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ABSTRACT

This study proposed that the interaction of student personality and school environment is influential in the development of normative climates. Two instruments measured the transactional relationship between individual personal structure (needs) and characteristics of the organizational environment (press). Needs were measured by an Activities Index (AI); press by the High School Characteristics Index (HSCI). A sample of eleventh grade students of high and low ability were randomly chosen out of the 462 who responded to both indexes. Factor analysis, correlation, and analysis of variance determined the significant relationships of the major variables. The responses were classified by school setting, ability group, and socioeconomic background. AI factors were achievement motivation, emotionality, dependence, dominance, intellectuality, individuality, and submissiveness; HSCI factors were development press and control press. The evidence indicated that schools appear to develop psychological environments which are consistent with the personality attributes of the student clientele. The personality structure of students and the normative climates of schools vary among socioeconomic groups; within schools, they vary as a function of academic program placement. (Author/KSM)

The Relationship of Students' Personality Structure, Socioeconomic Background, and Program Placement to Their Perception of the Organizational Characteristics of Select Public High Schools

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This study is concerned primarily with the influence of student socioeconomic background characteristics and its relationship to student social behaviors in high school. It is based on the proposition that the interaction of student personality structure and school environmental characteristics is influential in the development of normative climates or psychological environments to which behavior characterizes a response.

Extensive research of the different relationships between personality and environment has been carried out on the college level (Stern, 1970). In terms of comparable psychological dimensions the characteristics of various student bodies were found remarkably similar to those characteristics representing the attributes of their respective college programs. The personality structures (needs) of students were generally congruent with the environmental characteristics or presses of the institution in which they chose to enroll. Consequently, descriptive needs-press relationships, referred to as institutional cultures, developed which differed substantially from one college to another, particularly in regard to intellectual versus vocational thrusts.

The overall dimensions of an intellectual climate were defined by the more conventional aspects of an academic program: (a) qualities of staff and facilities, (b) standards of achievement set by students as well as faculty, and (c) opportunities for the development of self-assurance. The intellectual climate was also marked by (d) non-custodial student personnel practices and (e) absence of vocationalism. The non-intellectual climate involved a high level of formal organization of student affairs, both academic and social. These were supportive in nature, catering to adolescent dependency needs. Other nonintellectual factors were associated with student play and an emphasis on technical and vocational courses.

Stern, a prolific investigator of person-environment interaction, found substantial differences among schools and between programs within schools. The personality structures of students differed as did their

respective school environments. Students were found to change relatively little over the years along the dimensions measured. The development of a relationship between person and environment was attributed to the reciprocal selection and voluntary participation that is enjoyed by private schools. Considering the current awareness of human ecology one could expect such relationships to be found in public schools as well.

The present research is directed to a description and analysis of needs-press relationships of high school students and their school experience. It describes these relationships by focusing on the intervening variables which have been most often cited in regard to differences in educational experience: student socioeconomic background and academic ability.

The Problem of Non-Selection of Students and Involuntary Participation in Public Schools

It is generally acknowledged in organizational theory (Etzioni, 1961) that service institutions which exercise little or no control over selection or participation of their clientele develop patterns of accommodation which are influenced by characteristics of clients. Public high schools cannot select their student population. Neither, under present circumstances, can the students participate voluntarily. In general, schools are attended by the students of the surrounding community.

Carlson (1964) has proposed adaptations to student nonselection and involuntary participation on the part of public schools might be pupil segregation by means of program tracking; goal displacement with emphasis on custodialism over education, or preferential treatment to particular student subgroups. Adaptation to involuntary participation on the part of students can be receptive, rebellious, or withdrawing behavior. This is consistent with Stern's (op. cit., 192-201) observation that students whose needs patterns were incongruent with their program or school press tended to respond with aggression, hostility or withdrawal.

Wheeler (1965), writing about the structure of formal socialization organizations suggests an important effect of the variability in recruit populations is the formation of subcultures within the organization. The formation of adolescent subgroups has been well documented in the literature by Coleman (1961), Havighurst (1962), and Hollingshead (1949). These studies focused on youth values, activities and interaction patterns. The most salient feature distinguishing subgroups was the socioeconomic background characteristics of the group majority.

In view of these findings, an assessment of needs-press interaction

in a heterogeneously populated public school should take into consideration the possibility the formation of subgroups within schools which are related to student socioeconomic backgrounds as well as academic ability.

Needs-Press, Socioeconomic Characteristics and School Program

Published research concerning needs-press relationships on the high school level are extremely limited. Herr, Kight and Hansen (1967) used the HSCI and the AI in one school. They reported correlations between scale scores of the two instruments was of such magnitude as to suggest a lack of independence. However, Stern (op. cit., pp. 260-261) suggests the cause of this relationship may lie in the selective exposure of students to specific high school subcultures rather than to autistic perception. For instance, the more highly motivated, brighter, college-oriented students are likely to have distinctive socioeconomic background as well as different exposure to more specialized courses and activity patterns. The college studies reported by Stern (op. cit.) did not focus on the relationship of socioeconomic background characteristics to student needs patterns or the environmental press of their respective schools.

Student socioeconomic background and academic ability have been clearly and consistently associated with educational outcomes (Lavin, 1965). This is not to suggest that these are the only variables involved. However, they are critical to an analysis of needs-press relationships in public high schools. This would imply a relationship between four variables: (a) student socioeconomic background, (b) program placement, (c) personality structure (needs), and (d) organizational characteristics (press).

Methodology

Stern and his associates (op. cit., pp. 13-16) developed two instruments capable of objectively measuring the transactional relationship between individual personal structure (needs) and characteristics of the organizational environment (press). Needs are measured by the Activities Index. Press is measured by an adaptation of the College Characteristics Index, the High School Characteristics Index. Both instruments consist of three hundred items which reflect a taxonomy of personality structure for the AI and a taxonomy of high school life for the HSCI.

In the current study, 462 high school students from thirteen high schools in the New York City metropolitan area responded to both the Stern Activities Index and the High School Characteristics Index. Although the schools were solicited, a sample of eleventh

grade English classes representing high and low ability groups were randomly chosen. Because variety and representativeness were particular criteria for school selection there is no reason to consider these schools as unique.

Characteristics of the Schools

The schools were selected on the basis of location and the socioeconomic characteristics of the community. At least three schools represent each of the three locations: urban, fringe and suburban. The schools were also categorized into three classifications which reflect the predominant socioeconomic characteristics of the community. The proximity of industry and commercial land use to housing, type of dwellings and predominant students' socioeconomic background characteristics contributed to the classification of the high school setting. These were designated as upper-middle, middle-middle and lower-middle. These categories were selected as none of the schools could be classified at either extreme of the socioeconomic continuum.

Characteristics of the Students

Students provided information concerning their academic program, educational and occupational aspirations. In addition, they reported the occupations and level of education for both of their parents.

The socioeconomic background characteristics of students were determined by a composite of these data using a modification of the stratification scale developed by Warner (1960). Students were classified as upper-middle when their parent or parents were college graduates and professionals; middle-middle when their parents completed college or some college and were semiprofessionals or teachers; lower-middle when their parents were semiskilled or unskilled workers with high school equivalency or less.

For purposes of this research, academic program was defined as ability group placement in eleventh year English. This grade level was arbitrarily selected in an attempt to insure age and experiential consistency throughout the sample. Two classes from each school, i.e., 30-40 students responded to the instruments. This is consistent with Stern's (op. cit.,p.261) recommendation that samples from large public schools be broken down into components representing various academic groups. This procedure was an attempt to resolve the possibility of a highly diversified high school population sample obscuring the distinctive character of the various subgroups. Stern indicated that a college level analysis based only on undifferentiated university samples would have failed to yield adequate data.

Treatment of Data

Factor analysis, correlation and analysis of variance were used to determine the significant relationships of the major variables in this study. The units of analysis are the aggregate responses of high school students classified by: school setting, ability group and socioeconomic background characteristics.

The Generation of the Factor Structures

When the school characteristics as measured by HSCI factor scores were compared to the factor norms developed by Stern for the original HSCI referent population, the current sample appeared extreme. Consequently, a new factor structure was computed. Data from the entire sample of 462 students was used to extract the factor solutions for both instruments. This new factor structure was comparable in terms of broad descriptions but quite different in terms of specific interpretation. The profile of youth and schools which emerged from the scale correlations of both instruments diverges remarkably from the findings of the major adolescence studies of the 1960's. Those adolescents were characterized by group centeredness, peer dependence, romantic preoccupations, and upward mobility manifested by drives for scholastic achievement.

In contrast, the factor patterning which describes the metropolitan population of this study suggests a profile of youth which is both serious and engaged but also fragmented and alienated; intellectually indifferent but emotionally expressive. Particularly characteristic is the expressed need for privatism and a general disdain for what might appear dominating behavior.

A KR_{20} of the scale responses of both instruments suggested that not all 30 scales can be treated with equal confidence. However, the factorial reliability is strong. Few of the questionable scales load heavily on any one factor. A joint factor analysis of the AI and HSCI factors indicated clear instrument independence.

The AI Factors

Table 1 presents the scale loadings which contribute to the seven first order AI factors. The student personality factors extracted indicate bi-polar dimensions of Achievement Motivation, Emotionality, Dependence, Dominance, Intellectuality, Individuality, and Submissiveness.

Several personality factors deviate from the scale loading reported by Stern from the AI college student data. These are the Emotionality factor, the Independence factor and the Individuality factor.

Table 1: RESULTS OF ITERATIVE PRINCIPAL AXIS FACTOR ANALYSIS
SUBJECTED TO EQUAMAX ROTATION
STERN ACTIVITIES INDEX[1]
N=462 High School Students

Scale Abbs		Achievement Motivation 1	Emotionality 2	Independence 3	Unassertiveness 4	Intellectuality 5	Individuality 6	Exertiveness 7
1.	Abb-Ass	-.085	.078	-.143	-.114	-.122	-.311	-.637
2.	Ach	.616	-.079	-.022	-.230	-.305	-.131	-.075
3.	Ada-Dfs	.138	.016	.025	.139	.005	.152	-.780
4.	Aff	.252	.131	-.502	-.205	(.438)	-.074	-.273
5.	Agg-Bla	-.096	.171	.262	-.590	.043	-.004	.290
6.	Cha-Sam	.094	.694	.010	.022	-.018	.155	-.012
7.	Chj-Dsj	.272	-.466	-.338	-.014	-.274	-.358	-.227
8.	Ctr	.603	-.116	-.040	.095	-.151	.134	-.183
9.	Dfr-Rst	.213	-.133	-.379	.182	-.137	-.247	-.456
10.	Dom-Tol	.144	.027	-.159	-.754	-.096	.029	.249
11.	E/A	.119	.095	-.117	-.662	(-.440)	.020	-.132
12.	Emo-Pl	-.137	.644	-.349	.003	-.087	-.132	-.114
13.	Eny-Pas	.678	.190	-.086	.042	.060	.121	-.051
14.	Exh-Inf	.004	.083	-.109	-.705	.019	-.251	-.196
15.	F/A	.239	.008	-.002	-.487	-.152	-.503	.216
16.	Har-Rsk	-.303	-.301	-.524	.240	-.321	-.022	-.047
17.	Hum	.125	.108	-.122	-.245	-.726	-.008	-.230
18.	Imp-Del	-.005	.588	.027	-.213	.167	.051	.068
19.	Nar	-.069	.324	-.514	-.097	-.021	-.496	.063
20.	Nur	.195	.372	-.537	-.044	-.134	-.137	-.361
21.	Obj-Pro	.173	-.005	-.115	.066	-.031	.734	.097
22.	Ord	.212	-.299	-.310	.134	-.078	-.569	.214
23.	Ply-Wk	-.023	.255	-.174	-.260	.633	.085	.155
24.	Pra-Imp	.552	-.014	-.077	-.246	-.261	-.252	-.058
25.	Ref	.214	(.413)	-.317	-.180	-.495	-.105	.022
26.	Sci	(.423)	-.131	.040	-.255	-.551	-.161	.066
27.	Sen-Pr	.012	.643	-.131	-.164	-.035	-.224	-.063
28.	Sex	-.049	.355	-.517	-.053	.085	-.493	-.101
29.	Sup	.153	.038	-.734	-.145	-.027	.007	-.174
30.	Und	(.445)	.094	-.199	-.158	-.634	.066	-.029

[1] See George G. Stern, People in Context: Measuring Person-Environment Congruence in Education and Industry (New York: John Wiley and Sons, Inc., 1970), Appendix A.

Factor 2. Emotionality

The intercorrelations of scales on this factor are indicative of students with desires for noncompulsive activity, avoidance of routine, and intense emotional expression. As is typical of an emotional orientation these youngsters are preoccupied with sensory stimulations but they appear introspective. Students would tend to avoid rigorous planning and follow-through. This factor is unlike any factor described by Stern in the college studies.

Factor 3. Independence-Dependence

The highest scale loading in this factor is autonomy. The student body may be characterized as: self-reliant, individualistic, disassociated from group interaction, rather audacious, unromantic, unpreoccupied with heterosexual love, and detached from group norms concerning dress or social form.

Consistently high negative scores on the scales termed Nurturance, Narcissism and Affiliation suggest that many of today's youth are unaffiliated, unsupportive of others and may be somewhat unsupportive of themselves. In short, one profile of youth of the 1970's emerges from this factor, students who can be characterized as: individualistic, privatistic, audacious and somewhat unkempt.

Factor 6. Individuality

The unique combination of scale loadings in this factor are indicative of students who are characterized by: rational views, uncompulsive, somewhat disorganized behavior, and a lack of aspiration for fame and power through personal endeavor. They are unpreoccupied with romantic love and show some disdain for self-centered, egotistical behavior.

The highest scale contributing to Factor 6 is Objectivity. Objectivity, according to Murray,[26] describes the absence of Projectivity. Common characteristics are impartiality, detachment, disinterest, tolerance, and understanding. These students can be characterized as differentiating clearly between the images of the mind and the object in the external world. Consequently, this can be interpreted as indicative of adolescent maturity. This quality is supported by substantial loading in this factor of self-assurance. However, the scale Disjunctivity also shows fairly high loading. This factor seems to present the variety of conflicting dimensions characteristic of adolescence. It appears indicative of that potpourri of adolescent needs we shall call Individuality.

The HSCI Factors

Table 2 presents the scale loadings which contribute to the six first order HSCI factors. The school organizational factors indicate

Table 2: RESULTS OF ITERATIVE PRINCIPAL AXIS FACTOR ANALYSIS SUBJECTED TO EQUAMAX ROTATION HIGH SCHOOL CHARACTERISTICS INDEX[2] N=462 High School Students

Scale Abbs		Group Life 1	Normative Control 2	Orderliness 3	Intellectual Climate 4	Personal Dignity 5	Individualized Achievement 6
1.	Abb-Ass	.113	.061	.182	-.163	-.754	-.204
2.	Ach	-.037	.076	.298	.159	.240	.392
3.	Ada-Dfs	-.143	.172	.179	-.105	-.646	.177
4.	Aff	-.754	.165	.089	.106	.135	.042
5.	Agg-Bla	.158	.249	(-.359)	.017	-.520	.233
6.	Cha-Sam	.065	.018	-.160	.194	-.036	.424
7.	Chj-Dsj	-.226	.286	.219	.154	(.622)	.178
8.	Ctr	-.177	.059	-.213	.076	.171	.582
9.	Dfr-Rst	-.030	.125	.575	.018	-.191	-.207
10.	Dom-Tol	.145	.583	.101	-.086	(-.390)	.122
11.	E/A	-.199	.238	.020	.508	.149	.267
12.	Emo-Pl	-.208	.130	-.012	.013	-.062	.581
13.	Emy-Pas	-.440	.156	.291	.254	.285	(.369)
14.	Exh-Inf	-.534	.196	.161	.275	.022	.298
15.	F/A	.011	-.035	-.041	.632	-.011	.000
16.	Har-Rsk	-.033	-.294	.413	.237	.028	.043
17.	Hum	-.186	.025	.079	.662	.167	.235
18.	Imp-Del	-.123	.299	-.548	.332	.078	-.153
19.	Nar	(-.347)	.435	.484	.044	-.054	.025
20.	Nur	-.498	.106	.257	.267	.111	(.350)
21.	Obj-Pro	-.132	-.020	-.116	.110	.807	.189
22.	Ord	-.061	.232	.654	.031	.015	-.110
23.	Ply-Wk	-.753	.218	-.122	.019	.039	.059
24.	Pra-Imp	-.221	.696	.096	.024	.111	.133
25.	Ref	-.065	.162	.064	.579	.202	.342
26.	Sci	(-.359)	.044	.290	.518	.145	.043
27.	Sen-Pr	-.397	-.126	-.155	.494	.100	.099
28.	Sex	-.174	.676	-.029	.106	-.075	.039
29.	Sup	(-.387)	-.092	.159	.048	.441	.300
30.	Und	-.151	.112	.200	.460	(.368)	.304

[2] ibid.

bi-polar dimensions of Group Life, Normative Control, Orderliness, Intellectual Climate, Personal Dignity, and Individualized Achievement. In the main, these factors replicate those developed by Stern for the original high school sample.

There is one striking exception however. The factor Achievement Standards in the Stern analysis emphasized a planned and purposeful school atmosphere, high in normative coercion. This factor has been replaced in the present study by a factor which is indicative of a varied and flexible atmosphere with acceptance of intense, open expression. Most important is the opportunity for direct expression of individuality. Standards of achievement, competition and hard work load least on this factor. We named this factor Individualized Achievement.

AI and HSCI Second Order Factors

The second order factor areas developed from the data provided by this sample are consistent with Stern's original identifications. For the Activities Index they are: Dependency Needs, Intellectual Orientation and Emotional Expression. For the High School Characteristics Index they are: Development Press and Control Press. A careful inspection of the factor patterning demonstrates the second order areas may tend to obscure many important relationships which are essential to the characterization of student personality structure or school. Consequently, the present study focused on the relationships of AI and HSCI first order factors to the socioeconomic and ability group variables.

Student Personality Structures

Activities Index mean scores for factors and areas for three groups of students, classified by sex and socioeconomic background characteristics were subjected to correlation procedures. The significant correlation coefficients are presented in Table 3.

Table 3: INTERCORRELATIONS OF SIGNIFICANT MALE AI FACTORS AND SES

Factors	1	2	3	4	5	6	7	I	II	III	SES
3. Idp.				379	312	689	377	-905	-341	172	-200**
6. Inv.							356	-880	-303	198	-271**
7. Ext.								-604	-334	-438	-204**
I. DEP.									391	-062	273**
SES											

**df = 240, p >.01 = 1.81

These results indicate that male students with higher socioeconomic background characteristics manifested significantly higher needs for Independency, Individuality and Exertiveness. Male students with lower socioeconomic background characteristics manifested higher Dependency Needs.

The relationships presented in Table 4 demonstrate female students with higher socioeconomic background characteristics manifested significantly higher needs for Emotionality, Independence and Individuality. Like males, females of lower socioeconomic background characteristics expressed greater Dependency Needs.

Table 4: INTERCORRELATIONS OF SIGNIFICANT FEMALE AI FACTORS AND SES

Factors	1	2	3	4	5	6	7	I	II	III	SES
2. Emo.			117	-244	029	181	263	-214	-062	-698	-220**
3. Idp.				295	150	667	393	-916	-228	003	-212**
6. Inv.							161	-849	-171	145	-345**
I. DEP.									307	070	292**
III EXP.											183**
SES											

**df = 220, p > .01 = 1.81

The mean AI factor scores for males in high and low ability groups by school were subjected to two-way analysis of variance. Tests of significance indicated that males in higher ability groups tended to report higher self estimates of needs for Independence, Intellectuality, Individuality and Exertiveness. These were, in the main, consistent with the relationships to the socioeconomic variable. However, in the case of Independence, ability group and school interact suggesting higher scores on Independence for males are not always related to higher ability group. See Table 5.

Table 5: TWO WAY ANOVA MALE AI FACTORS AND AREAS BY ABILITY AND SCHOOL

No.	Factor Description	Ability df: 1,213	School df: 12,213	Interaction df: 12,213
1.	Achievement Motivation	2.57	1.72	0.71
2.	Emotionality	0.00	0.67	0.23
3.	Independence-Dependence	5.31*	3.72**	2.16*
4.	Unassertiveness-Dominance	2.58	0.95	0.78
5.	Intellectuality	11.69**	3.10**	1.26
6.	Individuality	26.68**	3.88**	1.74
7.	Exertiveness-Submissiveness	11.27**	2.66**	0.75
I.	Dependency Needs	18.98**	4.01**	1.78
II.	Intellectual Orientation	9.24**	2.69**	0.92
III.	Emotional Expression	4.25**	0.78	0.40

df 1/213 * F @ .05 = 3.89; ** F @ .01 = 6.76
df 12/213 * F @ .05 = 1.80; ** F @ .01 = 2.28

Results of a two-way analysis of variance for females indicated that females in higher ability groups reported significantly higher needs for Achievement Motivation, Intellectuality and Individuality. See Table 6.

Table 6: TWO WAY ANOVA FEMALE AI FACTORS AND AREAS BY ABILITY AND SCHOOL

No.	Factor Description	Ability df: 1,193	School df: 12,193	Interaction df: 12,193
1.	Achievement Motivation	4.17*	1.56	0.817
2.	Emotionality	3.80	2.31	1.40
3.	Independence-Dependence	0.75	1.49	1.99*
4.	Unassertiveness-Dominance	0.32	0.82	1.54
5.	Intellectuality	8.15**	1.06	1.00
6.	Individuality	14.21**	1.78	1.57
7.	Exertiveness-Submissiveness	0.15	0.86	1.67
I.	Dependency Needs	5.48*	1.59	1.77
II.	Intellectual Orientation	8.32**	1.49	0.99
III.	Emotional Expression	1.81	1.06	1.42

df 1/193 * F @ .05 = 3.89; ** F @ .01 = 6.76
df 12/193 * F @ .05 = 1.80; ** F @ .01 = 2.28

Females, like males, reported a significant interaction of ability group and school on the Independence factor. No consistent socioeconomic or demographic characteristic which could contribute to this relationship was apparent.

Differences in Student Personality Structure

Analysis of the AI data of the current sample identified significant differences between student socioeconomic background and personality variables. Both male and female students of higher socioeconomic background manifested significantly higher needs for those activities characteristic of Independence and Individuality. Interpreting the Independence factor, they can be described as self-reliant, disassociated from group interaction, rather audacious and detached from group norms concerning dress or social form. Their consistently negative scores on Nurturance, Narcissism and Affiliation suggests that they are unsupportive of others and perhaps unsupportive of themselves as well. This combination could suggest that they are determined to be independent and individualistic. The Individuality factor describes these youth as characterized by rational views, somewhat disorganized in behavior, lacking aspiration for fame and power through personal endeavor and with high disdain for what might appear self-centered, egotistical behavior.

However, we see in the present study, that Achievement Motivation and Intellectual Interests do not typify youth of upper middle socioeconomic background. In effect, they have not internalized, or more important, may not wish to internalize the intrinsic motives that have

been shown to be important determinants of productive, work-related behavior. These intrinsic motives have been identified by McClelland (1961) and Atkinson (1964) as: the need for achievement, power, and affiliation. These personality variables do not appear significantly characteristic of students of higher socioeconomic background in the present study.

Higher ability students report higher self-estimates of needs for Intellectuality and Individuality. Consistent with what may be the popular peer group norms of appearing cool and anti-Establishment, higher ability group males do not report higher needs described as Achievement Motivation. Females in higher ability groups do report higher self reports of needs for Achievement. This may be due to sexist distinctions which subtly manifested in our society may preclude the admittance of only the most aggressive, achievement oriented females to the higher ability groups.

Students of lower socioeconomic background and lower ability can be characterized as more dependent, submissive and socially conforming. They seek group interaction and support and prefer control over their immediate environment. A more orderly and less chaotic life is desirable to them. Conformity may be regarded as a means to upward mobility for them as they report high concern for normative behavior concerning dress, appearance and dating.

School Environmental Characteristics

Relationships were also significant between student socioeconimic background characteristics and factor scores for the HSCI. Students with higher socioeconomic background characteristics perceived their high school atmospheres as low in Group Life. Lower SES students perceived greater presses for Normative Control and Orderliness. The significant correlation coefficients are presented in Table 7.

Table 7: INTERCORRELATIONS OF HSCI SIGNIFICANT FACTORS AND SES

Factors	1	2	3	4	5	6	I	II	SES
1. Group Life		-375	-245	-665	-428	-459	840	370	-180**
2. Normative Control			428	189	-092	187	-200	-858	136**
3. Orderliness				119	005	-011	-130	-831	234**
II. Control Press									-217**
SES									

**df = 460, p >.01 - 1.22

The HSCI factor scores for high and low ability group of thirteen schools were subjected to two-way analysis of variance. The main effect treatment by ability group was significant for five of the HSCI factors. See Table 8.

Table 8: TWO WAY ANOVA HSCI FACTORS AND AREAS BY ABILITY AND SCHOOL

No.	Factor Description	Ability df: 1,435	School df: 12,435	Interaction df: 12,435
1.	Level of Group Life	26.44**	4.54**	1.53
2.	Normative Control	12.33**	6.72**	1.15
3.	Orderliness	23.99**	6.96**	3.45**
4.	Intellectual Climate	3.46	2.85**	2.03*
5.	Personal Dignity	8.17**	4.46**	0.74
6.	Individualized Achievement	4.17*	1.64	1.31
I.	Development Press	3.06	4.10**	1.65
II.	Control Press	26.15**	9.31**	2.51**

df 1/435 *F @ .05 = 3.86; ** F @ .01 = 6.70
df 12/435 * F @ .05 = 1.78;**F @ .01 = 2.23

Higher ability groups reported appreciably lower levels of Group Life than did lower ability groups. Lower ability groups perceived higher presses for Normative Control and Orderliness. Higher ability groups tended to perceive the school environment as being characterized by higher dimensions of Personal Dignity. Although ability groups by schools were found to vary significantly in regard to the Individualized Achievement factor no consistent pattern was apparent. Significant interaction was reported for Orderliness and Intellectual Climate indicating the relationship of those variables is sometimes influenced by a combination of school and ability group.

In regard to HSCI factor relationships to three classifications of school socioeconomic setting results of analysis of variance indicate: lower middle schools tended to be characterized by greater presses for Orderliness. Upper middle schools tended to be characterized by greater Intellectual Climate. The Personal Dignity dimensions of upper and lower middle schools appeared about the same. The lowest Personal Dignity descriptions were associated with schools in the middle socioeconomic group. Table 9 presents the F ratios of significant HSCI factors to three levels of socioeconomic setting.

Table 9: ANOVA SIGNIFICANT HSCI FACTORS BY SCHOOL SES

No.	Description	F(df: 2,459)
F3	Orderliness	15.554**
F4	Intellectual Climate	3.221*
F5	Personal Dignity	3.725*
AI	Development Press	3.056*
AII	Control Press	8.188**

df 2/459 * F @ .05 = 3.02; ** F @ .01 = 4.66

Differences in the Normative Climates of High Schools

When we examine the descriptions of school environments which include student perceptions of both school activities and the characteristics of

other students in the school, students in schools classified by higher socioeconomic settings report higher presses for Intellectual Climate. This suggests that schools in upper-middle settings are perceived as maintaining an educational atmosphere associated with the development of social and intellectual leadership in their students. This finding supports the extensive research which describes the importance of the social milieu in regard to educational outcomes (Coleman, 1966).

The normative climates of schools in this study which are characterized by different socioeconomic settings are also different in regard to Orderliness and Control presses.

Friedenberg (1963) observed that schools regardless of social or demographic conditions reflect an atmosphere of control, distrust and punishment. Contrary to this view, students of lower socioeconomic background, lower socioeconomic school setting and lower ability group report significantly higher presses for Normative Control and Orderliness. These school environments are characterized as emphasizing training rather than general education activities. Typical of these environments are rigid social norms which may be useful in socializing students in preparation for standardized adult roles but are questionable in terms of intellectual development. The organizational structure of these schools is characterized by bureaucratic aloofness. Routinization, predictability and good social form are the predominant environmental characteristics.

Stern's (op. cit., pp. 56-8) observation that specific types of colleges vary with regard to intellectual versus vocational thrusts appears to apply to classifications of high schools by socioeconomic setting and to subgroups of academic ability within high schools as well. The normative climates perceived by students in schools of lower socioeconomic setting and in lower ability groups suggests greater emphasis on training than intellectuality.

The analysis of normative high school climates by broad classification of the socioeconomic setting of the school brought an unanticipated relationship into view. Students in communities classified socioeconomically as middle-middle, rather than lower-middle, report significantly lower scores on the dimension of school atmosphere characterized as Personal Dignity. The school, as they describe it, is not objective, assuring or accepting. On the contrary, the teachers and administrators are reported as using means of public criticism, sarcasm and humiliation for purposes of social coercion. This sense of disenfranchisement would support the recent contentions of Sexton (1971) and Coles (1971) that the middle-middle class (the silent majority) suffers many ills by virtue of their nonextreme social position.

Students in higher academic program groups across schools report a significantly higher self description of needs for Intellectuality. Yet, perceptions of school Intellectual Climate was not related to ability group placement. Perceptions of higher Intellectual Climate varied significantly among schools. Higher presses for Intellectual Climate were sometimes reported by the lower ability groups. When the data are analyzed

school by school, students in higher ability groups tend to report that they are not challenged intellectually by the curriculum provided in their high schools. When the data are analyzed by three broad classifications of socioeconomic setting, schools located in communities designated as upper middle report significantly higher presses for Intellectual Climate.

The High School Culture Factor

One composite needs-press factor combining both personality and environmental variables was extracted. The personality variables Emotionality and Individuality loaded negatively with the environmental variables Normative Control and Orderliness. This compared favorably with the Expressive factor extracted in the college studies (Stern, op. cit., pp 206-7). The factor was termed the High School Expressive Culture.

Table 10: JOINT AI-HSCI FACTOR LOADINGS: HS EXPRESSIVE CULTURE

Factor	Description	Loading
HSCI 3	Orderliness	-.834
AI 6	Individuality	.764
HSCI 2	Normative Control	-.753
AI 2	Emotionality	.629

In order to replicate Stern's (op. cit., p. 205) procedures in representing culture descriptions it is necessary to compute separate scores for males and females. Unfortunately, the number of subjects within schools by ability subgroups was too small in the current sample to adequately compute a culture analysis school by school.

As one of the purposes of this study was to test the application of the construct of joint needs-press relationships to high school populations, it was decided to compute culture scores for males and females in the three classifications of school socioeconomic setting and student high and low ability groups. In this manner, two (one for males and one for females) two-way analysis of variance designs were constructed. The subsequent analyses (see Tables11 and 12) indicated significant relationship for the joint AI-HSCI culture factor between high and low ability groups and the socioeconomic settings of the school. These relationships are significant for both male and female students. An inspection of cell means indicated significant needs-press relationships between the personality structures of students in higher ability group and the organizational characteristics of schools in higher socioeconomic settings and are likely to be found in a school atmosphere which is open, expressive and nonconforming. This is certainly consistent with Reich's (1970) thesis that Consciousness III is exploding in the ranks of the brighter, more affluent adolescent.

Table 11: TWO WAY ANOVA CULTURE FACTOR FOR MALES BY ABILITY GROUP AND THREE LEVELS SCHOOL SES

Factor Description	SES df:2/233	Ability df:1/233	Interaction df:2/233
HS Expressive Culture	8.17**	26.08**	1.25

**df:2/233 F@.01=4.71; **df 1/233 F @.01=6.76

Table 12:TWO WAY ANOVA CULTURE FACTOR FOR FEMALES BY ABILITY GROUP AND THREE LEVELS SCHOOL SES

Factor Description	SES df: 2/211	Ability df:1/211	Interaction df:2/211
HS Expressive Culture	7.92**	23.04**	.37

**df:2/211 F@.01=4/71; **df:1/211 F@.01=6.76

Implications

The evidence presented in this study indicates that schools appear to develop psychological environments which are consistent with the personality attributes of the student clientele. The personality structures of students and the normative climates of schools vary among socioeconomic groups. Within schools, relationships of personality and climate vary as a function of academic program placement.

The Activities Index and the High School Characteristics Index proved useful tools in the analysis of social system interactions among and within high schools. The analyses of data suggested consistent interactions between person and environment. These can be categorized into two broad areas: the Dependent-Independent continuum for personality and the Normative Control-Laissez-Faire continuum for climate. The former dimensions of the continuum appear related to the personality structures and school climates of lower SES youth; the latter, of higher SES youth.

These differences do not necessarily indicate that students who are brighter or more affluent are necessarily at distinct advantage in their high school experiences. The personality characteristics they ascribe to themselves emphasize Independence and Individuality and minimize Intellectuality. The characteristics they report of their school experience deemphasize Orderliness and Normative Control but do not emphasize intellectual activity or achievement. On the other hand, students of lower socioeconomic background and lower academic ability report higher Dependency Needs for themselves and the emphasis of Orderliness and Normative Control as characteristic of their

school experience.

Relationships between learning and student dependency characteristics have been investigated by Amidon and Flanders (1961). High dependency prone students were reported to learn more when taught by teachers using indirect rather than direct techniques. Clearly, the organizational presses for Orderliness and Normative Control that the lower ability and lower SES students report appear indicative of highly directive techniques.

In light of these findings, educational administrators would do well to examine both the personality structures of their students and their perceptions of the environmental characteristics of their schools in order to assess the appropriateness of present curriculum or organizational patterns. The evidence presented in this study indicates that traditional methodology or instructional patterns would be ineffective for both students of higher ability or higher socioeconomic background and students of lower ability or lower socioeconomic background.

The results reported in this study are highly suggestive of the contributing factors to the crisis in education in the public high schools today. Certainly the evidence concerning the personality characteristics students bring to the school indicates that the task of education is complex and challenging. The present study, although exploratory, is offered as a base on which to build.

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