


Taylor, C. W. Be talent developers... as well as knowledge dispensers. Today’s Education, 57, 67-69, 1968.


DEVELOPMENTAL POTENTIAL

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Abstract

Today’s concept of giftedness has been broadened to include considerably more than academic capability as measured by I.Q. tests, yet, the call for broader conceptualization has essentially resulted in further test orientation. There is a need for a model that would enable one to conceptualize giftedness in terms other than testable skills.

This paper presents a psychological model of giftedness that accounts for intellective and non-intellective dimensions, especially those of imagination and feeling. The model rests on the concept of developmental potential taken from a theory of human development. The value of this concept lies in that it gives readily identifiable components: special talents and abilities and five forms of psychic overexcitability: psychomotor, sensual, intellectual, imaginative, and emotional. Specific examples of expressions of overexcitability identified in case data with gifted are given.

The model offers a unique basis for comprehensive description and understanding of giftedness in terms of shared underlying dimensions. The model is also used to evaluate current checklists for identification of giftedness (Benznik-Hartman and Jarecky). The evaluation shows that in the main, the checklists tap intellective factors while imaginative and emotional factors are under-represented. A comparison is then made of creative and noncreative profiles to show that the creative profile is highest on emotional factors while a noncreative profile is low on intellectual and imaginative factors.

The psychological model described in this paper has obvious implications for counselors and other educators. The model offers a richer, broader, and theoretically coherent understanding of high ability and creative students. Also, counselors can use the illustrative examples to guide them in identifying and understanding students with whom they work. A clear example of using overexcitabilities in counseling is presented in detail in the Ogburn-Colangelo article.

VARYING CONCEPTIONS OF GIFTEDNESS

Our conceptions of giftedness have been molded by tests of intelligence and by studies of scientific talent. The conceptions of creativity have been molded analogously, by tests of creative skills and scientific problem-solving. All this has resulted in an emphasis on intellective skills, and skills in general, and too little on imagination and feeling. In fact, imagination is still approached entirely in cognitive terms, while feeling is not approached at all. But feeling and imagination are not analogous to intellectual discourse and they cannot be split up into operations analogous to formal linguistic operations. And it is feeling and imagination together with higher intellectual abilities that are the required ingredients of creative potential. With the proliferation of kinds of giftedness which now include the performing arts, visual arts, leadership, moral giftedness, social giftedness, psychomotor abil-
ity, etc., there is a great need for new ways of conceptualizing giftedness, probably in terms that are fundamentally different from high-I.Q. and creativity test performance (Feldman, 1977). In relation to creativity, Treffinger, Renzulli, and Feldhusen (1975) stressed the need for a theory "which can serve to unify and direct our efforts at specifying an adequate assessment procedure." We thus have two distinct problems, one of conceptualizing giftedness, and another of conceptualizing creativity. The model to be discussed here is relevant to both issues.

There is no question that a theory of creativity is needed. But so is a theory of human intelligence. As yet we have no unified theory of human intelligence. The rapid progress of research into the functions of the left and right sides of the brain promises to build the ground for such a theory (Sperry, 1964; Ornstein, 1972; Samples, 1976). Do we stand, at present, an equal chance for a theory of creativity? The I.Q. test was developed without a theory of intelligence. Consequently, we no longer trust it as an adequate measure of what it takes to be intelligent. We know that it tells us whether we will succeed in school. The creativity tests have also been developed without a theory of creativity. Their bases are only varying conceptions of creativity, some of them entirely analogous to, and occasionally indistinguishable from, intellectual skills (Wallach, 1970).

A common conception of creativity, which is unlike that of intellectual skills, is productivity (Albert, 1977; Wing and Wallach, 1971). Teacher ratings of creative students and peer ratings of research scientists seem to select those with high achievement and productivity record. It is then easy to take productivity as a criterion of creativeness and overlook the absence of a logical connection between the two. To be creative means to be able to create an original and significant piece, not necessarily a great number of pieces, or to discover a new form and express it, not necessarily a great number of forms. And to be creative means also to engage the imagination and feeling in ways which are not analogous to the way cognitive skills are used.

Although productivity can tell us nothing about the nature of creativity, it remains a good indicator of creativity. Following the lead of Bloom (1963) and Hoyt (1966), this approach has brought the interesting finding that real life accomplishment—the worthwhile contribution that a person makes in life—as opposed to academic accomplishment, can be predicted not from academic achievement but from the high school record of extracurricular accomplishment (Wing and Wallach, 1971). The extracurricular categories that were taken into the analysis included leadership, art, social service, writing, editing, dramatic arts, music, science, athletics, and employment. They were counted against the stringent criterion of out-of-school recognition such as winning a prize or an award at a literary contest or an exhibition, having published in a nonschool magazine or newspaper, having been elected president of student government or class, or any other form of referred recognition. Such extracurricular activity pursued with great absorption and dedication, raises the interesting question of its sources.

The different kinds of extracurricular activities examined by Wing and Wallach bring us back to the question of different kinds of giftedness. In the case of creative endeavors such as art, writing, music or acting, we are faced with the question of the nature of each particular kind of giftedness or talent and the nature of creativity. Then there are the questions of the surplus of energy and of the need for pursuits allowing maximum degree of autonomy that find their outlet in the extracurricular activities. This raises the question of motivation.

In their review of research on the creative individual, Dellas and Gaier (1970) took the position that "the creative production is manifested in a particular psychological condition of the person. Golann (1973), Maddi (1965), Barron (1969, 1972), and Nickolls (1972) stressed the motivational characteristics of creative persons, "hard work and dedicated practice, "active striving and intensity of involvement," as did Mackinnon (1962) who used as one of his three criteria of creativeness the realization of a piece of work. Creation then is a function of the capacity to sustain, develop, and articulate the original insight into a presentable form. Consequently, a Walter Mitty is not a good model of a gifted and creative person—his rich adventures and fantastic accomplishments remain inside his head and nothing is presented for anybody to apprehend—but a painting student interviewed by Barron (1972, p. 13) is a good model: "I have a hard time not painting. I paint about 10 hours a day. Painting is my life." Evidently, more sustaining motivations are at work than just the activity itself, especially when one considers that creative people often operate against great odds: lack of understanding and appreciation, lack of recognition, lack of existential stability, lack of commercial appeal, shortage of money, and isolation.

A PSYCHOLOGICAL MODEL

This chapter describes a psychological model of giftedness based on the concept of developmental potential taken from Dabrowiak's theory of human development. The model deals with the underlying dimensions of giftedness with emphasis on creative potential. The main part of the paper is a description of five forms of psychic overexcitability—the principal components of the developmental potential. To give an idea of each form of psychic overexcitability a definition or short summary description would not do, consequently, ample illustrative material is included to enable the reader to gather his own observations and perhaps collect their own examples. Further on, two identification checklists (Jarecky, 1959, Renzulli and Hartman, 1971) are examined in terms of the five forms of overexcitability for adequacy in tapping creative potential.

The special problems of the nature of creativity, its conceptualization, its function in human life, and its relation to emotional and moral development, are treated in the remainder of the chapter.

FIVE DIMENSIONS OF MENTAL FUNCTIONING—THE CHANNELS OF PERCEPTION

The concept of developmental potential is one of the central concepts in Dabrowiak's theory of human development, called the theory of positive disintegration (Dabrowiak, 1964; Dabrowiak and Pieczkowski, 1977). The origins and final formulation of the theory owe much to the study of gifted, creative, and eminent individuals (Dabrowiak, 1937, 1967, 1972). Here we shall focus on the application of the concept of developmental potential to
the understanding of giftedness and we shall say very little about the levels and structures of development treated by the theory.

Developmental potential (DP) is defined as the original endowment which determines what level of development a person may reach under optimal conditions. The defining characteristics of DP are five forms of overexcitability and special talents and abilities. The five forms of psychic overexcitability were discovered by Dąbrowski (1938) prior to the formulation of his theory; they were described as "types of increased psychic excitability" and were introduced to denote a variety of types of nervousness. Nervousness is tension in the nervous system and Dąbrowski got the idea from observation of children under conditions provoking tension— in school, naturally. In the old days children had to stand up in silence when the teacher entered the classroom. They sat down in silence. But in that imposed restraint, some squirmed restless in their seats, some were relaxed but daydreaming (their gaze vacant or wandering); some sat upright and a little tensed with their eyes closed and the eyelids trembling; a few looked alert and expectant. Dąbrowski interpreted this in the following way. The imposition of restraint provokes emotional tension. This tension finds expression in several different modalities. Children that squirm in their seats release their tension psychomotorically; the daydreamers escape the tension into the world of fantasy or spontaneously create pictures and scenes as images of the sources of tension; the upright, tensed children feel the tension emotionally; the alert ones get their mind going and are ready to put their wits to use. There are five modalities of expressing tension: psychomotor, sensual, imaginative, intellectual, and emotional. They are called forms of psychic overexcitability.

The term overexcitability, rather than just excitability, was chosen to convey the idea that this is a special kind of excitability, one that is enhanced and distinguished by characteristic forms of expression. Only when the expressions of "excitability" are beyond and above what can be considered common or average do they make a significant contribution to development. And it is this criterion— contribution to a higher level of development— that guides the selection of expressions of overexcitability apart from expressions that are not developmentally significant. Thus, for instance, one may readily consider violent and explosive temper as a sign of emotional overexcitability. But this is insufficient. Violent emotions which are uncontrolled, not reflected upon, and which do not occur in the context of a true and deeply felt personal relationship, do not count as emotional overexcitability in the sense of the term as used here. This is because intense, even violent, feelings cannot go unchecked in the context of a personal relationship out of consideration for the other person. In relations where people do not perceive each other as persons, such emotions are checked only by means of contracts for mutual benefit and subjugation to self-serving goals.

Each form of overexcitability can be viewed as a mode of being in the world, or as a dimension of mental functioning. Thus, the psychomotor mode is one of movement, restlessness, action, excess of energy; the sensual mode— of surface contact, sensory delectation, comfort and sensuality; the intellectual mode— of analysis, logic, questioning, the search for truth; the imaginative mode— of vivid dreams, fantasies, images, personifications, strong visualization of experience; the emotional mode— of attachments and affectional bonds with others, empathy, the despair of loneliness, the joy of love, the enigma of existence and human responsibility. These are modes of personal experience and personal action. Each mode can be viewed as a channel through which flows information in the form of sensations, feeling, experience, images, expectations, etc. These five dimensions can be thought of as the main channels of perception— apprehension of the patterns of experience, and of conception— the formation of images of experience. They may be likened to color filters through which the various external impingements, and internal stirrings reach the individual. They determine to what occurrences and in what way one is capable of responding.

The type of response is specific to that type of overexcitability which is the most dominant in a given person. For instance, persons characterized by emotional overexcitability when asked what triggers in them a high feeling, answer that it is the presence of a loved person or of a very special friend; while if the answer to the same question is the speed and excitement of water skills, playing a hard game of racquet ball, or racing a motorcycle, indicates psychomotor overexcitability. In the latter case, although the question was asked in the emotional dimension, ("do you ever feel high?") the response came in the psychomotor dimension. These "channels" can be wide open, narrow or operating at bare minimum. They are assumed to be part of a person's constitution and to be more or less independent of each other. If more than one of these channels, or all five, have wide apertures, then the abundance and diversity of feeling, thought, imagery, and sensation will inevitably lead to dissonance, conflict and tension, but at the same time it enriches, expands, and intensifies the individual's mental development. At times the inner tensions and conflicts may be overwhelming. Still the process of development must go on— an arduous passage from a lower to a higher level— from external to internal control, from impulse to reflection, from sociability to empathy and compassion, from social norm to the norm of the ideal, from relative to universal values, from competition to service to others, from possessive and security-seeking love to all-embracing love.

Developmental potential is thus made up of these five forms of overexcitability plus special talents and abilities. These components constitute the original equipment with which a child enters life and which is later shaped by all the parental, peer, school, and economic forces with which we are well familiar. With special effort, quantitative assessment of the DP can be made (Piechowski, 1975). Here we will be concerned with the description and recognition of indicators of different components of DP in the belief that qualitative assessments can be reliable and sufficient once the criteria are well articulated (Fliptead, 1970).

**Sources of Study Material**

The description and examples illustrating the five forms of overexcitability are derived from two sources:

1. A systematic examination of 433 instances of overexcitability identified in autobiographical material (Piechowski, 1973). The original source of this material was a study of six subjects plus a historical case of Antoine de Saint-Exupéry, the author of *The Little
Prince (Dabrowski and Piechowski, 1972). Of the six subjects, four were gifted: a folksinger (female), a painter and writer (17-year-old male, high school junior), an art teacher and poet (female), and a psychologist (female) who was also a writer and poet. Antoine de Saint-Exupéry was also gifted and creative (one of the most valued and best-selling writers in France to this day), a man of universal values, and a self-actualizing individual. (The complete study of Saint-Exupéry is reported in volume 2 of Dabrowski and Piechowski, 1977, and in Piechowski, 1978.)

The breakdown in the amount of material representing each form of overexcitability was as follows: psychomotor—88 instances, sensual—15, intellectual—61, imaginative—83, emotional—206.

2. Pilot material collected in 1973-75 at the Research and Guidance Laboratory for Superior Students at the University of Wisconsin-Madison. High school students of superior ability participating in the program at the laboratory were asked to answer an open-ended questionnaire of 46 items. The questions were designed to elicit material representative of the five forms of psychic overexcitability. Thirty one completed questionnaires were received.

Table 2-1 presents the forms and expressions of psychic overexcitability as an attempt to categorize their manifestations and to convey the characteristics and variations within the Gestalt of each form. The table is neither complete nor final. The categories of expression composing the table are not all exclusive of each other although they do provide a fairly good separation of the manifestations of each form from the other. The descriptions and illustrative material which follow the quotations and excerpts from the Saint-Exupéry study are marked SE.

**PSYCHOMOTOR OVEREXCITABILITY**

The manifestations of psychomotor overexcitability are essentially of two kinds: surplus of energy and nervousness—a psychomotor expression of emotional tension. In nervousness, the emotional tension is translated into psychomotor activity such as tics, nail-bitting, or impulsive and violent behavior.

**Surplus of Energy**

The surplus of energy can be observed in animated gestures, taking on self-imposed tasks, participation in violent games and sports.

_Enthusiasm:_ “explosions of joy and exuberance” (SE); “Apparently I talked so much and displayed so much enthusiasm about everything that I was a source of annoyance;” “I practiced the piano until my family begged me to stop;” “I helped do a number of extra-curricular activities such as dances and plays.”

_Games:_ “He directed the games, tyrannizing over others” (SE); he was “fond of violent games . . . liked climbing trees and building houses in the branches” (SE); “Antoine would refuse to take his bath . . . without a stitch he would gallop up and down making fun” of the governess (SE); “I remember doing such things as running away from the

**Sensual**

Sensory pleasures

seeing, smelling, tasting, touching, hearing

_Sexual expression of emotional tension_

overeating, masturbation, sexual intercourse, buying sprees

**Intelectual**

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

_Interest in feeling_

positive feelings, negative feelings, extremes of feeling, complex feelings, identification with others’ feelings

_Inhibition (timidity, shyness)_

_Affective memory_

Concern with death

_Pain 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_
nurses in my wheel chair, blocking the doorways to rooms so that the nurses couldn't get out; "A really good gig—I feel really happy." "I practiced all the fighting skills I could remember when I had taken Karate."

Sports pursued actively and with determination as a primary source of satisfaction or as a source of pride are another indication of psychomotor overexcitability.

Pressure for action can be observed in verbal expressions or in the way actions are taken by a person, for example when decisions are made without much reflection: "I know what I want to do and anything aside from that, anything that conflicts with that, I get rid of or get out of the way somehow, even if it's something that I want to do. I just say, well, your decision is this, you can't do that. I am always happier for being able to make the decision like that." You have to keep building new things for yourself to get into and to but there's no sense in setting goals that you'll never reach; "I figure the only way to look at death is just to get as much done that you want to do in this life as possible." "If I don't get into the fighting I'll have a breakdown. I have a lot to say about what's happening in this war, and I can say it only as a combatant, not as an onlooker" (SE). It is also characteristic that insensitivity brings about annoyance and irritability.

Delinquent behavior without evidence of emotional tension: "I was somewhat of a juvenile delinquent. I was stealing cars and bikes and eventually got caught for it."

Psychomotor Expression of Emotional Tension

This can be observed in rapid speech, compulsive talking and chattering, in impulsive actions.

Impulsive actions: as a reaction to injustice—"on being compelled to kneel as punishment (which he considered undeserved), a dictionary in each hand, he immediately rose to his feet and in exasperation threw the dictionaries in the midst of the class, then left the room slamming the door behind him" (SE); fights with siblings, fights with parents, running away from home, blow-ups, brawls.

Delinquent behavior: stealing candy, pop, chewing gum—"I only saw stealing as a way to get to those things that my parents could not get me and to get things like gum and candy."

Nervous habits: tic, nail-biting, suicidal attempts of physical nature, wanderlust, frequent changes of jobs, working in sports, workaholism, chain smoking are common manifestations of the transfer of emotional tension to psychomotor forms of expression. However, by itself, wanderlust or frequent changes of work are not evidence of emotional tension since such general restlessness is characteristic of psychopath who are very low in anxiety and lack other signs of strong feeling (Cleckley, 1964; Hare, 1970).

In the above, delinquent behavior is placed twice, once as an expression of surplus energy, then as an expression of emotional tension. It is important to distinguish the two different sources of delinquent acts. In the first case there is no emotional frustration and no guilt feelings are present, in the second case there is an expression of emotional de-

Sensual overexcitability is expressed in heightened experiencing of sensual pleasures and in seeking sensual outlets for inner tensions.

Sensory Pleasures

Seeing: beautiful women and beautiful men, "groovy chicks," sunsets; blue skies and puffy clouds; tiny waterfalls; autumn leaves; starlit nights; fog over meadows; fireflies; melting snow, icing on trees; first snowfall.

Smelling: "I love dark, musty smells and earthy smells, herbs and things like that. I love the smell of clean air in spring and tree blossoms and the smell of clean bodies and especially hair."

Tasting: "I like tastes which are mixtures of different elements. Like mixtures of sweet and sour, creamy and crunchy, foods which have the both present in the one. In drinks I like these which don't muck up your mouth, like milk does."

Touching: "I like dough. I like to work in it with my hands. I like the feel of textures like flannel or warm water on my face. I like slick surfaces like slides. I like to walk on carpets instead of bare floor, except linoleum is nice in the summer when the sun coming through the window warms it." "Animal fur, provided it's on a live animal really turns me on. Physical contact with another person really turns me on—hands, faces, lips, backs and being touched."

Hearing: "I like voices with accents. I like cars going over gravel."

Sensory Expression of Emotional Tension

"My mornings were difficult, for my clothes had to exert the same pressure on both sides of my body. One stocking had to be exactly as tight as the other or I couldn't function." "I get pleasure from eating, especially when I am sad or depressed, and this is a terrible way to get pleasure, but sometimes I can't help it!" Overeating, masturbation and sex in general are the most common ways of a sensual release of tension.

Other manifestations of sensual overexcitability include sexual promiscuity, buying sprees, marked interest in clothes and appearance, fondness for jewelry and ornaments,
narcissism, frequent changes of lovers and objects of desire, avoidance of reflection (Dabrowski, 1959).

Sensual overexcitability provides for an intensified sensory experience which, if isolated from other modes of experiencing stops at the surface of life. Sensory enrichment and gratification do not contribute to psychological growth because they lack the link with processes of inner psychic transformation. In the absence of emotional overexcitability—which is the mode of relating to others and to oneself—sensual overexcitability is, perhaps, the closest to a stimulus-response mode of functioning. For a purely sensual person, sexual relations do not become personal relations. Psychopaths, for instance, can be charming and clever but are deficient in feeling—the feeling of relatedness and identification with others.

The manifestations of sensual overexcitability bear similarity to the Freudian concept of oral traits. But the difference is that oral character is supposed to represent an arrest at the oral stage of development, while sensual overexcitability is simply a category of enhanced responsiveness of the individual to sensual experience.

INTELLECTUAL OVEREXCITABILITY

The manifestations of intellectual overexcitability are associated with an intensified and accelerated activity of the mind. Its strongest expressions have more to do with striving for understanding, probing the unknown and love of truth than with learning per se and academic achievement. Conceived in these terms, intellectual overexcitability is the least common among the five forms of psychic overexcitability (Dabrowski, 1959).

Probing questions: learning about death a child wonders: "I tried to understand why we were born, if it was only to wait in agony for death," witnessing unexpected reactions of a family to death among their midst, the same girl asks: "The man, who had always been stern and decisive broke down completely. The woman, emotional, exciting, was strong. What was happening? Were we all the opposite of what we appeared to be?"

"I don't always believe what I hear and I always ask questions. Many times I feel I am a nuisance because I ask so many questions."

Problem solving: devising strategies for snowball fights: "the more aggressive was the French class, and this fact, coupled with the fact that I spent my nights making battle plans for the next day's snowball fights, always seemed to surpass the fighting skills, as well as the numbers (the English always outnumbered the French) of the English class.

Inventing and designing engines and machines: "He would spend hours drawing diagrams of imaginary engines, then pester the Cure, who had once taught mathematics, to find out if he thought they were all right" (SE). Finding a method of autopsychotherapy in marine biology: "A sudden emotional shock triggers off the inner balance mechanism and I am fighting a downhill struggle. The best solution is to ride with the wave of depression. This I discovered after reading an analysis of how delicate seashells reach the shore of the ocean unbroken—riding with the wave being the secret."

Learning: curiosity, concentration, capacity for sustained intellectual effort, voracious reading and starting on difficult books at a young age, wide variety of interests, "He could spend minutes at a time watching a moth or a butterfly" (SE at the age of 8). Seeking feedback on one's invention or thought processes brings into the picture the felt need to monitor one's own thinking: "Whenever I think, I usually type it out, and then ask someone what they think."

Theoretical thinking: one can discern several forms of this such as thinking about thinking, introspection, preoccupation with certain problems, moral thinking and development of a hierarchy of values, and conceptual or intuitive integration of one's worldview. For example: "Up to a while ago, I thought, yes, but never really thought about thinking, or never did realize that I did think; "We learn to write, to sing, to speak well, to excite oneself emotionally but never to think! And we are led by words which mislead even the feelings" (SE); the universal man derives his knowledge and insight from involvement: "It seems to me that sophism consists in saying, 'How can a sage of such stature and capable of such great insights involve himself in public life rather than close himself in his office?'

—but this is what it should be saying. 'It is because that man is universal, he does not shut himself in his office, but involving himself in public life he observes everywhere the structures—that he is capable of such great synthesis,' (SE); perception of the hidden order of things: "Civilization is an invisible boon; it concerns not the things we see but the unseen bonds linking these together in one special way and not otherwise" (SE).

A sharp sense of observation, independence of thought (often expressed in criticism) and symbolic thinking are also characteristic and rather familiar manifestations of intellectual overexcitability.

The "why" questions, perception of problems, perception of solutions, avidity for learning and the like are all familiar enough manifestations of intellectual precocity. Less familiar, or at least less integrated with our usual conceptions of the human intellect are processes of self-monitoring, self-evaluation, preoccupation with moral problems and the responsibility of an enlightened person. Nevertheless, Guilford (1967) incorporated evaluative thinking into his model of the intellect, and Hollingworth (1942) drew attention to the highly gifted's preoccupation with questions of the meaning of human existence and moral responsibility—a highly developed form of evaluative feeling. MacKinnon (1962) found his architects to be highly intuitive, where intuition is the capacity for synthesis and for seeing underlying order, the "invisible links." It is these facets that characterize superior conceptualization and a mind capable of discovery, which is the capacity for abstraction of new and unknown forms. C. S. Pierce named this capacity, "abduction."

Development of new concepts and striving for synthesis of knowledge are the distinguishing marks of a highly evolved intellectual overexcitability. But at this level there is a conjunction with emotional overexcitability which endows a person with the capacity for evaluation and discernment of quality (Bowlby, 1969; Langer, 1967; Maslow, 1970; Wertheimer, 1954).

IMAGINATIONAL OVEREXCITABILITY

The presence of imaginative overexcitability can be inferred from frequent distraction, wandering attention, and daydreaming. These occur as a consequence of free play of
the imagination. Here, too, belong illusions, anamorphic thinking, expressive image and metaphor, invention and fantasy. Strong emotional experience and tension become expressed through imaginative overexcitability as dramatization, anamorphic thinking, mixing of truth and fiction, strong visual recall and visualization in general, vivid dreams and nightmares, and fears of the unknown (a combination of emotional and imaginative overexcitability).

Free Play of the Imagination

*Illusions:* "I sometimes think I hear a song, but none is really playing." "I always think I see things running across my vision."

*Anamistic and magical thinking:* the little Saint-Exupéry asked his governess: "Tell me Paula, what was it like when you were a bear?" and when he saw a bird hopping about he would say, "Now what do you suppose he is thinking right now?" Another child, to fight the nightmares following a television program imagined himself endowed with magic powers: "I was going to use my superhuman strength to sock the head off the first suit of armor to walk through the door, and to finish off the others in like fashion."

*The use of image and metaphor:* "The atmosphere was so haughty, creepy sort of; an image of fear—from a grassy area one suddenly steps out into a muddy and clay-like substance;" an image of anxiety—"like being caught in a room with creepy slimy green ghost-like creatures, screaming at you—fear, fear, fear—coming closer and closer;" an image of significant personal change—"The image of my anxiety has changed. It is now a very high open iron fence. But as I walk toward it, there is to be seen a world beyond, and I have learned to touch the fence so that it melts down and I can step beyond." And this is how the little Saint-Exupéry used his little tapestry-covered casket: "Madame, here are the chests where I have laid the dying sunsets to rest."

*Inventions and fantasy:* a practical one—"In grade two, my teacher trusted me enough to leave me in charge of a class while she went out. I took down the names of everyone who so much as inhaled too deeply, and then went around collecting bribes to take the names off the list." "Next to food, daydreams and fantasies are my greatest temptation. I dream most of the time about situations involving myself and other people. I may know the people, know of them, or I may make them up. I dream in the present the least, and the near future the most, although it's a lot of fun to dream in past time periods and future possible time periods. I could be anywhere on or in earth, although sometimes I even make up new planets."

*Poetic and dramatic perception:* "His white shirt and his smiling face were so 'impossible' when he was doomed by a steel plate in his head;" the contrast of life and death—"all that is directly opposite [to life] stands out very clearly, skeletal, sharply outlined, ca-daverous."

Spontaneous Imagery as the Expression of Emotional Tension

*Anamistic imagery:* feelings and objects become living entities as in these personifications of nature (water and sound)—the formed image of anxiety—"often in the early morning it is still there, staring at me . . . eventually the phantom moves away;" "I respected and feared that water;" "The sight of the angry lake filled me with dread;" "There was a tone on the radio to signal the beginning of a certain program. It seemed furtive and menacing;" "When I came home from school, the washing machine was on, and the swish-swash of the clothes in the water seemed to be saying, 'You can do better—you can do better.' Even when I covered my ears, the machine pounded me."

*Mixing truth and fiction:* a teenager develops a reputation for cycling to cities hundreds of miles away but actually goes there and returns by train—"I could have done it too, make no mistake about that, I was in excellent physical condition, had very powerful lungs and legs, and to this day, though I didn't do it, the distances I did go, in the time it took me are good enough that I could have done it . . . It didn't matter how much I lied about my achievements, all that mattered was that people believe me." A simple treasure hunt can be blown up into an "exaggerated tale of daring and danger."

*Dreams are vivid and can be retold in detail:* The content of the dreams usually gives the opportunity to detect other forms of overexcitability—dreams about involvement with other people would most likely indicate emotional overexcitability; sexual dreams—sensual overexcitability; and dreams with intense running and chasing, perhaps psychomotor overexcitability.

*Visual recall of scenes of high emotional impact:* "Often when I am deep at work on, say, a novel excerpt or writing a short story, etc., scenes from my childhood will flash back so vividly that for a split second I'll almost be there. "Every now and then I can visualize in my head the reproduction of the scene as seen through my eyes." "Even a minor accident, in which he [little brother] slipped on the stairs and knocked himself out, left a picture of his little limp body that is burned into my brain. If I think about it, it comes clearly and can still upset me."

*When I feel pressured and in need of battery recharging I occasionally try to visualize that scene near the ocean.*

*Visualization of anticipated events, as in planning strategies for winning snowball fights, developing exaggerated expectations, or picturing events when they are reported by others:* "A boy in my class broke his leg. Later . . . I was overjoyed to see he still had his leg for I thought it had broken off;" and being told about the grief in another family—"She went in and found the remaining four members of the family, the parents and two teenage children, lying on the bed, holding each other and crying. I never forgot that. It haunted me day and night."

*Fears of the unknown:* "I was afraid of the dark;" "I had always been afraid of that hall (SE)."

Dabrowski (1959) points out that children and adults whose imaginative mode is the dominant mode of experiencing and responding, may find themselves in understandable difficulty. They may have difficulty distinguishing their dreams and fantasy from reality; and in more extreme cases suffer in situations requiring attention and systematic activity, as in school. Singer (1975) and his collaborators, however, have shown that fantasy and make-believe are part of the healthy development of a child, and that, in fact, make-
believe play enhances the child's capacity to differentiate fantasy from reality. It also enhances the child's learning.

In summary, imaginative overexcitability provides a variety of associations and new forms. Most of them are visual. A visual stimulus is a trigger to an expanded vision, cognition, there is the animation of objects and natural phenomena and endowing them with nature (Langer, 1967). Animals are endowed with human powers of thought, feeling, and speech. This richness of association is a necessary condition of creativity and invention in any field.

The enhanced excitability of imagination when combined with emotional overexcitability makes it a suitable medium for the discharge of emotional tension. The image really makes the feeling visible and helps to articulate it. Most typical manifestations are dreams, especially recurrent ones, strong visual recall of past experience, and vivid picturing of scenes triggered by an emotional signal. Very common are images of fear and anxiety, images of fears of the unknown, manifested as fears of the dark or of evil powers.

A sense of drama appears as perception of contrasts, as personification of one's own feelings, and most obviously as an inclination toward the stage and acting. Mixing truth and fiction would appear to relate to this sense of the dramatic.

EMOTIONAL OVEREXCITABILITY

Among the five forms of psychi overexcitability, the manifestations of emotional overexcitability are the most numerous. They include certain characteristic and easily recognizable somatic expressions, extremes of feeling, inhibition, strong affective memory, concern with death, anxieties, fears, feelings of guilt, depressive and suicidal moods. But the largest variety are "relationship feelings," that is, an intensified quality of human relationships, exclusive bonds of friendship and love, difficulties in adjustment to new places, loneliness, feelings toward self, concern for others and their feelings. This list is neither final nor complete. My main purpose here is to stress the intensity, richness and high degree of differentiation of interpersonal feeling is the main stuff of individual development from a lower to a higher level. It involves not only caring but also self-scrutiny; not only a sense of joy but also the sense of responsibility; not only affection but also compassion and patience. Emotional overexcitability is also a major ingredient of creative potential. Hence, the great significance of emotional overexcitability in assessing the type and direction of an individual's psychological growth and in assessing developmental potential.

Somatic Expressions

"I can well recall the tense and horrible feeling in my stomach at that time. All was tense and in tight knots;" "I palred, then blood rushed to my head;" "I sat with beating heart" (SE); "My heart sank;" "Everything seemed to have turned upside down and I felt as though I was running for my life... As though there is a force in your chest heaving

and trying to blow itself out of your head;" "My heart felt like a lump of lead;" "I carried this leaden feeling around quite often;" "My breath caught in my throat. Stage fright belongs here too and also the conversion reaction—I would periodically lose my voice. It would happen very suddenly, and usually after a conflict situation where I had not honestly expressed my views."

Expression of Intensity of Feeling

Positive feelings: joy, exuberance, feeling high, ecstasy—"I have discovered that giving way to a desire to play the violin or listen to recordings for too long a period of time triggers such a state of ecstasy that I do not attend well to daily activities." "I am almost always at an 'all-time high.' It's like a warm wind blowing within, an internal sun and fields and fields of daisies. It's an ultimate happiness where you could just kick your heels and shout to everybody 'I love you' and they shout the same back. It's a feeling of knowing exactly where you stand and wanting nothing else in the world—you really can touch life and know it is worth living for. I feel this way when I fall on a powder-covered ski slope and on my bicycle with sweat pouring down my back—just complete exhilaration." "I get a tingling feeling and my mind feels like it's floating."

"I often feel high when I am completely satisfied with everything like it is. It's a feeling of happiness, of knowing what you want to do. It's a feeling of knowing you are wanted and needed. It is something that sort of builds up inside of you and you feel like you are going to burst unless you can tell someone how much you love them or make someone else happy as you are. It's a feeling of wanting to get close to people. You're so satisfied with life as it is that you want to share your life with others. You feel like running out and shouting 'Hey, I'm Alive.' For some reason the simple things in life suddenly means more to you. It's as if for the first time you're looking at someone or somewhere and looking right past their faults."

Negative feelings: "One day my work page in school was wrong, because I had misunderstood the directions. My sorrow was so great that it didn't ease for days; after a teacher's funeral—I cried for days and couldn't stop. . . . I couldn't practice my required work, but played haunting melodies which moved me so much that I would drop into despair again;" when feeling low—"I feel like I'm trapped and if I'm in the house I have to get out for a walk" (a combination of emotional and psychomotor overexcitability).

Extremes of feeling: "Life in those poems was either very ecstatic or very tragic," on the way to apologize for a transgression—"This I did, reluctantly, passing under a vine covered arched gateway to enjoy looking at growing leaves one last time before certain death;" "I ran back to my bedroom and buried my head under my pillow, trying to deny what I had just seen. I wouldn't even admit that my mother had just sold the dog. I kept telling myself that it wasn't true;" "Low to me is always depression, when nothing can make me happy—sometimes I even enjoy feeling depressed. In my life there is no midpoint—"I am either straight up or straight down. To me there also is really little difference between happiness and sadness, it all depends on how my mind wants me to feel," avoid-
ance of extremes—if I am ever joyously happy—what’s it going to be like if I should get depressed—thus I try to stay in the medium—seemingly never happy or sad—and it bugs me.

Complex feelings: “You really like a girl, but don’t know what to do about it (love, frustration).” A lifelong friend of yours has you really mad at him (friendship, anger). The feeling of ‘Aw, who cares,’ but then remembering someone must care. Feeling of greed, but then thinking about another person involved. “I feel that I’m being pulled apart inside but generally one feeling overwhelms the others so swiftly that I don’t usually stop to recognize all the feelings that I may feel initially. The most enduring impression I have is that when I feel several things at once is (1) I’m being slightly overwhelmed, (2) I’ve reached a crossroads with me, my personal life and pathway to be decided upon—which direction?—I don’t really feel single identifiable emotions, nor do I think anyone does. For example, a typical feeling may be an intense joy-sadness-anticipation. But I can’t claim to feel different, conflicting emotions at the same time. I may have different emotions about an event at different times, but never at exactly the same time. In other words, I feel one, single emotion, at least in my judgment, although that single emotion may not have a single word to describe it.” “It was my first feeling of sadness and joy mixed together and it made a lump in my throat.”

Identification with others’ feelings: “I regarded bodily injury with fear bordering on panic—my sister gave herself a nosebleed with a baseball bat swung too enthusiastically and everyone on the street thought that I had been injured, as I did all the crying.” “A boy in my classroom (Grade 1) broke his leg . . . and when I heard, I ran home crying and couldn’t be consoled. . . . Later, when Bobby returned to school I was overjoyed to see he still had his leg. . . . My relief was so great that I felt ecstatic,” assisting a younger brother after an accident in which he lost part of his finger. “I had to walk with him to the doctor where every other day or so they burned away excess flesh. This was very painful to him, and I wasn’t much help as I died inside while watching.”

Inhibition (tidiness, shyness): “I was 17 years old when I had my first kiss. I was a bit frightened of this boy who for a long time cared for me a great deal;” “I remember once having a crush on a girl and that I was very shy. I bought her a gift but could not give it to her myself;” sexual relations—“I was really mixed up inside when we went because this would have been my first time.”

Affective memory: “The sense of immense helplessness and smallness of the six-year old girl is something I have never forgotten;” flashbacks—“Everywhere I turned, it was back to November and December, only worse;” “I remember my father when I was young being cruel, drunken bum who cheated on my mother, beat us kids, and hurt my mother and made me cry;” “If I think about it, it comes clearly and can still upset me.”

Concern with death: “Death terrifies me. No, maybe not death, but the idea of forever. I think of it and it scares me and I have to find someone to be with. It’s a fear that raise a terror I feel all over my body. I think I’m more frightened of it than anything else. I like living. I enjoy now so much (it’s always now). Dying seems to me like the end of everything. I started thinking about it in grade school and I still think about it now—in fear;” “Yes, I’ve thought of death many times, but usually without great success because I am unable to comprehend it;” “My grandmother died almost in my arms—scared of death—trying to overcome that fear—limited success;” “That’s what I wanted to be—so retarded I didn’t know I was alive so I wouldn’t be so worried about being going to die;” when little Teddy, a playmate, died of meningitis—I couldn’t accept it. Not for Teddy and not for me. I wanted to back time up so Teddy could make another move, escape those germs.”

Fear and Anxiety: fears of the dark, fear of violence, fear of the unknown and the unpredictable—“Incertainty makes me anxious. It makes me anxious when my life or livelihood or that of someone dear to me is to be affected without any assurance. In external things the darkness can sometimes still succeed in scaring me, if say, I’m alone in the dark church during a rain storm, the sound of breathing in a dark empty room—any number of things that go bump in the night—things you’re sometimes ashamed of being afraid of in the daylight. I suppose in one word, I’m afraid of the unknown;” “I have a big fear of being disliked by people whom I want to like me. With some people it makes no difference whether they like or dislike me but when I want someone to like me I fear being rejected. I fear getting hurt by someone also until it is possible for me to trust them. I also fear being wrongly interpreted by people. I hate being judged. I want only to be accepted. It makes me angry when people form opinions of me based on such superficial aspects as my age, sex, way of dressing, etc. What is in my mind is what is really me;” “I think I’m most afraid of being alone, of losing all my friends, my family, not being able to turn to someone and ask for help. I hate the thought of living the rest of my life by myself. I’m a person who has to be needed and feel needed. . . . I see ladies old and crippled who seem totally alone. You can tell this for many times I’ll say ‘hi’ to such a person and it’s as if it has brightened up their day just to have someone say ‘hi.’ That makes me feel sad to think that they’re so alone. It makes me wonder if someday I’ll be that way;” anxiety over playmates—“I couldn’t bear to watch them play at the edge of the cliff and would run away, filled with a sense of dread;” reading forbidden books—“Every time my name was spoken sharply, I thought I had been found out, I would stare at and tremble inside for a long time;” anxiety because of someone else being in danger as when a neighbor’s house was on fire and a baby was believed to be inside—“I was out of my mind with anxiety, running in a circle of fear. . . . During class I cried so much that I was sent home.”

Feelings of guilt: “My young brother was involved in a number of accidents, all of them quite serious, for which I felt responsible. The anxiety drove me into desperation. Perhaps this had something to do with my jealousy of him—maybe I imagined hurting him and thought I somehow caused his accidents. If I add to this the fact that while boosting him up on my sister’s shoulders for a piggy back ride I ‘accidentally’ (deliberately) pushed him too hard causing him to go right over, and fall, cutting his face. I now see why I had such mixed up feelings. My real guilt was mixed up with my assumed guilt, and I felt responsible for everything that happened to him.” “When I feel guilty, I can’t
shakes it until I do something about it. I feel kind of sick, and nervous, and I usually feel sad or low. I’ll forget for a while, but then it hits me again and I feel even worse.

Depression and suicidal moods: “A low feeling includes a general feeling of despondency and despair. My body and especially my legs and arms feel like lead, and my stomach aches. Sometimes, it’s just so bad that I would think of somethings to do to get away from anything that is going on around me and I think of ways to make my life better. When I’m feeling low, I tend to just sit around. I become irritated and if anyone breaks into my personal gloomy reverie. I just think about all bad things that have happened and will happen to me.” “When I feel low, it’s like I’m sinking into an endless hole— it seems like life almost ceases. I guess you could call it suspended animation. Things go on in a routine way like normal, but without spirit or enthusiasm. This is usually when I’m mad at myself or disappointed in myself and I get the sensation of being a failure. If I had to make a conscious choice, I probably would say deep Writing would fill the mood, anything would fill the frustration a bird would feel flying against a 60 mph gale would describe it. It’s a state of trying hardest but getting nowhere, finally surrendering to the elements.” “I became very depressed, overwhelmed by the isolation and my new responsibilities. When the baby was six months old I tried to commit suicide; “I can recall the times I had set out to end it all. I knew just was no good, incapable, just too inadequate to cope. They would be better without me.” “That night, the night that my girlfriend betrayed me as I see it, I tried to commit suicide.” “I did it because I felt useless as a person in the world and there that I would make no difference in the world even if I was perfect.”

Relationship Feelings
These reflect the significant position others have in the development of our emotional life. They reflect the fact that we have social instincts and social feelings (Adler, 1908; Bowlby, 1969; Edih-Eibesfeldt, 1974; Harlow, 1971) and that a viable interpersonal network is one of the fundamental requirements of our well-being and physical health (Loveland and Haven, 1978; Lynch, 1977; Vermilyea, 1978). This may find expression as a need for protection, attachment to animals, and in the numerous ways present in the examples that follow.

Significant others: “A really terrible experience for me was when I was 13. I discovered that my father was cheating on my mother and that really put me through a lot of really heavy changes because I respected my father so much and I really destroyed that kind of thing for me for a while; “I also felt as though I had betrayed someone, and I felt as though I must have hurt the teachers deeply—partly because I thought everyone thought highly of me; “My father looked so incredibly sad whenever one of my faults was aired. I couldn’t bear to see him suffer on account of me.”

Perceptions of relationships: “I was shy with people when I got between the stage of knowing them slightly and knowing them well; “I do not like to be with someone just for the sake of being with that person. I like to be with someone to enjoy being with that person; “the meaning of community— “When I was 18 I went to the Catholic church and

I was for the first time interested in church because of the participation of the congregation in the mass; “When I see someone suffering because he is aware and vulnerable, when I know I can do nothing and he thinks I will not do it.”

Emotional ties and attachments: “. . . the one I loved most was a squirrel. He was very special to me, and I think I began to depend more on him for love and understanding than I did on my friends. He did everything with me. We went places together, he slept by me and even went downtown with me. . . . Sparkly the squirrel always knew when to come and sit by me. Even so, sometimes it’s good to have a friend to talk to.” “I have all sorts of attachments. I have places, pets, and persons I’m very attached to. It’s a very personal feeling, and it makes me feel good to think about them. They’re mine, it’s like a secret joy almost. I can’t really explain how I feel because people never get the full impact of my feelings, so I find just enjoying it is enough.” “We were like brothers for about 9 years beginning at age 5, 6 or 7. We kept each other ‘in line’, saved each other’s life once each, and probably had the best of our life together.” “I have formed many strong attachments. Foremost in non-natural attachments has been an attachment to a young man I call Steerforth. It is not a mating-type, dating-type relationship. He is 19, I’ve known him for 5 years, have watched him grow up to be a man. The attachment is a strange one. Secretly over the years I’ve done and said everything I could to help him—and just as secretly he has accomplished the same for me. We like the same things, admire the same things. We feel safe and content near each other. There is something constant and slow—something eternal about it.” Intense feelings of the value of friendship make it harder to start one— “He did not make friends easily, and it pained him, for he likes to be liked” (SE); the loved ones become the core of one’s existence— “the density of those I love torments me more seriously than a chronic disease in myself. I feel threatened in my essence by their brittleness” (SE); “If his mother ever refused to say good night to him, he refused to go to sleep, and cried, ‘Mamam, embarazemoro’ until she relented” (SE). It hurts to be cheated by someone who is believed to be a friend and it hurts if one feels one has let down a friend. Break ups of relationships are especially painful, “I have not gone out with another girl since I broke up with this girl. I often dream that I marry her and she puts me down and ends up breaking with me.”

Difficulties of adjustment to a new environment: “After Grade 9 . . . but I got really homesick; “When I was at school, I wished I was at home with my family, I wanted to have someone to talk to as I had no one to talk to before I went to bed at night; “We moved when I was eight years old. I did not want to leave and felt that I would never see my best friend again.”

Loneliness: “Feeling low is a feeling of being all alone. Suddenly you have to face something and you’re scared. You feel like no one else knows what you are going through and for some reason you can’t trust anyone with your innermost thoughts. You feel like reaching out to someone and asking them for help. Funny thing but if for some reason you can’t reach out and tell someone, this feeling of loneliness persists. You feel like no one cares if you’re alive or not. For some reason you feel like you just can’t face life as it is and if
this feeling doesn't change you're going to go nuts." "The feeling of friendship is a very important 
to me. A feeling of belonging and trust is included in this. Belonging in the 
sense of loving and being loved. Without this feeling you have loneliness and emptiness, 
which affect me strongly, also. Loneliness—sometimes it's good to be lonely. You need soli-
dude. As long as I keep to myself—I can't get hurt—but it does hurt me being by myself 
all the time."

Concern for others (empathy): when the little Tonio climbs a mountain all over again 
to find his sister's watch he comes back exhausted and says, "But Monot, I am sorry, I 
didn't find it" (SE). "Father still emotionally hurts my Mother. But at least I don't add to 
the trouble by entering the fight." "I was really sad today when I read in the paper of 
a boy who was burned to death with people standing around who could do nothing," 
"When father explained the reason that he did not go to war was because the enemy was 
made up of little girls' daddies, and that he couldn't hate them enough to kill them, 
even though he hated the war. I never forgot that, for neither could I then hate an enemy 
I did not know." "If someone raised his voice at another, I flew to his defense, trying to 
deflect some of the hostility in my direction." "I could never tell at funerals if I felt most 
sorry about the person who was dead or those who were still alive." "Empathy toward chil-
dren at school in a poor district—"They ate sandwiches with nothing but jam on them—no 
protein. I couldn't eat my lunch."

Conflict with others: the kind of conflict that is thought of here is one arising not from 
self-interest but rather from the ground of personal relationship, concern for others, and 
matters of principle such as fairness and justice conceived in terms of the rights of each 
individual and universal values. "Blatant insensitivity is one thing that I cannot tolerate 
under any circumstances, and it's the one thing I'll get in real trouble with my superiors 
ever, especially if someone is being hurt." "Sometimes it really bothers me if I know no 
one cares what's going on in this world, or the hardships of others, or maybe I'm in trouble 
and need help. It really makes me mad when people can see someone's in trouble yet won't 
stop and help, let alone laugh at someone's mishaps."

Feelings Toward Self
"My strongest feeling would be dealing with self-consciousness. I am the type of person 
who is constantly questioning myself to see why I act the way I do." "Defining me is my 
only problem. What I can count on for sure is that I am always changing. I'm a young 
person trying to live in Christ's image, but it's not easy to know how to do that. I'm the 
one person who thinks exactly as I do, and I'm the one person I have to live with all the 
time. I'm often confused, unhappy, frustrated, and depressed, but I'm learning how to deal 
with these feelings, and to feel worthwhile and at ease more of the time. "Myself—living 
according to the social morals of society; the inner self that seeks fulfillment in all things; 
a knowledge seeker—craving, searching, finding and questioning; a person alive in this 
world, picking up many vibrations of life, sensing that there is more to life than just living."

Self-evaluation and self-judgment: "... the only things that ever make me feel love 
are the ugly things that come from inside of me—if I say something immoral, act foolish-
ly, etc... I feel a sinking sensation and condemn myself—perhaps, that's what a low is, 
self-condemnation, for me anyway." "My relations with others are usually spurred with good-
natured sarcasm (if there is such a thing), and they usually take my comments in stride. 
When they don't, however, and get offended, I become quite angry at myself and start 
dwelling on my faults in a fit of self-condemnation. I want to be alone to hash things out 
myself. They usually don't last real long, but when they do, it's not too good."

Feelings of inferiority and inadequacy: "I can easily bring to mind the feeling of being 
overwhelmed by what was expected of me (by myself in particular) as a teacher; "I feel 
there is a lot that I could do but then there are the times that I feel I am useless and they 
get me down no matter how many good things I have done." "The nagging continued, 
but I always felt guilty, anxious about bath-night, and sorry that my parents had a bad 
little girl.""I felt hopelessly inadequate in relation to the piano;" "I loved the violin 
passionately. Several years later, when we moved west, my new teacher placed a great 
emphasis on technique. This succeeded in raising my doubts about my ability and I began 
to feel hopelessly inadequate here too."

Examples of Absence of Emotional Overexcitability
Many of the above examples will seem common, in fact so common that it might be 
hard to conceive what constitutes the over and above in emotional overexcitability. For one, 
many of the quotations show that such reactions are more intense, richer, and deeper and 
more frequent in persons endowed emotionally. Secondly, they are either related to or them-
sewes represent developmental dynamisms described by Dabrowski's theory. This is partly 
discussed in Ogburn-Candelengo's chapter in this book.

The emotional aspect of human development usually is either taken for granted or is 
looked upon as a source of interference with efficiency, productivity, and the social order 
in general. People are expected to have appropriate emotions at times of misfortune and per-
sonal loss, but self-doubt, maladjustment, existential despair are considered handicaps. Yet, 
it is this kind of feeling that is a function of emotional overexcitability, and within the 
frame of Dabrowski's theory, such feeling has its logical and developmentally significant 
place. Consequently, low degree or absence of emotional overexcitability is the most se-
rious curtailment of a person's developmental potential. To illustrate, we start with two re-
plies to the question, "Do you ever feel high?" Note that the first one ends with a psy-
chomotor response (need to be physically active); the second has no identifiable overex-
citability response and is rather stereotypic:

"Yes, I have felt good at times usually when something good happens or some-
thing I like. When you feel high you want to do things" (psychomotor). "Yes, in 8th 
grade I went out with a girl for the first time and thought we were starting something 
great. This is the best I have ever felt in my life" (stereotypic).

These responses are undifferentiated, they lack depth of feeling, reflection and any con-
nection with other experience and areas of awareness. Here is a response to the question,
"Do you ever have several feelings at once?" The response that follows is an expression of an external orientation:

"The only time I can think of that I feel several things at once is when I receive something in school (praise, grades, or appreciation . . . etc.). Most of the time I feel happy, but at the same time, many times, I feel I do not deserve what I get and I feel angry at myself that I didn't do better to deserve what I received (especially regarding grades). Many times also I am happy when I think how lucky I am, and at the same time I feel sad and sorry for those who aren't as lucky as I am. I wish they could be. Sometimes this makes me feel 'low.'"

And here is an example where life is seen not as an individualized experience, but as a zero-sum process of external checks and balances.

"I have experienced this (several feelings at once). I feel this way if something good may happen to me and because of it something bad or not so good happens to a friend like if you got picked for something he may not."

"I suppose a happy feeling does because it makes everything seem good and you want to do more things. When sad I usually try to forget about it and so it is not that strong."

Below is a response to the same question indicating an expression of strong sentiment yet giving semblance of being the antithesis of emotional overexcitability:

"Do what you (myself) think is best, look out for yourself, try to get in a position where you have an advantage (I'm calling the shots), try to get ahead in the world, and most of all have fun doing the above. Go by your own book of rules in most situations, no one else. These feelings can be adapted to almost any of my life situations."

But other responses of the same boy indicate that this is a result of a deep hurt from loss of his closest friend of nine years. Unfortunately when the wound is covered up like this, it arrests emotional development. Perhaps, as sometimes happens, events later in life may force a change.

"I don't like to think of death. I figure when it's time for me to die, I will just die. The time spent thinking about death, I could be doing more useful things and helping people. I cannot do things when I am dead, so I don't have time to think about it. I must do what I can now and think of death only when death comes."

In terms of the intelligence-creativity distinction introduced by Getzels and Jackson (1962) this response is typical of a high-I.Q. low-creative subject. In terms of developmental potential, it shows limitation in the imaginative and emotional dimensions.

This survey of the instances of emotional overexcitability shows that individuals endowed with it display an intensity of feeling often accompanied by somatic manifestations. Strong attachments to pets and members of the family are the first experiences of relationships. As relationships grow they become unique and exclusive. Almost always there is only one primary relationship in a given period of life, what Bowlby (1969) named monotropy. If this relationship is broken by separation or death, the hurt is felt intensely and the grief is often accompanied by a depression. In emotional individuals, thoughts of suicide are almost always present and in times of crisis suicide attempts are likely. The meaning of life is thus perceived chiefly in terms of relationships of love, friendship, service to others. The need for such relationships is so basic that their absence leads to intense feelings of loneliness and existential despair. For the same reason it is very difficult for such persons to move away from the place where the relationships have been developed and established to a new environment where one is a stranger.

The involvement in relationships, and the awareness of one's own loneliness in their absence contribute to the development of feelings toward oneself. There is exploration and examination of oneself, usually negative, because it seems to be in the nature of human feeling that in the absence of viable links with others we begin to feel worthless (technically called "negative cognitive set," as if this truly meant something).

Analysis of the Scale for Rating Behavioral Characteristics of Superior Students in Terms of the Components of the Developmental Potential

There have been many attempts to identify different kinds of giftedness besides the obvious ones of intellect, music, art, writing, politics, law, etc. Jarecky (1959), for instance, drew attention to the socially gifted while Getzels and Jackson (1962) and Gallagher (1975) pointed out that we might also consider giftedness in the moral and ethical dimensions. But the proliferation of kinds will only make the identification process similar to a vocational preference inventory or to the numerous tests of the "structure of intellect." And it only perpetuates the conception of giftedness as a tool-shop. This also gets us further and further away from the sources, origins and development of giftedness. It
would be better to identify the basic components of giftedness which are shared, at least in part, by many different types of gifted individuals. The identification procedure developed by Renzulli and Hartman (1971) takes this approach. Of all the characteristics of the gifted mentioned in the literature, they selected those that appeared in at least three studies. The result of this is that the four dimensions which contribute to a gifted profile: learning, motivation, creativity, and leadership. Let us examine the items of their Scale for Rating Behavioral Characteristics of Superior Students (SRBCSS) in terms of the forms of psychic overexcitability (see Table 2-2).

<table>
<thead>
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<th>TABLE 2-2</th>
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<tr>
<td>ITEMS OF THE SRBCSS INTERSECTING WITH FORMS OF PSYCHIC OBEREXCITABILITY</td>
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<tr>
<td>I. Learning</td>
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<tr>
<td>1. Int</td>
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<td>5. —</td>
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<td>10. Int, E</td>
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**Total:** Int 15 E 10 Im 6 P 3 S 1

**Creativity:** Int 7 E 5 Im 4 P 2 S 1

**%**

**Note:** Int = intellectual overexcitability, E = emotional, Im = imaginative, P = psychomotor, S = sensual.

There are 8 items listed under Learning Characteristics. Items 1 (vocabulary) and 3 (quick mastery and recall) have no distinct counterparts in intellectual overexcitability. The remaining six items do: wide interests, provocative questions, grasp of underlying principles, keen observation, reading advanced books, seeing logical answers. Item 6 (gets "more" out of a story) could, in addition, be related to imaginative and emotional overexcitability. Under Motivational Characteristics, item 1 (absorption in problems and tasks), item 6 (interest in "adult" problems) and item 9 (concerned with right and wrong, passes judgment on people and events) represent intellectual overexcitability. Item 2 (is easily bored) has the flavor of imaginative and intellectual overexcitability combined, while items 3 and 4 (gets excited, and is not easily satisfied with his work), and item 9 (concern with right and wrong), could be related to emotional overexcitability. Items 5 and 7 (independence and assertiveness) do not have obvious counterparts in emotional overexcitability, except, perhaps, for the strength of feeling. Item 8 (likes to organize and bring structure to things, people and situations) may represent, depending on how it is interpreted, one of the chief traits of creative individuals often stressed (Dellas and Gaier, 1970), namely, that they are "challenged to make new order of apparent chaos;" "to search for situations defying rational construction and, therefore, to service the need to achieve order." On the other hand, the motivation to organize people and situations may be regarded as an expression of psychomotor overexcitability. The other, the challenge of chaos, has its source perhaps in a combination of emotional, intellectual and imaginative components.

Creative Characteristics appear to have a number of intersections with all five forms of psychic overexcitability. Items 1 (curiosity, constant questioning), 2 (generates ideas and solutions to problems), 3 (radical in disagreement, tenacious), 4 (speculative), 5 (manipulates ideas) and 10 (examines critically) all have strong intellectual components but they overlap with the other forms as well: items 2, 5, and 6 (keen sense of humor), and 9 (accepts disorder) correspond to imaginative overexcitability; items 3, 7 (usually aware of impulses in himself), 8 (sensitive to beauty), 9 and 10 (anti-authoritarian) have strong flavor of emotional overexcitability. And further, items 3, 4 (risk taker, adventurous) can be related to psychomotor, and item 8 to sensory overexcitability. All of the Leadership Characteristics appear to represent a task orientation and consequently have no direct correspondence with forms of psychic overexcitability.

Table 2-2 shows the items of SRBCSS in terms of the forms of psychic overexcitability. The total shows that the SRBCSS is dominated by intellectual items—the everpresent heritage of a conception of giftedness as high intellectual ability. Nevertheless, emotional characteristics are present, although in kind they do not cover the range represented by expressions of emotional overexcitability.

In the profile of creativity, intellectual items still have an edge but the emotional and imaginative dimensions are better represented than in the total of the SRBCSS. Would a profile like this represent well a highly creative individual? We can check this out by comparing the SRBCSS creativity profile with overexcitability profile of two highly creative individuals, one established, recognized and famous and one very young and still in high school, but already a talented painter and writer. Recall that the forms of overt excitability together with talents and special abilities constitute the developmental potential of the individual. Consider also that without psychic overexcitability a talent derives little enrichment for its development; consequently, the overexcitabilities may be regarded as the actual psychological potential of the creative person. And most likely, that is what creative potential really is.

A simple frequency count of the instances of each form of overexcitability encountered in autobiographical material, without regard to strength or quality of its manifestation, gives

1. Humor actually is a complex matter. Since it thrives on the combination of the incongruous with the unexpected, it involves both the intellectual and imaginative dimensions.
a reasonable quantitative profile of that person’s developmental potential (Piechowski, 1975). The profile shows the presence or absence of a given form of overexcitability and its relative strength. By simply counting the instances of occurrence of each form of overexcitability, one obviates the problem of having to establish norms distinguishing overexcitability from excitability. This means also that we are not treating overexcitabilities as continuous dimensions measured on a scale the way temperature or intelligence is measured.

Let us, then, take a look at the overexcitability profile of the two creative subjects (cf. section on sources of study material), Antoine de Saint-Exupéry and Luke, a 17-year old high school senior and compare their profiles with that of a noncreative subject. The results are shown in Table 2-3.

<table>
<thead>
<tr>
<th>OE</th>
<th>Saint-Exupéry</th>
<th>Luke</th>
<th>Noncreative subject</th>
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<tbody>
<tr>
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<td>Number of Instances</td>
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<td>Number of Instances</td>
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<tr>
<td>Int</td>
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<td>21</td>
<td>26</td>
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<td>E</td>
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<td>10</td>
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<tr>
<td>S</td>
<td>6</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 2-3 shows that in both creative subjects, intellectual and imaginative overexcitability are of roughly equal strength but that the emotional overexcitability is much stronger than either. In the noncreative subject, emotional overexcitability is very strong but the intellectual and the imaginative are very weak. Thus the strength of the creative potential depends on the strength of all three.

In the Creativity subscale of the SRBCSS both the imaginative and the emotional dimensions are underrepresented. Given the format of the SRBCSS, it could be easily modified by removing all the Int items from the Creativity subscale and replacing them with Im and E items. The intellectual dimension is adequately served by the Learning subscale. Creative potential could then be obtained from the scores on both the Learning and Creativity subscales. The Motivation subscale is no less important, as discussed in the opening of this chapter, but the overexcitability model of DP contributes to its understanding only indirectly by pointing to the significance of emotional and psychomotor overexcitabilities.

On Being Emotional, Creative, and Moral

Writers and artists are not the only ones characterized by strong emotional overexcitability. For instance, the mathematician Norbert Wiener (1953, 1956) reports in his autobiography not only strong feelings of uneasiness, inadequacy, loneliness, guilt, unhappiness, but also self-evaluation and self-judgments, empathy, sensitivity to the difficulties of others and appreciation of those who were warm, humane, and brought encouragement. Wiener is no exception here. It is often thought that such feelings are unfortunate handicaps in the work of a creative person. It is more likely that one cannot be creative without them since they are the consequence of the intensity of feeling, striving, commitment, and continuous evaluating and reevaluating of one’s vision.

The question of ethical and moral giftedness can be approached also in this context and in more than one way. Maslow (1950, 1970) in his study of self-actualizing people found that “they do right and do not do wrong.” That, in fact, we can, and should, depend on them for ethical understanding and moral decisions. Self-actualizing individuals, then, are the morally gifted. But where do they come from? It has been intimated that self-actualization corresponds exactly to a high and defined level of development in Dabrowski’s theory (Piechowski, 1978). This, in turn, is a function of a strong developmental potential in which the emotional component is the most critical. The emotional component generates the intrapsychic dynamism for the development of moral sensitivity. Moral sensitivity develops together with an autonomous and universal hierarchy of values.

The morally gifted do not need to fully represent the level of self-actualization demanded by Dabrowski’s theory, but the strength of their emotional overexcitability and of the developmental dynamisms that move them in the direction of self-actualization, is the guarantee of their higher moral discernment. It might be worth mentioning that Dabrowski’s theory identifies the conditions that must be present in a person’s psychological makeup if moral actions are to match moral beliefs. The major link exists in those dynamisms and feelings which are part of self-examination and of making judgment on oneself.

Curiously, examination of Jarecky’s characteristics of socially gifted individuals reveals no indications of emotional overexcitability. Perhaps this is a function of Jarecky’s selection of the ten characteristics, one of which is “they appear free of emotional tension.” This does not mean that the “socially gifted” are without emotional sensitivity. Neither does it mean that they have special gifts. Rather, their freedom from emotional tension, being well-accepted and well-adjusted and yet with a strong sense of fairness and willingness to work for social cohesion and harmony, brings up an image other than that of a gifted person. I am thinking here of Ralph, in Peck and Havighurst’s (1960) study of the psychology of character development. Ralph, at the age of 17, appeared to have an unusually strong sense of fairness and justice, liking for others, and confidence in himself. On the other hand, he was not imaginative, did not burn with curiosity and intellectual passion but rather liked to have normal ordinary fun like those around him. On the basis of the material given by Peck and Havighurst, Ralph appears to have a somewhat limited developmental potential. Yet compared with others, he comes across as a wonderfully mature and responsive human being. Peck and Havighurst put him in their highest category: rational-altruistic. We also know that Ralph’s family conditions were indeed optimal—the parents provided a climate of affection, trust, encouragement, interest, order, and consistency. Thus, there exist developmental conditions that foster the growth of socially outstanding individuals who,
nevertheless, are not gifted in a manner analogous to having a specific talent. Social giftedness, as described by Jarecky, is thus more a product of optimal family environment and child-rearing practices than of distinct developmental potential.

Imagination

Because of our learning theory tradition, imagination is treated as a cognitive function. With labels like cognitive complexity, asymmetry, attention deployment, divergent thinking, ideational fluency, and problem solving, we have no inking that we are dealing with the stream of imagination. The quality of imagination—the ability to conjure up scenes, to vividly visualize, to transport oneself to places that are only imagined—these are missed by cognitive terminology. Yet, it is not possible to be creative without a strong dose of imaginative overactivity. The studies of fantasy, however, use terms of imagination, novelty, emotional vividness (Wallach, 1970) but they do not seem to have penetrated into the studies of the gifted. And a creative scientist or mathematician is also one who thinks in images.

The prominent mathematician, Morris Kline (Rosner and Abt, 1970) stated emphatically: "For most mathematicians, geometry is the way of thinking. There are some men recently who came out with the slogan 'Euclid must go.' What they meant was that we should stop teaching the old Euclidian geometry and that we should instead teach the modern sophisticated version, which would generally mean... primarily algebra. Those of us who think we know something about how mathematics is understood and how one creates feel that is the most ridiculous suggestion that mathematicians can make. To wipe out geometry is to wipe out the greatest intuitive aid we have to mathematical thinking" (emphasis added). And the topologist Thom (1975) passionately disagrees with Dirac's rejection as unimportant the impossibility of giving an intuitive context for the basic concepts of quantum mechanics. But I am certain that the human mind would not be fully satisfied with a universe in which all phenomena were governed by a mathematical process that was coherent but totally abstract. Are we not then in wonderland? In the situation where man is deprived totally of all possibility of intellectualization, that is of interpreting geometrically a given process, either he will seek to create, despite everything, through suitable interpretations, an intuitive justification of the process, or he will sink into resigned incomprehension which habit will change to indifference... The dilemma posed all scientific explanation is this: magic or geometry."

From this and other examples, as Poincaré's famous statement, "Ideas rose in crowds, I felt them collide until pairs interlocked, so to speak, making a stable combination. By the next morning I had established the existence of Fuchian functions, those which come from the hypergeometric series" (Ghiselin, 1953). It should be clear that images play an essential role even in mathematical and scientific creation. Yet Anne Roe (1982) found a considerable amount of imageless thinking in scientists: "The biologist and the experimental physicists tend strongly to dependence upon visual imagery in their thinking—images of concrete objects or elaborate diagrams or the like. The theoretical physicists and social scientists tend to verbalization in their thinking—a kind of talking to themselves. All groups

report considerable amount of imageless thinking, particularly at crucial points." Does this last part of Roe's report contradict the necessity of imagination for scientific creativity?

Discursive and Non-discursive Symbols

The solution to the above question is to be sought in the fact that at different times and for different purposes we are using different kinds of symbols: discursive and non-discursive. Words are verbal symbols, and just like the mathematical and the chemical ones, are discursive (Langer, 1942). These are symbols that can be formally operated, manipulated, combined and rearranged according to certain rules of grammar and formal logic. The symbols stand in the place of entities, substances, quantities, or concepts, and make working with them easier, more controlled, and more efficient. Indeed, discursive symbols are extremely nimble and powerful tools of intellectual analysis. And this accounts for imageless thinking. As long as the scientist can work with linguistic or other symbols instead of the concrete substance of his concern, then he can proceed with imageless thought. Discursive symbolism does not require the aid of imagery, only the rules of handling the symbols. This explains also why the ability to manipulate symbols figures so prominently in conceptions of giftedness because we are always under the sway of scientific talent and achievement as our model of giftedness.

The image enters into play when novel concepts and solutions must be sought, when the scientist explores unchartered areas. Then he or she must start thinking geometrically if his or her thinking is to be productive, as anybody who attempted to find a novel solution knows (Wertheimer, 1959).

The image, however, has a different function in art. Many arts are visual, such as painting, sculpture, architecture, dance, film. But many other kinds of art are either entirely nonvisual, such as music, or do not depend on vision, such as poetry, literature and drama (which can be very effective on the radio). Yet, according to Langer (1953, 1958, 1967) all art is engaged in the creation of an image of "the dynamics of subjective experience, the pattern of vitality, sentience, feeling, and emotion." Such a view of art matches well the repeated findings (Dellas and Caiger, 1970; MacKinnon, 1962) that creative people have preference for dynamic and vital forms (called in a more technical and stultifying jargon, "preference for cognitive complexity and asymmetry"). But the image need not always be visual!

A work of art presents rather than represents a form of feeling and the artist is an expert in the knowledge of human subjectivity. The work of the artist, then, is not self-expression but the articulation of the patterns of human experience. These patterns are distinct qualities, and a quality of experience is something felt. This can be readily grasped in the way a smell, taste, or sight can evoke distant memories of childhood or places and events left behind long time ago. Such qualities of experience cannot be replaced by a symbol and manipulated in the way Cu can be manipulated in place of the metal copper. The quality of feeling must be presented as a whole or it must be suggested by the arrangement of materials that are so put together in a work of art as to achieve that quality. A work of art is a non-discursive symbol (Langer, 1953, 1967).
To illustrate this idea let us say we want to tell someone how Rutherford discovered the X-rays. On finding stored unexposed photographic plates with some images on them, Rutherford set out to discover the nature of the phenomenon. He worked in the laboratory for several weeks and was very excited in making the discovery of the new emanations. Rendered like this the story is presented discursively, it is merely reported and the events are only named. We do not get the flavor of Rutherford's excitement so that we could almost feel ourselves in his presence and feel the contagion of his scientific fever. If the story were told so that it conveyed how it felt to be in the lab with Rutherford, we would have been given the quality of that experience and the story would have presented an image of the feeling of making the discovery.

"Raidons on the Inarticulate"

Langer developed her theory of art examining how artists go about their business in the studio, seeking to answer the question "what does the artist create?" Her theory suggests completely new tasks for the assessment of creative ability—the ability to capture qualities, to abstract their form and render them by artistic means for others to contemplate, such as the feeling of love conveyed by Prokofiev in Romeo and Juliet by means of big rolling motions of sound, or the universality of man's dread of fire, and his sufferings from fire, as presented in Ben Shahn's painting " Allegory" in which over a tiny heap of four children stands a wolf-like beast with a mane of flames, indifferent in its voracious destructiveness (Shahn, 1957).

Artistic creation, then, requires a highly developed and accurate perception of the qualities of feeling in the broadest sense ("the entire psychological field— including human conception, responsible action, rationality, knowledge—is a vast and branching development of feeling"—Langer, 1967, p. 23) and a highly developed imagination to be able to construct works that embody and present these qualities. Because the form of feeling cannot be manipulated the way linguistic symbols can, that form cannot be reduced nor replaced by a symbol. But it can be suggested, as wind and sunshine can be suggested on the flat canvas of a painting. Our stream of experience is too complex, too intertwined and too much in flux for us to have a clear conception of its essential patterns. The artist, T. S. Eliot said, it makes "raids on the inarticulate" and thus makes our experience visible to us. In this way, the significance of the different forms of overexictability for creative potential becomes clear. The assessment of the strength and richness of these forms should allow a reliable qualitative assessment of creative giftedness.

Finally, we may compare another conception of developmental potential with the one presented here. Tatumuban (1972) described human potential in terms of a well-developed, strong and vigorous body; well-developed sensory awareness and aesthetic appreciation; well-developed emotional and social feelings; and a closer link between intellect and conscience. The closer link between intellect and conscience is provided by emotional and intellectual overexictabilities and the developmental dynamisms identified by Dabrowski's theory, among which are an authentic hierarchy of values, empathy and responsibility. The same dynamisms operate in the development of a high level of emotional and social feelings: empathy, identification, and responsibility. All these have their source in emotional and intellectual overexictability. Sensory awareness and aesthetic appreciation can be related to sensual and imaginational overexictability while maintenance of the vigor of the body can be seen as a function of psychomotor overexictability.

Thus, the model of developmental potential made up of the five forms of overexictability helps to relate and organize most of the distinguishing features of giftedness. Its advantage lies in identifying several broad areas of mental functions. It takes these areas to be the basic and constitutive components of mental development. Consequently, this model allows one to identify these components and determine their contribution to most kinds of giftedness. In this model, backed by a theory of development, we obtain the connection between the development of talent and personality. We also obtain the connection between intellectual, emotional, moral, and creative development.

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