asked to give his opinion about what the protagonist caught in the dilemma should do and, more important, is asked to give his reason for each opinion expressed. Opinion would be merely the verbal content of the response. But the purpose and design of the moral dilemmas is to elicit the whole moral cognitive-structural orientation underlying the during the scoring of the protocol. The major content areas and modes of expression of moral issues across the six stages may be summarized as follows:

PUNISHMENT AND OBEDIENCE

- An EGOCENTRIC SOCIAL PERSPECTIVE.
- Very limited ROLE TAKING ability.
- One way EXCHANGE between person and Authority person receives.
- Unbalanced personal relationships: obey the AUTHORITY.
- the Authority is responsible for setting up the structure between people.
- RULES are set up by the Authority; the purpose of rules is to tell people what to do
- Punishment and reward are used as SANCTIONS.

- Very poor sense of owning PROPERTY.
- LIFE is valued because of external, physical criteria.

### INSTRUMENTALITY

- SOCIAL PERSPECTIVE of individual distinct from Authority.
- ROLE-TAKING ABILITY needed to recognize that others have ideas or attitudes of their own but tends to think others ideas are just like his.
- EXCHANGES between people on a fair and reciprocal basis.
- INTERPERSONAL RELATIONSHIPS are based on maintaining one's own welfare first and foremost; hence stage name "Instrumentality".
- Governance is accomplished through each individual, the Authority has lost much power.
- RULES are viewed as a means to ones end.
- SANCTIONS may be physical punishment, or psychological discomfort, or none at all.
- PROPERTY is obtained through work and everyone has a right to property.
- LIFE is valued highly; each individual decides about his own life.

### CONFORMITY

SOCIAL PERSPECTIVE is a "role perspective", of shared empathy or respect for rules.

- ROLE-TAKING ABILITY allows putting oneself in others shoes and understanding of group ideas.
- EXCHANGE takes place within the context of relationships; a give and take exchange occurs.
- INTERPERSONAL RELATIONSHIPS are most important; group memberships is held and results in some pressure to maintain the group and hence Stage 3 thinking is named CONFORMITY.
- GOVERNANCE (structure) stems from the group (roles, etc.)
- RULES are shared guides for being good which can be broken for



a good reason.

SANCTIONS represent shared disapproval of an act; physical and social sanctions are used.

- PROPERTY rights are understood in light of good role occupants, e.g., good father, good doctor.
- LIFE is more valuable than property; people should care for others and their life.

### SOCIAL SYSTEMS

- SOCIAL PERSPECTIVE is taken from within a social system with agreed upon rules and roles.
- ROLE-TAKING ABILITY develops so that perspective of any member of society, a member of a role class or an individual can be taken.
- EXCHANGE takes place between the individual and the system (as well as on an interpersonal basis).
- INTERPERSONAL RELATIONSHIPS occur within a societal context so that rights and responsibilities are recognized; development of honesty, integrity and commitment between people.
- GOVERNANCE (structure) is produced by society/public.
- RULES are made to protect society as a co-operative scheme.
- SANCTIONS may be legal punishment or one's own conscience.
- PROPERTY rights must be upheld in order to maintain the social system.
- LIFE has the highest value because God created it, it is basic to society or it is a basic right.

### SOCIAL CONTRACT/INDIVIDUAL RIGHTS

- SOCIAL PERSPECTIVE is a perspective prior to society.
- ROLE-TAKING ABILITY has developed so that a rational or moral perspective is possible.
- EXCHANGE happens between people so that the individual rights of people are preserved.
- INTERPERSONAL RELATIONSHIPS are between free and equal human beings who recognize certain duties and responsibilities.

GOVERNANCE (structure) is produced on the basis of principles.

-RULES are a mechanism to preserve individual rights.

-SANCTIONS are primarily the agreement of the social contract and one's conscience.

-PROPERTY rights are derived from the right to life and are a precondition to society.

LIFE is the most fundamental right from which all others are derived.

### UNIVERSAL PRINCIPLES

STAGE 6\* The stage of Universal Ethical Principles

Stage 6 is guided by self-chosen ethical principles. Particular laws or social agreements are usually valid because they rest on such principles. When laws violate these principles, one acts in accordance with the principle. Principles are universal principles of justice: the equality of human rights and respect for the dignity of human being as individual persons. These are not merely values which are recognized, they are principles used to generate particular decisions.

The reason for doing is that, as a rational person, the Stage 6 individual has seen the validity of principles and has become committed to them.

The social perspective of the Stage 6 is a perspective of a "moral point of view" from which social arrangements derive or on which they are grounded. The perspective is that of any rational individual recognizing the nature of morality or the basic moral premise of respect for other persons as ends, not means.

Stage 6 thinking, although crucial to the whole theory, is hardly ever encountered.

Morality is, for Kohlberg, an idea of justice that is primitive and egocentric in young children but that strives to become more sophisticated and social as the adolescent moves through specific stages of moral thinking; it occasionally reaches in certain individuals an awareness of universal values and ethical principles.

Pilot Study

A pre-administration procedure was carried out for the Kohlberg dilemma situations but not for the Product Improvement Task. It was felt by the writer that the Product Improvement Task administered to groups of individuals of twelve-year olds and greater was simple and straight-forward and no preliminary trial administration was necessary. It was decided for the Kohlberg dilemmas, that all vocabulary which might conceivably present obstacles for the grade 6 group in understanding test-items would be written on the blackboard. Secondly, the examiner read each of the five dilemmas aloud slowly followed by the questions in order to assure comprehension by the students. A sample of six grade 6 students were picked randomly and it was discovered that three of them read below the grade 3 level (this is not uncommon in an inner-city school). Therefore, the best grade six readers were chosen for the Kohlberg dilemmas. Another precaution appeared to be warranted concerning the dilemmas. Since approximately one quarter of the grade six subjects were former students of the writer, it seemed possible that the existence of an interpersonal relationship between subject and experimenter might cause a subject to distort his responses in an attempt to influence or impress a former teacher's judgement of his character. As a partial control for this variable, it was decided to have the test administered by an outside experimenter who was familiar with the test, but not with any of the subjects. This variable, however, could only be partially controlled since all subjects were aware that the writer would eventually see their test scores. The success of this experimental control was achieved only to the extent that the source of response distortion was determined by the subjects' awareness of his former teacher's

physical presence at the time of taking the test.