

DEPRESSION AND SELF-ACTUALIZATION IN GIFTED ADOLESCENTS

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Administered the Multiscore Depression Inventory and the Personal Orientation Inventory to 248 academically gifted adolescents drawn from across the state of South Carolina to participate in a select program. Low but significant correlations were noted among several of the scales. Factor analysis of the scales of both instruments resulted in five factors for females and six for males. In both samples the first two factors accounted for more than half the variance. Gifted students who were not self-actualizing types were more depressed, and their pattern of scores revealed that guilt, low self-esteem, learned helplessness, and cognitive difficulty were important symptoms. The gifted adolescents, on the whole, tended to be more socially introverted.

The study of depression in nonclinical populations is an area that recently has become more controversial. Depue and Monroe (1978), for example, raise valid questions about the relevance of studying normal populations if the purpose is to understand depression as manifested in severely depressed patients. Others (Berndt & Berndt, 1980; Miller, 1975) note that psychomotor deficits found in mildly depressed college students are very similar to deficits noted in clinically depressed patients. Meanwhile, Hammen (1980) recently has demonstrated that many college students, identified by their scores on the Beck Depression Inventory (BDI) (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), met criteria for either major or minor mood disorders when the highly reliable Research Diagnostic Criteria for affective disorders was used. In addition, according to Berndt, Petzel, and Berndt (1980), a full 61% of the articles published in the *Journal of Abnormal Psychology* and the *Journal of Consulting and Clinical Psychology* used normal populations to select depressed subsamples. We are among those who believe that depressive symptomatology in normal populations deserves study, not only as a means of possibly increasing our understanding of psychopathology, but also because the experience of depression in normal populations is an important phenomenon by itself, crucial to our understanding of what happens when individuals interact with their environments with a less than optimal fit.

Many who would argue against studying depression in students would claim that because students are in school rather than in a hospital or clinic, they are well adjusted. The present study, nevertheless, went one step *further* away from the locked wards to the study of depression in a supra-normal population: We examined, instead, a select group of students nominated by high schools from throughout the state of South Carolina because they were particularly academically gifted and talented. There is no reason to believe that at least mild depression does not exist in such populations, and in fact Seligman, in his book on learned helplessness (1975), suggests that "success depressions" are the result, at least partially, of the awareness or cognition that one's success is not a result of one's own efforts. Our intent, then, was to study the relationship between depressive phenomena and self-actualizing styles as measured by the Personal Orientation Inventory (POI) (Shostrom, 1964). We were determined to examine the possibility that the equivalent of a mild "success depression" can occur when students are placed in a situation in which self-actualizing tendencies are valued, yet the individual is not maturationally ready.

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The measure of depressive symptomatology employed was the Multiscore Depression Inventory (MDI) (Berndt et al., 1980). The MDI was chosen because it is designed specifically for efficiency in populations in which depression is not severe. It provides 10 separate and highly reliable scores for depression-relevant symptoms and thereby permits a more complete description of the phenomenology of the depressive experience. Several recent studies have demonstrated good validity and reliability for the MDI and its subscales (Berndt & Berndt, 1980; Berndt et al., 1980; Berndt, Note 1).

In the present study, the scales of the POI were compared with the several depressive symptoms assessed by the MDI. Factor analysis of the scales of both measures was used to reduce the data and to examine the dimensionality of the constructs assessed by these two instruments. Finally, a sample of *Ss* who were non-self-actualizing as described by self-report on the POI were scrutinized for a pattern of scores on the MDI that might distinguish them.

METHOD

Subjects

Ss included 248 high school students (124 males and 124 females) who attended the Governor's School of the state of South Carolina, a select summer program held at the College of Charleston. Students were nominated by public and private schools from across the state, with the number of nominees proportional to enrollment. To be eligible, students had to be ranked at or above the top 5% of their class or to score equivalently on standardized ability or achievement tests. Furthermore, according to the program announcement brochure, nominees "must be those identified as being among the most intellectually and creatively gifted students in their school. . ." The final, rather select sample was chosen by a panel of judges on the basis of several criteria, and consisted of top students about to enter either their junior or senior year, who ranged in age from 14 to 17 years. Another study (Kaiser, Cantor, Prioleau, & van Aalst, Note 2) documented that Governor's school students tend to be more self-actualizing than their peers and to have a different pattern of POI scores.

RESULTS

Procedure

The entire Governor's School sample took several instruments early in the program; however, the present study reports the results of those *Ss* who took both the MDI and POI in their standard format. While all 248 took the MDI, missing data from the POI left a sample of 123 males and 118 females.

Correlations between the POI scales and the MDI scores were sufficiently different between males and females to warrant separate examination of the two groups. These correlations are reported in Tables 1 and 2. Significant negative correlations were noted frequently, particularly for the females; however, these correlations were generally low to moderate. Highly significant relationships ($p < .001$) with depressive symptoms were most prevalent in the POI self-perception scales (self-regard and self-acceptance) and for time competence. It is of interest to note that learned helplessness was among the depressive symptoms that tended to correlate significantly with several POI variables for both males and females. For males, spontaneity was related significantly to absence of depressive symptoms, while this scale was often less relevant for females. For example, social introversion was related negatively to spontaneity in males ($r = -.28, p < .001$), while the correlation was positive and nonsignificant for females.

Alpha factoring (Kaiser & Caffrey, 1965) was used to extract factors from the correlation matrices of both the male and female samples because the purpose was to define factors with maximum generalizability. With alpha factoring, the population is a given, and the psychometric inference is about a universe of variables from the variable sample. Those factors that indicated potential generalizability

TABLE 1
THE RELATIONSHIP BETWEEN RAW SCORES ON THE MULTISCORE DEPRESSION INVENTORY AND THE
PERSONAL ORIENTATION INVENTORY FOR THE FEMALE SAMPLE OF GIFTED ADOLESCENTS^a

Scales	Tc ^b	I ^b	SAV ^b	E ^b	Fr ^b	S ^b	Sr ^b	Sa ^b	Nc ^b	Sy ^b	A ^b	C ^b
MDI Full Scale	.42***	.21**	.24**	.15	.09	.19*	.41***	.32***	.12	.11	.17*	.20*
Learned Helplessness	.28***	.20*	.34***	.11	.08	.19*	.39***	.18*	.12	.06	.21*	.20*
Pessimism	.30***	.17*	.22**	.13	.12	.16*	.33***	.30***	.07	.10	.21*	.20*
Guilt	.43***	.07	.17*	.13	.11	.20*	.37***	.25**	.16*	.18*	.12	.20*
Energy Level (Fatigue)	.28***	.15	.20	.11	.01	.12	.30***	.17*	.08	.04	.08	.05
Low Self-esteem	.38***	.18*	.15	.10	.14	.19	.35***	.30***	.10	.14	.17*	.20*
Social Introversion	.20*	.15	.09	.05	+.11	+.05	.08	.01	+.12	+.03	+.03	+.08
Cognitive Difficulty	.34***	.15	.23**	.07	.16*	.26**	.40***	.23**	.17*	.07	.21**	.26**
Irritability	.24**	.09	.02	.12	.00	.09	.20*	.31***	.06	.08	.08	.12
Instrumental Helplessness	.16*	.11	.07	.12	.11	.11	.18*	.19*	.07	.08	.09	.13
Sad Mood	.33***	.15	.20*	.07	.02	.11	.28***	.21*	.03	.08	.13	.09

Note.—All correlations are negative unless marked +.

^aN = 118.

^bTc = time-competence; I = inner-directed; SAV = self-actualizing value; E = existentiality; Fr = feeling reactivity; S = spontaneity; Sr = self-regard; Sa = self-acceptance; Nc = nature of man, constructive; Sy = synergy; A = acceptance of aggression; C = capacity for intimate contact.

*p < .05.

**p < .01.

***p < .001.

TABLE 2
THE RELATIONSHIP BETWEEN RAW SCORES ON THE MULTISCORE DEPRESSION INVENTORY AND THE PERSONAL ORIENTATION INVENTORY FOR THE MALE SAMPLE OF GIFTED ADOLESCENTS*

Scales	Tc ^b	I ^b	SAV ^b	E ^b	Fr ^b	S ^b	Sp ^b	Sa ^b	Nc ^b	Sy ^b	A ^b	C ^b
MDI Full Scale	.26**	.27***	.20*	.02	.15*	.28***	.28***	.18*	.04	.19*	.16*	.16*
Learned Helplessness	.06	.18*	.24**	.05	.04	.24**	.32***	.06	.12	.17*	.18*	.04
Pessimism	.20*	.18*	.13	.07	.22**	.16*	.20*	.12	.03	.12	.13	.09
Guilt	.43***	.37***	.24**	.31***	.15*	.33***	.30***	.39***	.07	.13	.18*	.30***
Energy Level (Fatigue)	.08	.11	.13	.02	.03	.16*	.18*	.03	.07	.15*	.11	.07
Low Self-esteem	.26**	.24**	.14	.11	.22**	.31***	.29***	.25**	.02	.17*	.25**	.26**
Social Introversion	.11	.18*	.12	.01	.07	.28***	.17*	.08	.06	.04	.15*	.07
Cognitive Difficulty	.12	.13	.06	.01	.15*	.05	.16*	.04	+.15*	.03	.11	.18*
Irritability	.03	.04	.03	.10	.04	.02	.02	.06	.05	.12	+.04	.11
Instrumental Helplessness	.21*	.20*	.13	.00	.13	.20*	.03	.07	.03	.12	.10	.06
Sad Mood	.22*	.21**	.18*	.01	.03	.23**	.23**	.15*	.12	.15*	.09	.08

Note.—All correlations are negative, unless marked +.

*N = 123.

^bTc = time-competence; I = inner-directed; SAV = self-actualizing value; E = existentiality; Fr = feeling reactivity; S = spontaneity; Sr = self-regard; Sa = self-acceptance; Nc = nature of man, constructive; Sy = synergy; A = acceptance of aggression; C = capacity for intimate contact.

*p < .05.

**p < .01.

***p < .001.

to other variables in the universe were retained, using the eigenvalue criterion of 1.0.

For the female sample, five factors were derived with eigenvalues greater than one; these accounted for 73.8% of the variance. The five factors were rotated to varimax criterion, and the resulting factor loadings are presented in Table 3, with the exception of Factor IV, which was a doubleton. Similarly, for the males, six factors, accounting for 70.4% of the variance, met the eigenvalue criterion of 1.0. The six factors were rotated to varimax criterion; however, the two final factors, a singleton and a doubleton, were uninterpretable and hence are not reported in Table 3.

TABLE 3
FACTOR LOADINGS FROM VARIMAX ROTATION OF SCALES FOR THE PERSONAL
ORIENTATION INVENTORY AND MULTISCORE DEPRESSION INVENTORY

Scales	Factor									
	I		II		III		IV	V		
	F	M	F	M	F	M	M	F		
Learned Helplessness	—	—	.77	.66	—	—	—	—	—	—
Pessimism	—	—	.72	.64	—	—	—	—	.39	—
Guilt	—	—	.52	.38	—	-.48	—	—	—	—
Energy Level	—	—	.71	.64	—	—	—	—	—	—
Low Self-esteem	—	—	.75	.64	—	—	—	—	—	—
Social Introversion	—	—	.61	.72	—	—	—	—	—	—
Cognitive Difficulty	—	—	.57	—	—	—	—	—	—	—
Irritability	—	—	.38	—	—	—	—	—	—	.54
Instrumental Helplessness	—	—	.42	.56	—	—	—	—	—	.43
Sad Mood	—	—	.83	.85	—	—	—	—	—	—
Time-Competent	.51	—	—	—	—	.78	—	—	—	—
Inner-Directed	—	.67	—	—	.70	.43	.35	—	—	—
SAV ^a	.55	.44	—	—	—	—	.78	—	—	—
Existentiality	—	.40	—	—	.78	.60	—	—	—	—
Feeling Reactivity	.91	.86	—	—	—	—	—	—	—	—
Spontaneity	.95	.64	—	—	—	—	—	—	—	—
Self-Regard	.71	.44	—	—	—	—	—	.35	—	—
Self-Acceptance	.69	.35	—	—	.39	.62	—	—	—	—
Nc ^a	.95	—	—	—	—	—	—	.62	—	—
Synergy	.81	—	—	—	—	—	—	.73	—	—
A ^a	.94	.81	—	—	—	—	—	—	—	—
C ^a	.94	.75	—	—	—	—	—	—	—	—

Note.—Only those factor loadings greater than .35 are included.

^aSAV = self-actualizing value; Nc = nature of man, constructive; A = acceptance of aggression; C = capacity for intimate contact.

Although the selection process for the Governor's School resulted in candidates who, as mentioned above, were superior to their peers in some self-actualizing scores on the POI, nevertheless several individuals scored abnormally low on one or more scales. Thirty-one percent of students (74) scored at a level two or more standard deviations below the mean on at least one of the subscales of the POI. In order to identify students who, despite their capabilities, clearly were not yet responding to the POI in a manner indicative of the self-actualizing mode, a subsample of 15 students (7 males and 8 females) were identified who recorded standardized scores at or below 30 on at least three of the POI scales. These students

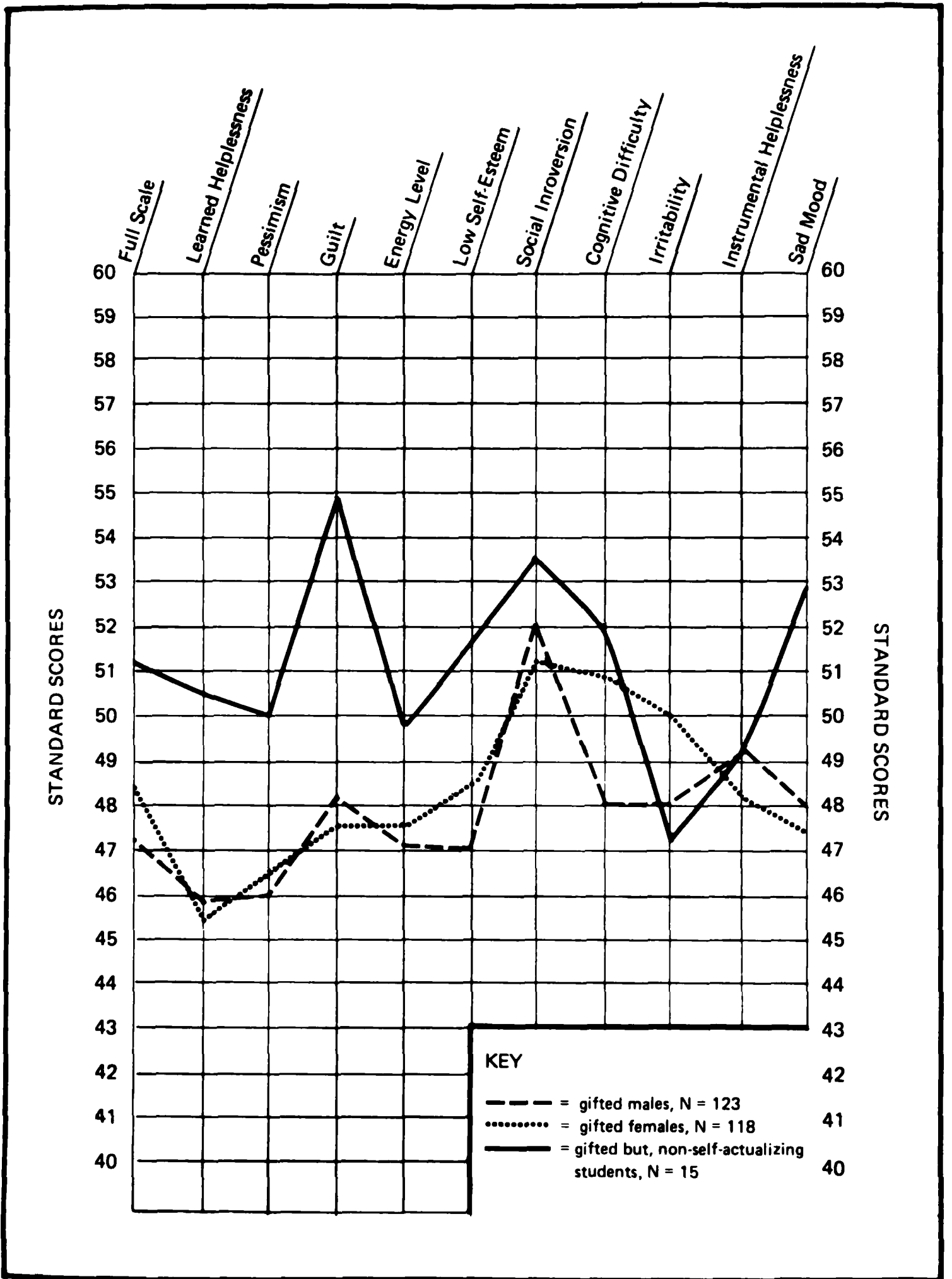


Fig. 1. Profile of depressive symptoms on the MDI for gifted male and female adolescents and a subgroup who scored poorly on the POI.

were undoubtedly considerably different from the typical Governor's School student. To examine the pattern of depressive symptomatology in the gifted adolescents of the Governor's School, their scores on the Multiscore Depression Inventory were converted to standardized scores on the basis of local norms (cf. Berndt et al., 1980). The standard scores for the MDI were plotted in Figure 1 for the total sample of males and females, and for the small group of students who scored poorly on the POI.

As can be noted from Figure 1, the gifted males and females were somewhat less depressed than the local normative sample, although the differences were not striking. Additionally, the small group who reported low self-actualizing on the POI were slightly more depressed. More interesting, perhaps, are the differences among the three groups on particular subscales. The non-self-actualizing group reported greater-than-average depression characterized particularly by guilt, social introversion, low self-esteem, cognitive difficulty, and sad mood. As a group, they were less irritable than the normative sample and the sample of gifted females. Another interesting result, illustrated by Figure 1, is that the gifted sample was more socially introverted than their peers. Differences between gifted males and females were minimal; the women reported significantly more cognitive difficulty ($p < .05$).

DISCUSSION

The results overall tend to indicate that depressive symptoms are not related closely to the values and attitudes associated with self-actualizing modes. The correlations reported in Tables 1 and 2 are generally low and significant, partly as a result of the large number of Ss. Some low to moderate correlations, however, are noteworthy, particularly those that show results that hold true for both males and females. The two aspects of self-perception, self-regard and self-acceptance, were related negatively to pessimism and low self-esteem, while self-regard showed a consistent negative relationship with learned helplessness. Time competence, or the sense of living in the present, was relevant to depression, particularly for females: Gifted women who were living in the past or future (time incompetent) more frequently reported depressive symptoms, especially guilt. Guilt was the salient symptom for males and showed some relationship to all the POI scales except nature of man and synergy. The lack of a noteworthy relationship between the nature of man subscale and the MDI is surprising because Beck's (1967) cognitive triad stresses the role of a negative view of the world as a crucial factor in depressive states and syndromes. The results of the present study appear to be more comprehensive than is the case in a study by Shostrom and Knapp (1966), in which it was reported that depression, as measured by the MMPI-D scale, was related chiefly to acceptance of aggression. We found instead a number of low to moderate, but significant, relationships among the several scales of the POI and MDI, with acceptance of aggression typically yielding low relationships. Although significant correlations in the present study, as noted above, were generally low to moderate at best, they may have been held down by the restricted range of scores on the POI likely to occur in such a select sample.

Factor analyses give further support to the relative independence of depressive symptomatology and the cluster of attitudes and values associated with self-actualization. The first factor, for both males and females, loaded entirely with scales for the POI, and it appears to be a general self-actualizing factor. For females, Factor 1 represents, apparently, a combination of the first two factors identified in the studies by Tosi and Hoffman (1972) and Silverstein and Fisher (1968). For males, the first factor does not include the Nc and Sy scales, and the loading of these scales on our male Factor IV suggests that the second factor in both these studies, "open-mindedness" by Tosi and Hoffman (1972), and "conceptual phenomena" by Silverstein and Fisher (1968), was only conceptually different for our males. Factor III in our study appears similar to the third factor in both of the other analyses, and we will retain the label of "existential nonconformity" used

by Tosi and Hoffman (1972). It is interesting to note that this factor included more subscales in this sample of gifted adolescents, particularly inner-directiveness, and for the males, time-competence and a negative loading for guilt from the MDI. Our results for the POI suggest several general conclusions. First, for our sample of gifted adolescents, existential nonconformity was a noteworthy factor for both males and females. Second, only the males in our sample responded to the POI in such a way that the open-minded/conceptual phenomena construct was distinct. Furthermore, because the first factor included most of the subscales of the POI, the current study provided evidence that the concepts measured by the POI form a unitary construct that might be measured more parsimoniously (for a thorough discussion of this point see the 1975 review of the POI by Tosi and Lindamood). Finally, the high item-overlap in the subscales (Shostrom, 1964) probably contributed considerably to the factorial simplicity.

Factor II in our study also included scales from the MDI only. This factor, apparently a general depression factor, indicated that, with the exception of guilt for males, the factorial space covered by depression and self-actualization, as measured by the MDI and POI, were fairly distinct. Additionally, for our sample, depression as measured by the MDI had a rather simple factorial structure with one general factor, and for the females a second factor (Factor V in Table 3), which appeared to represent a demanding, grouchy, and cynical kind of depression that we labelled "manipulative depression." The factorial simplicity of the MDI reflected the high intercorrelation of the subscales, but contrasts with evidence from a study by Berndt (Note 1) that indicates that when items, rather than scales from the MDI, are analyzed by either factor or cluster analytic methods, approximately eight distinct concepts are tapped by the MDI.

The graphic comparison of the non-self-actualized adolescents with the sample of gifted males and females (Figure 1) illustrates several points. First, gifted adolescents in all three groups tended to be more socially introverted. This should not be explained away as a "bookworm" phenomenon because several of the students were selected for creative rather than academic excellence. Perhaps more directly relevant is that many of these students may have been acutely aware of feelings of social isolation and stressful environmental changes due to being away from the parental home in a new city, often for the first time, and therefore were experiencing the stress of this separation.

Another interesting finding is that several of these gifted students (31%) scored lower than the normative sample on at least one of the POI scales. Maslow (e.g., 1968) typically studied successful adults and conceptualized self-actualization as an active, growth-oriented process, rather than a stable product. From a developmental perspective, one would expect gifted adolescents to have matured less than gifted adults. This whole developmental issue cannot be addressed adequately, however, by using age appropriate norms because certain age-appropriate tasks would make certain subscales more or less salient. With adolescents, for example, autonomy and issues of self-regard and self-acceptance are likely to be problems that are foregrounded by developmental demands (Erikson, 1959). Indeed, for the Governor's School sample, self-regard and self-acceptance were the subscales for which low scores were obtained most frequently. While the purpose of the present study was to not compare systematically our gifted sample with their peers, the above considerations form an important context for understanding our population of interest: Gifted adolescents who were not yet responding in a self-actualizing manner.

The non-self-actualized group were more depressed in general, according to Figure 1, and MDI scales on which they were particularly depressed included guilt, sad mood, low self-esteem, and learned helplessness. The overall picture is that some students, despite their selection for academic and personal excellence, were nevertheless mildly depressed, in a characteristic fashion. One possibility is that the sample could be the adolescent equivalent of Seligman's (1975) reactive success depression. If the students have low self-regard and low self-acceptance

simultaneous with the recognized success implied by selection to Governor's School, the perception of non-contingent reinforcement central to Seligman's original explanation of reactive depression would explain the present results. Considerably higher guilt, coupled with learned helplessness and low self-esteem, might well characterize such a success depression in adolescents. Another possibility may be that these particular students simply reacted to the separation from their parental home. Theorists (Jacobson, 1971; Kernberg, 1975) have noted that individuals who have difficulty with separations are often also depression-prone. Finally, the sample may have reported the mild depression often noted to be part of the phase appropriate phenomena that may accompany normal adolescence (Blos, 1979). A problem with such an explanation, however, is the difficulty in accounting for the failure of the other gifted students to demonstrate noteworthy depressive phenomena.

In summary, the current study investigated the relationship between depressive affect and self-actualization in a sample of gifted adolescents. Low but significant correlations were noted among several of the subscales of the POI and depressive symptoms on the Multiscore Depression Inventory. Furthermore, a subsample of adolescents who scored unusually low on the POI subscales also reported a pattern of mild depressive symptoms. Finally, a factor analysis of the correlations between the MDI and POI provided evidence that the POI and MDI measure separate and factorially simple constructs.

REFERENCE NOTES

1. BERNDT, D. J. A validation study of the subscales of the Multiscore Depression Inventory. Paper presented at the eighty-eighth Annual Convention of the American Psychological Association, Montreal, September 1980.
2. KAISER, C., CANTOR, A., PRIOLEAU, K., & VAN AALST, F. A multivariate comparison of gifted adolescents and their peers on a measure of self-actualization. Unpublished manuscript.

REFERENCES

- BECK, A. T., WARD, C. H., MENDELSON, M., MOCK, J., & ERBAUGH, J. An inventory for measuring depression. *Archives of General Psychiatry*, 1961, 4, 451-471.
- BECK, A. T. *Depression: Clinical, experimental, and theoretical aspects*. New York: Hoeber, 1967.
- BERNDT, D. J., & BERNDT, S. M. Relationship of mild depression to psychological deficit in college students. *Journal of Clinical Psychology*, 1980, 36, 868-874.
- BERNDT, D. J., PETZEL, T., & BERNDT, S. M. Development and initial evaluation of a multiscore depression inventory. *Journal of Personality Assessment*, 1980, 44, 396-404.
- BLOS, P. *The adolescent passage: Developmental issues*. New York: International Universities Press, 1979.
- DEPUE, R., & MONROE, S. Learned helplessness in the perspective of the depressive disorders: Conceptual and definitional issues. *Journal of Abnormal Psychology*, 1978, 87, 3-20.
- ERIKSON, E. H. Identity and the life cycle. *Psychological Issues*, 1959, 1 (Monograph 1).
- HAMMEN, C. L. Depression in college students beyond the Beck Depression Inventory. *Journal of Consulting and Clinical Psychology*, 1980, 48, 126-128.
- JACOBSON, E. *Depression*. New York: International Universities Press, 1971.
- KAISER, H. F., & CAFFREY, J. Alpha factor analysis. *Psychometrika*, 1965, 30, 1-14.
- KERNBERG, O. *Borderline conditions and pathological narcissism*. New York: Jason Aronson, 1975.
- MASLOW, A. H. *Toward a psychology of being*. Princeton, N.J.: Van Nostrand, 1968.
- MILLER, W. R. Psychological deficit in depression. *Psychological Bulletin*, 1975, 82, 238-260.
- SELIGMAN, M. E. P. *Helplessness*. San Francisco: Freeman, 1975.
- SHOSTROM, E. An inventory for the measurement of self-actualization. *Educational and Psychological Measurement*, 1964, 24, 207-218.
- SHOSTROM, E., & KNAPP, R. Relationship of measures of self-actualization (POI) to a measure of pathology (MMPI) and to therapeutic growth. *American Journal of Psychotherapy*, 1966, 20, 193-202.
- SILVERSTEIN, A., & FISHER, G. Is item overlap responsible for "built-in" factor structure? *Psychological Reports*, 1968, 23, 935-938.
- TOSI, D., & HOFFMAN, S. A factor analysis of the Personal Orientation Inventory. *Journal of Humanistic Psychology*, 1972, 12, 86-93.
- TOSI, D. J., & LINDAMOOD, C. A. The measurement of self-actualization: A critical review of the Personal Orientation Inventory. *Journal of Personality Assessment*, 1975, 39, 215-224.

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