Locus of Control as Related to Personality Variables in Special Adolescent Populations

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LOCUS OF CONTROL AS RELATED TO PERSONALITY VARIABLES IN SPECIAL ADOLESCENT POPULATIONS

BY

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SPECIALTY PAPER
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Abstract

Locus of control refers to the individual's perception of the degree to which he controls the outcome of events in his life through his own behavior. Locus is further defined and related concepts discussed. Literature is reviewed, exploring determinants in the development of personal locus. Differential descriptions of the Internal and External individual are outlined, according to studies on locus as it affects personality and social interactions. Delinquent, socially maladjusted and dependent-neglected adolescents were tested and significant differences in locus and personality characteristics examined. Final discussion is directed to implications of the results of this study with regards to the needs of the children and the suggested role of the institution.
Acknowledgements

Internal locus orientation impels me to claim personal responsibility for this paper. At the same time, external awareness elicits the expression of appreciation to those who have propelled me toward this goal. Dave Skinner of Valencia Community College, who initiated my interest in psychology; Dr. Dan Hale; and my F.T.U. faculty committee have all been most helpful and supportive. Special thanks go to Dr. Burt Blau, a stimulating mentor whose persistent prodding and high standards I respect and value. I am keenly aware of the unfailing approval and patience of my husband, Laird, who encouraged my academic adventure.

This paper is dedicated to Dr. Bruce V. Moore, with a daughter's admiration and affection.
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There has been considerable recent interest in locus of control as a psychological concept, both as a measurable individual personality factor and as a factor related to current social problems. Locus research is appropriate to children at the Orange County Parental Home in both applications. This paper is concerned with the theoretical causes of Internal-External orientations and the resulting personality variables, especially with regard to socially maladjusted youth from the lower socio-economic level.

Internal locus of control refers to one's perception of a causal relation between his behavior and his ability to effect subsequent reinforcement or punishment. External locus of control refers to one's belief that the outcome of a situation is controlled by external factors such as luck or other people or powers. Rotter (1966) states:

A perception of causal relationship need not be all or none, but can vary in degree. When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful
others, or as unpredictable....we have labeled this a belief in external control. If the person perceives the event is contingent upon his own behavior or his own relatively stable characteristics, we have termed this a belief in internal control. (p. 261)

Phares (1976) speaks of locus as a continuum, with persons who feel they control the occurrence of reinforcement through their own behavior (internals) at one extreme, and those who feel reinforcement occurs independently of their actions (externals) at the other extreme. He points out that locus of control may be seen either as a narrow expectancy in a specific situation or as a relatively stable characteristic, and that this may vary with the situation. Generally, the internally oriented individual believes he has personal mastery over his own life's course, and also some individual capability of influencing political institutions (Mirels, 1970). Feeling he has responsibility for himself and that he can have an effect on his environment, the internal person is apt to be achievement-oriented and active. On the other hand, the externally-oriented individual is inclined to be passive and dependent, seeing himself either as the pawn of powerful other people or the helpless victim (or fortunate favorite) of fate. In greatly simplified terms, internal locus of control is waking
up in the morning and deciding what you are going to do that day; external locus of control is waking up and wondering what is going to happen to you that day.

While the Internal-External locus of control concept has been defined by Rotter and his associates in terms of social learning, psychologists with other orientations have developed similar concepts and have offered theories of the development of these concepts.

Erik Erikson (1959) sees the individual progressing through a series of psychosexual stages to adulthood. The mastery of each stage in turn enables him to successfully adapt and to reach maturity with healthy ego-identity and good personal adjustment. Developmentally, the child progresses from a completely external orientation to a responsible, autonomous, internal state. Erikson (1959) points out that each stage has its own positive and negative aspects; for instance, awareness of his own separateness around eight months of age not only prepares the child for autonomy but exposes him to separation anxiety. The initial "crisis" in infancy is the development of trust versus mistrust. This involves not only security and consistency in maternal care and support, but also leads to trusting the mother. In this sense,
trust is associated with cause and effect and is related to internal locus of control, while mistrust is seen as insecurity, lack of contingency in reinforcement, uncertainty and dependency.

Autonomy and pride come from a sense of self control and self-esteem. Loss of control (as in anal stage accidents) leads to self-doubt and shame. In wanting to be powerful like his parents, the child expresses his independence through initiative. Erikson warns of overcompensation in the relentless initiative of those who relate self-worth to what they do and produce rather than what they are; this would describe the extremely internal person. In the Industry-Inferiority stage, self-evaluation is based on mastery, eventually through thinking, experimenting, and planning. The pleasure of productiveness (internal locus) is learned; failure leads to a sense of personal inadequacy (external locus). Adolescence is a period of self-definition, arising from the selective repudiation and assimilation of childhood self-images into a new configuration, partially dependent on society's assessment of the individual. It is concluded that Erikson's developmental theory is consistent with the development of locus of control in progressing from external to internal orientation.
The humanistic approaches of Rogers and Maslow assume a striving toward responsibility, autonomy and self-actualization. Rogers' (1959) concept of self includes the "need for positive regard" from others, combined with frustration at their disapproval, which seems to describe external locus. There is also a need for positive self-regard. While inherent potential is genetically determined, the self-concept is socially determined. Rogers' fully functioning person is accepting and appreciative of himself and others. Positive self-regard is the key here, relating to Rotter's internal locus of control. Lack of positive regard and/or consistent negative feedback from others would diminish positive self-concept and lead to external orientation, apathy and depression.

Maslow (cited in Maddi, 1972) sees fulfillment, the move toward self-actualization, as the most important motivation but not the only directional force in the individual. He differentiates between deprivation motivation ("D-needs") as opposed to growth motivation, the actualizing tendency which leads to realization of potentialities. The deficiency-motivated person is dependent on outside sources to supply him with gratification and to repair his deficits, while the growth-motivated person seeks to
enrich and direct his own life through use of his inner resources (Goldenberg, 1973). These descriptions refer to external and internal locus, respectively. Beginning with physiological needs, progressing through "safety", "belongingness and love", "esteem" (including self-esteem and feelings of success) to self actualization, a trend is noted from dependence toward autonomy, which is similar to the development of internal locus.

Rollo May (1953) refers to the "outer-directed" person who suffers from lack of autonomy, powerlessness and the inability to make decisions for himself. He describes this type of individual as having a "feeling of emptiness which comes from feeling powerless to do anything in his life or the world." (p. 4). May sees this condition as the result of the person's long-term attitude toward himself and his inability to direct his own life which leads to despair and futility. He admits people get a sense of reality from others, but avers the need to guard against dependency on others for a sense of existence. This is comparable to external locus. May (cited in Maddi, 1972) blames contemporary society for fostering this attitude, charging that we tend to be performers for others, with our value based on society's judg-
ment of us, rather than living for, and acting as, ourselves. Similar to Rogers and Maslow, May (1953) states that every human being has a central need of fulfilling his own potentialities, and that joy is the result of using our own powers. This relates strongly to internal locus.

"Effectance motivation" and "competence motivation" are seen as personality basics by Robert White (Maddi, 1972). Effectance refers to the attempt to produce effects through one's own actions, and this is similar to internal locus. White sees exploratory behavior and play in childhood as crucial to the development of effectance, and believes this to be initially due to a biological need for stimulation and information. As the child matures, there is a need to become experienced and knowledgeable, and to deal with life's tasks in a competent manner. Society requires the child to do more things for and by himself as he matures, which leads to "competence motivation, involving a sense of competence and actual competence (not necessarily equal). Competence motivation and autonomy are clearly related to internal locus. Lack of competence or failure to have an effect through his own actions leads to external orientation.
Gordon W. Allport (cited in Maddi, 1972) writes of self-determination in terms of the "proprium", the phenomenological self which includes sense of body, self-identity, self-esteem, rational coping and properate striving. He defines properate function as proactive, future-oriented and psychological, which closely resembles the internal personality.

Alfred Adler (cited in Maddi, 1972) proposes innate striving toward superiority or perfection as the central core of personality, with the "will to power" as a basic drive. Movement toward this goal is related to internal locus. Adler, like Rogers, Maslow and Erikson, sees early family interaction as a determinant of the development of life style. It may be either destructive (as a result of parental disrespect or abandonment of the child) or constructive (due to parental respect and encouragement). The individual who suffers a deficit of respect and encouragement is likely to be dependent and externally oriented, while the individual who has received parental support has a more optimistic, internal locus of control.

In formulating his model of "Reality Therapy", William Glasser (1965) states that everyone has the same basic needs of giving and receiving love, and
feeling worthwhile, but that we vary in ability to fulfill these needs. Glasser puts emphasis on self-responsibility, expecting the individual to get his own needs fulfilled. He also points out that this responsibility must be earned, "preferably early".

The well-adjusted, responsible person has a "success identity" which permits him to maintain a sense of being in control of his own life and being able to cope with his problems. In present terms, this is internal locus orientation, grounded in reality rather than distortion such as the helpless, hopeless passivity which marks the external orientation.

"Learned helplessness" is a term originated by M. E. P. Seligman (1969) in describing the learned passive acceptance exhibited by those repeatedly exposed to unavoidable aversive conditions. Conducting animal experiments, Seligman, Maier and Overmier (in Seligman, 1969) found that dogs who were unable to escape shock despite attempts to avoid it soon discontinued howling and running about and appeared to take the shock passively, whimpering quietly. It was further found that animals who control the shock onset be any response did not become "helpless".

Thornton and Jacobs (1971) extended the animal experiments of Seligman to human subjects who were exposed
to both fixed and variable administration of mild shock. These subjects all exhibited learned helplessness within ten trials. Sixty percent said they felt they had no control over the shock, so why try; approximately 35% reported that they, after pushing one or two buttons, abandoned the idea of escape, and 5% gave no reason for their inactivity. Thornton and Jacobs concluded this helpless state to be similar to that of Seligman's dogs. Both studies illustrate attitudes of behavior associated with external locus of control. Seligman (1969, 1973) has suggested that human maladaptive reactions, particularly depression, are the result of ineffective control over one's environment. Phares (1972) points out a probable relationship between perceived lack of personal control and such occurrences as "voodoo deaths" and deaths in concentration camps. He notes that the notion of locus of control seems to work best in situations that permit a range of possible outcomes; conversely, locus is relatively unrelated to a highly structured task. Phares illustrates this by pointing out that even very external individuals flip a light switch and expect the light to go on.

Viktor Frankl (1963) asserts that the individual has freedom of choice as regards his attitude
toward and responsibility for meaning or purpose in his own existence. Himself the survivor of a concentration camp, Frankl views realization of meaning and will to fulfill this meaning not only as vital to adjustment but also to survival. Thus Frankl places primary importance on internal locus and self-determination as opposed to external passivity.

Raymond B. Cattell's "Source trait C" in personality analysis relates to ego strength and includes factors characteristic of internal locus of control such as responsibility, reality, and sense of worth (Cattell, 1965). He notes that almost all types of neurotics, as well as alcoholics, narcotics addicts, and delinquents are low in this trait, suggesting they are inclined to external orientation and such external traits as projection of blame and inability to assume self-responsibility.

The social learning process. In formulating the locus of control concept, Rotter (1966) designated social learning theory as basic. Social learning theory defines personality as learned behavior which is modifiable and which changes with experience; it is a result of the interaction of physiological factors, learned responses and acquired meanings. Rotter views behavior as goal-directed toward satisfying learned
needs, explaining that satisfaction of earliest needs is dependent on others, thus early goals are relationship oriented (Rotter, 1954).

The occurrence of behavior is determined not only by the nature or importance of goals or reinforcements, but also by the expectancy of whether these goals will be reached. When a reinforcement is seen as contingent on the individual's own behavior, its occurrence will increase the expectancy of reinforcement associated with that behavior in the future. If there is no perceived relationship between behavior and reinforcement, expectancy of repetition is minimal.

Rotter, Chance and Phares (1972) have stated this formula for behavior:

$$BP_x, s_i, r_a = f(E_x, r_a, s_i, \omega, RV_a, s_i)$$

The potential for behavior $x$ in situation $i$ with reinforcement $a$ is a function of the expectancy of occurrence of reinforcement following behavior $x$ in situation $i$ and the reinforcement value of $a$ in this situation. This formula may be expanded to include a variety of behavior potentials, situations, reinforcements, and values of these reinforcements.

Expectancy is based on prior experience, and variation in situations creates different expectancies. Chance (1959) reported that expectancies generalize to
a greater extent in situations where subjects see behavior as leading to the same goal, as opposed to situations in which behavior leads to different goals. Her study involved a testing situation in which subjects estimated their scores on two different tests and subsequently were given scores higher than their estimates on the first test. They were then asked to re-estimate their scores on the second test. The second test of half the subjects was closely related to the first in content, while the remainder had second tests which were not related to the first. Estimates on highly related unscored tests increased appreciably more than second estimates on different unscored tests. Chance therefore concluded that the extent of generalization of expectancy is related to similarity of goal. Crandall's (1955) study also supports this finding. One might question whether these findings actually apply to the similarity of the goal itself (a high score) or merely to the similarity of the task leading to the goal.

The growth or extinction of expectancies is also affected by whether success in the task is seen to be determined by chance or random factors, or whether reinforcement success is dependent on the subject's own skills or characteristics. Rotter,
Liverant and Crowne (1961) studied the skill-chance dimension and its relation to growth or extinction under four different reinforcement situations, using 160 subjects. The increase of expectancy of success following reinforcement in a skill task was highest, indicating that in skill situations success heightens expectancy more than in chance situations. Skill tasks were also found to be more resistant to expectancy extinction than chance tasks.

When reinforcement is perceived to be a chance or random occurrence, the task is subject to "gambler's fallacy"; the belief that failure increases the probability of success next time, and vice-versa. The conclusion was also drawn that if a subject perceives a task as a skill function, he expects to do better on subsequent trials because of practice. Generally, skill condition subjects lowered their expectancies after failures and raised them after successes more than did chance condition subjects.

Phares' (1957) study of expectancy changes in skill and chance situations also supports this conclusion. Inducing belief of control (skill) or non-control (chance) of rewards, he found greater and more frequent changes in expectancy in skill
rather than chance conditions ($t = 2.6$, $p < .004$) and noted that more experience gives more depth to expectation. There were more non-significant "unusual" shifts in expectancy with chance situations, as with the "gambler's fallacy" previously mentioned.

As the result of a study involving guessing trials with random opportunity to win or lose money, Crandall, Solomon and Kellaway (1958) concluded that expectancy statements are apt to be "wishful" when probability of an event is 50/50, but that increasing experience affects learning. A generalized human optimism is seen in their findings that (1) acquisition of expectancies for positive events is faster than for negative events, and (2) positive expectancies extinguish more slowly than negative ones.

The value of the reinforcement or goal is the other significant determinant of behavior, according to the "potential for behavior" formula. Studies suggest that the more inaccessible goal is more attractive. Mischel and Masters' (1966) experiment using 80 sixth graders indicated that the assessed value of a movie increased significantly with denial or cancellation of the film. When the projection of a movie was interrupted and any possibility of seeing the
remainder of the film was denied, children evaluated the film higher than they did when told the film would resume after a delay. This suggests an inverse relation between the value of a reward and expectation of attaining it.

Worell (1956) cites similar results in a study involving boys and their evaluation of levels of athletic merit. He views society as idealizing the achievement of high goals but associating the high value of these goals with low expectancy. This situation is related to cognitive dissonance, a condition of discrepancy between an individual's beliefs and his behavior. Painful dissonance between the real and the ideal may be diminished by various defense mechanisms such as rationalization, denial, repression, and intellectualization, by re-evaluation of the beliefs, or by more consonant experiences or behavior.

A different outlook is mentioned by Mischel and Masters (1966) who cite work by Turner and Wright (1965) showing that children rate a toy denied as lower in value than one which is permitted to them. This is apparently a "sour grapes" rationalization which obscures the true value of the reinforcement.

There is a clear linear relationship between
anxiety and the discrepancy between value of a goal and expectancy of reaching it (Nelson & Phares, 1972). Anxiety also occurs with high expectancy of punishment or failure, and usually results in avoidance of the situation producing it (Phares, 1972). As Phares sees it, these avoidance behaviors may include compulsions, hypochondria, depression, failures in learning, and phobias. "Learned helplessness" (Seligman, 1969; Thornton & Jacobs, 1971) can be considered the result of a situation where need value is strong but expectancy is nil. Learned helplessness readily applies to the development of avoidance or apathy in the underprivileged, the constant loser or underachiever, or the welfare ward.

Internal locus is associated with a clear contingency between the individual's behavior and the outcome of a situation. The internal person believes he can cause something to happen; his expectancy of reaching a valued goal is high, and he assumes responsibility for achieving it. Conversely, the external person sees no relation between his behavior and subsequent events; what will be, will be, regardless of what he does or does not do. While he may attribute value to a goal, he has low expectancy of achieving it through his own efforts. He is more apt
to be passive and apathetic, believing himself to be at the mercy of other powers or the whims of fate.

**Developmental factors.** With the understanding that most persons have varying degrees of internal or external control orientation, research on the developmental factors of I-E locus will be examined.

Family interaction is a major determinant of locus, with parental attitudes and relationships being of primary importance. While there are some conflicting findings in regard to specific parental attitudes and attributes associated with internal-external locus in their children, studies generally indicate that a warm, nurturing and non-directive family is predictive of internal locus development in the child (Chance, 1972; Katkovsky, Crandall & Good, 1967; MacDonald, 1971; Nowicki & Segal, 1974; Yates, Kennelly & Cox, 1975). Parental dominance, directiveness, over-protection, rejection and criticism tend to be associated with development of external locus of control in the child (Chance, 1972; MacDonald, 1971; Yates, Kennelly & Cox, 1975). A note of dissonance occurs in Bandura and Walters (1963) claim that children of warm and demonstrative parents were found to be more dependent that children who were rejected by their parents.
An extensive study examining the role of the parent-child relationship in developing locus (Davis & Phares, 1969) was concerned with child-rearing attitudes, children's reports of parental behavior, and parents' own locus orientation. From several large psychology classes, using the Rotter I-E scale, Davis and Phares selected 30 males and 30 females who scored high in external locus, and 30 males and 30 females who scored high in internal locus. Data on the subjects' report of their parents' characteristics were analyzed, including perceived parental locus, child-rearing attitudes and behavior. Parents of internal subjects were perceived as showing more positive involvement and less rejection, hostile control, inconsistent discipline and withdrawal of relations than parents of external subjects. Mothers of external subjects were reported as more accepting than fathers, but were seen as child-centered, possessive, controlling and intrusive. Fathers of internal subjects were perceived as allowing their children to be self-reliant. Both parents of external subjects were found to be more strict and to allow the child less freedom.

MacDonald (1971) also studied college students' locus as related to perceived parental attitudes and child-rearing behavior in 427 subjects (192 male,
235 female). He reports internal locus to be associated with high parental nurturance, low maternal protectiveness, high maternal consistency of standards, and low deprivation of privileges. Internal subjects describe their parents as warm, predictable, and encouraging children toward control of their own reinforcements through achievement. High externality was associated with maternal protectiveness and deprivation (high maternal control). Externals saw their parents as being over-protective and privilege-controlling, and using affective punishment such as coldness, disapproval, nagging and rejection. Parental physical punishment was associated with internality in males. MacDonald does not speculate on this; however, it may well be related to consistency of behavior and contingency pairings.

A study of 100 college students (47 male, 53 female) by Yates, Kennelly and Cox (1975) emphasized the importance of consistent contingencies in developing internal orientation. They noticed that consistency may be part of the warm, loving family, but strongly suggest that consistency in reinforcement and punishment is more important than the quality of relationships within the family. If parental punishment is delivered with little or no relation to
behavior, the child develops a tendency toward externality and learned helplessness. Mikulas (1974) also sees consistency as a primary factor in development of internal locus.

All of the previous studies involved college students' reports of their perceptions of parental attitudes, which leaves some question as to the possibility of distortion of actual parental behavior and attitudes. Also, intervening factors, such as extra-familial experiences of cause and effect and/or failure or success cannot be ruled out. However, there is an abundance of literature which is supportive of a relation of parental nurturance to internal locus. Conversely, development of external orientation is associated with inconsistent and rejecting parents. As MacDonald (1971) points out, there is a need to distinguish between "nurturance" (supportiveness) and protectiveness (control).

Studies of children ages four through eighteen and their parents further indicates a relationship between the nurturing family and development of internal control. Selecting a group of 112 (58 male, 54 female) 12th graders of the lower middle class according to Hollingshead's index of social position, Nowicki and Segal (1974) found a warm, supportive
family to be predictive of internal locus, especially in a cross-sex association. For females, internality was associated with physical contact, trust and security with both parents and with paternal affection. In males, internality was associated with maternal affection. Chance (1972) studied a group (59 boys and 55 girls in grades three through seven) of bright (average IQ 125) children of middle class backgrounds as determined by the father’s occupation. She reports that maternal permissiveness, early independence training, and flexibility of expectancy of achievement were related to internality. She further theorizes that while the warm, supportive parent fosters internal orientation, it is also necessary for the child to experience coping with problems and tasks successfully. This implies that over-protection and directiveness distract from internal locus development and produce external orientation. The mother who is stringent in evaluating the child’s performance may devaluate his efforts and cause him to see himself as ineffective and dependent on others. The more lenient mother fosters an optimism in the child toward his ability to earn reinforcement.

Loeb’s (1970) study involved 68 boys selected
from 392 children as the top and bottom 10% of scorers on the Bialer Locus of Control Scale. He found the mothers of internal children likely to be "suggestive" as rated by observation of parent-son interaction on a task. Loeb concludes that the highly directive parent tends to make decisions and regulate the child's behavior, preventing him from establishing a sense of autonomy. Loeb states:

"this child is more likely to see his personal outcomes determined by others; his proficiency does not improve; his self-confidence deteriorates; and a downward spiral has begun. The less directive parent...is actively involved in the child's activities while permitting the child to retain his autonomy. The child learns that he plays a large part in his personal outcomes: he improves his proficiency...gains self-confidence.....(p. 356)

There is some evidence that locus of control may also be affected by birth order within the family. Adler (in Maddi, 1972) felt that birth order and status within the family were prime determinants in developing specific inferiority feelings, and thus were associated with the individual's resultant life style and striving for perfection. There are conflicting findings on this factor.

In a study of 60 four-year-olds (20 only children, 20 firstborn, and 20 later-born children), Hilton (1967) found firstborn and only children to be
significantly more dependent on their mothers for direction and encouragement on a puzzle task (t 5.0, p .001). These mothers were seen as more likely to interfere and to be more suggestive in tasks given their children. Hilton states that firstborn children in this study were more likely to run to their mothers in free time between task sessions, and more likely to ask help and reassurance. Mothers of first-borns were observed to be more extreme in affect in response to their children. They were more demonstrative when the child succeeded, but decreased show of love when the child failed. Hilton believes the effect of interference is that the child does not set his own goals, but must achieve those set for him; thus his satisfaction must come from pleasing others. He notes that whereas first-borns were more likely to seek reassurance, later-borns were more likely to praise themselves. This would indicate that first-born and only children tend to be external and more dependent on "powerful others" for reinforcement while later-born children are more self-sufficient and thus more internal in achieving reinforcement.

Wrightsman (1972) states that firstborns are apt to be more affiliative and anxious, more easily influenced and socially conforming, and concerned
with pleasing others, which are external characteristics. He cites a study by Zimbardo and Formica in which it was found that parental expectancies are higher for firstborns. Mothers were found to be more involved with aiding firstborns and more intrusive in achievement situations.

The relationship becomes less clear, however, with other studies. Working with 131 college students, Eisenman and Platt (1968) noted firstborn males to be higher in externality on the Rotter I-E scale, but found no other significant birth order effects. In a study of 476 college students (53 only children, 168 firstborn, 255 later-born) MacDonald (1971) found locus of the individual to vary with family size. Later-borns tended toward externality in two-child families, but there was no significant difference in locus among later-borns in larger families.

Only children produced mixed results. MacDonald (1971) found internal locus more pronounced in only children. Marks (1972) found only male children tending toward internality and found only female children to be significantly external in orientation. Marks attributes this apparent sex difference to differential parental treatment; he sees parents of only females as likely to be over-
protective and rigid, and parents of only males as encouraging exploration and mastery of environment. While this rationale is merely speculation, it seems reasonable to apply it not only to sex differences but also to birth-order factors. Hilton (1967) suggests it is not birth-order as such which predisposes a child to I-E locus, but rather that in a particular birth order one is more likely to be exposed to different parental and familial attitudes and expectations.

Erikson (1959) sees parental modeling as an important factor in all developmental stages. A study by Bandura and Walters (cited in Wiggins, Renner, Close & Rose, 1971) found that parents with a high degree of dependency had children who were also dependent; conversely, parents who were seen as autonomous had children who exhibited more independent attitudes. It is therefore probable that children learn a degree of external (dependent) or internal (autonomous) behavior through observation of parental modeling of locus.

Chronological age has a relationship to locus, in that the child is necessarily dependent on others but develops more internal locus as he matures. In a study of persons from 18 to 80 years of age (100 college students plus 383 subjects from a general
survey sample, Ryckman and Malikioski (1975) note an increasing sense of personal efficacy from youth to adulthood, with a sense of control stabilizing in middle age (30-49) and maintaining this level through old age. They suggest that people in the 30-50 age group are generally more secure in career and family life than those in their 20's or older than 50.

Selection bias is suspected in this study as replies were received from only 20% of the elderly sample and these subjects were more highly internal than expected; however, the pattern held consistently. Crandall, Dewey, Katkovsky and Preston (1964) report internal beliefs to be well established in childhood and to increase from grades three through twelve.

Penk (1969) formed five groups of seven through eleven year olds according to age and matched for intelligence and socio-economic background. Comparing scores on the Bialer scale, an ANOVA indicated that group scores became increasingly internal with age. That is, older children generally were significantly more internal in locus than younger subjects.

Rotter (1966) mentions that internal locus seems more prevalent in lower socio-economic and Black groups. He believes ethnic and social class differences are probably related to differences in
access to power or the presence of social barriers to mobility rather than any innate or cultural characteristics.

In a theoretical paper and literature review, Gurin and Gurin (1970) see poverty groups as having two critical problems with regard to locus: (1) low expectancy: little chance of attaining the goal, and (2) externally-based expectancy: actual lack of control of one's chances. They point out that while people with low expectancy may be responsive to success, those who perceive success to be due to external forces are likely to be unresponsive to success.

With 40 third graders classified according to the occupation of the primary wage-earner, Gruen and Ottinger (1969) reported that middle-class children did not significantly differ from lower-class children on skill-chance tasks. This study was indefinite, however, on the validity of locus determination and on clear distinction of classes, the "lower-class" being actually the "lower middle-class".

Battle and Rotter (1963) studied 80 sixth and eighth graders matched on variables of sex, social class and ethnic background. Using a children's picture test of I-E control devised by Battle, they found middle-class whites to be the most internal in
locus, with lower-class Blacks significantly more external in locus than any other group. Middle-class children were generally more internal than lower-class children, suggesting class to be a more important factor than race in determining locus orientation.

Lefcourt and Ladwig (1965) tested the hypothesis that the Negro is characterized by low expectancy of controlling his own reinforcements. Their study involved 60 Black and 60 White correctional inmates of average intelligence and lower socio-economic status. Using the Rotter I-E scale and Dean's Powerlessness and Normlessness scales (which measure beliefs of control and/or alienation), they found that both Blacks and Whites scored above average on Normlessness, while Blacks only were significantly external in locus. Zytkoske, Strickland and Watson (1971) also found Negroes significantly more external in locus than White subjects.

Finding no Black/White difference in ideological beliefs or responsibility of control (on a scale adapted from the Rotter I-E), Gurin, Gurin, Lao and Beattie (1969) feel the need to differentiate between the individual's concept of locus in his own life (personal) and the ideological beliefs as they apply to others, i.e., he is in control of his own life; I am not.
They see this as particularly applicable to the Negro, as a race with a history of failure and real obstacles, and suggest that while internality may be normal and desirable in the White middle-class, it is punitive to the ghetto dweller.

There are no significant racial differences in studies by DuCette, Wolk and Friedman (1972) or Solomon, Houlihan and Parelius (1969). Thus the notion of any true racial difference in locus is questionable; it is likely to be confused with socio-economic status, level of education and other variables.

Although as Broderick (1975) states, "The female is culturally restricted from many activities necessary for independent function and interaction with the world at large" (p. 1), studies (Battle & Rotter, 1963; Broderick, 1976; Eisenman & Platt, 1968; Rotter, 1966) show no significant difference between males and females in generalized locus of control orientation.

Broderick found that either sex performed better on a task (and presumably felt higher expectancy of success) when told the task was more appropriate to that sex. In a sample of 131 college students, Eisenman and Platt (1968) found females' academic achievement to be higher than males' and speculate this is
due to higher conformative behavior; they do not relate this to externality but consider it a sex role difference.

Discordant findings include studies by Marks (1973) who reported female only children to be more external while male only children tended to internality. Nowicki and Segal (1974), working with lower middle-class high school seniors, found males significantly more external than females.

It is therefore concluded that sex, per se, is not a strong determinant of internal-external locus. Rather, (1) parental influences, (2) autonomous experiences and success or failure in them, and (3) learned role play a larger part than sex in determination of belief of control.

Rotter (1966) found no correlation between intelligence and locus of control. Tolor, Tolor and Blumen (1977) report no relation of locus of control to children with learning problems as differentiated from "normal" controls. They note an association between externality and positive self-concept in problem children which suggests externality to be a defense against loss of self-esteem through disclaiming responsibility for their inadequacy.

In summation, locus of control is developed largely according to parental treatment and family
interaction, social and economic position, consistency of contingencies, and experience of personal success or failure. Internal locus is related to a supportive but non-controlling environment, consistent contingencies, middle class (or higher) status, and personal successful experiences. External locus is the result of over-protective, directive family environment, lower socio-economic level, minimal experience of success and inconsistent or non-contingent reinforcement.

Research on Internal-External Locus of Control As Related to Specific Personality Factors

Various studies (Brisset & Nowicki, 1973; Ducette & Wolk, 1973; Hersch, 1967; Joe, 1971; Johnson, Ackerman & Frank, 1968; Nelson & Phares, 1971; Phares, 1976) indicate that satisfactory personal adjustment is most likely in persons who are primarily internal in locus. However, Rotter (1966) warns of a curvilinear relationship between pathology and locus of control, with both locus extremes maladjusted. In either extreme, when there is low expectancy of success in attaining goals, depression or anxiety result. Externals are disturbed because they feel they can't do anything toward success; internals are disturbed because of feelings of guilt and responsibility for
failure. Joe (1971) states that while externals are not necessarily pathological, several studies indicate mental patients (schizophrenics and depressed psychotics) are external, with a trend toward internality after six weeks treatment.

General coping skills are associated with internal locus of control. Caplan (cited in Goldenberg, 1973) suggests that adaptive coping (as differentiated from ineffective coping) requires skills which include the following internally-oriented abilities: active exploration of reality issues and search for information; basic trust in oneself and others; and optimism about the outcome. In contrast, he sees maladaptive coping as having characteristics of avoidance or denial of problems, projection or blaming of others, inability to seek help, and being easily overwhelmed.

A study involving 101 college students (37 male, 64 female) by Johnson, Ackerman, Frank and Fionda (1968) found that internal locus was significantly related to adjustment in females ($r^*\cdot37$, $p<.01$) but not in males. Regardless of the origin of locus of control, greater anxiety is predicted in those with external orientation (Phares, 1976). Phares concurs that externals generally exhibit fewer attempts to
to control or cope with the environment. There is less acquisition of information which enables effective coping and less activity toward effecting environmental changes, presumably due to low expectancy of personal impact.

Internals, on the other hand, are viewed as more active, alert, or directive in attempting to control their environment. Having a stronger generalized expectancy that reinforcement depends on their personal behavior, they actively seek knowledge (Davis & Phares, 1967; Ducette & Wolk, 1973) which enables coping, such as asking questions, being observant, and using cues. Internals are further described by Phares (1976) as:

active, striving individuals who exhibit greater resistance to influence and who seem to handle success and failure in a more realistic fashion than externals... by contrast, externals should be more vulnerable and less capable of coping with their environment. (p. 120)

The inability to control or predict a situation prevents the person from developing expectancies. In such cases, experience does not bring an increase in ability to cope with a situation; low expectancy for coping leads to anxiety. When a person sees an outcome as beyond his personal control, this adversely affects (1) learning and performance, (2) expectancies
for future success, and (3) the anxiety level, due to ineffectiveness of coping ability.

External locus does not always decree anxiety. Strong internal locus can make a person very uncomfortable when faced with either actual or anticipated failure. Rotter (1954) states "relatively high expectancy of punishment or failure is the closest one comes in social learning to the concepts of anxiety, emotional disturbance or frustration." (p. 237)

Nelson and Phares (1971) see a clear linear relation between anxiety and discrepancy in need value and expectancy. In a study of 280 college students, they found externals reported the highest anxiety. Externals placed higher value on academic achievement but showed lower expectancy of attaining it. However, low correlation between externality and adjustment is probably an over-simplification. Internals and externals differ in their reactions to failure, and by reducing goal value, externals may reduce anxiety over non-achievement, eventually becoming non-anxious and indifferent (Phares, 1976). Phares, Ritchie and Davis (1968) see external locus as similar to rationalization, suggesting it is a method of avoiding responsibility for negative events.

A maverick in locus classification is suggested
by Davis' (1970) research into what she terms "defensive external" orientation. This refers to the individual who verbalizes external locus but who behaves like an internal individual in situations which offer some contingent reinforcement. Davis theorizes that this verbalization of external expectancy is primarily a defense against failure, a projection of responsibility to outside factors or chance. In a study involving college students in an academic situation, she found internals showed the most anxiety and depression (as measured by an anxiety checklist) in connection with low grades, while defensive externals showed a moderate but lesser amount of anxiety and congruent (total) externals showed minimal anxiety. Thus, external locus does seem to provide comfort through projection and rationalization.

One's own locus beliefs are apt to be projected to others. In studies in which subjects were asked to pass judgment on theoretical cases, it was found that internals not only see themselves as responsible, but view others as responsible for their own behavior. Conversely, externals accept less self-responsibility and see less in others (Phares & Lameill, 1975). In case history judgments, internals proved less likely to regard others in need as
but saw them as responsible for their own misfortunes. On the other hand, externals tended to be more apt to give money, understanding and sympathy. It might be projected from this that they would also expect the same treatment.

In academic settings, internals are also more responsible and achieving. Nowicki and Segal (1974) found internality positively related to higher academic achievement in males but not significantly so in females. DuCette and Wolk (1973) reported that internals are superior in cognitive processing as well as information-seeking. Testing 131 high school students, they found internals to be better at utilizing experience, more accurate in remembering success feedback, and quicker to see general rules which enable them to solve problems. DuCette and Wolk conclude that apparent higher success in school of internals may be due purely to a sense of control.

In a cross-race study of lower-class children, DuCette, Wolk and Friedman (1972) note that internals gave more creative responses to ambiguous stimuli. Penk (1969) reported internal seven to eleven year olds used and understood higher level abstractions than did externals.

In approach to a task, internals and externals
also exhibit differences. Joe (1971) depicts internals as more concerned with achievement, more constructive in overcoming frustration (also reported by Brissett & Nowicki, 1973), taking more initiative, and having better impulse control. Externals are seen as anxious, dogmatic, suspicious, and lacking in self-confidence. Phares, Ritchie and Davis (1968) found internals engage in more confrontative and action-taking behavior than externals.

Findings on I-E relationship to delay of gratification are conflicting. Strickland (1973) reported internal third, fourth and fifth graders are significantly more likely to choose a delayed (higher value) reward, while Zytkoski, Strickland and Watson (1971) found no relation between I-E orientation and delay behavior. The former study involved White middle-class children while the latter study used lower-class Blacks and Whites; this suggests that the discrepancy in results might be due to social class differences.

Rotter and Mulry (1961) found that internals tend to prefer skill situations and "safe bets" while external individuals, having less belief in their own efficacy, are likely to prefer chance situations and to risk a "long shot". This is also supported by the
findings of Baron (1968) and DuGette and Wolk (1973).

Internal-external differences are noted in interpersonal behaviors. For females, internal locus is predictive of social action (Nowicki & Segal, 1974) and of social manipulativeness of others (Deysach, Keller, Rose & Hiers, 1975). Deysach, Keller, Rose and Hiers suggest that females perceive social success to be more related to interpersonal skills than do males. Brown and Strickland (1972) report that, although a significant level was not reached, a study of 168 college students showed internals to take part in campus activities and to hold offices in organizations more often than externals, with females significantly more active than males. Taub and Dollinger (1975) found internals more involved in social causes than externals.

To summarize, a character sketch of the individual with internal locus of control shows him to be a striving, cognitive, achievement-oriented, self-directed person who copes actively with his environment and expects to succeed. He is likely to be white and of middle class or higher status, and have had a secure and consistent upbringing. The external individual is apt to come from a less stable home, a lower socio-economic level and/or ethnic minority, and
to be more anxious and dependent on others. He is less likely to seek information or attempt to control his environment, but more likely to take a chance.
The intent of the present study was to test the hypothesis that there is a significant difference in locus of control among delinquent, socially maladjusted and dependent adolescents under the care of county and state institutions. Also, relationships between locus of control and specific personality characteristics were examined.

Subjects. Samples of these three types of youth were selected from Youth Hall (a Florida State detention center), the Remedial Behavior Center for dependent-ungovernable children, and Great Oaks Village for dependent-neglected children. The latter two are facilities of Orange County, Florida. As a group, these children tended to be from lower socio-economic backgrounds according to the Childhood Level of Living Scale, and were below average in intellectual function as determined by the Slossin Intelligence Test (Highsmith, 1976).

Primary interest was directed at the children of the Remedial Behavior Center (R.B.C.), a unique facility for the rehabilitation of dependent adoles-
cents with problems of social adjustment. There were 19 subjects (9 boys, 10 girls) in this group, ranging from 14 to 16 years of age ($\bar{X}$ age=14.89). General characteristics of these youth included behavioral problems, academic failure, aggression, alienation, and minor legal offenses.

The Youth Hall (Y.H.) sample was made up of 15 adolescents (12 boys, 3 girls) ranging from 14 to 17 years of age ($\bar{X}$ age=15.67). They had been charged with a wide range of delinquency, from runaway to grand larceny. Most were below grade level in school or had dropped out of school, according to the teacher at the facility.

Great Oaks Village (G.O.V.) youth totaled 18 (12 boys, 6 girls) ranging from 13 to 17 years ($\bar{X}$ age=14.72). These dependent-neglected children were not termed behavioral problems but had been removed from their homes for their own protection.

Measurements. Each of the three groups was administered a battery of tests in a single session. Tests were orally presented because of the subjects' difficulty in reading and comprehension. It was emphasized that these tests were seeking individual attitudes and feelings and that there were no "right" or "wrong" answers.
The Nowicki-Strickland Internal-External Locus of Control Scale (N-S Scale) was used to determine locus of control. This test was chosen as being age-appropriate and providing a reliable measure of generalized locus orientation over various situations. The Nowicki-Strickland Scale is a paper and pencil measure consisting of forty true-false items. These items are taken from interpersonal and motivational areas, appropriate for children at third through twelfth grade levels. It was standardized on 1017 mostly Caucasian elementary and high school students of varying socio-economic levels in four different communities. Split-half reliability ranges from $r^*$.63 to $r^*$.81, and test-retest reliabilities over a six-week period range from $r^*$.64 to $r^*$.75.

There is a significant correlation between the Nowicki-Strickland and the Bialer Locus Scale ($r^*$.41); the N-S and the Intellectual Responsibility Scale ($r^*$.31 to .51), both children's measurements; and the N-S with the Rotter I-E Scale ($r^*$.61), using college students.

Differentiation between internal and external orientation was set at a score of 13 points, roughly the mean for ages 11 through 15, according to Nowicki and Strickland's standardized sample. Thus,
individuals with scores exceeding 13 were considered externally oriented, while subjects with scores up to and including 13 were considered internal in locus. For purposes of correlation, however, scores clustered around the mean were not used; only more definitive internal (11 and below) and external (16 and above) scores were considered sufficiently directional to use in relating locus to personality variables.

Personality tests used were the Personal Values Abstract (H. G. Gough), the Fundamental Interpersonal Relations-Behavior Scale (W.C. Schutz), and the How I See Myself Scale (I. J. Gordon). All are self-report measures, scored objectively.

The Personal Values Abstract (PVA) is a 97 item true-false self-report inventory condensed from the California Personality Inventory (Gough, 1972). It is comprised of three scales: (1) Modernity (combining dominance, status, sociability, social presence and self-acceptance); (2) Socialization (combining well-being, self-control, responsibility, socialization, tolerance, achievement via conformity, and intellectual efficiency; and (3) Femininity (combining abasement and unassertive items). Gough (1972) indicates a negative correlation between "Modernity" on the PVA scale (r=.14 males, r=.54 females) and the
Rotter Locus of Control Scale (Externality). Presumably, validity and reliability are based on full C.P.I. ratings in which correlations of the scales with similar measures ranges from $r=0.27$ to $0.60$ and test-retest correlations range from $r=0.38$ to $0.87$.

The Fundamental Interpersonal Relations-Behavior Scale (FIR0-B) measures characteristic behavior toward others in areas of "Inclusion", "Control" and "Affection". Inclusion denotes aspects such as association, extroversion and interaction with others. Control refers to power, dominance and influence needs. Affection describes emotional closeness and personal intimacy. "Reproducibility" (split-half consistency) is listed at $r=0.94$, while test-retest reliability is $r=0.76$, according to the FIRO Scales Manual (Schutz, 1967).

The How I See Myself Scale (HISM), Secondary Form, was developed at the University of Florida in 1959, with the first large-scale standardization in 1967, using 8979 children (Black/White ratio approximately 1/3) in grades three through twelve. Means and standard deviations have been researched according to sex, grade, race and socio-economic level (Gordon, 1968). The test consists of 42 items in five different primary self-concern areas. The Teacher-School
scale includes 6 items related to interest in school, relationship with teachers, and achievement. Physical Appearance consists of 8 items relating to the subject's self-concept as regards his/her face, body and clothing. Interpersonal Adequacy pertains to 17 varied items of cooperative and personal abilities relating to interaction with others. The Autonomy scale consists of 9 items dealing with intrapersonal skills and talents, while Academic Adequacy related to intellectual ability.

Two additional ratings were requested of R.B.C. and G.O.V. subjects and staff. Youths participating in the study were asked to rate perceived sources of influence in their lives as a Q-sort, from most to least influential (Appendix 1, p. 63), and staff were asked to fill in an adjustment rating sheet on each child tested (Appendix 2, p. 64).
Results

Locus of control was examined in the three groups of subjects to determine any difference in orientation among delinquent, socially maladjusted and dependent-neglected children, as well as to determine any directionality in the group as a whole. Locus of the three groups was also compared with Nowicki-Strickland standardized norms. Data were processed by the Florida Technological University Computer Center according to the Statistical Package for the Social Sciences. The three institutional groups were subjected to an analysis of variance (ANOVA) to determine whether these populations showed significant differences in locus or personality variables.

There were no significant differences in locus of control among the three groups, according to the ANOVA (F= .608, 51 df). However, distributions within these groups varied considerably (Table 1, p. 48). R.B.C. children exhibited primarily middle-range scores, from 11 to 19, with a mean score of 14.5 and a standard deviation of 2.5. G.O.V. youth showed a slightly wider distribution, with a range of scores from 10 to
Table 1

Means and Standard Deviations of Three Institutionalized groups and the Nowicki-Strickland Standards.

<table>
<thead>
<tr>
<th>AGE</th>
<th>N-S</th>
<th>RBC</th>
<th>GOV</th>
<th>YH</th>
<th>Combined Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td></td>
<td>no data</td>
<td></td>
<td>no data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$\bar{x}=13.5$</td>
<td>$\sigma=3.96$</td>
<td>$\bar{x}=17.0$</td>
<td>$\sigma=3.46$</td>
<td>$\bar{x}=17.0$</td>
</tr>
<tr>
<td>14</td>
<td>$\bar{x}=13.03$</td>
<td>$\sigma=3.9$</td>
<td>$\bar{x}=13.7$</td>
<td>$\sigma=2.38$</td>
<td>$\bar{x}=18.3$</td>
</tr>
<tr>
<td>15</td>
<td>$\bar{x}=13.01$</td>
<td>$\sigma=5.32$</td>
<td>$\bar{x}=13.8$</td>
<td>$\sigma=1.72$</td>
<td>$\bar{x}=15.3$</td>
</tr>
<tr>
<td>16</td>
<td>$\bar{x}=12.24$</td>
<td>$\sigma=4.98$</td>
<td>$\bar{x}=16.16$</td>
<td>$\sigma=2.40$</td>
<td>$\bar{x}=13.25$</td>
</tr>
<tr>
<td>17</td>
<td>$\bar{x}=11.87$</td>
<td>$\sigma=4.89$</td>
<td>no data</td>
<td>single subject</td>
<td>$\bar{x}=13.7$</td>
</tr>
<tr>
<td>All</td>
<td>$\bar{x}=12.73$</td>
<td>$\sigma=4.61$</td>
<td>$\bar{x}=14.5$</td>
<td>$\sigma=2.5$</td>
<td>$\bar{x}=15.5$</td>
</tr>
</tbody>
</table>

Note: ANOVA among institutionalized groups $F=.608$
23, a mean of 15.5 and a standard deviation of 2.8. The Y.H. sample yielded more extreme scores, with a range from 4 to 21, a mean of 14.89, and a standard deviation of 7.9. Thus, while the mean locus score for each of the three groups does not significantly differ, the distributions of scores are diverse.

Rotter's (1966) hypothesis states that better psychological adjustment is generally found in those with medium scores to moderately internal scores, and psychopathology (such as depression, schizophrenia, and social deviance) tends to be associated with extreme scores in either direction. The relative extremity of Youth Hall scores supports this hypothesis in that these are adolescents who, by definition, have deviated from legal/social norms. The similarity in distribution between G.O.V. and R.B.C. children suggests they have similar locus orientations but that their styles of coping differ. For instance, where the G.O.V. (dependent-neglected) child may work within a socially accepted framework to gain reinforcement (such as achieving according to teachers' or parents' expectations), the R.B.C. (socially maladjusted child tends to use unsocialized methods (hostility, withdrawal, aggression, self-destructive acts, running away....all frequent R.B.C. problem areas) to reach his goals.
Comparison of the combined scores of all the institutionalized subjects with Nowicki-Strickland norms showed the institutionalized children to be similar in locus to the normative sample ($t 1.54, p .05$).

Differences on the Personal Values Abstract Socialization scale were statistically significant ($F 3.42, p .05$). Group means were as follows: G.O.V., 16.67; R.B.C., 13.95; Y.H., 13.71. This measure is associated with conventionality and socially acceptable behavior and attitudes. Statistical significance was also reached in comparing the three groups on How I See Myself-Physical Appearance scores ($F 3.98, p .05$). Group means on this factor were: G.O.V., 35.23; R.B.C., 29.05; Y.H., 35.6. This measure refers to the child's physical and facial self-image and self esteem.

In examining individual items on the Nowicki-Strickland Scale, it was noted that one item was scored in the external direction by a majority from all groups. Item 5, reading "Are you often blamed for things that just aren't your fault?" was answered affirmatively by 83% of the children (83% G.O.V., 84% R.B.C., 82% Y.H.). A generalized tendency in many of the subjects toward projection of blame for negative events and helplessness in interpersonal situations was evident. Test state-
ments asserting the impossibility of changing parental or peer attitudes, inability to prevent aversive happenings, and belief in others' innate abilities were frequent.

Following ANOVA tests on the three different institutional groups, these groups were combined and arranged according to Nowicki-Strickland locus scores. The 12 subjects with the most extreme internal scores and the 12 subjects with the most external scores were selected. Two-tailed $t$ tests were run on these Internal (I) and External (E) groups on each of the personality variables to determine any significant personality differences between internal and external adolescents.

Internal and external subjects' personality characteristics were measured by the Personal Values Abstract (figure 1, p. 52), FIRO-B (Figure 2, p. 53) and How I See Myself Scale (Figure 3, p. 54). Significant differences between externals and internals were apparent only on two dimensions of the FIRO-B. Internals scored higher than external subjects on Expressed Inclusion ($e^I$), which relates to outgoingness and the desire to be with others ($t=4.27, p<.005$). Internals also exhibited significantly higher scores ($t=2.43, p<.025$) on Wanted Affection ($w^A$), which is associated with the need for love from others. No I-E
Figure 1. Internal versus External P.V.A. Scores

- o-o-o-o Internals
- □□□□ Externals
Figure 2. Internal versus External FIRO-B Scores

- ••••• Internal
- □□□□□ External
Figure 3. Internal versus External HISM Scores

- - - - - - Internal

- - - - - - External
differences reached significance on measures of Wanted Inclusion, either Expressed- or Wanted Control, or Expressed Affection of the FIRO-B Scales. There were no significant differences between Internal and External subjects on the How I See Myself Scale.

Q-sort lists on perceived sources of control or influence were filled out by R.B.C. and G.O.V. groups. The lists of the 12 most internal and 12 most external subjects were examined and influential sources tabulated. As was expected, parents or significant adults provided the primary influence in both groups. This was seen as a factor of the age of the subjects and of the institutional situation.

Primary self-direction was claimed by 44% of the internals, but only 16% of the external subjects. Neither group mentioned luck as a primary influence; however, luck was mentioned at an intermediate level by 33% of the externals, while luck was placed last or omitted as a factor by 92% of the internals.

Staff rating on the child's adjustment did not differentiate between internals and externals.
Discussion

The institutionalized populations exhibited locus of control scores similar to normative data for the same age groups (Table 1, p. 48). Because the number of subjects in each age group was small, varying from 4 to 17, data are inconclusive. Findings are equivocal with regard to the current, but perhaps temporary, effect of institutionalization in which children are dependent upon the structured environment of the institution and of the Juvenile Court system; it may be that such children would exhibit different locus orientation after returning to a home environment. The situations, inconsistencies and models which precipitated initial locus orientation might well be reestablished on the child's return to the setting, causing regression to the former locus orientation and obliterating institutional contingencies and training. Similar environmental background and experience may account for there being no significant difference in locus among Y.H., R.B.C., and G.O.V. populations. As is pointed out by Highsmith (1976) initial child placement is
made according to judicial label. Although this label may later be changed as a result of the child's behavior, there is frequent overlapping of personality factors in the three institutions. Also, while all of the teen-age residents of G.O.V. were used in the study, it appears that the selection of subjects from Y.H. and R.B.C. tended to be privilege-earning, exemplary residents who were considered the more capable, better-adjusted children in these groups.

The internals' significantly higher FIRO-B scores on Expressed Inclusion and Wanted Affection suggest that these internal subjects are more likely to cooperate with and/or manipulate others toward a goal. They view others as necessary to accomplishing their needs, thus are interested in working with and being with them. These children wish to establish close relationships and have the skills to make social contacts, a natural pairing of characteristics. Externals apparently are more apt to wait for others to initiate relationships or to have an offer extended to them. Externals, then, are the passive recipients rather than the active instigators of social activity.

Although children in all three population groups tended to prefer minimal control by and over others, as indicated by the FIRO-B scales, the few
who stated they preferred to be controlled by others were of external orientation. This is consistent with locus literature.

Failure to find further definitive personality differences between internals and externals may be attributed to various factors. Lack of comprehension of test items, random responses or untruthful responses are not unlikely among these subjects, due to low intellectual or educational level. Items may have been answered in an idealized or popular direction to produce a favorable impression rather than answered individually and honestly. "Defensive external" orientation is also a possibility. Small sample size was a problem, as was random selection within groups. The grouping of characteristics into broad inclusive scales on the PVA inventory may have prevented differences among subjects from being detected. It is suspected that the measured factors were too general to indicate any specific characteristics which might differentiate between internal and external locus orientation, such as pertinent defense mechanisms, modes of coping, and attitudes regarding tasks. Differences were perhaps further obscured by the fact that the subjects chosen as "internal" and "external" were not extremely divergent in locus scores, although
they showed fairly high or low scores within their own groups.
Conclusions

In comparing groups of delinquent (Youth Hall), socially maladjusted (Remedial Behavior Center) and dependent-neglected (Great Oaks Village) institutionalized adolescents on locus of control and personality variables, it was found that there was no significant locus difference, and that, with the exception of higher Socialization (PVA) scores achieved by G.O.V. youth, personality did not appreciably differ among the groups.

Selecting internal and external subjects across population group divisions, it was evident that children with internal orientation exhibited higher expressed social initiative (eI: FIRO-B) and need for affection from others (wA: FIRO-B).

Realizing that the average length of stay in an institution is brief (Youth Hall, 30 days; R.B.C., 51 days; G.O.V.) and considering the importance of consistent contingencies, it is vital that any rehabilitative program extend to home environment follow-up, to continue supportive contingencies and
success expectancies.

Previously reviewed literature implies that more internal orientation produces better self-direction, general coping skills and achievement. Therefore, a program structured toward increasing internal locus of control is desirable for institutionalized children. There is a need for clear and consistent contingencies to enable the child to experience the direct effect of his behavior. A token economy system is presently used in the R.B.C. to modify general behavior and to provide structure for group living. It is advisable to extend this system to include personal individual programming. The child, with input from the staff and the court system, would define idiosyncratic needs and goals which he can reasonably expect to achieve. When specific goals are clarified, an individually tailored system of reinforcement should be determined. The positive relationship of internality to inclusion and affection implies that learning social and interpersonal skills will aid externally oriented children in moving toward internality and self-determination.

The setting of personal goals and programmed structure toward successfully reaching these goals follows social learning theory in re-training the
individual to become more internally oriented. Such a person will be increasingly self-directed, achievement oriented, and productive. In addition to providing the basis for better personal and social adjustment, increased internal locus of control has sociological implications such as reduction of the apathy, passivity and hopelessness often linked with welfare, dependency, and the lower socio-economic level.

Further long-term controlled studies are needed to determine the relationship between institutionalization and locus of control, and to suggest further programming which will enable the institutionalized individual to assume responsible self-determination, avoiding either dependency upon institutional welfare systems or the apathy and ennui of learned helplessness.
Appendix 1

Which of the following most influences your life and what you do or what happens to you? Arrange in order from MOST to least important:

parents  other adults (teacher, minister, etc.)
brother sister  friends  boyfriend or girlfriend
group of my friends  myself  luck or chance  religious (God, Jesus, etc.)

MOST influential 1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________
6. ____________________
7. ____________________
8. ____________________
9. ____________________
Appendix 2

ADJUSTMENT RATING LIST

According to your own judgement, rate child on a scale of 1 to 5:

1. almost never 2. seldom 3. equally yes/no 4. usually 5. almost always

Child's Name: ____________________

1. Does he conform to requests? 1 2 3 4 5

2. Is he susceptible to peer influence? 1 2 3 4 5

3. Does he do chores without reminding? 1 2 3 4 5

4. Is he outgoing socially (rather than waiting for others' approach)? 1 2 3 4 5

5. Does he seek approval, reassurance? 1 2 3 4 5

6. Is he able to work toward (and wait for) long-term goals? 1 2 3 4 5

7. Does he take an active part in group activities? 1 2 3 4 5

8. Does he take responsibility for his behavior (rather than blame others, claim unfairness, etc.)? 1 2 3 4 5

9. Does he occupy and amuse himself? 1 2 3 4 5

10. Does he do his homework? 1 2 3 4 5
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