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PERSONAL GROWTH: AN EMPIRICAL STUDY USING JUNGIAN
AND DABROWSKIAN MEASURES*

Community Council of Nashua, New Hampshire; and Northwestern University

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SUMMARY

To the empirical study of personal growth, Jung's theory brings a model of psychological types; Dabrowski's provides a developmental scale of personal growth and the concept of overexcitabilities (capacities for heightened experience). Jungian functions, overexcitabilities (psychomotor, sensual, intellectual, imaginal, and emotional), and developmental level were assessed in graduate students, 20 in counseling psychology and 22 in other fields. The hypothesis that counseling psychologists would show more personal growth than representatives of other fields was not confirmed. The combined pool of Ss was used to test Jung's and Dabrowski's theoretical models. Findings: preference for intuition correlates strongly with developmental level; emotional and intellectual overexcitabilities account for nearly half the variance in determining level; Jung's psychological functions and Dabrowski's forms of overexcitability seem to be different constructs (their correlations are low). Finally, a conception of two types of personal growth is introduced: conserving and transforming. Transforming growth appears to embody the essence of Jung's and Dabrowski's conceptions of the evolution of personality. Conserving growth appears to be what counseling and psychotherapy are about.

I. INTRODUCTION

One of the central aims of psychotherapy is to foster in the client a phenomenon called variously personal growth, individuation, psychological transformation, individual development, or self-actualization. It is generally acknowledged in this regard that a therapist cannot guide a client into realms where he has not ventured himself. The focus of most of the literature has been the influence of psychotherapy on the client's personal growth. The developing or self-actualizing person who happens to be a counselor or psychotherapist has rarely been studied, in spite of the widespread but tacit assumption that such a person makes a more fully effective therapist.

The purpose of this study was to investigate the nature of the process of psychological development in counselors-in-training and employed counselors whose professional orientation involved fostering personal growth in their clients. A secondary purpose was to contribute to the development and validation of two new measures of psychological growth. To accomplish this two theories were chosen, Jung's and Dabrowski's, because of their focus on psychological growth of the individual.

The plan of this study rests on three basic assumptions: (a) Some people enter the field of psychological counseling motivated at least partly by an interest in furthering their own psychological growth. (b) Interest in one's own growth is a necessary prerequisite for the attainment of a higher than average level of psychological development. (c) A psychotherapist's personality, including his level of personal growth, is a significant factor affecting the manner in which he performs psychological counseling.

In the literature of counseling psychology, a great many studies of the therapists' personality have been based on the formulations of Rogers and Maslow. Relatively few have been based on Jungian theory and none, to date, have been grounded in Dabrowski's system.

Of the theories of development currently in use, those of Jung and Dabrowski seem particularly appropriate for a study of people in different occupational groups because they posit differences in the intrapsychic constitution of individuals, whereas other developmental theories tend to describe growth in more general terms and lack typologies in terms of which one could conceptualize individual differences in psychological growth. For instance, Erikson's stages of the lifespan are characterized by intrapsychic conflicts related to cross-cultural social situations. Individuals differ in the manner and the extent to which they have resolved these conflicts, says Erikson (11), but he implies that all are equally important for every individ-

ual. Loevinger (26) distinguishes individuals only in terms of levels of ego development which are believed to be universal. Allport (1), like Jung and Dabrowski, sees personality as structured, but stresses the uniqueness of this structure in every individual. There is, further, a great deal of similarity between Allport's and Dabrowski's thought (30); however, Allport lacks concepts of personal growth that would lend themselves to operational definitions.

Like Allport and Erikson, Rogers, Maslow, Assagioli, and Arasteh are concerned with various aspects of the psychological growth of the individual. However, they do not offer either (a) a systematic nonclinical method for assessing development potential or level of development, or (b) a way of identifying differential trends of development in different individuals. Jung's typology and theory of individuation offer the latter; Dabrowski's theory of positive disintegration has both advantages, more especially the former.

II. DABROWSKI'S THEORY OF EMOTIONAL DEVELOPMENT AND JUNG'S THEORY OF INDIVIDUATION

A. DABROWSKI'S THEORY

The theory of positive disintegration is based on the following assumptions: personality is structured; psychological development takes place through the disintegration of a lower level of intrapsychic organization and its replacement by a higher level; when transformation to a higher level takes place, the process is guided by certain advanced emotional and cognitive factors, the developmental dynamisms (6). The capacity for psychological development is based on enhanced reactivity in several areas of functioning, which Dabrowski calls overexcitabilities (OE's). The overexcitabilities and levels of development are described in more detail elsewhere (8, 35, 38). Only a few characteristics are given here.

Psychomotor overexcitability may be viewed as an organic excess of energy, or heightened excitability of the neuromuscular system. It may manifest itself as a love of movement for its own sake, rapid speech, pursuit of intense physical activity, impulsiveness, restlessness, pressure for action, or drivenness; the capacity for being active and energetic.

Sensual overexcitability is expressed in the heightened experience of sensual pleasure and in seeking sensual outlets for inner tension. Beyond desires for comfort, luxury, stereotyped or refined beauty, the pleasure in being admired and taking the limelight, sensual overexcitability may be expressed in the simple pleasure in touching things, such as the texture of tree bark, or the pleasure of taste and smell, for instance, the smell of gasoline. In short, it is the capacity for sensual enjoyment.

Intellectual overexcitability is to be distinguished from intelligence. It manifests itself as persistence in asking probing questions, avidity for knowledge and analysis, preoccupation with logic and theoretical problems. Other expressions are a sharp sense of observation, independence of thought (often expressed in criticism), symbolic thinking, development of new concepts, striving for synthesis of knowledge, capacity to search for knowledge and truth.

Imaginational overexcitability is recognized through rich association of images and impressions, inventiveness, vivid and often animated visualization, use of image and metaphor in verbal expression. Dreams are vivid and can be retold in detail. Intense living in the world of fantasy, predilection for fairy and magic tales, poetic creations, and dramatizing to escape boredom are also observed.

Emotional overexcitability is recognized in the way emotional relationships are experienced, in strong attachments to persons, living things or places, and in the great intensity of feeling and awareness of its full range. Characteristic expressions are inhibition (timidity and shyness) and excitation (enthusiasm), strong affective recall of past experiences, concern with death, fears, anxieties, depressions; there may be an intense loneliness, and an intense desire to offer love, a concern for others; there is a high degree of differentiation of interpersonal feeling. Emotional overexcitability is the basis of one's relation to self through self-evaluation and self-judgment, coupled with a sense of responsibility, compassion, and responsiveness to others.

The richer and more complex are these expressions of overexcitability, the stronger is the potential for development. The main idea of Dabrowski's theory is this: it is emotional life that empowers and guides an individual toward a higher level, because it is passionate involvement that makes us capable of empathy, understanding, caring, and finding a goal beyond self that gives our lives meaning and direction.

Level is defined as an underlying structure, an abstraction which is not meant to predict specific concrete behaviors, but rather to specify a person's frame of reference: i.e., how a person attends, interprets, organizes and responds to life situations and the experience they engender. Through the action of developmental dynamisms—internal forces which are both cognitive and affective and which are different at each level of development—lower and rigid personality structures are broken down to be replaced by higher ones. The following are brief descriptions of the five levels of development.

Level I (Primary Integration) is characterized by the absence of emotional dynamisms, reflection, self-observation, self-evaluation, and inner conflict (conflict is external only). The individual is oriented toward external standards of success. Self-interest is the primary motivation: there is little or no feeling for others, or strong possessive feelings, more like ownership than emotional attachment, and lack of insight into others. Level I individuals follow a predictably adaptive path through life; they accommodate to changing circumstances but show no real development in a psychological sense. The characteristics of authoritarian personality correspond closely to those of primary integration and of the lower stages in Kohlberg's and Loevinger's approaches (47).

Level II (Unilevel Disintegration) manifestations may range from chronic psychosis, alcoholism, or drug addiction to more stable patterns of partial

integration and even a degree of maturity and personal growth. Characteristics are inferiority toward others, dependency, a need to conform, to follow fads, the constant seeking of approval and admiration, relativism of values and beliefs; tied to this is a limited ability to discern and to follow a higher order in human experience. Without an autonomous inner core, there is a tumbling from one feeling to its opposite, and mood swings can be extreme. The individual is often adrift between conflicting motivations and courses of action. Since the vast majority of problems encountered in mental health treatment are of this kind, most theories of counseling and psychotherapy address characteristics of only these two levels (I and II) (36).

Level III (Spontaneous Multilevel Disintegration) begins to show signs of intrapsychic organization. The following experiences are typical: a conflict between "what is" (experienced as the lower in oneself) and "what ought to be" (experienced as the higher in oneself)¹; feelings of inferiority toward oneself—that is, frustration with not being all that one can become; dissatisfaction with oneself—frustration and anger with one's lower impulses and developmental shortcomings; strong appreciation and defense of individual values and of the value of each individual. There is an emerging awareness, dim at first, of a personality ideal; one begins to measure oneself against this standard. There are also positive, integrating elements at work in the advanced level III personality, such as autopsychotherapy, a developing sense of autonomy and responsibility, creative instinct in the service of self-perfection, and the capacity for more encompassing empathy.

Level IV (Organized Multilevel Disintegration) is characterized by greatly reduced inner conflict as the individual approaches more closely the personality ideal. Conscious choice in the development of one's inner standards and steadfast adherence to one's ideal of development become consistent. This is accomplished by inner restructuring (transcending age-related changes and earlier undesirable personality traits) and by responsibility, which is the taking on of tasks for the sake of others and for one's own development, and greater freedom from the influence of the external environment—i.e., a greater inner autonomy. This latter also means freedom from lower level motivations and determinants. There is, too, a greater responsiveness to the needs of others, a keener awareness of their uniqueness, and an orientation toward serving them. Traits of level IV individuals correspond exactly to those of self-actualizing persons described by Maslow (31, 37). Eleanor

¹ There is no better description of the initial state of affairs in this conflict than William James's portrayal of the "obstructed will" (19, vol. 2, pp. 546-549).

Roosevelt's book, *You Learn by Living* (46), is a good illustration of the kind of inner work characteristic of this level of development (39). Not many individuals have been found to function at level IV.

Level V (Secondary Integration), has been attained by even fewer persons than has level IV. It is characterized by unity with the personality ideal, love and compassion for all humanity, and awareness of the transcendent meaning and value of human existence. Dag Hammarskjöld is cited by Piechowski (8) as a good example; rather than to seek the personal happiness of marriage and family life, he chose to devote his life exclusively to serving mankind. Because he made the United Nations operate according to the ideals of its charter, he was called a servant of peace. It was not an easy choice and at times he felt the pain of personal deprivation.

Section VI describes response material found at each of the first three levels.

Dabrowski viewed personal growth as development through "positive disintegration." He distinguished two types of growth: unilevel and multilevel. It is important to recognize that the concepts of "unilevel" and "multilevel" are much broader than when these are combined with the term "disintegration." *Unilevelness* connotes a type of mental organization characterized by pluralism, relativism of values, and the belief that there are no absolutes, and that no hierarchy of values or ideals can be empirically or rationally established. A person with a unilevel vision of the world need not be unstable and adrift as the notion of "unilevel disintegration" implies. *Multilevelness* connotes a type of mental organization characterized by an autonomously discovered hierarchy of values, aims, and ideals, the conviction that there are ideals worth serving and perhaps worth dying for, that some values and ideals are clearly more compelling than others because they are universal ethical principles. As Ben Shahn said, "Universal is that thing which affirms the unique qualities of all things. The universal experience is that private experience which illuminates the private and personal world in which each of us lives the major part of his life. . ." (48, p.47). A person with a multilevel vision of the world need not be undergoing an intense inner conflict and severely negative self-evaluation at all times as described in the original formulation of the notion of "multilevel disintegration." What is salient is a complexity of vision, a sense that some values are universal (even absolute) while others are not, and a genuine respect and empathy for the rights of every individual. Clearly, there is a correspondence here with Kohlberg's stage 6 of moral development.

Even though Levels II, III, and IV are called by Dabrowski "disintegra-

tions," it is well to remember that we are really dealing primarily with types of personality organization. It is the elements of intrapsychic organization, rather than disorganizing factors, which shape personal growth. When Dabrowski titled one of his books, *Personality Shaping through Positive Disintegration*, he was responding to the prevalent devaluation of "neurotic symptoms" by stressing the observed fact that one phase in the development of a personality shaped to fit a higher ideal is the dissolution of outworn, inferior patterns. "Through" in this title is a spatial, temporal metaphor, not a statement of agency.

B. JUNG'S THEORY

Since Jung's typology represents that aspect of his theory of individuation which is at present most amenable to nonclinical investigation, it was emphasized in this consideration of his theory.

Jung identifies four main functions by which the individual orients himself in relation to inner and outer reality: sensation, the perception of concrete here-and-now facts through the five senses; intuition, the apprehension of possibilities latent in a present or future situation; thinking, evaluating purported facts as true or false, analyzing and organizing them in logical terms; and feeling, evaluating facts or people in terms of one's subjective reaction to them, as good or bad, morally right or wrong, pleasant or unpleasant. In every person, one of these functions is more highly developed and differentiated than the other three; the individual tends to rely most heavily on his main function in conducting his life. Jung assumes an inborn disposition to one or another main function which can be altered to an extent by the environment in which a child is raised. Individuation, the lifelong process of conscious realization of the personality, consists partly in working on the development of the other three functions and their articulation into a whole in which each aspect of psychic life is given its due.

Jung sees the functions as pairs of opposites. Intuition, for instance, functions by apprehending the whole of a situation, including nonconcrete background factors and suggestions of future potential. This process cannot work concurrently with systematic and detailed observation of the here-and-now facts, which is the province of sensation. Thus, if either sensation or intuition becomes the main function, the other will necessarily have been habitually passed over and considered less important. Sensation and intuition are called the irrational or perceiving functions because they simply register the presence of data (via the sense organs in sensation and via the unconscious in the case of intuition) without evaluating them in any way.

Evaluation is the task of the rational or judging functions, thinking and feeling, which weigh data according to a standard of truth (thinking) or suitability (feeling).

Thinking is concerned with "the linking up of ideas by means of a concept" (21, par. 831). It is seen as the opposite of the feeling function, which deals with the relationship of individuals to each other and their social group and with questions of personal style, or when introverted, with the stance of the ego (accepting, rejecting, or indifferent) toward inner contents. Thus if the individual guides his life primarily by the use of his intellect and rational thought, he will tend, for example, to be more comfortable writing about ethics than feeling his way through a moral dilemma in his personal life, more at home lecturing on aesthetics than choosing jewelry as a gift for a friend. In other words, if thinking is the main function, feeling is the inferior (most deeply unconscious) function and vice versa. This does not mean that the feelings themselves are inferior, but simply that the function operates with inferior efficiency and smoothness and that its operation is not under the control of the ego. The inferior function is slow, heavy, and loaded with emotion. It represents the area where the greatest and knottiest problems occur in the life of the individual, but also where he can get in touch with that wholeness which is the goal of individuation.

Similarly, if sensation is the main function, its opposite, intuition, is the inferior function. Again, this does not mean that the sensation type necessarily has less intuition than the intuitive type, but rather that his intuition is not under his conscious control; at times it may function very well, at times desert him or lead him astray. His intuitions tend to have a weird, eerie, or unpleasant cast; he may dismiss as morbid imagination his own and others' hunches. Sensation as the main function gives a concrete, realistic, matter-of-fact orientation, primarily concerned with the here and now.

Many people have a well-developed second, or auxiliary, function. If feeling is the main function, the auxiliary may be either sensation or intuition; if the first is intuition, the second function will be thinking or feeling. That is to say, if the main function is a way of perceiving, the auxiliary will be one of the judging functions, which, if well-developed, can lend weight and direction to the personality. If the main function is one of the judging functions, a fairly conscious auxiliary perceiving function can give freshness and flexibility.

The other functions are more or less completely unconscious—that is, the individual is relatively unaware of his capacity for viewing and dealing with the world by means of these functions. The more deeply unconscious func-

tions are aspects of the contrasexual figures, the feminine side of a man—called the anima—and the masculine side of a woman—the animus—which appear in dreams and in projections onto persons of the opposite sex.

The totality of the personality, called by Jung the self, includes all the functions (conscious and unconscious) and other aspects such as traits, complexes, memories, talents, and so on; it is not only a theoretical catch-all, however, but also represents a kind of individual teleology. In this sense, the self is distinguished from the ego or conscious aspect of the personality, that which we mean when we say "I." The ego is an outgrowth of the self, which is the unconscious matrix of personality, as well as the goal of a long and complex process of development. Jung (20, par. 266) suggests the terms "coming to selfhood" or "self-realization" as synonyms for individuation.

III. SIMILARITIES AND DIFFERENCES BETWEEN THE TWO THEORIES

The process of individuation is one of slow, sometimes difficult and painful, growth and maturation toward a state of integration of all the functions and other personality factions—that is, toward a harmonious working-together of the ego and the self. There are certain parallels between this process as described by Jung and the course of development postulated by Dabrowski.

For one thing, both theorists see the development of personality as a naturally occurring process which can be assisted and accelerated by psychotherapy. Dabrowski (9, pp. 33-34) says that developmental potential is probably inborn. If it is very strong, it asserts itself despite an unfavorable environment; if it is weak or nonexistent, even a favorable environment (such as provided by a good family or good therapy) will not result in development; if borderline, the quality of the environment can be decisive. Similarly Jung (20, p. 108) calls psychological development "a purely natural process"; he stresses its organic nature and the fact that it cannot be imposed from without:

Only those individuals can attain to a higher degree of consciousness who are destined to it and called to it from the beginning, i.e., who have a capacity and an urge for higher differentiation The possibility of psychic development . . . is not reserved for specially gifted individuals In order to undergo a far-reaching psychological development, neither outstanding intelligence nor any other talent is necessary, since in this development moral qualities can make up for intellectual shortcomings (20, pp. 114-115).

Although the process is natural and may have a biological base, both theorists see it as transcending the strictly biological life cycle. Dabrowski (9, p. 28) says that those whose personalities in maturity are rich and creative undergo first a transformation of primitive instincts and impulses: "Man progresses through a disintegration of predominantly biological drives to a higher level of development—the cultural human being."

For Jung, the process of individuation consists importantly of realizing that those qualities one sees in others which one finds most noticeable and which provoke the strongest emotional reaction are latent in oneself. This taking-back of projections mentioned in section II-B, above, has an enriching and maturing effect on the personality, fostering the development of empathy and compassion, establishing a realistic basis for social relationships, and pointing the way to resources within oneself which make possible creative contributions to the life of the community.

For both Jung and Dabrowski, the moral dimension is an important aspect of higher development. A reading of Dabrowski's introduction to *Theory of Levels of Emotional Development* makes clear that his concept of a hierarchy of levels is based on his experience of the inhuman consequences of the absence of moral values and the deep humanity inherent in manifestations of high moral values. The concept of multilevelness was forced on Dabrowski as he watched the extremes of behavior during World War I. In lecturing on Jung's position, von Franz (13, Chap. IV, p. 67) says, "The process of individuation is an ethical problem, and someone without any morality would get stuck right at the beginning." The differentiation of personality produced by taking oneself seriously and working on one's development is based on moral discrimination among different aspects of the personality, which is an integral part of both individuation and positive disintegration. These processes result in an individual who is not only more highly developed within himself but also more genuinely moral in his dealings with others (21, par. 761; 8, pp. ix-xii).

Secondly, both Jung and Dabrowski see psychological difficulties as a possible starting point for the developmental process—possible, that is, if they are taken seriously—as indicative of a need for a wider consciousness. (Both agree, however, that some cases are simply pathological and deteriorate instead of progressing.) Jung (22, pp. 166-167) says that individuation often starts in a state of depression, sterility, stagnation, confusion, physical illness, neurosis, or a generally dark and difficult life. In fact, he sees individuation as the specific cure for certain kinds of neurosis, those produced by a defective conscious attitude (20, pars. 252-253):

In by far the greater number [of cases], adaptation to external reality demands so much work that inner adaptation to the collective unconscious cannot be considered for a very long time. But where this inner adaptation becomes a problem, a strange, irresistible attraction proceeds from the unconscious and exerts a powerful influence on the conscious direction of life The associated disintegration of the persona and the deposition of the conscious mind from power constitute a state of psychic disequilibrium Such a loss of balance is similar in principle to a psychotic disturbance; that is, it differs from the initial stages of mental illness only by the fact that it leads in the end to greater health, while the latter leads to yet greater destruction. It is a condition of panic Mostly it was preceded by desperate efforts to master the difficulty by force of will; then came the collapse, and the once guiding will crumbles completely I regard the loss of balance as purposive, since it replaces a defective consciousness by the automatic and instinctive activity of the unconscious, which is aiming all the time at the creation of a new balance.

This is obviously very similar to Dabrowski's formulation of the role of positive disintegration in development, described above. Although Dabrowski says that the levels are not necessarily to be seen as stages of development, it is evident from his case studies that an individual functioning at, say, level IV always has periods in his past in which he resembled a level II and III personality. The "state of psychic disequilibrium" Jung refers to in the above quote is similar to Dabrowski's description of a level II breakdown leading to the emergence of new coherence and direction at level III. It seems that both theorists are talking about essentially the same process, although they use different terminologies. Since this initial stage may closely resemble a more or less severe mental illness and since individuals undergoing it often seek therapy, it is important that the therapist recognize the problem for what it is.

A third similarity between Jung and Dabrowski is that both characterize psychological development as tending toward wholeness of the individual. As discussed above, Jung sees the process of individuation partly as a matter of developing one main function, and then gradually transcending this one-sidedness through the slow realization of the other three functions. Similarly, Dabrowski (9, p. 28) speaks of the individual's felt need, at the onset of the process, "to free himself from the one-sidedness of his psychological type; the need to break through the psychological fetters." Through the transcending of one-sidedness, the development of all sides of one's nature, one approaches what Jung calls the self and what Dabrowski terms the personality ideal. Both theorists see this entity as that which, in the final analysis, directs the course of development as well as constituting its goal. There are certain differences between these two images of the goals of development. The self as described by Jung is the totality of the personality, embracing not only ideal elements but a dark side as well. However, phenomenological description of the self and the personality ideal show many parallels (8, p. 30; 22, pp. 196ff).

A fourth similarity between the two theories is the great importance in both of what could, broadly speaking, be called the religious dimension. The source of the label "mystical" which is often applied to Jung is his exploration of the meaning of man's encounter with God, an experience universal to all cultures which, he felt, needs to be dealt with as an important psychological fact, quite apart from any metaphysical assertions which the psychologist (in his professional capacity) would in any case be unqualified to make. Dabrowski (8, pp. 142-144, 213-217; 9, pp. 107-109, 128, 160) sees the nature

of the individual's religious experience as an indicator of developmental level and religious evolution as an important component of personality development.

A fifth similarity between Jung and Dabrowski is in the areas of psychic life they identify respectively as functions and overexcitabilities (OE's). The latter are defined as determined by greater than average reactivity in a given area and the former simply as modes of operation. Piechowski (35, p. 232) does say, however, that "the forms of overexcitability correspond to certain modes or dimensions of mental functioning." Both Jung and Dabrowski see a sensorimotor area (psychomotor and sensual OE's, the sensation function), a manner of dealing with emotional relationships and the affective life (emotional OE, the feeling function), a cognitive mode (intellectual OE, the thinking function), and a way of processing subliminal information and dealing with imagery and other nonconcrete realities (imaginational OE, the function of intuition).

However, the functions and overexcitabilities are far from being equivalent. One of the main differences is that Jung sees the functions as pairs of opposites whose guiding principles cancel each other out, so that (as discussed above) when one function is preferred and used habitually, its opposite must necessarily remain unconscious and undifferentiated due to neglect. For Dabrowski, on the other hand, although one type of OE may be dominant in a given individual (35), the OE's are seen as parallel dimensions rather than as pairs of opposites. All five may be present with approximately equal strength. In this connection it is interesting that Loomis and Singer (27) sought to uncouple the Jungian functions and developed an instrument to measure them as parallel dimensions.

Too, for Dabrowski, intensity of manifestation of an OE seems to lead to a higher degree of differentiation. For Jung, on the other hand, the manifestations of the inferior (most primitive) function are habitually overlooked by the individual but may be the most intense, carrying the greatest affective load, on those occasions when they are admitted into awareness. The main function is the most highly evolved and differentiated because it is used habitually in relating to the world; it tends to carry a more matter-of-fact, low-key emotional tone. In general, then, *Jung's functions and Dabrowski's overexcitabilities are fundamentally different theoretical constructs which, although they focus on similar areas of experience, are not interchangeable and thus cannot be substituted for one another.*

For Dabrowski, all modes of functioning are present in all individuals, but only when reactivity exceeds the usual intensity can we speak of OE as

opposed to a simple response to stimuli. Dabrowski describes individuals in terms of strength of all their OE's relative to a putative population baseline; the very term *overexcitability*—responses which "markedly exceed the value of an average response"—testifies to this (8, p. 31). Of the relative strength or efficiency of any given function across individuals, Jung says only that it tends to be stronger and more efficient when given greater weight and less so when given less importance. When the main function is used almost exclusively, Jung speaks of an extreme type but does not discuss extreme types in general as opposed to more balanced types. A more detailed exploration of these questions can be found in Lysy (29).

Another difference between the two theories lies in their views on the sources of psychic tension. Jung sees tension as arising between the functions as pairs of opposites, particularly between the main and inferior functions, less strongly between the two auxiliaries. Dabrowski also sees the OE's as productive of tension if all or several are strong, not because any are opposites, but simply because they are different: "the abundance and diversity of information (that is, simultaneous experiencing in different modes) will inevitably lead to dissonance, conflict, and tension" (35, p. 256). However, according to Dabrowski, the main source of psychic tension in a personality with multilevel structure is the disparity between the personality ideal and impulses and traits of a lower order in the individual's own hierarchy of values. While Jung sees individuation as a process necessitating continuous moral choices, he does not specify the formation of a value hierarchy as a criterion by which to judge degree of development. Individuation is a path leading to an increasingly close and conscious relationship between the ego and the self, in which tension is relieved through the union of the tension-creating opposites in the self; the conflict is resolved through its transcendence. For Dabrowski, a similar resolution of inner tension through increasing closeness to, and finally union with, the personality ideal is a feature of the highest stages of development, levels IV and V; lower impulses no longer cause conflict because they no longer exist. Again, it seems that the two theorists are, in the end, describing essentially the same thing, but they approach it in different ways.

A sixth similarity between the viewpoints is that both Jung and Dabrowski see this tension as a developmental necessity. Without the clash of opposites within himself and the world, says Jung, man would not become aware of their existence as separate entities; without self-awareness there is no differentiation and no individuation. Like Jung, Dabrowski also sees the intrapsychic tension as a source of developmental energy.

IV. METHODS AND SUBJECTS

A. ASSESSMENT MEASURES

The limitations of paper-and-pencil self-report measures are well-known. For the purposes of Jungian type assessment, however, self-report has a particular advantage in that an individual's main function (sensation, intuition, thinking, or feeling) and attitude-type (introverted or extroverted) are by definition those he is most conscious of, uses most habitually, and is most fully aware of as being characteristic for him. Self-reporting is therefore the method of choice for determining the type profile (21, par. 601). In the case of Dabrowski, the data to be assessed are so complex, personal, and chronologically far-reaching that a free-response self-report instrument, despite its limitations, is probably the only adequate way of obtaining them (short of a clinical approach). In addition, an important feature of the psychological development described by Dabrowski (7, p. 230) is the deliberate and conscious choice of certain values, behavior, and avenues of growth, while the hallmark of Jung's individuation is the growth of consciousness. Self-report, which taps those aspects of the personality of which the *S* is aware, would thus seem to be a reasonable assessment method.

The three instruments used in the present study were all self-report measures and consisted of one multiple-choice and two free-response questionnaires. Despite the above-mentioned advantages of this method, the investigator still had to rely on the *S*'s willingness to be open and thorough.

1. *The Myers-Briggs Type Indicator*

a. Description. The Myers-Briggs Type Indicator (MBTI) is a 166-item forced-choice, multiple-choice instrument measuring relative strength of preference for each of the four functions and two attitude-types identified by Jung: sensation (S), intuition (N), thinking (T), feeling (F), introversion (I), and extraversion (E). In addition, the MBTI has a Judging-Perceiving (J-P) scale which measures the extent to which an individual prefers to use a judging (thinking or feeling) function or a perceiving function (sensation or intuition) in conducting his outer life—that is, in the extraverted aspect of his life.

Frequency and mean strength of the preference are given in the Manual (32) for various groups totalling 8561 *Ss*; frequency distributions for two contrasting populations totalling 6045 are shown. Split-half reliabilities computed for 727 *Ss* ranged in general from .71 to .94.

For the purpose of the current study, a shortened version of the MBTI

was used, in which the 71 filler items were eliminated and only those items retained which were actually used to make up the various scales (28). This was done in order to lessen *S* fatigue; it shortened testing time by about 40% (roughly 40 minutes), which was deemed advisable in view of the time-consuming nature of the two other instruments used in this study. Elimination of nonscale items was thought justifiable on the basis of results obtained from Kestenbaum and Hammersla (23) and Strahan and Wilson (52), who found that buffer or filler items did not significantly alter scores on self-report instruments, obscure their purpose, or prevent *Ss* from faking good when instructed to do so.

Construct validity data reported in the Manual consist of correlations of the MBTI with five other instruments and with faculty ratings, turnover in utility jobs, and ratings of creativity. When scores on the Strong Vocational Interest Blank (SVIB) were compared with those of the MBTI, professional-technical-scientific occupations were found to attract IN types; business occupations, ESTJ's and partial ESTJ's; and uplift careers (counselors and clergymen), ENF types. Of particular relevance to the present study is the fact that the single occupation most strongly associated with a preference for N was psychologist ($r = .55$). All of these correlations make sense in terms of Jungian theory and thus tend to corroborate the construct validity of the MBTI. Correlations of the MBTI with the Allport-Vernon-Lindzey Study of Values (AVL) were also consistent with an assumption of MBTI validity as well as with the SVIB results. The AVL values most strongly associated with each preference were as follows: Political, E; Economic, S and J; Theoretical, T; Social, F; and Aesthetic, I, N, and P.

When MBTI results were correlated with needs as measured by the Edwards Personal Preference Schedule (EPPS), the following theoretically meaningful patterns emerged (the preference associated most strongly with each need is underlined): Achievement (intellectual), INT; Order, ISTJ; Exhibition, EP; Autonomy, NTP; Affiliation, EE; Dominance, ET; Nurturance, F; Change, NTP; and Endurance, TJ.

The construct validations reported by Myers are, in general, confirmed by the results of other studies not cited in the Manual (15, 18, 24, 44). On the whole, the MBTI represents a successful operationalization of the concepts of Jung's theory of psychological types.

b. Scoring of the Short Form of the MBTI. Since the short form was composed only of the items actually used in scoring the full-length instrument, it was scored by hand according to the Manual (32).

2. *The Overexcitabilities Questionnaire*

a. Description. The Overexcitabilities Questionnaire (OEQ) is a 41-item, free-response instrument developed by Piechowski (38) to measure the five overexcitabilities (OE's) identified by Dabrowski: psychomotor, sensual, imaginal, intellectual, and emotional. Initially, OE ratings were done on autobiographical material partially reported in Dabrowski and Piechowski (8). The rated statements (totalling 433) were then examined, a table set up of categories of OE, and the OEQ developed from this table. The questionnaire was administered twice during 1974-75 to Ss at the Research and Guidance Laboratory for Superior Students at the University of Wisconsin at Madison. No actual rating was done at that time and so no reliability data were obtained. On the basis of the material gathered, the OEQ was revised and altered in form; for instance, the questions in the second version (the one used in the current study) were presented in random order rather than being grouped by OE, for the purpose of sustaining Ss' interest. The OEQ items are given in the Appendix.

b. Scoring of the OEQ. On each of the 41 items on the OEQ, one point was scored for each OE of whose presence the response gave evidence. Thus, the highest possible score (a simple frequency count) for each of the five OE's was 41 (actually 21, see below for how 20 items were eliminated). Although each item was designed to elicit a description of an expression of a particular OE, if present, it often happened that descriptions of expressions of more than one OE were given in response to an item, not always including the intended OE. In these cases, one point was counted per OE per item, yielding a possible maximum of five points per item (one for each OE present). If additional instances of any OE appeared in the same item, no further points were added to the total score for the OE. Thus, the scoring procedure was conservative.

c. Elimination of nondiscriminating items. The total number of OE scores for the whole pool of Ss ($N = 42$) was as follows: P (psychomotor OE), 188; S (sensual OE), 294; T (intellectual OE), 182; M (imaginal OE), 204; E (emotional OE), 566. It can be seen that the number of E scores is disproportionately high in relation to all other scores. An inspection of the total scores for each question showed that out of 41 items in the questionnaire, 20 were not adequately discriminating. On these items more than half the Ss received scores in one or another OE. For instance, one of the questions produced the following frequency of scores: P, 1; S, 4; T, 0; M, 5; E, 30. This was a question that asked, "Do you ever feel really low? Describe your feeling." Naturally, most people feel low at one time or another (30 out of 42

Ss. This question was eliminated. In contrast, the question, "Do you ever feel really high, ecstatic, or incredibly happy? Describe your feeling," produced OE scores as follows: P, 10; S, 12; T, 3; M, 3; E, 21 (exactly half of the sample in the study).

After elimination, OE totals for the remaining 21 questions are as follows: P, 126; S, 141; T, 143; M, 155; E, 201.

The data reported here are calculated from the 21 questions that were retained. Thus the highest possible score for each of the five OE's is 21.

3. *The Definition-Response Instrument*

a. Description. The Definition-Response Instrument (DRI) is a six-item, free response questionnaire developed by Gage, Morse, and Piechowski (14) to assess level of development as defined by Dabrowski. Six themes were identified as underlying the most important of the 30 developmental dynamisms: susceptibility to the influence of others, personal conflict, inferiority, dissatisfaction with oneself, self-observation, and personality ideal. Ss responded in writing to six questions, each designed to tap the nature of the S's experience of each of these issues in his own life. Responses to each theme characteristic of each level were identified during the rating and used to determine S's developmental level.

Construct validity of the DRI is supported by comparison with three other instruments which were also used to rate for developmental level: an autobiography, a situation-choice method modelled after Kohlberg's moral dilemmas, and a related method asking S's to give their reasons for making each choice. The results showed that all four instruments were able to discriminate accurately among levels. Test-retest, split-half, or other measures of reliability were not performed in this study; therefore, no data on reliability are as yet available for the DRI. The DRI, however, has at least two advantages, for which it was chosen for this study. First, it lacks an upper limit, unlike the situation-choice method which stops at level III. Second, while structured enough to permit systematic comparison across S's, it has a greater richness of response material than multiple-choice instruments, thereby enabling one to study in the response content the expression of the relationships between typologies (OE's and Jungian functions) and levels; in other words, the workings of personal growth as currently conceptualized become available for study.

b. Scoring of the DRI. Each of the six items completed by each S was evaluated by the raters independently of the other five items, and a level rating assigned to it. These six were then averaged, yielding an overall level rating. The single items were rated by half-levels (1.0, 1.5, 2.0, 2.5, etc.) and

the averaged values rounded off to the nearest tenth. Thus each *S* received an overall level rating expressed in tenths.

4. Training of Raters

The two raters of the DRI and the OEQ were chosen for their knowledge of Dabrowski's theory and prior experience with it. One of the raters performed this function in the study by Gage *et al.* (14). In order to minimize the disadvantage of lower interrater reliability, the second author (M. M. P.) audited all *Ss'* DRI's and OEQ's after the two original raters had assigned their scores. The method of auditing is particularly applicable to complex material. In this method, another more expert rater or judge checks the work of the original raters in much the same way the examiner does in an audit, in order to verify whether the first raters used the categories appropriately and to correct the instances in which they did not (16). Interrater reliability for the two original raters is given in Table 1 together with data from subsequent studies by Beach (2) and Hazell (17). In cases where they disagreed, the second author's ratings were considered the decisive ones and were used in all subsequent calculations.

B. SUBJECTS

There were 20 *Ss* in the counseling group, of whom 18 were doctoral candidates in counseling at a large university; two *Ss* were recent graduates of the same program employed as counselors in the community. All *Ss* identified their professional focus as being the personal growth of their clients; in other words, none was oriented toward vocational, academic, or

TABLE 1
INTERRATER RELIABILITIES IN THREE STUDIES USING DABROWSKIAN VARIABLES

Dabrowskian variables	Lysy (1979) <i>N</i> = 42	Beach (1980) <i>N</i> = 51	Hazell (1982) <i>N</i> = 24
Psychomotor OE	.69	.74	.79
Sensual OE	.72	.77	.84
Intellectual OE	.63	.71	.75
Imaginational OE	.72	.73	.90
Emotional OE	.70	.66	.74
Developmental level	.77	.67	.77

Note: The interrater reliability of OE scores in the Hazell study was obtained by using a more complex scoring scheme in which the presence of an OE was assessed on a scale of 1, 2, 3 to represent the degree of richness, intensity, and differentiation of the response content.

financial counseling. The noncounseling group consisted of 22 *Ss* from the following academic disciplines: history, 6; literature and linguistics, 5; natural sciences, 4; education, 4; library science, political science, and religious studies, 1 each. Sixteen of this group were graduate students, while six were employed in the fields in which they received their advanced degrees. The mean age of each group was 29, although the range was wider for counselors (ages 22-50) than for noncounselors (ages 22-35). Of the counselors there were 16 females and 4 males; of the noncounselors there were 14 females and 8 males.

Prospective *Ss* were told that the study "of how people develop psychologically" would involve their filling out (on their own time) three questionnaires, one multiple-choice and two free-response, that would take a total of about four and a half hours. In the counseling group, 37 were contacted and 30 agreed to take part; during the course of the study, 10 dropped out. In the noncounseling group, 44 were contacted, 30 agreed to take part, and eight dropped out in the course of the study. Further details can be found in Lysy (28).

C. ADMINISTRATION OF ASSESSMENT MEASURES

The three measures, including printed instructions, were delivered to each *S* as soon as he or she had agreed to participate, with directives to complete and return them as soon as convenient. *Ss* were told that the questionnaires would take a total of about four and a half hours to complete and were advised not to try to complete the OEQ in one sitting, since breaks would facilitate the recall of additional material. They were instructed to complete them at their own pace and in any order they chose. No appreciable order effects were expected, for two reasons: (a) the MBTI was considered no more likely to bias responses to the Dabrowskian instruments than vice versa; (b) the free-response tasks were much more complex than the multiple-choice task. No findings resembling order effect were noted. Similarly, no general fatigue effects (such as sketchier answers to free-response questions placed later in the questionnaire) were found.

D. DATA ANALYSIS

All statistical computations were performed using SPSS (34).

V. RESULTS AND DISCUSSION

Results are presented and discussed in five sections: (a) differences between the two groups, counselors and noncounselors; (b) interrelationships among the Dabrowskian variables; (c) types of personal growth: transforming and conserving; (d) interrelationships among the Jungian and Dabrowskian variables; (e) regression analysis of variables contributing to the determination of developmental level.

A. INTERGROUP DIFFERENCES: COUNSELORS *vs* NONCOUNSELORS

Descriptive statistics (means and standard deviations) for the MBTI and OEQ for counselors and noncounselors are shown in Table 2. The mean E-I score for counselors was below 100, indicating that members of this group tended to be extraverts, whereas the noncounselors' mean of 110.9 was well within the introvert range. This difference was significant ($p < .02$). While both groups preferred feeling to thinking, the counselors' preference was significantly stronger ($p < .05$). On the J-P scale, noncounselors on the average preferred judging; the counselors, perceiving; the difference between the two means was significant ($p < .04$). Thus, there are significant intergroup differences along three of the Jungian dimensions. On the fourth scale, S-N, both groups preferred intuition to sensation; this seems to be typical of highly educated groups in nontechnical fields (3, 4, 5, 10, 33, 41, 43, 49, 53).

Group differences in the strength of the five OE's are also shown in Tables 2 and 3. Counselors received higher scores than did noncounselors on sensual and imaginal OE's. This difference becomes significant when the scores are combined ($p = .02$). However, the counselors were somewhat lower on intellectual OE ($p = .05$).

Demographic variables of age and sex had similar distribution in the two groups. Comparing males and females, males were significantly higher on psychomotor OE. On the MBTI, men were found to score higher on judging, women on perceiving. No significant correlations were found between age and any other variable studied. This result supports Jung's and Dabrowski's statements that psychological development is not an ontogenetic process and is therefore unrelated to chronological age in adults.

No significant difference was found between the two groups in terms of the average level score; however, as shown in Figure 1, the two groups are differently distributed across levels. In the noncounselor group there are 6 Ss at level I (primary integration, level score of 1.5 or less), while there was only

TABLE 2
MEANS (M) AND STANDARD DEVIATIONS (SD) FOR MEYERS-BRIGGS TYPE INDICATOR (MBTI) AND OVEREXCITABILITY SCORES BY GROUP

Measure	Counselors (<i>n</i> = 20)		Noncounselors (<i>n</i> = 22)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
MBTI scales				
Extraversion-Introversion	94.5	24.0	110.9	19.4
Sensation-Intuition	117.6	20.4	116.2	19.5
Thinking-Feeling	116.4	17.6	102.9	23.7
Judging-Perceiving	106.4	22.8	91.0	23.8
Overexcitabilities				
Psychomotor	3.1	1.4	2.9	1.5
Sensual	4.1	2.2	2.7	2.6
Intellectual	2.7	2.5	4.1	3.0
Imaginational	4.4	2.5	3.1	2.4
Emotional	5.3	3.8	4.3	3.4

Note: Significance levels for differences between the two groups are given in Table 3.

TABLE 3
CORRELATIONS BETWEEN JUNGIAN AND DABROWSKIAN VARIABLES AND THE VARIABLES COUNSELOR, SEX, AND AGE

Measure	C/NC ^a	Sex ^b	Age
MBTI scales			
Extraversion-Introversion	.36	.21	.23
Sensation-Intuition	-.03	-.14	-.11
Thinking-Feeling	-.31*	-.23	-.14
Judging-Perceiving	-.32	-.34*	-.01
Dabrowskian variables			
Psychomotor OE	-.07	.37**	-.09
Sensual OE	-.29*	.08	-.02
Imaginational OE	-.25	-.20	-.13
Sensual + imaginal OE's	-.32*
Intellectual OE	.26*	.23	.20
Emotional OE	-.14	-.14	-.09
Developmental level	-.25	-.10	-.05
Demographic variables			
Sex	.18		
Age	.05		

^a Negative correlations indicate that the counselor (C) mean was higher than the noncounselor mean (NC). Coded: C = 1; NC = 2.

^b Negative correlations indicate that the females had the higher mean.

* $p < .05$.

** $p < .01$.

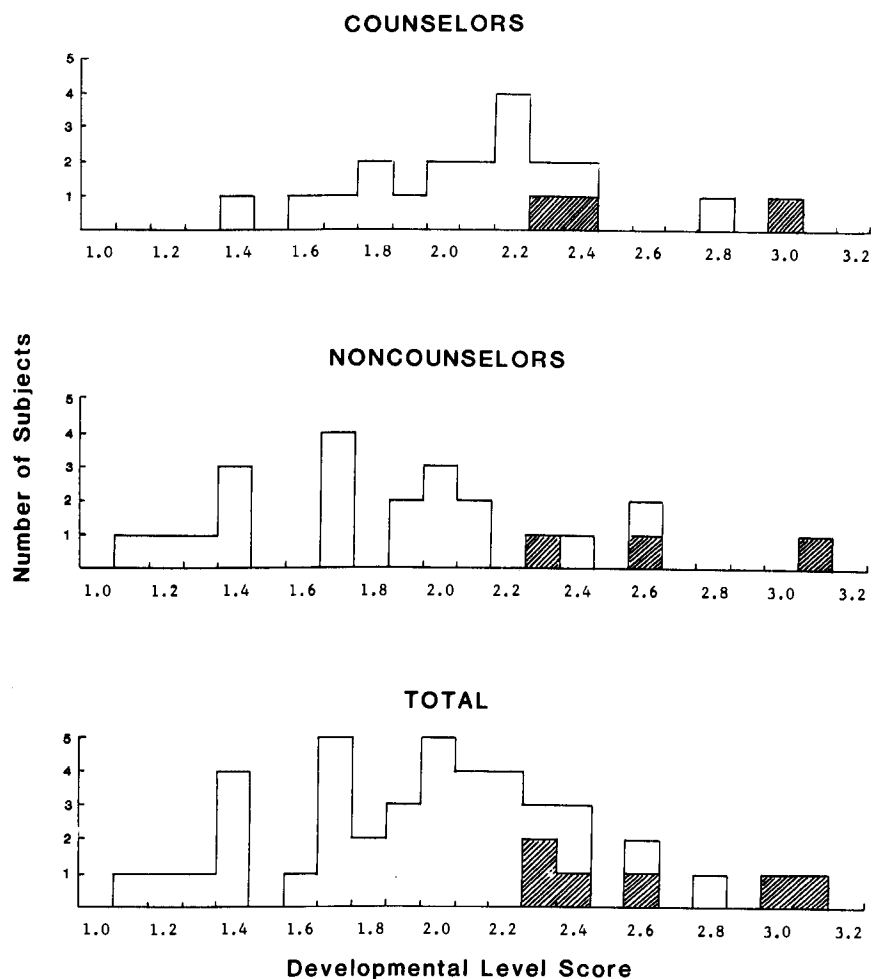


FIGURE 1

DISTRIBUTION OF DEVELOPMENTAL LEVEL SCORES IN COUNSELORS AND NONCOUNSELORS
Shaded areas indicate transforming *S*s (see section V-C).

one such *S* (level score of 1.4) in the counselor group. More counselors (14 in all) received level scores of 2.0 or above. Only one *S* in each group received a score of 3.0 or above.

B. DABROWSKIAN DEVELOPMENTAL INDICES

Dabrowski stressed the importance for multilevel development of the emotional, imaginal, and intellectual OE's and saw little significance in the psychomotor (P) and sensual (S) OE's. Moreover, he saw no possibility for multilevel development when P OE and S OE are stronger than the other three OE's in a given personality, since he regarded such a constellation as acting to inhibit inner growth. High P OE, he maintained, involves people more in action than in reflection, and high S OE absorbs them in sensory pleasure; both hinder reflection by attachment to the physical immediacy of the surface of experience.

Now that empirical instruments have been developed, his thesis can be put to the test. In the current study, all OE's were found to correlate positively with level of development—emotional OE, intellectual OE, and imaginal OE to a truly significant degree (Table 4). There was a strikingly significant correlation between the developmental level score and the sum of T + M + E ($r = .696, p = .00001$), which fits the expectation of the theory as stated by Dabrowski. However, when M is left out, the sum of T + E is as strongly correlated as before with developmental level ($r = .690$). Of what use, then, is imaginal overexcitability? Another study (40) found imaginal overexcitability very significantly higher in a sample of artists than in either the intellectually-gifted or graduate student groups previously studied. Dabrowski's inclusion of M in his concept of developmental potential was the result of his extensive studies of creative people. Our results show, however, that M is not a critical ingredient of developmental potential for Dabrowskian higher levels. The reason Dabrowski believed M to be associated with higher levels was that representatives of higher levels tend to be creative. The reverse, however, that creative people tend to be associated with higher levels, does not necessarily hold true.

We are still left with the question whether a preponderance of P and S over the other three OE's combined inhibits higher levels of development. The correlation between P + S and T + E obtained from the current data was .22, positive but not highly significant ($p = .08$). The correlation between P + S and T + M + E was somewhat significant (.34, $p = .014$), owing to the sizeable correlation between S and M (.44). These positive correlations argue against the hypothesis maintained by Dabrowski that

TABLE 4
CORRELATIONS AMONG OVEREXCITABILITIES, TRANSFORMING,
AND DEVELOPMENTAL LEVEL

Variable	P	S	T	M	E	Devel. level
Psychomotor (P)		.47***	.15	.32*	.15	.26*
Sensual (S)			.05	.44**	.26	.31*
Intellectual (T)				.15	.41**	.57****
Imaginational (M)					.43**	.38**
Emotional (E)						.59****
Transforming (Tr)	.14	-.004	.60****	.05	.47***	.56****

* $p \leq .05$.

** $p \leq .01$.

*** $p \leq .001$.

**** $p \leq .0001$.

psychomotor OE and sensual OE retard development. What does preclude development is apparently not the strength of P OE and S OE as such but the weakness or absence of E OE and T OE. Development is accelerated or retarded, it thus appears, solely as a function of the strength or weakness of E and T, independently of P OE and S OE.

All the data point to emotional OE and intellectual OE as being the most critical. The correlation of T + E with level is .69, accounting for 48 percent of the total variance in determining level. As long as P or S or M are combined with T or E, the correlations with level are high, .59 to .69, and extremely significant ($p < .00002$). When P, S, and M occur in combinations with each other, the correlations with level are lower (.34 to .41) but still significant ($p < .015$ to .003). What is more surprising is that in standard multiple regression, S comes before M, increasing the known variance by 3.4 percent to 51 percent, while M adds only another .7 percent (see section V-E).

C. TYPES OF PERSONAL GROWTH: TRANSFORMING AND CONSERVING

If, according to Dabrowski, level I is a developmental, and level III the one in which true development takes place, how are we to regard personal growth in level II? Many Ss in the present study—more counselors than noncounselors—showed the greater flexibility, creativity, openness to experience, and concern with their own and others' psychological states which are usually taken as signs of personal growth. These characteristics began to show up in DRI's rated 1.6-2.0, representing the lower spectrum of level II. They are associated with personal growth characterized by loosening of formerly rigid structures, expansion of emotional and sensual experience,

growth of self-understanding and of understanding others. What we do not find in this kind of personal growth is moral questioning, existential concerns, and self-judgment in terms of autonomously discovered inner values, a "what is" measured against "what ought to be," the "higher" in oneself as the criterion for judging the "lower" in oneself. One might call this a "hierarchical vision," a continuous weighing and reflecting in terms of "higher" and "lower" in oneself and in the world around one. This type of emotional growth has been called *transforming*; it is a function of a number of components of emotional and intellectual overexcitability. Emotional growth that is short on these components, consequently not guided by hierarchical perceptions, is called *conserving* (45).

The transforming individual appears to be more interested in relationships while at the same time holding a more detached attitude (hence there is little or no inclination to be dependent in a relationship). He is not seemingly as empathic in the sense of overidentifying with another, nor as easily affected in a negative way by the acts of others. This somewhat detached attitude corresponds to the transformer's stronger sense of his own essence, as well as of higher guiding principles within himself, providing him with a stronger sense of individuality and direction. This more acute awareness of internal guiding principles suggests that he is less dependent on collective standards and thus better able to choose deliberately his own life direction. The conserving individual who lacks a sense of his own essence (not to be confused with self-concept, which may be quite positive if unreflective) easily identifies with the feelings of another and may become quite absorbed in them, engages in little self-scrutiny, and tends to react negatively toward himself in response to the acts and judgment of others. Thus he may be too involved with the world of others to have a true sense of his individuality, of the life direction best suited to him, and of his need for change and growth. Intellectually, the conserving individual has less interest in learned pursuits and less tendency to work on specific and operational goals. By contrast, the transformer has greater interest in and derives greater satisfaction from intellectual pursuits and has a stronger tendency to reflect on himself and to work toward actualization of his goals of personal growth. The transformer's greater interest in planning and directing his life suggests that he is more likely to set personal goals and work toward their fulfillment, hence facilitating change and transformation.

The potential for multilevel development—i.e., for true development in Dabrowski's sense—can be seen as a function of the presence of the transforming characteristic. The term "transforming" could be taken as merely

synonymous with "multilevel" and "conserving" with "unilevel." To avoid this misunderstanding, it is well to bear in mind that the transforming characteristic was found in individuals whose level scores were as low as 2.3, which is well in the unilevel range (1.6 to 2.5), while one conserving *S*, had a level score of 2.8 which is well within the multilevel range (2.6 to 3.5). The distinction of "transforming" and "conserving" is derived from an analysis of emotional and intellectual overexcitabilities which in some form may be present at any level. Further, simply measuring "level" on a continuous scale does not tell us which of two scores, such as 2.3 and 2.6, carries a greater potential for multilevel development. To make measurement possible at all, a continuous linear scale of developmental levels must be used; however, it would be a misguided effort to seek a point on this scale where level II breaks into level III. Consider, too, that a level score, even if it could be made very precise, reflects only the actual developmental level, not the potential for further development or the type of development. Consequently, we must look to other characteristics, such as the components of forms of overexcitability, the Jungian functions, and possibly other elements, to find a way of deciding with what type of personal growth we are dealing in each case.

What "level" stands for we call abstractly "structure" as a way of denoting a pattern of a great many complex features and relationships. However, a complex structure cannot make a continuous transformation into another complex structure, the same way clouds can make their puffy transitions from one form into another. We must look for signs of the appearance of the new structure in the midst of the first. Thus, the "transforming" characteristics may be submerged in the unilevel structure of level II as only an embryo of multilevelness. This may later give rise to the multilevel structure of level III, a process that may take many years, even a lifetime, and may never be completed.

In Lysy's original study (28), nine *Ss* were judged to be "transforming." Robert and Piechowski (45) carried out a more detailed analysis of the OEQ response content of these *Ss* and showed that a number of components teased out from units scored E and T can discriminate the two types unambiguously. The original impressionistic judgments of selection of "transformers" were re-evaluated: as a result, only five were retained and one, previously judged to be "conserving," was added. Three of the transformers were counselors and three were noncounselors. It is also worth noting in connection with the preceding discussion that two of these *Ss* had level

scores as low as 2.3 (see Figure 1), while one of the conserving *Ss* had a level score as high as 2.8. This is a good illustration of the fact that the level score in the 2.0-3.0 range cannot tell us the type of development nor the kind of potential the individual has.

The transforming characteristic (Tr) shows a strong correlation with level of development (Table 4) and the E and T OE's from which it is derived. The Tr can be regarded as another index of strong potential for multilevel development, the first index being the sum of T + E.

In view of the fact that transformers are no more frequent among counselors than noncounselors, one cannot assume that students of counseling are more likely than students in other disciplines to be developing psychologically in the sense intended by Jung and Dabrowski. In fact, Woerner (54) compared psychotherapists and community residents on Loewinger's levels of ego development.² The majority of the psychotherapists were male and their ego level scores were distributed exactly as those of the male members of the community (80 percent concentrated in I-3/4 and I-4). This raises intriguing questions: are we overestimating the potential of psychotherapy for promoting personal growth? Are changes accomplished by psychotherapy occurring essentially within a given level of development? It is possible that the abstract structures we call levels, whether Dabrowskian or Loewingerian, are much broader than originally thought, with ample room for growth and change *within* their boundaries. It is, therefore, logical to assume that this is "conserving" type of growth, because level II is the predominant level in the counselor and client populations. Still it is surprising to find results which imply that the study, training, and self-improvement which the choice of counseling as a vocation implies, is not any more conducive to growth than the pursuit of other vocations. Although replication is obviously necessary, one might tentatively conclude that personal growth, in Dabrowski's and Jung's sense of the term, is a fairly rare phenomenon.

² There exists a certain degree of correspondence between the lower and the middle levels of ego development and Dabrowskian levels, and so Loewinger's ego level scale can also be used toward an assessment of personal growth. Loewinger's I-5 corresponds to Dabrowski's II and II-III, and I-6 probably to III (Greene, L. A. Dabrowski's theory of emotional development and Loewinger's theory of ego development: A direct comparison. M.A. thesis, Northwestern University, Evanston, Illinois, 1982). Consequently, I-6 cannot be equivalent to self-actualization as Loewinger (26) suggested because self-actualization is level IV (37), a level of development not encompassed by her scale.

D. CORRELATIONS AMONG JUNGIAN AND DABROWSKIAN VARIABLES

The similarity of certain terms in the two theories (e.g., the feeling function and emotional OE, the thinking function and intellectual OE) raises the expectation that one will find an appreciable degree of correlation between the Jungian and Dabrowskian variables. The data are given in Table 5. First, the Jungian variable will be discussed.

A positive correlation was found between T-F and J-P, indicating that those Ss, whose approach to their outer life is planned and orderly tend, of the two judging functions, to prefer thinking. Those who prefer not to organize their outer life but rather to let things happen spontaneously have a strong tendency to prefer feeling. A preference for feeling is associated also with extraversion and intuition. Combining all these preferences yields a composite extraverted-intuitive-with-feeling-auxiliary type profile. An examination of the type profiles of the two groups shows that the distribution among counselors is bimodal, with the two types extraverted-intuitive-with-feeling auxiliary and introverted-feeling-with intuition as auxiliary being most frequent (see Figure 2). The mode for the noncounselors is introverted-intuitive-with-feeling auxiliary. As indicated above, membership in the counseling group was correlated significantly with preferring extraversion

TABLE 5
CORRELATIONS AMONG MBTI SCALES AND DABROWSKIAN VARIABLES

Measure	E-I	S-N	T-F	J-P
MBTI scales				
Extrav.-Introv. (E-I)		.14	-.29	-.10
Sensation-Intuition (S-N)			.31	.27
Thinking-Feeling (T-F)				.44***
Dabrowskian variables				
Psychomotor OE	.07	.23	.01	.003
Sensual OE	-.21	.09	.27*	.21
Intellectual OE	.24	.20	-.13	-.17
Imaginational OE	-.25	.22	.27*	.37**
Emotional OE	.09	.24	.18	.13
Transforming	.26*	.22	-.20	-.36**
Developmental level	-.05	.44***	.20	-.01

Note: Positive correlations indicate association with the second member of a pair of functions, negative correlations indicate association with the first member of the pair; e.g., Transforming correlates with I, N, T, and J.

* $p \leq .05$.

** $p \leq .01$.

*** $p \leq .005$.

and perceiving and with a stronger preference for feeling than was typical of the noncounselors. There is a trend for the whole sample for the S-N scale to correlate positively with T-F and J-P (i.e., S, T, and J tend to go together, and so do N, F, and P). In other words, each of the function pairs tends to be related to the other and to Myers' index of preference for judging or perceiving in outer life (J-P).

These intercorrelations are, on the average, much higher than those reported by Myers in the *Manual* (32, p. 11) for a total of 8340 high school students and college freshman. Perhaps this difference has something to do with the higher age—and thus, possibly, greater degree of preference crystallization—of the present sample. Another possible contributing factor is that most of our Ss were women (30 of $N=42$), for whom, Myers reports, some intercorrelations are higher.

Three significant correlations between MBTI scales and Dabrowskian variables were noted, S-N with developmental level, J-P with imaginational OE, and J-P with transforming (Tr). The correlation between intuition (N of the S-N scale) and developmental level is in line with results of certain previous studies reported in section II (12, 42, 50). Those findings also indicate a trend toward association of intuition with personal growth indices. Figure 2 shows the distribution over Jungian types of Ss rated at different levels in the present study. The scores of Ss judged to be "transforming" are marked with an asterisk. Of these, the two persons having the highest level scores in the entire sample (3.0 and 3.1) are intuitives with thinking auxiliary. One other transformer is also of this type, one is intuitive with feeling auxiliary, and one is its reverse, feeling with intuition auxiliary.

Decades of clinical observation support the Jungian theory that an initial preference for any one of the four functions is compatible with a capacity for individuation; all four types were observed to individuate. Jung does not seem to have made statements concerning the relative frequency of individuation among the types. The significance of the present results indicates either that Jung's individuation is not, in important ways, the same as Dabrowski's emotional development, or that those who prefer intuition are in fact more likely to individuate. Apparently, as discussed in section II, the two theories share a number of similarities. In addition, the preponderance among Jungian analysts of intuitives (3, 4, 41) and the fact that the originator of the theory of individuation had strong intuition (51, p. 72) might indicate a certain compatibility between the function and the process. Therefore, there seems to be support for the interpretation that growth and transformation are more likely if intuition is well developed.

INTROVERTED SENSATION		INTROVERTED INTUITION			
with Thinking	with Feeling	with Thinking	with Feeling		
1.2	1.4	1.7	3.0*	1.7	
1.4		2.6*		2.0	
		3.1*		2.1	
				2.3*	
				2.4	
NC=2	NC=1	NC=3	C=1	NC=6	
INTROVERTED THINKING		INTROVERTED FEELING			
with Sensation	with Intuition	with Sensation	with Intuition		
	1.1		2.1	1.8	
	1.9			1.9	
	1.9			2.1	
	2.0			2.2	
				2.4*	
	NC=4		NC=1	C=5	
EXTRAVERTED SENSATION		EXTRAVERTED INTUITION			
with Thinking	with Feeling	with Thinking	with Feeling		
	2.3	1.6	1.4	2.0	
			1.7	2.2	
			2.6	2.2	
				2.3*	
				2.8	
	C=1	C=1	NC=3	C=5	
EXTRAVERTED THINKING		EXTRAVERTED FEELING			
with Sensation	with Intuition	with Sensation	with Intuition		
1.3	1.4	1.7	2.0	2.1	
	2.0	1.8		2.2	
				2.4	
NC=1	C=1	C=2	NC=1	C=3	

FIGURE 2
DEVELOPMENTAL LEVEL SCORES OF Ss WITH DIFFERENT MAIN
AND AUXILIARY FUNCTIONS

Note: Scores are for individual Ss. Asterisks indicate Ss with the transforming characteristic. NC = noncounselors. C = counselors.

Personal growth, even toward the actualization of a potential that was there all along, requires a series of fundamental changes in the psychological *status quo*, a venture into the unknown. Perhaps it is a bit easier for those with strong intuition, who are more comfortable with the unseen, with future possibilities, to follow this course than for those whose intuition is not as well developed. "In intuition," says Jung (21, p. 453), "a content presents itself whole and complete, without our being able to explain or discover how this content came into existence." Potential for development, or an image of the goal of development (Jung's self, Dabrowski's personality ideal), presents itself as a reality to the intuitive, who is disposed already to seek out and to try to actualize such nonconcrete realities, to have faith in the vision. A person in whom sensation is the uppermost function generally does not consider a thing known unless it is clear how it is known—i.e., seen, for instance, or touched. For intuition, inner vision (whether directed outwards or inwards) is the decisive sense and "I just *know* it" a trustworthy statement. The inner search, then, for an as yet unmanifest self may well be a process more congenial to the individual with strong intuition.

Another intriguing result noted in Table 5 is the strong correlation of Myers-Briggs' Judging (J) preference with the transforming characteristic. A high J score reflects a preference for a planned, orderly outer life (33). Those showing the transforming type of personal growth, it will be recalled, have among other characteristics a tendency to plan and organize their lives around their efforts to achieve specific personal goals. This correlation can be taken to imply that the greater autonomy of transforming Ss leads them to shape and channel their own lives towards the fulfillment of their ideals, rather than allowing the random flow of events to guide them, as a preference for Perceiving (P) would indicate. (Of course, the high J score by itself says nothing about the content of the goals around which the outer life is organized; this can only be inferred from the correlation with transforming.) While unexpected, this correlation is consistent with theory and offers further corroboration of the premise upon which this study is based: namely, the appreciable degree of convergence between the theories of Jung and Dabrowski. A more detailed study of the relationships between the two theories is provided by Lysy (29).

The fact that neither J-P and intellectual OE nor J-P and emotional OE are correlated underscores a separate identity for the transforming characteristic, even though it is derived from T OE and E OE. Transforming also correlates mildly with introversion, which is to be expected in view of the transformer's greater involvement with the inner life. The fact that the

correlation is not strong probably reflects the obvious influence of many other factors besides the relatively rare transforming characteristic in introversion.

Table 5 shows that intuition (N) is correlated strongly with developmental level but only slightly with T OE and E OE. However (as shown in Table 4), T OE and E OE are highly correlated with developmental level. This suggests that intuition is distinct from E and T OE's. In standard multiple regression, S-N taken alone accounts for about 19.5 percent of the variance in determining level, and about 7 percent after E and T. This means that sensation is more prevalent at the lower end of the developmental scale, while intuition is more prevalent at its upper end. When the three variables are combined, their multiple correlation with level is .74 accounting for 55 percent of the variance in determining level (see the following section V-E).

It is interesting that there is so little correlation between the Jungian functions and Dabrowskian overexcitabilities, the one exception being imaginal OE with perceiving. This general result can be interpreted to mean that the OE's and the functions are different constructs—the functions referring to preferred and *habitual* modes of dealing with the data of experience, the overexcitabilities referring to the *heightened* capacities for both apprehending and generating the data of experience. Another possibility is that the different nature of the two theoretical models—the functions being coupled pairs of opposites, the overexcitabilities being parallel independent dimensions—puts constraints on the level of correlation. It would, therefore, be interesting to see if the new measure of the Jungian functions introduced by Loomis and Singer (27) in which the pairs are uncoupled, would produce higher correlations.

E. MULTIPLE REGRESSION ANALYSIS OF DETERMINANTS OF DEVELOPMENTAL LEVEL

In the original formulation of Dabrowski's theory, three forms of overexcitability are said to be critical for attaining higher developmental levels: emotional (E), intellectual (T), and imaginal (M). Earlier we addressed the question whether, as originally thought, psychomotor and sensual overexcitabilities are impediments to personal growth; as reported, they were found to have a mild but positive correlation with developmental level and with E and T. We are now concerned with the question of how much of the variance in developmental level is accounted for by E, T, and M.

Regression analysis by means of hierarchical procedure (34) was used to test for interrelationships among the independent variables. This procedure

assesses the total influence of each variable in determining the dependent variable. The variables are entered in a predetermined order singly or in groups. The results are shown in Table 6 under Equation 1. The OE's as independent variables were entered in two steps, E, T, and M as the trio expected to be the major determinants of developmental level on the basis of the theory, and subsequently P and S as minor determinants. The results show that indeed E and T are statistically significant determinants of developmental level but M is not. E and T account for 48 percent of the variance in developmental level, while M contributes no more than 2 percent. When T and E alone are entered into regression analysis, the equation takes the following form:

Equation 1: Developmental level = $1.52 + .064T + .055E$, where the *t* ratios for the two coefficients are 3.1 and 3.4. Since the lowest developmental level score that can be given under our rules of measurement is 1.0, it would seem that a constant of about 1.5 is too high, which it is. This result means that when $E = 0$ and $T = 0$ the expected level will still be about 1.5 (the 95 percent confidence interval for the value of the constant extends from 1.33 to 1.71. Addition of M, P, and S into the equation does not bring much change except to lower the *t* ratios for the coefficients.

Of all the Jungian variables examined in our study, only the function of intuition (N) emerged as a significant contributor to determining developmental level. (This is shown at the bottom of Table 6. Higher scores, above 100, on the S-N continuous scale indicate a preference for intuition; lower scores, below 100, a preference for sensation.) The addition of S-N to E and T pushes the R^2 from .48 to .55. The increase in variance accounted for by intuition is thus 7 percent. The regression equation takes on a more satisfying form because now the constant drops to the vicinity of 1.0:

Equation 2: Developmental level = $.82 + .058T + .048E + .0065S-N$, where the *t* ratios for all coefficients are greater than 2, and the 95 percent confidence interval for the constant extends from .21 to 1.42.

This result implies that besides the error term in unexplained variance, there might be other as yet unidentified variables which are significant in determining developmental level. S-N has low correlation coefficients with the OE's (see Table 5), the highest with E (which is only .24), but a higher correlation with developmental level (.44). Thus, it stands apart. The OE's are intercorrelated but not to such a degree as to raise the specter of multicollinearity, which appears at correlations above .8 (25); the correlation coefficient of E with T is .41. Their respective correlations with level are .59 and .57.

TABLE 6
MULTIPLE REGRESSION ANALYSIS OF DETERMINANTS OF DEVELOPMENTAL LEVEL

Step	Variables entered	Unstandardized regression coefficients	Standard error of the coefficients	F	Multiple R	R ²	Adjusted R ²
<i>Equation 1: Explaining developmental level scores in terms of forms of overexcitability</i>							
1.	E	.046	.018	6.73*	.59	.35	
	T	.065	.020	10.17**	.69	.48	
	M	.030	.023	1.66	.71	.50	.46
2.	P	.017	.043	.16	.71	.51	
	S	.025	.026	.91	.72	.52	.45
<i>Equation 2: Explaining developmental level scores in terms of intellectual and emotional overexcitability and the intuition function</i>							
1.	T	.0584	.0194	9.05**	.57	.32	
	S-N	.0065	.0026	6.05*	.66	.44	
	E	.0479	.0155	9.55**	.74	.55	.51

Note: E = emotional overexcitability, T = intellectual overexcitability, M = imaginal overexcitability, P = psychomotor overexcitability, S = sensual overexcitability, S-N = sensation-intuition function pair. Positive correlation with the S-N function pair indicates association with intuition; negative correlation would have indicated an association with sensation.

* $p \leq .05$.

** $p \leq .005$.

This analysis, then, has identified three determinants of developmental level: two of these are Dabrowskian and one is Jungian. It is not without satisfaction that we see this empirical intersection of two distinct theories designed to describe and explain the sequence and dynamics of personal growth. It suggests that further understanding of personal growth and an empirical grasp of individual differences in this regard will come more readily from the perspective of complementation of comparable theories than from a perspective of their incommensurability.

Our regression analysis has several limitations. It rests on the assumption of a linear relationship between the dependent variable of developmental level and the independent variables of the overexcitabilities and the intuition function. Analysis of residuals (the difference between each S's score on developmental level and its estimate obtained from the regression equation) suggests, however, that this relationship might not be linear, but instead it might be the result of a measurement error, or of an error in the specification of the model. One source of measurement and specification error which can be identified is the conservative scoring system used with the Overexcitabilities Questionnaire. Each item of the OEQ was given 0 or 1 unit for each OE. Weak as well as strong and highly differentiated OE responses received the same value of 1 per item. A partial corrective was provided by the circumstance that persons with more abundant and more intense OE's produce OE responses more often. But the net result is that at the lower end of the spectrum of developmental level scores, OE's tended to be overestimated; the source of the error is in part in the uncertainty of deciding in borderline cases whether or not to assign a given OE, with the end result that credit is given for a weak manifestation of an OE where in the light of the experience we possess now it would have been more correct to give none (Table 1 gives a good illustration of the increase in interrater reliability with each successive study). On the other hand, strong and highly differentiated OE's are easier to recognize, thereby reducing error. Consequently, the residuals at the upper end of the regression line—that is, the upper end of the developmental level—are smaller in magnitude than those at the lower end.

The problem of possible nonlinearity in the relationship between developmental level and the independent variables cannot be resolved at the present because no transformation of data attempted thus far has produced a better fit than the linear one. Much depends on obtaining cases with higher level scores (above 2.5), as well as those with lower ones (below 1.4). A glance at Figure 1 will make this clear. Preliminary results indicate that inclusion of cases with higher level scores tends to increase the variance accounted for by T and E.

VI. A GUIDE TO DISTINGUISHING LEVELS IN RESPONSE MATERIAL

In a study of this kind, the qualitative data are at least as valuable as the quantitative results. The advantage of the OEQ and the DRI over multiple-choice instruments is that their free-response format provides the reader with more idiographic information about the respondent's personality. The investigation of individual psychological development must proceed by methods which give us as full a picture of the S's individuality as possible.

The level score for each S was obtained by averaging the level ratings of responses to all six questions on the DRI. Many Ss whose overall score was somewhere in the II range, for instance, gave individual responses rated I, I-II, II-III, or III. For the sake of clarity, the examples given below were chosen from item responses rated I, II, and III only.

1. *Think of times when you are or have been strongly affected by what others think of you or when you have compared yourself in some ways to others. Describe these situations and your feelings.*

Those Ss whose response to this question received a I rating said that they did not really care what others thought of them; some mentioned situations involving financial or job security as exceptions. Level II-rated responses were from Ss who said they were strongly affected by the evaluations of others but did not mention comparing themselves to others in terms of values of their own; nor did they give any evidence of having self-development goals. They mentioned external, material criteria of evaluation, and such psychological areas as intelligence, competence, and ways of conducting themselves in relation to others. Ss whose responses were rated III seemed, judging by the incidents they described, to be most strongly affected by others' views of them as psychological beings. They compared themselves to others in terms of their own standards for themselves, their own value hierarchies. They described programs of self-change. One woman was amazed to discover that a friend had, on first meeting, thought her cold and aloof; she now made continual efforts to overcome her "unnecessary timidity" by coaxing herself into greeting people and talking to them.

2. *Think of those questions that cause strong doubts within you, that frustrate you and perhaps result in anxiety and depression. The problems should be limited to struggles which are internal (for example, philosophical, sexual, emotional), not struggles which are primarily external (for example, a purely economic problem). Describe these problems and your feelings.*

Level I-rated responses mentioned struggles to get oneself to work steadily

or to refrain from overindulgence, or strong doubts about the motivations of others. Of course, psychologically more differentiated individuals might well also have these concerns; the fact that the responses mentioned no awareness of an ideal and no altruistic concerns is what led the raters to assign them to Level I. Level II respondents described conflicts over sex roles or sexual-love feelings for more than one person, worry about their own motives, fears that they may prove to lack some psychological quality (such as a capacity for sustained intimacy) which they found desirable, fears of death, violence, and sexual abuse, disturbance over the unequal distribution of wealth in society. One S mentioned an inability to decide between two established religions, stressing the cultural elements of each; another said, "I feel like I 'ought' to believe in God," but added that she usually only thinks about the matter on Sundays. By contrast, the religious and spiritual struggles described by Ss giving level III responses were transdoctrinal, seeming sharper and more all-pervasive. There was a definite multilevel component to their conflicts over differing behavioral tendencies, the desired behavior being seen as higher and more worthy than the tendencies they struggled against. They described a desire to contribute to the welfare of mankind, either politically or scientifically, and their anxiety about not actively pursuing this goal or their doubts as to whether they were capable of it.

3. *Recall times when you have felt inadequate, unworthy, not good enough. Possibly you felt frustrated with what might have been lacking in yourself (abilities, skills, talents, personal qualities, etc.). Describe these situations and your feelings.*

Those whose responses were rated at level I said they felt unworthy when rejected by the schools of their choice, when snubbed for not dressing stylishly, or when another person pointed out flaws (not specified in the response). They were frustrated by their own academic shortcomings. Level II responses also described feelings of academic inadequacy but never mentioned this area alone as did the level I's; they also felt unworthy when another pointed out flaws, but these were more strongly psychological and described in more detail than was the case with the level I's. In addition, various level II Ss felt inadequate professionally, financially, intellectually, artistically, and socially. Some felt unable to express their feelings in words or to live up to others' expectations. One man felt unworthy of his wife because he was unable to control his temper with her and felt she deserved better in return for the sacrifices she had made for him. Several level II's feared they would prove unworthy of others' love, confidence, or praise. Again, the greater complexity and internalization of level II as compared to

level I responses was carried a step further in the case of level III's. They felt inadequate because of a lack of direction in life or of genuine career commitment, or because of behavior that was inauthentic in terms of their deeper selves. They described failures of empathy and of self-discipline, failure to live up to their own potential, to develop their own talents, or to behave in accordance with "a higher morality."

4. *Consider those situations which have caused you to feel frustration or anger toward yourself. They may have been over something you did and later regretted, as well as over something you feel you should have done, but did not do. Likewise, you could have become angered with yourself for having felt a certain way, or believing something you no longer feel is true. Describe these situations and your feelings.*

Level I responses mentioned regret, revulsion, and anger at having sacrificed themselves or allowed themselves to be exploited for something worthless. On being shown up as academically inadequate, one man said he was angry at himself for not having remediated his deficiency sooner. One woman was angry at herself for being too human and considerate, not brutal, aggressive, and cruel enough in a certain (unspecified) situation. Some Ss giving responses rated at level II were frustrated with themselves for their lack of life-management skills, such as the ability to organize or to set medium-range goals (such as finding a job) and pursue them systematically. Some were angry at their own lack of assertiveness (i.e., turning down unwanted dates or applying for admission to a preferred program of study) or frustrated at their inability to decide between alternative courses of action, both seen as equally desirable. One S was angry at herself for speaking without thinking or being happy when a friend was unhappy. Since this response was not further elaborated, it was taken to indicate the overidentification with others and tendency to feel negatively towards oneself in response to others' actions as described in section V-C above. Another felt regret at having invaded a friend's privacy by unannounced visits; she enjoyed being visited this way, the friend evidently did not, "but I kept trying."

Two Ss whose responses to question four were rated at level III were angry at themselves for taking the easy, lower way of passive enjoyment rather than the path of intellectual and aesthetic accomplishment, which was seen as higher and more difficult. Inauthentic behavior, lying or in some way not being true to oneself, was mentioned several times; allowing personal relationships to lapse through fear of intimacy was seen as a betrayal of self and others. Anger at the self was also aroused by failure to behave sensitively and rationally, or to accept others as they are rather than trying

to manipulate them into behaving in a certain way. One S felt regret, embarrassment, and shame at having allowed defensive anger to get the best of him.

5. *Think if there have been times when you have tried to stand back and look at yourself objectively. Upon what specific things did you reflect, if you did so?*

After a divorce, one level I S tried for the first time to do this, in order to decide on a set of life goals. Apparently the respondent resorted to self-analysis only under extreme stress and only on one occasion, and the life goals arrived at were not specified. Others spoke of self-analysis solely in terms of academic ability or career objectives. One said he had tried to be objective about himself in order to determine whether he had recently made the right decisions (situations not specified); he was not sure he had, but felt "you have to learn to live with it." This is a nice example of what Dabrowski would call a lack of positive maladjustment, with the environment or with oneself as one currently is, which if present could lead to development. Other Ss said either that they tried to avoid self-examination or that they were incapable of it.

Some Ss whose responses were rated level II said they reflected on their sexuality, the fact that others found them sexually attractive, the problem of accepting their sexuality as it was rather than feeling obliged to embody a social stereotype, what they really wanted from heterosexual relationships. One S showed clearly the ambivalence and ambivalence described by Dabrowski as characteristic of level II (8, p. 38 ff.); she alternated between feeling she had nothing in life and no achievements to show for a lifetime of effort, and feeling that things were not so bad since she was healthy, worked in a congenial environment, and did in fact consistently succeed at difficult tasks. Another woman reflected on her tendency to criticize others and on her pleasure in helping them in small concrete ways. Evidence of disharmony with the self was shown by an S who worried about psychosomatic symptoms; another was concerned that others took him to be displaying emotions he himself was unaware of feeling. Some questioned whether they had anything special to offer as members of their professions. One realized after the death of a parent that she would have to take control of herself; temporarily, she doubted her own strength and will to go on. Another S listed a series of positive qualities she had found in reflecting on herself, aided by others' perceptions of her. She said she found it impossible to be objective on her own, since her changing moods caused her to take opposing views of herself.

In general, those Ss giving responses rated at level III showed more

autonomy in their self-examination. One *S* said he was gradually detaching from an earlier tendency to measure himself in terms of social norms inappropriate to him. He was trying to strike a happy medium, he said, between excessive harshness in judging himself by a standard of absolute perfection and being too prone to excuse himself "for my lapses in living in accordance with my ideals." He became reconciled to being "torn with self-doubts" and doubts about the merit of his work through reading the biographies of eminent people; since they had similar feelings and still produced something worthwhile, he might yet be capable of the same.

In connection with applying for jobs or for admission to schools, other *Ss* reflected on their interests, formative influences, and attributes that might enhance or hinder their performance. Among the former, creativity, openness, organizing ability, and past accomplishments were mentioned; some of the latter were ineptitude at public speaking, intolerance of certain factions within the chosen profession, and wariness of its political structure. In general, the level III responses went into more detail in assessing professional fitness than did the level II's. One *S* said he felt competent now that he was doing work that meant something to him.

An important element in level III responses was reflection on personal relationships. One woman said she withdrew for a few days after the ending of a relationship to grieve, reflect on the experience, and put it in perspective. A man considered his marriage and the foundation his relationship with his wife gave him. Another woman said she realized that while her directness with others was good, she could be less caustic about it.

6. *Think of your "ideal self" and those qualities which you think are best for an ideal life. What attributes have you most dreamed of having?*

One *S* whose other DRI responses were rated at level I made no response to this question. This is interesting in view of the theoretical statement that the dynamism of personality ideal is not influential below mid-level III. Several said that they were not ideal and did not try to be different than they were, that no one is ideal. Some felt that having lots of money would make for an ideal life; one *S* added the ability to learn languages easily. Another added fun, fast cars, and beautiful women; in order to be able to obtain these, he wanted to be charming, witty, glib, outgoing, dashing, and debonair. A woman also wanted to be witty, as well as more aggressive, less sensitive, and able to lose her heart as easily as her head. Another *S* thought it would be ideal to be a leader with the ability to control others. Another listed the following ideal qualities, in this order: efficiency, intelligence, strength of character, tactfulness, friendliness, loyalty, responsibility, courage, patience, good looks, sense of humor.

Many of those *Ss* whose response were rated at level II also showed a tendency simply to list attributes. However, their ideals did not include material things but focused on psychological qualities, including, for one *S*, "the ability to reject the material side of life" and to rise above adversity. Several longed for self-confidence and the ability to accept life and themselves. Job satisfaction and physical fitness were mentioned by a few, as were honesty, empathy, self-expressiveness, openness, genuineness, and sensitivity. One woman wanted to find a midpoint between her present extremes of dependence and independence and being "able to sit at home frequently without being bored" vs having to go out all the time. Another *S* felt it would be ideal not to want revenge even for an intentional harm, to be able to change behavior that turned out to be harmful to oneself or morally wrong, to be able to communicate even with uncongenial people, to be able to make people happy through laughter ("I believe this is the greatest gift one can give his fellowman").

The level III responses, in some cases, included some of the ideals also named by II's (honesty, spontaneity, independence, sensitivity, receptiveness, the respect of others, and self-respect) or even I's (sense of humor), but also included joyousness, flexibility, humility, diligence, determination, social-mindedness, clarity, vision, insight, and spiritual depth and composure. These *Ss* wanted to be an example to and a good influence on others, to be consistently supportive of and caring for others, especially members of their immediate families. It was very important for them to contribute to the life of the community through creative intellectual or service work.

In general, the DRI responses rated level I seemed to show a more primitive, insular type of personality, concerned mainly with material matters and the external, easily visible aspects of psychological traits and situations. Level II responses were more detailed, showing a more complex—if sometimes confused—and more intense inner life; relationships with others seemed more important and more highly differentiated. Level III responses showed an awareness of something higher and better in their authors, a sense of growing toward it through attempts to inhibit their own behaviors incompatible with the ideal. They chose, although not consistently, to be true to their deepest and best selves. They wanted to be creative, contributing members of the human community.

VII. CONCLUSIONS: THE NATURE OF PERSONAL GROWTH AND ITS PARAMETERS

This study evolved from the initial idea of investigating the parameters of personal growth in two contrasting populations, one presumably more actively engaged in personal growth and one less so, to a test of two theoretical models of personal growth. The two populations we chose failed to show any appreciable differences in terms of personal growth. This result leads to one of two conclusions: either that professing interest and engagement in personal growth is no guarantee that personal growth is taking place within the professing individual; or, that our concepts of what constitutes change and growth are too inclusive to differentiate between two graduate student groups. Investigations of the two theoretical models, however, besides revealing important areas of convergence, produced also some interesting surprises.

A. THE TWO THEORIES: SIMILAR FOCUS, DIFFERENT CONSTRUCTS

Jung's and Dabrowski's theories were chosen because they share a number of similarities. They both stress the significance of the moral dimension of personal growth. They both view the difficulties of the initial phase of the process as resembling mental illness, a sickness of the soul, a disintegration and fragmentation which are a necessary part of "cleaning house." Both view development as growth toward wholeness, from egocentricity and oneness in psychological functioning to a more universal viewpoint, synthesis of conflicting traits, and balance of psychological functions. Both view psychic tension as a developmental necessity.

The two theories differ in the constructs they use. For Jung, developmental tensions issue from polarization of opposites within the personality; sensation *vs* intuition, feeling *vs* thinking, extraversion *vs* introversion. The main function is dominant and conscious, the inferior function is unconscious and because of that all the more powerful in its effects when it does erupt into consciousness. For Dabrowski, psychological functioning proceeds in parallel dimensions of the five overexcitabilities of which any one may be strong, weak, or virtually absent in a person. For Jung the source of developmental tension is generated by the conflict of opposing functions, for Dabrowski by the tension between the higher and the lower in oneself.

B. PROBLEMS OF MEASUREMENT: INSTRUMENTS AND SUBJECTS

The two theories describe modes of psychological functioning whose characteristic components can be measured. Jung's psychological functions

are captured by the Myers-Briggs Type Indicator, Dabrowski's by the Overexcitabilities Questionnaire. Jung's psychological functions and Dabrowski's overexcitabilities focus on similar domains: a sensorimotor domain (the sensation function, sensual and psychomotor OE's); a manner of dealing with emotional relationships and the affective life (the feeling function and emotional OE); a cognitive mode (the thinking function and intellectual OE); and a way of processing subliminal perceptions and dealing with imagery and other nonconcrete realities (intuition and imaginational OE).

Despite these similarities, no highly significant correlations were found between the psychological functions and the overexcitabilities; apparently the differences between these constructs outweigh the areas of correspondence. The functions are preferred and *habitual* modes of apprehending and dealing with the data of experience; and all people have these modes; the overexcitabilities are *heightened capacities* both for dealing with and for generating the data of experience; not all people have these capacities. Still, even acknowledging these differences in conception, it does seem puzzling that there are no higher correlations between at least some of the functions and OE's. It is possible that the differences in the model and the method of measurement have something to do with this. The MBTI forces on the respondent a choice, on each item, between two functions; if one member of the pair is preferred, the other must necessarily be rejected. The OEQ sets no such limit: each overexcitability is scored for its frequency of representation independently of the strength of the remaining OE's. Loomis and Singer (27) have challenged the forced-choice method of assessing the functions and developed an instrument in which it is possible for a person to score equally high on preference for any function. These authors have observed that a number of Ss object to the forcing of choice and would prefer having the option of choosing or rejecting both items in the pair. It is interesting to speculate that more highly significant correlations among functions and the OE's might be found if the MBTI were to be replaced by the Singer-Loomis Inventory of Personality.

Developmental level—which seems to show important similarities to stage of individuation—was measured by the Definition-Response Instrument. In Dabrowski's theory, the developmental scale extends from 1.0 to 5.0. Our Ss' level scores extend from 1.1 to 3.1, but in our own as well as in other research studies most scores fall between 1.4 to 2.6. Personal growth as conceptualized by Jung and Dabrowski appears to emerge somewhere between 2.0 and 3.0. Ss in the range above 2.5 (*cf.* Figure 1) become scarce, making research on the phenomenon difficult. This sheds some light on the

difference between our initial expectations and our findings. The kind of personal growth which we find in most counseling psychologists (and presumably would find also in other people who similarly identify themselves as being interested in personal growth) is different from the nature of inner change as described by Jung and Dabrowski and which is associated with what Dabrowski calls higher level of development. Implicit awareness of the distinctions between these two types of growth is certainly not new. In this study, they have been referred to as "conserving" and "transforming."

C. "CONSERVING" AND "TRANSFORMING" AS TYPES OF PERSONAL GROWTH

Personal growth is usually understood in terms of gains in flexibility, creativity, openness to experience, increased concern with one's own and other's psychological states, expansion of emotional and sensual experience, deepening of self-understanding and understanding others. This is the type of change that psychologists generally seek to foster in their clients, having found through their own experience that these changes lead to fuller and more satisfying living. Yet this is not a complete description of the kind of inner growth that Jung and Dabrowski were describing. Their idea of personal growth centers on a deeper search associated with moral questioning, existential awareness, self-judgment, and the discovery and development of an autonomous yet universal hierarchy of values. This is personal growth guided by higher internal principles and a deepening sense of one's own essence. Here the movement is clearly from "lower" to "higher," from "what is" to "what ought to be," and the goal is the ideal self or personality ideal. Since this type of growth is concerned with far-reaching transformation of the individual, we called it *transforming*. The other type of growth, described in the first sentence of this paragraph was called *conserving*, because it involves exploring one's current identity and individuality rather than reshaping oneself in response to a deeply felt ideal.

The conserving type of growth can proceed with great gains within the boundaries of levels II and II-III. This conclusion is supported by Woerner's finding (54) that there is no difference in the distribution of Loewingerian ego levels in a population of therapists and in a population of community residents. If the counseling profession had any edge on personal growth, there should have been found a higher proportion of higher ego levels among psychotherapists. Assuming that Woerner's sample was not atypical, her results confirm our findings and imply the need to distinguish types of

personal growth, since much growth in therapy appears to take place within a given level, of whatever theoretical framework.

Transforming characteristic (Tr) was derived from analysis of responses manifesting emotional and intellectual overexcitabilities (45). Seven characteristics teased out of these overexcitabilities were higher in the transformers: hierarchical way of looking at things, self-evaluation, sense of self, relating to others, problem-solving attitude, introspection, and curiosity. Two characteristics were found to be higher in the conservers: negative reaction to self, and overidentification with others. Hierarchical perception and judgment were totally absent in the conservers.

Of all the Jungian functions judging (J) correlated most strongly with Tr. This correlation may be taken to imply that the greater autonomy of transforming Ss leads them to shape and channel their own lives toward the fulfillment of their ideals, rather than allowing the chance flow of events to guide them, as a preference for perceiving (P) would indicate. This correlation is consistent with theory and offers further evidence of the kinship between the two theories.

D. THEORY CORRECTION

Our data allowed us to test one main tenet in each theory: in Jung's the thesis that all four psychological types (sensation, intuition, feeling and thinking) are equally capable of individuation; in Dabrowski's that three of the five forms of overexcitability (emotional, intellectual, and imaginal) are critical to the advancement of inner growth. Our results show the intuition function (N) to be more significant for personal growth than the other three. Of all Jungian functions this one was found, in multiple regression analysis, to contribute significantly to developmental level.

Of the three Dabrowskian variables, two were found to be critical contributors to determining developmental level: emotional OE and intellectual OE. The third, imaginal OE, as demonstrated by multiple regression analysis, was not a significant factor. In our view, supported also by other studies (40), imaginal OE is a critical component of creativity, since artists score on it higher than any other group. Creativity and developmental level, however, are not necessarily linked.

E. EMPIRICAL INDICES OF PERSONAL GROWTH

The results of our study enabled us to identify two primary indices of personal growth, one more general and one more specific. The Dabrowskian

aspect of a more comprehensive model of personal growth is the combination of the two overexcitabilities, intellectual (T) and emotional (E), as the most significant determinants of developmental level; the Jungian contribution to this general model is intuition (N). The intuition function is distinct from either OE and provides an element which, although mentioned often in Dabrowski's exposition of his theory, has not been given the status of a term in the structure of the theory, nor has it been operationalized. But now we can state that, to a large extent, development in the sense intended by both theorists appears to be a function of the three variables, E, T, and N. Consequently, the strength of these three variables lies in the fact that they constitute an index of developmental potential which encompasses both the conserving and the transforming types of growth.

A more specific index of personal growth is the transforming characteristic. This, we might say, is an indicator par excellence because it so clearly embodies the essence of Jung's and Dabrowski's conceptions of what personal growth is about: individuation, the realization of one's personality ideal or the most authentic self. The transforming characteristic (Tr) was derived from emotional and intellectual OE's, yet it is distinct from them. It correlates significantly with the Jungian judging function (J). The fact that it correlates only mildly and nonsignificantly with intuition (*cf.* Table 5) is interesting in that it suggests the possibility of two orthogonal dimensions related to emotional development, one constituted by J and Tr, the other by E, T, and N.

In sum, the dynamics of personal growth appear to combine, in important ways, elements of both theories. This demonstrates once again that no one theory can suffice as a basis for a research program to investigate phenomena of such richness and complexity. Nevertheless, our results do imply that the number of variables necessary to account for the richness and complexity of personal growth is finite. The overall conclusion, then, is that personal growth is not a unitary phenomenon or a continuum of changes. Rather, it must be viewed in terms of distinct types of growth, levels of developmental advancement, and psychological capacities that constitute the individual's make-up.

APPENDIX

ITEMS OF THE OVEREXCITABILITY QUESTIONNAIRE (OEQ)

1. Do you ever feel really high, ecstatic, or incredibly happy? Describe your feelings.
2. What has been your experience of the most intense pleasure?
3. What is your special kind of daydreams and fantasies?
4. What kinds of things get your mind going?
5. When do you feel the most energy and what do you do with it?
6. In what manner do you observe and analyze others?
7. How do you act when you get excited?
8. How precisely can you visualize events, real or imaginary?
9. What do you like to concentrate on the most?
10. What kind of physical activity (or inactivity) gives you the most satisfaction?
11. Is tasting something very special to you? Describe in what way it is special.
12. Do you ever catch yourself seeing, hearing, or imagining things that aren't really there? Give examples.
13. Do you ever think about your own thinking? Describe.
14. When do you feel the greatest urge to do something?
15. Does it ever appear to you that the things around you may have a life of their own, and that plants, animals, and all things in nature have their own feelings? Give examples.
16. If you come across a difficult idea or concept, how does it become clear to you? Describe what goes on in your head in this case.
17. Are you poetically inclined? If so, give an example of what comes to mind when you are in a poetic mood.
18. How often do you carry on arguments in your head? What sorts of subjects are these arguments about?
19. If you ask yourself "Who am I," what is the answer?
20. When you read a book, what attracts your attention the most?
21. Describe what you do when you are just fooling around.

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