The perceived environments of departments in five graduate fields were studied in a longitudinal study of a large sample of students. Students' perceptions of the administrative, peer, academic, and general environments of the departments were examined by an extensive questionnaire. The "environments" of the fields differed in plausible ways, each field presenting a distinctive pattern. In particular, education was described as relaxed but unstimulating. The results suggest that the environments of the fields create the expectations and pressures that help shape student behavior and that affect their academic and personal well-being. (Author)
Comparisons of the Perceived Environments of Graduate Departments of Arts and Humanities, Biological Science, Physical Sciences, Social Sciences and Education

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There is a great body of research about the character and influence of educational environments (Baird, 1973; Walsh, 1973). Scientific evidence has been produced in recent years to show not only that colleges differ, but that they differ systematically on certain dimensions (Baird, 1973; Astin, 1965; Walsh, 1973). Other research has shown that these dimensions are related to students' vocational and educational progress (e.g., Rock, Baird, and Linn, 1972) and to student characteristics and behavior (Astin, 1965; Walsh, 1973). Students in different kinds of colleges are imbedded in very different environments with very different expectations for the student. The student, administrative and faculty cultures of colleges differ and can exert powerful influences on what the student does. However, the size of the effects of the environment should not be exaggerated. Studies of college effects typically show little impact of the college on students, once their characteristics as freshmen are taken into account (e.g., see Rock, Baird, and Linn, 1972).

When students enter graduate and professional school, they enter a new social system which has its own roles, mores and status categories (Baird, 1969). Each discipline has its own characteristic ways of doing things and each emphasizes different things. These mores and emphases create the environments that students will work and live in during their years of advanced study. The purpose of this study is to compare the environments of students pursuing graduate studies in five areas; which hopefully will suggest how these environments operate.

Sample and Method

Basic sample. This study is based on a follow-up of a national sample of 21,000 college seniors in 94 representative colleges who replied to a questionnaire, the College Senior Survey, in the spring of 1971 (Baird, Hartnett, and Clark, 1973). A year later, in the spring of 1972, a follow-up questionnaire was mailed out to a subsample of the original sample to ascertain students' current activities, and, if they were attending a graduate or professional school, their reactions to their schools. Of the 7,112 students who responded, some 4248 students were in some form of graduate or professional study. Specifically, the numbers in each graduate field for which we had complete data were: arts and humanities, 274; biological science, 158; physical science, 606; social science, 360; and education, 442. Analyses comparing respondents with nonrespondents showed no systematic biases in the respondents, except that there were somewhat fewer minority students among the respondents. The parts of the students' environment which were covered in the follow up questionnaire included: the administration's behavior toward students; the peer environments created by other students; the academic environment; and the general atmosphere of the department or school.

Results

The following sections describe the distinctive results for each field as compared to the others.
Arts and humanities. Perhaps because of the broad scope of their field, they least often said they crammed before a test and most often participated in classroom discussions. Although they said they studied longer than students in other graduate fields, they reported relatively little incidence of keen competition for grades. They seldom found the work dull although they sometimes thought the courses did not complement each other. They described their professors in much the same terms used by other students. They also did not believe that their programs taught practical skills, which is consistent with their view that most of their classmates were less interested in money than in helping other people. Arts and humanities students were less satisfied than other students with the formal aspects of their departments, particularly their administrators. Perhaps as a result of this dissatisfaction, arts and humanities students least often felt their hopes for graduate school were being met, and fairly often reported they would strongly consider changing to another school.

Biological science. These students were generally positive toward their departments' courses and facilities. They gave high ratings to their departments' opportunities for research, creative work, variety of courses and innovative programs on an individual basis. They felt their curricula allowed sufficient time for thoughtful consideration of the content. They were quite satisfied with the availability and quality of laboratory facilities, and the equipment needed for their work. They were less satisfied with study and lounge space. They felt their departments had informal atmospheres. They reported that their professors encouraged out of class contact with students. They also felt their professors clearly explained their subjects and were good teachers. They were also impressed with their professors' research ability and dedication to research. They were satisfied with their departments in many academic areas, including aid in finding assistantships and financial aid, guidance in selection of course work, selection of thesis subject, and supervision of thesis research. They also felt that the difficulty of meeting steps to their degree goals were about right.

Physical science. In the opinion of these students, their academic program provides opportunities for research and creative work, opportunities for interdisciplinary work and considerable choice in courses. The students felt that they did not have to use study techniques different from their undergraduate days, but that they did face keen competition for grades. They felt their professors were objective and clear, if somewhat didactic. They reported that most of their professors were excellent lecturers as well as top notch researchers, who have the respect of their students. The students said their professors gave them a clear idea of how well they were doing, and were friendly and accessible to students, even if they did not encourage classroom discussion. Physical science and engineering students felt their departments were pretty conventional and conservative. Although they felt their departments did not attempt to orient new students, they gave high ratings to their departments' help in finding jobs, assistantships and financial aid and their departments' efforts at advising. Students felt that their departments' formal degree requirements were good. They were also reasonably satisfied with most aspects of assistantships. Students were also well satisfied with the library, laboratory, and computer facilities.
Social science. Social science students described their academic programs pretty much as other students described theirs. They did report more participation in classroom discussions and more questions in class. They were also more satisfied than other students with the reasonableness of the language requirements and the supervision of students' course work. They seemed to feel a little distant from their departments. They reported few attempts to orient new students, felt that their departments were unresponsive to student needs, and that their professors were more interested in research than teaching. The social science students were the most personally dissatisfied of all the groups of students. They most often reported that they would seriously consider changing to another department, or even to another field. It is hard to explain this level of dissatisfaction, since social science students did not seem to be markedly less satisfied than other students with most specific aspects of their departments. Perhaps the students attracted to the social sciences tend to be more critical than other students. Social science students did describe their departments, professors, and fellow students as quite liberal.

Education. Education students were not particularly impressed with their departments. They felt their administration communicated poorly with them and did not involve them in governance. They seemed to regard the academic work as uninteresting and unchallenging. They often felt the work was dull, and that it did not stimulate them. They felt that the work required about as much effort and about the same skills as undergraduate school. They felt that most students did not work very hard and did not show much interest in academic activities outside the classroom. They gave relatively low ratings to the clarity of formal requirements, and the relevance of the requirements to the work in the field. However, they felt they had ample time to consider the content of the curriculum. Education students gave a low overall rating to their professors, although they felt their professors were helpful advisors and were interested in reform in the field. In short, education students described relaxed, if somewhat unchallenging, and unstimulating programs.

Discussion

Most of the research on environments has focused on the undergraduate institution, but it seems plausible that many of the same techniques could be used with the environment of graduate and professional schools. The analyses presented in this paper suggest that the environments in different fields are often quite different, although many aspects of the environments were the same. These elements create the patterns of expectations and pressures that define the student environments of each field. The "feel" of each field seemed to be different. From these results it is plausible that the environments of graduate and professional schools have an impact on students' academic and personal well-being.


