

DIFFERENTIAL IMPACT OF UNIVERSITY STUDENT LIVING GROUPS

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The impact of university student living groups on freshmen students' personal and social development was assessed. The social environments of 42 student living groups were measured by the University Residence Environment Scale, which assesses 10 salient dimensions of the social environment. Indices of student personal and social growth were assessed by a biographical and experience questionnaire at the beginning and the end of the freshman year. The social environments of the living groups had differential impacts on student interactions and activities and student self-descriptions and feelings. For example, living groups that emphasized academic achievement facilitated negative affect and exhaustion and inhibited artistic appreciation and impulsive-deviancy. Student living groups constitute important subenvironments which should be assessed in future college impact studies.

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Key words: social environment, living group, college students, personal growth

Many investigators have been concerned with the impact of colleges and universities on student development (Astin and Panos, 1969; Chickering, 1971; Feldman and Newcomb, 1969). Although these studies have identified certain overall changes in students during their college and university years, three conceptual and methodologic shortcomings are apparent. First, most studies of college impact are really measuring student change or growth, which cannot be equated with impact (Astin, 1970). The assessment of differential student change as a function of college environments can only be carried out with differentiated measures of the college environment. These considerations have led to the construction of methods by which the total college environment may be assessed (Pace, 1969; Peterson et al., 1970; Stern, 1970; Centra, 1968).

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The second major criticism of college impact studies is that there are many subenvironments within a college or university which themselves have differential impact on students. For example, investigators who have attempted to relate college environments to student change have usually demonstrated only limited effects across large groups of students (Astin and Panos, 1969). One reason for this is that most colleges and universities are made up of different subenvironments. Students' perceptions of the characteristics of the total college environment may be affected by their location in that environment and by the extent of their involvement in university life (Feldman and Newcomb, 1969; Holland, 1973; Thistlethwaite, 1962).

The third criticism of college impact studies is that the majority of studies have limited themselves to a small range of outcome variables. These variables are usually linked to indices of the academic performance, such as grade point average, Graduate Record Examination scores, motivation to pursue advanced degrees, and so on. Although these variables are important, a wider range of student developmental changes should be considered (Chickering, 1971).

The purpose of this study was to assess the differential impact of university student living groups on freshman students' personal and social development, taking into account the above criticisms of college impact research. It is probably in the living unit where the new college student is most susceptible to peer influence. The student must learn to live and interact with other students and to adjust to various administrative regulations over which he or she has little control. Thus the social environment of a college living unit may have a powerful impact on students, particularly freshman students.

Previous research on the impact of living groups on student development provides some support for these contentions. Newcomb (1962) has demonstrated the importance of living-unit friendships in shaping individual attitudes and values. Dressel and Lehman (1965) indicated that the most significant experiences in the college lives of the students they studied was their association with different people in their living units.

DeCoster (1968) assigned groups of high-ability students so that these students formed 50% concentrations in certain residence halls. Control groups of students were randomly assigned to other residence halls. High-ability students living in close proximity in the homogeneously assigned residence halls had better academic success and perceived their living quarters as being more desirable. The high-ability students reported that their living units were more conducive to study, that they were influenced by fellow residents to do better in their studies, and that their fellow residents were more considerate and respectful of others. On the other hand, during one year, this concentration of high-ability students had negative effects on the academic achievement of the less talented students in the residence.

Brown (1968) manipulated the environmental press of college residence halls by numerically dominating certain residence hall floors with students with similar academic majors. Freshman room assignments were arranged so that the ratio of science students to humanities students was 4:1 on two floors of a residence hall, and the ratio of humanities students to science students was 4:1 on two other floors. Brown found that a significantly greater proportion of the "minority" groups changed their majors to fields similar to those of the majority groups on their residence hall floor. Significantly more of the minority group also expressed dissatisfaction with residence hall life. An informal intellectually oriented residence hall program also had an impact on students, indicating that the residence hall may be viewed as an educational as well as a living unit. Other relevant studies are reviewed by Williams and Reillye (1974).

EXPERIMENT DESIGN

Assessment of University Living Group Social Climate

Information about the social environments of university student living groups was obtained from the University Residence Environment Scales (URES) (Moos and Gerst, 1974). The rationale used in developing the URES was that the consensus of individuals characterizing an environment constitutes a measure of the social climate of that environment. The URES assessed university living groups' social environments as perceived by the students and/or living group staff.

The URES consists of 100 items which fall into ten subscales, each of which measures the emphasis on one dimension of living group climate. Brief descriptions of the ten subscales are given in Table I.

The involvement and emotional support subscales are relationship dimensions. They assess the extent to which students and staff support and help each other and the extent to which these groups are involved in the house and its activities. The second group of subscales assess personal growth or development dimensions. They measure the emphasis within the house environment on different maturational processes. Independence and traditional social orientation measure the emphasis on personal and social maturation. Competition, academic achievement, and intellectuality assess the emphasis on different aspects of academic growth. The order and organization, student influence, and innovation subscales assess system maintenance and system change dimensions. These dimensions tap information about the structure of organization within the house as well as about the processes and potential for changes in its functioning.

Further details about the development and correlates of the URES are given in Gerst and Moos (1972) and Moos and Gerst (1974). In brief, the URES sub-

Table I. Brief URES Subscale Descriptions

Relationship Dimensions:	
Involvement	Degree of commitment to the house and residents; amount of interaction and feeling of friendship in the house.
Emotional support	Extent of manifest concern for others in the house; efforts to aid one another with academic and personal problems; emphasis on open and honest communication.
Personal Growth Dimensions:	
Independence	Diversity of residents' behaviors allowed without social sanctions versus socially proper and conformist behavior.
Traditional social orientation	Stress on dating, going to parties, and other "traditional" heterosexual interactions.
Competition	The degree to which a wide variety of activities, such as dating, grades, etc., are cast into a competitive framework.
Academic achievement	Extent to which strictly classroom and academic accomplishments and concerns are prominent in the house.
Intellectuality	Emphasis on cultural, artistic, and other scholarly intellectual activities in the house, as distinguished from strictly classroom achievements.
System Maintenance and System Change Dimensions:	
Order and organization	Amount of formal structure or organization (e.g., rules, schedules, following established procedures, etc.) in the house; neatness.
Student influence	Extent to which student residents (not staff or administration) perceive they control the running of the house, formulate and enforce the rules, control use of money, selection of staff, food, roommates, policies, etc.
Innovation	Organizational and individual spontaneity of behaviors and ideas, number and variety of activities, new activities.

scales have internal consistencies ranging from 0.77 to 0.88, one-week test-retest reliabilities ranging from 0.66 to 0.77, and average intercorrelations of around 0.20, indicating that they measure distinct, albeit somewhat related, aspects of university living group environments (see Moos and Gerst, 1974, for further details).

Other evidence indicates that the URES adds substantial information about the student living group which cannot be obtained from information about the environment of the overall campus (Brown, 1973), that it discriminates among living units at different campuses as well as among living units at one campus (Smail et al., 1974), that it identifies five major clusters or types of living group social en-

vironments (Moos et al., 1975), and that there are predictable relationships between the major choice composition of living groups and their social environments (Hearn and Moos, 1976).

Biographical and Experience Questionnaire

A Biographical and Experience Questionnaire (BEQ) which contained items covering student background characteristics, student interactions and activities, self-descriptions and feelings, future aspirations, reactions to various types of careers, and physical symptoms and use of various health supplements, was constructed. The BEQ contained 117 items, but only the results of 54 items which assessed student interactions and activities and student self-descriptions and feelings are presented here. These 54 items were combined into nine subscales assessing student interactions and activities and seven subscales assessing student self-descriptions and feelings. The average subscale intercorrelations for the two sets of subscales were 0.19 and 0.12, respectively. Items were combined into subscales on the basis of content validity and empirical item intercorrelations (DeYoung, 1975).

The nine subscales assessing student interactions and activities (with item examples in parentheses) were as follows: 1) supportive interaction (listened to a friend's personal problems, studied with other people); 2) traditional social interaction (picked up a date at a party or dance, arranged a date for another student); 3) student body involvement (attended a school political rally, voted in a student election); 4) athletic participation (participated in athletics); 5) artistic appreciation (attended a public lecture, concert, or ballet); 6) musical interest (listened to jazz, folk, or classical music, played a musical instrument); 7) religious concern (prayed, read the Bible, attended church); 8) hostile interaction (argued with other students, lost my temper); and, 9) impulsive-deviancy (overslept and missed class, cheated on examinations).

The seven subscales which assessed student self-descriptions and feelings were as follows: 1) dominance-surgency (ambitious, dominant, energetic); 2) contentedness (calm, cooperative, easy going); 3) cautiousness (being cautious); 4) resistance (being rebellious); 5) exuberance (feeling on top of the world); 6) negative affect (feeling very lonely or remote from other people, depressed or very unhappy); and 7) exhaustion (feeling that you have far too much to do).

Each of the items in the subscales assessing student interactions and activities were rated on four-point scales ranging from never to often in terms of the number of times the student participated in the activity during his or her senior year in high school, and again during his or her freshman year in college. The items on the self-descriptions subscales (dominance-surgency, contentedness, cautiousness, resistance) were rated by students on four-point scales varying from not-at-

all to quite accurately in relation to "how well that term describes the way you see yourself." The items on the mood subscales (exuberance, negative affect, exhaustion) were rated on four-point scales ranging from never to frequently in terms of the degree to which the student had experienced the feeling in question during the past month.

Subjects

The study was carried out on two university campuses. Campus A was a large, public state-supported university in a small, rural community. Undergraduates were not required to live on campus, but geographical and financial considerations contributed to the fact that most students, including all freshman students, lived within the university residence hall system. Campus B was a smaller, private, church-affiliated university in a busy urban area. All freshmen were required to live on campus unless they had relatives in the surrounding community. A detailed description of the two campuses and of their major residence hall facilities is presented elsewhere (DeYoung, 1975).

Twenty-eight of the units were from Campus A and 14 from Campus B. There were 13 coed, 14 male, and 15 female units. The proportion of freshmen in the units varied from a low of 19% to a high of 100% (mean = 59.1%). Assignments to single-sex or coed living groups were based on the personal preferences of the students. Assignments to specific living units were made by housing office staff.

All freshman students were asked to complete the URES and the BEQ at the time they entered college. These students were again asked to fill out the URES and a college version of the BEQ (i.e., the questionnaire asked students about their experiences during their freshman year of college rather than during their senior year of high school) toward the end of the spring quarter of their freshman year.

Results

The results are based on freshman students who resided in 42 different living groups. Only those living groups in which ten or more of the same freshman students completed the BEQ at both testings were included. The analysis of the URES is based on 1,070 students (71%) in the 42 living groups who answered the questionnaire in the fall and 1,154 students (77%) in those groups who answered it in the spring. The analysis of the BEQ is based on 708 freshman students who filled out the questionnaire both at the beginning and at the end of their freshman year. The student drop-out and turn-over rate (i.e., transfer into and out of living groups) were approximately 25%. Thus, the BEQ sample repre-

sents about 65% of those students who actually lived in the same living group for the entire school year.

Variability and Stability of Living Group Social Climate

The first analysis concerned the degree to which the living group climate was stable during the academic year. Intraclass correlations (Haggard, 1958) were computed, between the fall and spring URES mean standard scores, separately for each of the 42 living groups. The stability of house climate was extremely high, as indicated by an average intraclass correlation (over the 42 living groups) of 0.82 (standard deviation = 0.16). The second analysis concerned the extent to which the social environments of the 42 living groups actually varied. One-way analyses of variance indicated that there were statistically significant differences ($p < 0.01$) among living groups on all ten URES subscales. Thus there were significant variation among the social environments of the living groups, and the climate of the groups was basically stable during the academic year.

Social Climate and Student Change

It is necessary to control for student initial status before attempting to relate differential student change to living group social climate. The best predictor of spring student scores on a variable should be initial student scores on that same variable. In addition, it is possible that male and female students may change differentially during the freshman year, over and above what would be expected in terms of their initial status. A regression analysis was carried out in which initial student standing on each of the 16 variables, and the student's sex, were used as the two predictor variables to account for final student standing on that variable (Kim and Kohout, 1975). The percentage of variance accounted for by initial student standing and sex of student ranged from a low of 11% for exhaustion and 14% for student body involvement to a high of 51% for dominance-surgency and 59% for religious concern. Almost all of this variance was accounted for by initial student status. The final standing on each of the 16 subscales was virtually independent of any differential change of males and females over and above that already accounted for by entering BEQ subscale scores.

Expected final standing (spring) scores were calculated for each sex on the basis of the initial score on each subscale and the student's sex. A residual score, which represents the difference between the actual spring score and the expected spring score, was then computed for each individual on each subscale. This residual score represents that portion of the student's final standing (spring score) which is unaccounted for by input characteristics, i.e., initial status on that subscale and his or her sex. Living group mean residual scores were computed by

summing the individual standardized residual scores of the students residing in each of the 42 units. A positive mean residual on a particular subscale means that students in that unit had scores that averaged higher than expected on the basis of their input characteristics. A negative mean residual means that students in that unit had scores that averaged lower than expected on the basis of their input characteristics. There were substantial differences among the 42 living groups on all 16 of the mean residual scores.

Are these differential changes associated with the social environment of the living group? Tables II and III give the correlations between the mean BEQ residual scores and the spring mean URES subscale scores ($N = 42$ living units) for the nine BEQ student interactions and activities subscales and the seven self-description and feelings subscales, respectively.

Different aspects of living group social environments facilitated different dimensions of student growth and development. Living groups that emphasized involvement and emotional support facilitated self-concepts of contentedness (e.g., students were more likely to describe themselves as calm, cooperative, easy going, and happy). They also facilitated athletic participation and cautiousness. These living groups inhibited impulsive-deviancy (e.g., students were less likely to oversleep and miss class, to cheat on examinations), negative affect (feeling lonely, angry, and depressed), and resistance.

Differential emphasis on the five personal development dimensions was associated with different kinds of student changes. The emphasis on competition was significantly related to only two of our measures, i.e., it inhibited contentedness and cautiousness. Other evidence has indicated that competition-oriented living groups show a lack of emphasis on involvement and support (Moos et al., 1975). Thus, these living groups may have differential impacts on student development due to a lack of emphasis on involvement and support rather than a strong emphasis on competition.

Living units which emphasized academic achievement facilitated negative affect, exhaustion (feeling that one has far too much to do), and religious concern (praying, reading the Bible, attending church). They inhibited artistic appreciation, impulsive-deviancy, and cautiousness. Students in living groups which emphasize academic achievement may have little time for activities indicative of either artistic appreciation or impulsive-deviancy. Their higher than expected scores on negative affect and exhaustion may derive from a heavy reliance on studying and other academic and class activities.

The student growth dimensions associated with an emphasis on independence were somewhat different. Living groups which emphasized independence facilitated musical interest (listening to jazz, folk, or classical music, playing a musical instrument) and cautiousness and inhibited traditional social interaction (having a blind date, arranging a date for another student), religious concern, and self-

Table II. Correlations Between Spring URES Subscales and Mean Residuals on BEQ Interactions and Activities Subscales (n = 42 living units)

BEQ Subscales	URES Subscales							Student influence	Innovation	
	Involvement	Emotional support	Independence	Traditional social orientation	Competition	Academic achievement	Intellectuality			Order and organization
Supportive interaction	.05	.20	-.17	.11	.14	.08	.34†	.08	.02	-.09
Traditional social interaction	.22	.03	-.29*	.25	-.06	.06	-.28*	.10	.11	.02
Student body involvement	-.19	-.16	-.18	.47†	.19	-.17	.16	.41**	-.50**	-.18
Athletic participation	.39**	.15	-.02	-.08	-.16	-.12	-.03	.02	.22	.25*
Artistic appreciation	-.14	-.05	.10	.14	.05	.26*	.44**	.21	-.26*	.02
Musical interest	.07	.16	.35*	-.28*	-.14	-.11	.37†	-.08	.10	.34†
Religious concern	.15	.05	-.50**	.64**	.21	.32†	.11	.61**	-.24	-.25*
Hostile interaction	-.02	-.11	-.14	.26*	.22	.11	.22	.16	-.25*	-.02
Impulsive-deviancy	-.26*	-.22	-.15	.29*	.10	-.28*	.09	.21	.46**	-.16

*p < .10
 †p < .05
 **p < .01

Table III. Correlations Between Spring URES Subscales and Mean Residuals on BEQ Self-Descriptions and Feelings Subscales (n = 42 living units)

BEQ Subscales	URES Subscales									
	Involvement	Emotional support	Independence	Traditional social orientation	Competition	Academic achievement	Intellectuality	Order and organization	Student influence	Innovation
Dominance-surgency	-.08	-.01	-.27*	.30†	.02	-.08	.05	.36†	-.27*	-.24
Contentedness	.35†	.35†	.01	-.13	-.33†	-.13	.06	.00	.20	.21
Cautiousness	.28*	.06	.38†	-.28*	-.28*	-.28*	-.26*	-.28*	.14	.42**
Resistance	-.46**	-.17	.08	.12	.21	.05	.14	-.07	-.21	-.33†
Exuberance	-.15	.01	-.06	.00	.15	-.24	.10	.02	-.10	-.15
Negative affect	-.23	-.22	-.09	.11	.19	.38†	.12	.01	-.35†	-.32†
Exhaustion	.04	-.06	-.20	.26*	.17	.47**	.12	.10	-.15	-.26*

*p < .10

†p < .05

**p < .01

concepts of dominance-surgency (i.e., feeling ambitious, athletic, dominant, and energetic). Living groups which emphasized intellectuality facilitated just those dimensions of student growth that one might expect, i.e., supportive interaction, artistic appreciation, and musical interest. These living groups inhibited traditional social interaction and cautiousness.

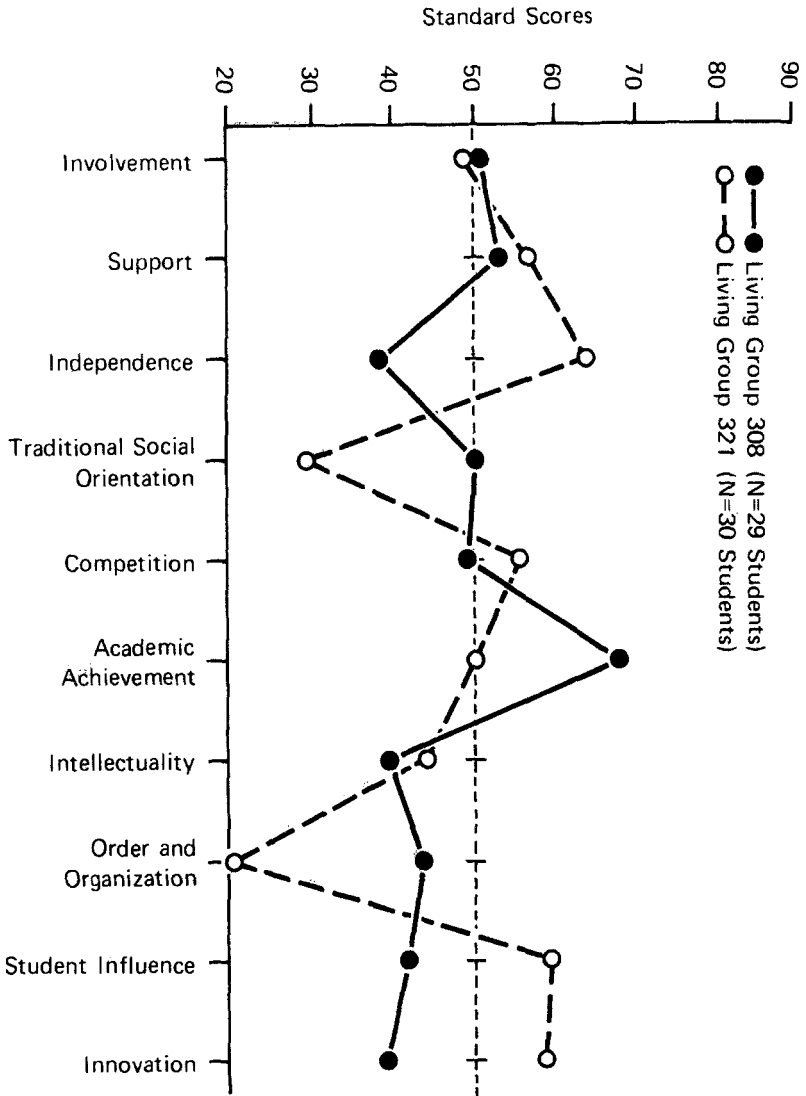
Living groups which emphasized traditional social orientation facilitated traditional social interaction, student body involvement, religious concern, and dominance-surgency. Importantly, these units also facilitated hostile interaction, impulsive-deviancy, and exhaustion, while inhibiting musical interest and cautiousness. There is a type of female living unit which strongly emphasizes traditional social orientation and order and organization (Moos et al., 1975). These living units are composed of students who emphasize activities such as dating, partying, and student body involvement, who are competitive around status issues, particularly social status, and who demonstrate the correlates of an active student social life (exhaustion and impulsive-deviancy). These female students may be akin to those who joined the socially oriented sororities of an earlier era. In this connection, living units which emphasized order and organization facilitated student body involvement, religious concern, and dominance-surgency, whereas, they inhibited cautiousness. These four BEQ subscales were similarly related to traditional social orientation, as would be expected from the above considerations.

The two system change dimensions showed generally similar relationships to the BEQ subscales. Student influence was negatively related to hostile interaction, impulsive-deviancy, and negative affect, but it was also related to a lack of artistic appreciation, dominance-surgency, and student body involvement. These results indicate that student influence in a living group may be negatively related to involvement in student body activities in the larger university. This is consistent with the fact that living groups which emphasized traditional social orientation facilitated student body involvement, since these living groups were also low in student influence. Finally, living groups which emphasized innovation had some of the same effects as did those which emphasized involvement and emotional support. These living groups facilitated athletic participation and cautiousness and inhibited negative affect and rebelliousness. In addition, they facilitated musical interest and inhibited religious concern and exhaustion.

Contrasting Social Climates

A concrete example may serve to illustrate some of these findings. Figure 1 compares the URES spring profiles for two coed living groups on one of the two campuses. One of the living groups (308) strongly emphasized academic achievement. None of the other personal development dimensions, nor the relationship

Fig. 1. University residence environment scale profiles for living groups 308 and 321.



or system maintenance and system change dimensions, were strongly emphasized in this living group. The other living group (321) strongly emphasized independence, student influence, and innovation, and deemphasized traditional social orientation and order and organization.

The students in these living groups showed differential changes during their freshman year. Students in living group 321 increased more than expected on musical interest, athletic participation, and cautiousness, whereas, they decreased more than expected on religious concern, traditional social interaction, student body involvement, and dominance-surgency. Students in living group 308 increased more than expected on religious concern and decreased more than expected on artistic appreciation, impulsive-deviancy, cautiousness, and exuberance. Thus, these contrasting social environments differentially influenced student development.

DISCUSSION

The findings indicate that university student living groups have differential impacts on freshman students over and above what is predicted from the student's input characteristics. Many investigators have discussed the potential importance of subenvironments within the college or university setting. This study demonstrates the importance of one such subenvironment: the student living group. The findings provide some suggestions about which dimensions of the social environment facilitate or inhibit various dimensions of student development. Previous studies have indicated that living groups may have important differential impacts on students (Williams and Reillye, 1974), but we are not aware of any other residence hall studies which have linked specific dimensions of the social environment to specific indices of student development.

The results are also consistent with those found in overall studies of college and university impact. Pace (1969) found that colleges with a high sense of community and awareness (relationship dimensions) have a high proportion of students who feel a strong emotional attachment to the college. In addition, it was rare for students to report not having participated in extracurricular activities in college environments which were high on cohesion. We found only low correlations between involvement and emotional support and residual scores on student body involvement. There may be a negative relationship between student influence in a university living group and the extent of student body involvement shown by its residents. Student body involvement may relate differently to the social environment of the overall college or university than it does to the social environment of the living group.

Astin and Panos (1969) found that the educational and vocational development of college students depended primarily on their personal characteristics,

family background, and interests as freshmen. However, certain characteristics of the college's social environment did have an important impact. For example, institutions high in cohesiveness had a favorable effect on persistence in college. Institutions low in cohesiveness had unusually high dropout rates. Dropout rates were also high in institutions in which informal dating occurred frequently. Astin and Panos concluded that selectivity and cohesiveness were important environmental characteristics in relation to students' academic achievement. Students were more likely to complete four years of college work and to obtain the bachelor's degree if they attended an institution which enrolled academically superior students and which had a cohesive peer environment characterized by many close friendships among students.

The overall evidence suggests that colleges that emphasize relationship dimensions (e.g., faculty-student interaction, peer cohesion, energy and controversy in teaching) have a positive impact on students. Colleges which emphasize personal development dimensions (e.g., humanism, breadth of interests, reflectiveness, broad intellectual emphasis, independent study and criticism, high standards, challenge) also have students who tend to do better. Thus the evidence that emphasis on relationship and personal development dimensions fosters student aspiration and achievement is relatively persuasive (e.g., Thistlethwaite, 1960; Rock et al., 1970; Centra and Rock, 1971). Moos (1974) recently reviewed studies of the correlates of social climate in a variety of different settings, e.g., high school classrooms, psychiatric treatment programs, juvenile correctional institutions, and families and work groups. Emphasis on relationship and personal development dimensions is generally associated with morale, satisfaction, and other personal development measures of individuals in the setting.

Stern (1970) has conceptualized what we call relationship and personal development dimensions as anabolic, e.g., as facilitating growth and self-enhancement; whereas, system maintenance dimensions are conceptualized as catabolic or growth inhibiting, i.e., as reflecting organizational stability and bureaucratic self-maintenance. Our results indicate that relationship dimensions may be growth enhancing; however, personal development dimensions may be both growth enhancing and growth inhibiting. For example, emphasis on independence fosters musical interest but inhibits religious concern. Emphasis on traditional social orientation fosters religious concern but inhibits musical interest. Thus different personal development dimensions facilitate certain areas of growth and inhibit others. The fact that order and organization facilitated student body involvement, religious concern, and dominance-surgency suggests that system maintenance dimensions may also be positively associated with personal growth in certain areas.

The results suggest that the social environments of university student living groups may have differential impacts on the social and personal development of

university freshmen students over and above the general impact of the overall college or university. How students deal socially with their peers; the degree to which they follow established school regulations; how satisfied, ambitious, happy, or sad they feel; and so on, are all variables which may play a mediating role in the achievement and aspiration level indices which colleges and universities are supposed to affect. Thus, the student living group should become a more central focus of study in college impact research.

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