The Concept of Developmental Potential

Michael M. Piechowski

There exist important personality characteristics of the gifted and talented that intelligence tests do not tap. Among these characteristics is a broad range of a heightened activity which finds expression in an enlarged and intensified manner of feeling, thinking, imagining, even tasting. The model of developmental potential defines five dimensions of such enhanced mental functioning. These five dimensions provide a broader conception of the makeup of giftedness and talent. The model offers new means of examining commonly used methods of identification; it also offers ways of recognizing potential for self-actualization and outstanding moral development.

***Michael M. Piechowski** (Ph.D.), is an associate professor of education at Northland College, Ashland, WI. He holds doctorate degrees in both molecular biology and counseling and is currently working in the area of emotional development and counseling needs of the gifted.*

Giftedness is a multifaceted phenomenon involving the interplay of specific talents, favorable environmental events, and unique personality characteristics. The traditional emphasis in gifted education has been on the identification of students with higher cognitive potential as measured by standardized intelligence and achievement tests. Personality variables readily observable in creative and gifted adults (Barron, 1963; Tannenbaum, 1983) are rarely taken into account in either identification of gifted students or programming on their behalf.

Intelligence testing as the major criterion variable for program selection fails to provide sufficient information about the personality characteristics that distinguish between gifted and average individuals. Further, intelligence tests offer no theoretical models for development of talent. The concept of developmental potential offered in this paper broadens the conception of giftedness by addressing the personality correlates of high ability. This model also suggests a method of identifying individuals with high potential beyond the traditional IQ tests, and binds the goals of their education to self-actualization and advanced moral development, rather than merely to productivity in adult life.

It is often recognized that gifted and talented people are energetic, enthusiastic, intensely absorbed in their pursuits, endowed with vivid imagination, sensuality, moral sensitivity, and emotional vulnerability (Barron, 1963; Goertzel, Goertzel, & Goertzel, 1978; Hollingworth, 1942). What has been lacking is a model that would offer a way of integrating these universally observed traits with the nature and development of talent. Are these characteristics a part of the high IQ package, are they specific to talent, or are they properties of the personality of the talented individual?

These characteristics are found across different talents, in writers, composers, dancers, actors, scientists, inventors, civic and spiritual leaders. Often they are as strong in adulthood as in childhood. Do they aid or impede development? For example, Bachtold (1980) pointed out the emotional intensity and sensitivity in women writers. We can find similar examples in male scientists. Louis Pasteur, in spite of his ardent desire for knowledge, suffered despair and acute homesickness when he went to attend school in Paris (Vallery-Radot, 1923). The mathematician Norbert Wiener (1953) as a child was subject to many fears: of death, of injury, of darkness, of violence, of his father's voice. He was subject to feelings of terror. He was extremely sensitive to cruelty and injustice. Juan de Dios, the founder of the Hospitallers in the 16th century Spain, pretended to be insane in order to share the lot of the inmates of the insane asylum. After eight months the compassion for the beatings and agonies he witnessed brought on him such intense anguish that his spiritual director ordered him to leave the asylum (Newcomb, 1959). Eleanor Roosevelt (1937) as a child was terrified when a thief jumped onto a streetcar she was riding, but later "the face of that poor haunted man was too vividly before me, and it continued to come before me in my dreams for months afterwards." These examples show the enduring quality and the intensity of such emotions, a manner of experiencing in a higher key.

A somewhat different manner of enhanced experiencing is present, for example, in Norbert Wiener's vivid memory of smells and tastes from his childhood trip to Vienna: "The smell of the alcohol lamp over which my parents prepared my sister's warm evening meals, the smell of the rich European chocolate with whipped cream, the smell of the hotel and the restaurant and *cafe* - all these are still sharp in my nostrils." There is here a keen sensual aliveness.

Five Dimensions of Psychic

This amplified range of different experiential channels found in creative people as well as in those who seek spiritual perfection was correlated by Dabrowski (1964) with intensified personal growth. People with less fire in their veins look upon those who have it as different, abnormal, neurotic. They avoid having such people as friends because they can neither understand nor appreciate them. If they could they would willingly avoid having such children. When we do not understand someone's behavior we label it irrational regardless of the hidden causal chain. When someone's extraordinary sensitivity, altruism, or fantasy break the norms we regard such behaviors as abnormal and label them neurotic. To Dabrowski, however, the label was hiding something highly significant - signs of a

Roeper Review, Volume 8, No. 3, Copyright © 1986. Roeper City and Country School.

richer psychological endowment. He found that in youth with superior intellectual and artistic abilities a greater number of so called neurotic symptoms (anxiety, extreme fluctuation of mood, fixed ideas, obsessions, compulsions, psychosomatic ailments) correlated with a greater number of indices of enhanced modes of experiencing. He concluded that "nervousness and psychoneuroses are phenomena normal in the course of development" (Dabrowski, 1972). He saw these as signs of developmental potential.

Dabrowski's concept of developmental potential included talents and abilities, plus five primary components: psychomotor, sensual, intellectual, imaginational, and emotional. Conceived broadly as five dimensions of psychic life, these components have many possible expressions: psychomotor (P) - movement, restlessness, drivenness, an augmented capacity for being active and energetic; sensual (S) - enhanced differentiation and aliveness of sensual experience; intellectual (T) - avidity for knowledge, discovery, questioning, love of ideas and theoretical analysis, search for truth; imaginational (M) - vividness of imagery, richness of association, facility for dreams, fantasies and inventions, animisms and personifications, liking for the unusual; and emotional (E) - great depth and intensity of emotional life expressed in a wide range of feelings, compassion, attachments, heightened sense of responsibility, self-examination. Without some degree of intensity in these areas, talent is mere technical facility lacking heart and fire.

These five dimensions may be thought of as channels of information flow and as modes of experiencing (Piechowski, 1979). They can be wide open, narrow, or barely present. Dabrowski called them "forms of psychic overexcitability" to underline the enhancement and intensification of mental activity, much beyond the ordinary. Overexcitabilities contribute to the individual's psychological development, and so their strength is taken as a measure of developmental potential.

When gifted people, or their parents, are introduced to these concepts there is often an instant recognition and a reaction of relief. It helps to find out that someone else studied and made sense of a manner of feeling and acting that is often at odds with the cool norm and expectations of the herd. It helps for once to feel legitimate in one's extraordinary reactions. It helps to learn that one does not have to be dead or famous to be allowed what one cannot help experiencing. The stronger these overexcitabilities the less welcome they are among peers and teachers. Such children feel different, apart from others, guilty and embarrassed for being different. Criticized or teased for what they cannot help, they feel there is something wrong with them. Sometimes they learn to disguise it, sometimes they seek refuge in fantastic worlds of their own creation, sometimes they try to "normalize" it and suffer in consequence the agonies of those who deny their own potential (Maslow, 1971).

The concept of developmental potential finds its application in two research directions. The first is descriptive, a study of the range and the strength of expressions of overexcitability in gifted and talented individuals. This direction has important implications for investigating the nature of giftedness and talent and the basis for methods of identification. The second is the study of advanced forms of individuation exemplified by self-actualizing people, moral leaders, humanitarians, and saints. It is from this direction that the developmental potential gains its meaning as potential for higher levels of development.

Developmental Potential as Descriptive of Gifted and Talented

Systematic investigation of the five forms of overexcitability was made possible by the Overexcitability Questionnaire (OEQ). In its current form it consists of 21 open-ended items (Lysy & Piechowski, 1983). The items are designed to elicit material corresponding to the expressions of OE listed in Table 1.

Several comparative studies have been conducted. Silverman and Ellsworth (1981) compared OE profiles of intellectually gifted adults and a heterogeneous sample of graduate students. The two groups differed strongly on four of the five OEs. The intellectually gifted showed much higher scores on sensual, intellectual, imaginational, and emotional OEs. Of particular interest was the finding of strong emotional OE among the intellectually gifted because it underscores the importance of emotional endowment in the makeup of intellectually gifted persons.

In another study intellectually gifted adults and a sample of graduate students were compared with artists (Piechowski, Silverman, & Falk, 1985). Except for intellectual OE all the other OEs are more strongly represented in the artists than in the intellectually gifted. Their imaginational and emotional OEs are by far the strongest. Their intellectual OE score is not significantly different from that of the gifted. This is in agreement with other researchers (Eiduson, 1958; Getzels & Csikszentmihalyi, 1976; Roe, 1946) who found in artists strong preference for complex, abstract, and theoretical thinking. Their high imaginational OE score reflects the creative element that goes much beyond the concept of divergent thinking. It includes magical and animistic thinking, vivid visualization of fantasized scenes, the ability to go back to an interrupted dream, interest in psychic phenomena (Davis, Peterson, & Farley, 1973; Wilson & Barber, 1983), and more. The artists' high emotional OE score has a broader meaning. It confirms Langer's (1967) view of the artist as an expert in the knowledge of the subjective life. Art and the humanities are devoted to the formulation and expression of that which is most deeply felt in human experience. Every form of human creation is valued and cherished as an expression of the inexhaustible capacities of the human spirit. In that lies the universality and the emotional significance of art, poetry, music.

Table 1
Forms and Expressions of Psychic Overexcitability

PSYCHOMOTOR

Surplus of Energy
rapid speech, marked enthusiasm, fast games and sports, pressure for action, delinquent behavior

Psychomotor expression of emotional tension
compulsive talking and chattering, impulsive actions, delinquent behavior, workaholism, nervous habits (tics, nailbiting)

SENSUAL

Sensory pleasures
seeing, smelling, tasting, touching, hearing

Sensual expression of emotional tension
overeating, masturbation, sexual intercourse, buying sprees

INTELLECTUAL

Probing questions

Problem solving

Learning
curiosity, concentration, capacity for sustained intellectual effort, extensive reading

Theoretical thinking
thinking about thinking, introspection, preoccupation with certain problems, moral thinking and development of a hierarchy of values, conceptual and intuitive integration

IMAGINATIONAL

Free play of the imagination
illusions, animistic and magical thinking, image and metaphor, inventions and fantasy, poetic and dramatic perception

Spontaneous imagery as an expression of emotional tension
animistic imagery, mixing of truth and fiction, dreams, visual recall, visualization of events, fears of the unknown

EMOTIONAL

Somatic expressions
tense stomach, sinking heart, flushing

Intensity of feeling
positive feelings, negative feelings, extremes of feeling, complex feelings, identification with others' feelings

Inhibition (timidity, shyness)

Affective memory

Concern with death

Fear and Anxiety

Feeling of guilt

Depressive and suicidal moods

Relationship feelings
need for protection, attachment to animals, significant others, perceptions of relationships, emotional ties and attachments, difficulty of adjustment to new environments, loneliness, concern for others (empathy), conflict with others

Feelings toward self
self-evaluation and self-judgment, feelings of inadequacy and inferiority.

Source: M. M. Piechowski, "Developmental Potential," in N. Colangelo and R. T. Zaffrann (Eds.) *New Voices in Counseling the Gifted.* Dubuque, Iowa: Kendall/Hunt, 1979.

Having found different OE profiles in distinct groups one may ask whether differentiation of such profiles can exist within a group. A study of artists (Piechowski & Cunningham, in press) revealed the possibility of finding several OE patterns within that group: Pattern A with strong, balanced OEs, pattern B with emotional overexcitability and sensitivity so dominant that it pervaded all other OEs, and pattern C with lower emotional OE but the remaining ones unharmonized, strident, restless, and driven. These types of subgroup and individual differences offer a means of studying the direction of development that gives rise to a particular form and tone of artistic expression. The difference between academic art and art pulsating with life may well be the difference between OEs that only trickle and OEs with the power of geysers.

Several studies examined OE profiles in children and adolescents. Gallagher (1985) compared gifted and nongifted 11- and 12-year olds, and Schiever (1985) compared youngsters that were high and low on a creativity measure. Both studies found higher OE profiles in the gifted and the creative than in the low-creative and nongifted.

Age related changes in OE scores were tested between ages of 9, 11, and 13. (Age nine appears to be the lower limit for using OEQ.) As currently assessed with an expanded weighting scale the rise in OE scores is greatest for imaginational, intellectual, and emotional OEs between the ages of 11 and 13 (Piechowski, unpublished). Most likely, this reflects increasing skill in verbal and written expression rather than an increase in the strength of the OEs themselves.

Sex related differences were noted in the same study in emotional OE. Girls tend to produce higher emotional OE scores than boys. Thus, in comparing different samples it is important to know the sex ratio because the higher the ratio of boys to girls the lower the mean emotional OE score. All these studies report similar OE scores on different samples and similar OE values for a given age.

In a study of a larger pooled sample of gifted adolescents (N = 138), Piechowski and Colangelo (1984) found a bimodal distribution in regard to intellectual OE. The interesting feature of this finding was that there were no significant differences between the high and the low intellectual OE groups in regard to the remaining OEs. However, in the comparison group of graduate students, low intellectual OE score went together with lower other OE scores. Thus giftedness tends to correlate with an elevated OE profile. The reverse, i.e., that an elevated OE profile is a sign of giftedness, should also hold true, but as yet it has not been put to the test.

Identification procedures vary widely (Richert, Alvino, McDonnel, 1982). In the study by Piechowski and Colangelo (1984) gifted adolescents were recruited from several different high schools. One school appeared to be selecting primarily hard working, task oriented achievers (but let us not disparage them, they are much needed). Another high school was selecting a large proportion of creative, self-directed, and imaginative youngsters, as judged by the content of their responses on the OEQ. By contrast, the first school seemed to select against this type of youngster.

The OEQ thus offers a new possibility of investigating identification procedures. On the assumption that the stronger the overall OE profile the stronger the talent, the OE profile offers the opportunity of identifying a broad range of giftedness (Piechowski & Colangelo,

1984). The popular Renzulli-Hartman (1971) scale was given a tentative scrutiny in terms of the overexcitabilities (Piechowski, 1979). At that time it had only four subscales: learning, motivation, creativity, and leadership. Except for the leadership subscale, intellectual items dominated the other three scales. Even on the creativity subscale, items expressive of imagination and feeling took second place to the intellectual ones. What remains to be done is to see what are the OE profiles of gifted youngsters identified by means of this and other similar instruments.

Developmental Potential as Potential for Self-Actualization and Moral Vigor

William James (1890) observed that moral action - the action of following one's ideals - is "action in the line of greatest resistance." To follow one's ideals one has to overcome the resistance of one's lower inclinations, but when one follows the latter the ideals are not resisting: "If in general we class all springs of action as propensities on the one hand and ideals on the other, the sensualist never says of his behavior that it results from a victory over his ideals, but the moralist always speaks of his as victory over his propensities." James also noted that individuals for whom moral questions demand not mere intellectualization but a response in action, are intensely emotional: In such persons "we have the emotionality which is the *sine qua non* of moral perception; we have the intensity and tendency to emphasis which are the essence of moral vigor" (James, 1902). In his mind, eminence was a combination of superior intellect with "ardor and excitability of character."

In formulating the concept of developmental potential, Dabrowski laid particular stress on intellectual, emotional, and imaginational OEs. He saw them as necessary to personal growth characterized by moral questioning, existential concerns and self-judgment. In this type of development the individual engages in the work of inner psychic transformation. The effort of will to overcome one's lower propensities and to follow one's ideals is deliberate and extends over most of a person's life. It does not mean, of course, that the effort is necessarily steady and the progress uniformly upward. What it does mean is that the person does not give up the search even though he or she falls, slips back, yields to discouragement and self-doubt, but takes it up again and again. This type of development, the more intense and sustained it is, produces highly moral individuals and spiritual leaders. *The Journal of a Soul* of Pope John XXIII, Dag Hammarskjöld's *Markings*, Eleanor Roosevelt's *You Learn By Living*, document the unceasing labor at personal transformation. The aim of this transformation is to make one's ideals and actions one and the same, to live according to the precepts of love, compassion, helpfulness, and effective action.

In Dabrowski's vision development of personality was stratified into five ascending regions or levels (Dabrowski, 1967; Dabrowski & Piechowski, 1977). "Levels of personality development" is really a very abstract notion and I prefer to speak here of "regions" to convey something of their complexity and variety. Self-serving motivations, self-protectiveness, manipulation, conflict with others, possessiveness, superficial attachments, lack of perception of the other's emotions, guide the region of Level I. In the next region - Level II - there is either a sense of inner fragmentation ("I feel split into a thousand pieces") and resulting oscillations of mood, vacillations in action, switching between opposites, or a fairly integrated world view of unregenerate relativism and submission to mainstream values and conventions. Here the self derives its definition from fulfilling the expectations that others, family or society, hold for one. Personal growth in this region is most often the struggle toward the emancipation of an individual sense of self.

The condition of entry to the next region, or Level III, is a sense of self which may be vulnerable and threatened yet deep down is autonomous. Here, at first a vague but gradually stronger and clearer experience of a vertical split within the self makes itself felt: the lower vs. the higher (in the sense of an inner ideal), "what ought to be" vs. "what is" (in the sense of a loathsome state of affairs of failing one's ideals, falling short of one's potential, perceiving oneself lacking in empathy, helpfulness, etc.). It is in this region that moral questions become important and may be intensely felt. It is here that others are always seen as individual persons and the principle of the greatest good for the greatest number is felt to be inadequate. The deepening understanding of universal ideals and their individual realization are themes that continue into Levels IV and V. (For those who wish to compare this theory against the yardstick of Kohlberg's theory, suffice it to say that Dabrowski deals with personality traits, types of personal growth, and motivation for moral action rather than with principles of moral reasoning and justice. Consequently, the reply to the question "why be moral" or "why be good" is to be found in the very emotional power with which moral questions are felt. Like James, Dabrowski stresses the importance of emotions as motivators and like Gilligan, he stresses the centrality of empathy and of a sense of personal responsibility. "Levels" in the two theories are not directly comparable. Tentatively, one might view Kohlberg's stages 1-4 as encompassed by Dabrowski's Level I, stage 5 by Level II, and stage 6 by Levels III and IV. The much discussed hypothetical stage 7 (Kohlberg, 1981) seems to correspond to Level V which Dabrowski elaborated in significant detail.)

Ascending into the next region - Level IV - we encounter fully grown self-actualizing people. It so happens that Maslow's composite picture of self-actualizing individuals fits exactly Dabrowski's construct of Level IV, a conception of the kind of people who have developed a strong sense of universal values and whose extraordinary sense of responsibility leads them to take up tasks for the sake of others

(Piechowski, 1978). Maslow (1970) pointed out these people are strongly focused on problems outside themselves. They focus on problems rather than on the protection or enhancement of their ego. They perceive tasks to fulfill because they respond to the need or urgency of the times.

Eleanor Roosevelt's life is an example of self-actualization (Piechowski & Tyska, 1982). The extent and power of her compassion, and the deliberate effort to follow Christ as her inner ideal, reveal in her development characteristics that go even higher, technically speaking from Level IV to Level V. At present, however, theoretical categories help more to understand such an extraordinary life than to decide on the exact "level." From early childhood, Eleanor Roosevelt exerted her will to conquer tears, fatigue, her voice, physical awkwardness, numerous fears, ingrained social and racial prejudice, depressions, loss of love. In all this her life of prayer was hidden, but the work of inner psychic transformation was always there (Piechowski, 1984). A diary entry when she was 14 records her struggle to become a better person. She responds here to a verse with a call to duty and unquestioning acceptance of God's plan:

> **It is very hard to do what the verse says, so hard I never succeed and I am always questioning because I cannot understand and never succeed in doing what I meant to do, never, never....I can feel it in me sometimes that I can do much more than I am doing and I mean to try till I succeed. (Lash, 1971, p. 112)**

Just as William James described moral action as the effort of will in the line of greatest resistance, so did she attack points of emotional resistance in her struggle for self-mastery. That was the principal goal through the first half of her life; later it was the service to her country and the whole world (human rights and peace). She knew how difficult it was to attain self-knowledge, because only those who try find that out. She knew that to face the naked truth about oneself requires real courage. Self-examination has to be frequent and one has to be on guard against "that protective veiling one hangs over the real motives" (Roosevelt, 1960). Having lost more than one of those she loved most - her father and her brother - and having lost the love of her husband, she feared the recurrence of such losses; yet every time she transcended that inner split through acceptance and through an expansion and deepening of her love. She was an adept in nonpossessive love. The words of her evening prayer give insight into the way she lived her life. The will to follow an inner ideal is clearly expressed:

> **Our Father, who has set a restlessness in our hearts and made us all seekers after that which we can never fully find, forbid us to be satisfied with what we make of life. Draw us from base content and set our eyes on faroff goals. Keep us at tasks too hard for us that we may be driven to Thee for strength. Deliver us from fretfulness and self-pitying; make us sure of the good we cannot see and of the hidden good in the world...**
> **(Roosevelt & Brough, 1977)**

Finally, the highest region - Level V - epitomizes universal compassion, self-sacrifice, and total dedication to the service of others. Dag Hammarskjöld is a good example. Rather than seek the personal happiness of marriage and family life, he chose to serve all nations, but especially the small emerging nations of the world. It was not an easy choice, and he knew the pain of personal deprivation. Because he made the United Nations operate according to the ideals of its charter, he has been called the servant of peace. The inner transformation he forged in his life opened to him transcendental vistas:

> **Now you know. When the worries over your work loosen their grip, then this experience of light, warmth, and power. From without - a sustaining element, like air to the glider, or water to the swimmer. An intellectual hesitation which demands proofs and logical demonstration prevents me from 'believing' - in this, too. Prevents me from expressing and interpreting this reality in intellectual terms. Yet, through me there flashes this vision of a magnetic field in the soul, created in a timeless present by unknown multitudes, living in holy obedience, whose words and actions are a timeless prayer.**
> **- 'The Communion of Saints' - and**
> **- within it - an eternal life.**
> **(*Markings*, entry from year 1952)**

How can we approach the search for signs of developmental potential that would predispose a person to that kind of far-reaching transformation? Such persons are destined to lead by the power of their ideals, because they live them. No doubt there are other Eleanors and Dags who could achieve comparable eminence but are not historically destined to do so. Still, they live among us.

Empirical Studies of Developmental Potential in Adults

Lysy and Piechowski (1983) undertook an empirical study of the relation between the components of developmental potential, developmental level, and type of development - transforming vs. nontransforming. The study bore out James's original observation that the intellectual and emotional forces together make for eminence. Contrary to Dabrowski's original stipulation, imaginational OE contributed little to developmental level. Clearly, as shown in the study of artists (Piechowski, Silverman, & Falk, 1985) imaginational OE is essential to genuinely creative work. But unlike moral behavior, creativity is not delimited by developmental level.

The subjects in the Lysy and Piechowski study were rated in regard to whether or not they displayed the characteristics of transforming or

nontransforming personal growth. Transforming growth is characterized by moral questioning, existential concerns and self-judgment against an autonomous hierarchy of values. There is a strong sense of self and a need for self-development to serve the human community more fully. Nontransforming growth lacks comparable developmental focus and thrust. Although there might be sensitivity, caring, and motivation to work for the welfare of others in practical ways, the main goal is self-awareness and self-acceptance rather than a fundamental change in oneself.

The transforming quality strongly correlated with developmental level. Robert and Piechowski (1980) attempted to identify variables that could discriminate between these two types of growth. Robert (1984) found that the transforming subjects "felt a strong responsibility toward others and their own development which led them to risk going beyond the confines of their jobs or primary relationships to put this sense of service into action." The nontransforming subjects, while also expressing the desire to be of service, did not manifest such a sense of responsibility or an urgency to act on it.

Many people have ideals but few are committed to them. Personal transformation, however, must be powered by an ideal. There is a sense of responsibility toward one's ideal; with it comes the urge to take up the work of transformation. Nontransforming subjects, while having ideals, seem to lack this urge; their expressed ideal might be self-acceptance. But the others are moved to self-correction and ever renewed efforts to make their ideals a living reality - first in themselves and then perhaps to inspire others in the same direction.

A nearly completed study by Brennan (1985) gives new insight into the developmental and individual differences among self-actualizing people. Brennan used the intensive case study approach. In order to elicit relevant material he deliberately defined for the subjects each of the many components of levels III and IV just as Dabrowski stated them in his theory.

Twenty one individuals were nominated as likely to be engaged in development toward self-actualization. Using an instrument for assessing developmental level (Gage, Morse, & Piechowski, 1981), three were found to be in this category. All three were gifted. The strenuous interview focusing on inner dynamisms presented no problem to these people; they responded readily for several hours without any indication of fatigue. Several dominant themes emerged. All three have chosen work directed to benefit humanity: nursing, education, research. All have a distinct philosophy of life that emphasizes such principles as being true to one's inner voice, fostering harmony, a sense of being part of the greater scheme of spiritual evolution, a sense of human community, a Zen principle of detached commitment. Attention to personal growth is clearly there although in one case it is more implicit than explicit. The sense of responsibility is very strong and very active. These three have a strong sense of self and each one went through a critical point at which they had either to choose and affirm their own self or to deny it.

The detailed information obtained in the guided interview was checked against the theoretical terms built into Levels III and IV. This furnished a profile showing how far the subject is on the road to self-actualization (i.e., Level IV). Two of the three subjects were found to be well advanced. Interestingly, the less advanced subject was also the youngest of the three (middle thirties).

Studies of Developmental Potential in Adolescents

Studies of adults inform us about self-actualizing development retrospectively; they do not give us sufficient insight to recognize a child or adolescent who might have a distinct potential toward self-actualization but whose life is still ahead with all its risks, trials, and unpredictable turns.

Adolescents are generally found to be lacking in the capacity for the type of self-judgment that is the condition of inner growth (Buescher, 1985). They can be cuttingly critical of others and the world around them but at the same time incapable of directing their sharp judgments at themselves. A thoughtful teenager capable of sensitive self-perception and self-evaluation may be rare but such a youth might have a strong potential for self-actualizing growth. Piechowski et al. (1983) examined the content of the OEQs obtained from a small sample of gifted adolescents in a two-year pilot study. At the time of the follow-up they varied in age from 14 to 18. In terms of individual development they were engaged in meeting the demands of school and career; some of them lacked evidence of growth issues, while others showed varying degrees of emotional awareness. A number of them showed evidence of particularly intense emotional growth which had several of the following characteristics:

1. Awareness of growing and changing, awareness of different possibilities of developmental paths open to them. These youngsters think of different directions that they can take in life; they give the impression of running mental experiments on the possibilities ahead of them and the different outcomes to which their choices might lead. They are aware of psychological changes in themselves.
2. Awareness of feelings and conscious attention to them, interest in others as persons and empathy toward them. They show distinct interest in their own emotions and those of others. Their interest in others as persons extends to all ages.
3. Feelings of unreality are present occasionally, marking periods of particularly intense emotional growth. At times they find themselves in a daze or as if in a dream feeling quite apart from even the closest family. But this endows them with new perspectives; they travel far in inner spaces gaining new outlooks on

others and on themselves.

4. Inner dialogue and self-judgment, at times quite severe. These youngsters monitor themselves closely. Their conscience is sensitive and fitted with a spur to self-correction - the opposite of the average adolescent lacking in self-judgment.
5. Searching or problem-finding, asking questions which are basic, philosophical, existential. Self-scrutiny, questioning, and the search for truth go together. Somehow these youngsters are already interested not only in objective truth but in inner truth as well.
6. Awareness of one's real self and that it is hidden from others. They realize that their self-knowledge is quite different from the way others know them.

These characteristics are not related to age because they were noted in some of the 12- and 14-year-olds. Rather, some gifted adolescents become aware of their emotional life and their inner self as early as 12, perhaps even earlier, and this awareness becomes richer and deeper in subsequent years. The combination of a searching intellect with intense emotionality gives them the potential for eminence (James's "effective genius") although its realization is a function of historical and cultural circumstance (Feldman, 1982). Gifted adolescents with lesser developmental potential appear to be drawn primarily to well paved obstacle courses governed by established norms of achievement, recognition, and responsible citizenship. These seem to fit the rational-altruistic type of character development as described by Peck and Havighurst (1960).

It might be worth noting that Sommers (1981) found strong positive relationship between an extended emotional range and cognitive complexity. She suggested that the more developed and more sophisticated a person's system of values, the better focus there is for critical evaluation of one's own and others' conduct. This echoes the basis for reliable moral outlook that Maslow found in self-actualizing people - "they do right and they do not do wrong" - regardless of social conventions. The question of the primacy of cognition or emotion continues to be debated (Zajonc, 1981, 1984; Lazarus, 1984). No doubt there are several possible patterns. One of Brennan's subjects achieved such a degree of harmonious integration between his emotions and his intellect that on the OEQ he gave primarily responses indicative of intellectual OE. But another self-actualizing subject was guided chiefly by the power of her intuition and empathy. She does not lack intellectual OE, but it takes second place to her sensitive tuning into the emotional condition of another person. Whether strongly intellectual or strongly emotional, what self-actualizing people do have in common is a humanistic orientation, an investment in the world of people, their lives, their aspirations, and their fates.

Summary

If we were to look for moral giftedness and potential for self-actualization, we must look for it in the personal domains. A superior intellect without Maslow's *Gemeinschaftsgefühl* (a feeling of fellowship with others) to go with it strikes us as inhuman. By introducing the concept of personal intelligences, Gardner (1983) provided constructs which are helpful in ordering our quest. What the model of developmental potential contributes is the definition of personal attributes by which a "personal" intelligence may rise above the average to the level of true talent. The greater the strength of intellectual and emotional OEs in concert with the transforming quality, the stronger is the potential for self-actualization and outstanding moral development.

REFERENCES

Bachtold, L. M. Psychoticism and creativity. (1980) *Journal of Creative Behavior, 14*, 242-248.

Barron, F. *Creativity and personal freedom.* (1963) Princeton, NJ: Van Nostrand.

Brennan, T. P. (1985) Case studies of multilevel development. In preparation.

Buescher, T. M. (1985) A framework for understanding the social and emotional development of gifted and talented adolescents. *Roeper Review, 8*, 10-15.

Dabrowski, K. (1964) *Positive disintegration.* Boston: Little, Brown.

Dabrowski, K. (1967) *Personality - shaping through positive disintegration.* Boston: Little, Brown.

Dabrowski, K. (1972) *Psychoneurosis is not an illness.* London: Gryf.

Dabrowski, K., & Piechowski, M. M. (1977) *Theory of Levels of Emotional Development.* Oceanside, N.Y.: Dabor Science.

Davis, G. A., Peterson, J. M., & Farley, F. H. (1973) Attitudes, motivation, sensation seeking, and belief in ESP as predictors of real creative behavior. *Journal of Creative Behavior, 7*, 31-39.

Eiduson, B. T. (1958) Artist and nonartist: a comparative study. *Journal of Personality, 26*, 13-28.

Feldman, D. H. (1982) Developmental framework for research with gifted children. In D. H. Feldman (Ed.) *Developmental approaches to giftedness and creativity.* San Francisco: Jossey-Bass.

Gage, D. F., Morse, P. A., & Piechowski, M. M. (1981) Measuring levels of emotional development. *Genetic Psychology Monographs, 103*, 129-152.

Gallagher, S. (1985) A comparison of the concept of overexcitabilities with measures of creativity and school achievement in sixth grade students. *Roeper Review, 8*, 115-119.

Gardner, H. (1983) *Frames of mind.* New York: Basic Books.

Getzels, J. W., & Csikszentmihalyi, M. (1976) *The creative vision.* New York: Wiley.

Goertzel, M. G., Goertzel, V., & Goertzel, T. G. (1978) *Three hundred eminent personalities.* San Francisco: Jossey-Bass.

Hollingworth, L. S. (1942) *Children above 180 IQ.* New York: World.

James, W. (1890) *The principles of psychology.* New York: Henry Holt.

James, W. (1902) *The varieties of religious experience.* New York: Modern Library.

Kohlberg, L. (1981) *The Philosophy of Moral Development.* San Francisco: Harper & Row.

Langer, S. K. (1967) *Mind: An essay on human feeling.* Baltimore: Johns Hopkins University Press.

Lash, J. P. (1971) *Eleanor and Franklin.* New York, Norton.

Lazarus, R. S. (1984) On the primacy of cognition. *American Psychologist, 39*, 125-129.

Lysy, K. Z., & Piechowski, M. M. (1983) Personal growth: an empirical study using Jungian and Dabrowskian measures. *Genetic Psychology Monographs, 108*, 267-320.

Maslow, A. H. (1970) *Motivation and Personality.* Second ed. New York: Harper & Row.

Maslow, A. H. (1971) *The farther reaches of human nature.* New York: Viking.

Newcomb, C. (1959) *Brother zero.* New York: Dodd, Mead.

Peck, R. F., & Havighurst, R. J. (1960) *The psychology of character development.* New York: Wiley.

Piechowski, M. M. (1978) Self-actualization as a developmental structure: a profile of Antoine de Saint-Exupéry. *Genetic Psychology Monographs, 97*, 181-242.

Piechowski, M. M. (1979) Developmental potential. In N. Colangelo & R. T. Zaffrann (Eds.) *New voices in counseling the gifted.* Dubuque, IA: Kendall/Hunt. Pp. 25-27.

Piechowski, M. M. (1984) Inner growth and transformation in the life of Eleanor Roosevelt. Paper presented at the Eleanor Roosevelt Centennial Conference, Vassar College, Pough-

keepsie, N. Y.
Piechowski, M. M., & Colangelo, N. (1984) Developmental potential of the gifted. *Gifted Child Quarterly*, 28, 80-88.
Piechowski, M. M., & Cunningham, K. S. (1985) Patterns of overexcitability in a group of artists. *Journal of Creative Behavior*, in press.
Piechowski, M. M., & Tyska, C. A. (1982) Self-actualization profile of Eleanor Roosevelt, a presumed nontranscender. *Genetic Psychology Monographs*, 105, 95-153.
Piechowski, M. M., Silverman, L. K., & Falk, R. F. (1985) Comparison of intellectually and artistically gifted on five dimensions of mental functioning. *Perceptual and Motor Skills*, 60, 539-549.
Piechowski, M. M., & Colangelo, N., Grant, B., & Walker, L. (1983) Developmental potential of gifted adolescents. Paper presented at the National Association for Gifted Children annual convention, Philadelphia, PA.
Renzulli, J. S., & Hartman, R. K. (1971) Scale for rating behavioral characteristics of superior students. *Exceptional Children*, 38, 243-248.
Richert, E. S., Alvino, J. J., McDonnel, R. C. (1982) *National report on identification*. Sewell, NJ: Educational Improvement Center-South.
Robert, J. A. (1984) A study of typologies of personal growth. Ph.D. dissertation. Northwestern University.
Robert, J. A., & Piechowski, M. M. (1981) Two types of emotional overexcitability: conserving and transforming. In N. Duda (Ed.) *Theory of Positive disintegration: Proceedings of the third international conference*. Miami, FL.: University of Miami School of Medicine.
Roe, A. (1946) Artists and their work. *Journal of Personality*, 15, 1-40.
Roosevelt, E. (1937) *This is my story*. New York: Harper.
Roosevelt, E. (1960) *You learn by living*. New York: Harper.
Roosevelt, E., & Brough, J. (1977) *Mother R*. New York: Putnam.
Schiever, S. W. (1985) Creative personality characteristics and dimensions of mental functioning in gifted adolescents. *Roeper Review*, 7, 223-226.
Silverman, L. K., & Ellsworth, B. (1981) The theory of positive disintegration and its implications for giftedness. In N. Duda (Ed.) *Theory of positive disintegration: Proceedings of the third international conference*. Miami, FL.: University of Miami School of Medicine.
Sommers, S. (1981) Emotionality reconsidered: the role of cognition in emotional responsiveness. *Journal of Personality and Social Psychology*, 41, 553-561.
Tannenbaum, A. J. (1985) *Gifted Children: Psychological and Educational Perspectives*. New York: Macmillan, 1983.
Vallery-Radot, R. (1923) *The Life of Pasteur*. Garden City, NY: Doubleday.
Wiener, N. (1953) *Ex-prodigy: My childhood and youth*. New York: Simon and Schuster.
Wilson, S. C., & Barber, T. X. (1983) The fantasy-prone personality: Implications for understanding imagery, hypnosis, and parapsychological phenomena. In A. A. Sheikh (Ed.) *Imagery: Current theory, research and application*. New York: Wiley, pp. 340-387.
Zajonc, R. B. (1981) Feeling and thinking: preferences need no inferences. *American Psychologist*, 35, 151-175.
Zajonc, R. B. (1984) On the primacy of affect. *American Psychologist*, 39, 117-124.