Higher education is undergoing rapid change, and institutions of higher education are reexamining their role. Graduate institutions are being attacked for not producing competent teachers, undergraduate institutions are criticized for lack of relevance. The traditional functions of the undergraduate school have been remedial, liberal and in some cases professional education. The functions of the graduate school have been to define the standards for competence in the various disciplines and professions, and to prepare people to practice these disciplines and professions. In the graduate school of arts and sciences there has been increasing emphasis on the Ph.D. degree. The procession from general to professional education is an unduly rigid concept. The whole sequence of higher education and more particularly the relation between the college on the one hand and the graduate and professional school on the other should be reconsidered; graduate and professional training could begin in the junior or senior year. In the graduate school a new degree for persons interested in a teaching career should be created, so that the Ph.D. is for those interested in research, or teaching and research. Specialization between institutions in their degree programs would avoid making one of these degrees the less desirable one. (AΡ)
THE RELATIONSHIP BETWEEN UNDERGRADUATE AND GRADUATE INSTRUCTION*

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I have been asked to open the discussion on the relations between graduate and undergraduate education. In fact I am told that the topic was originally announced as "The Uneasy Relationships between Graduate and Undergraduate Education" and I should like to make it clear from the beginning that I think the earlier formulation is most appropriate.

A reconsideration of the relations between undergraduate education and graduate and professional education is an urgent item on the agenda of higher education. Undergraduate college is in disarray. The role of the Ph.D. degree in graduate education is under attack. The graduate schools are being criticized for not supplying faculty for the colleges who are trained to teach and the students are questioning the relevance of their education at both levels. The agenda of higher education then is very long but I wish to focus particularly upon the relations between undergraduate and graduate and professional education.

The problem, however, presents great difficulties. Anyone who would speak about higher education in the United States runs the risk of being superficial and misunderstood. The difficulty arises from the variety of institutions and programs and the rapid change which higher education is now undergoing.

The variety exists in structure, purpose and clientele. Many institutions are concerned only with undergraduate education while others include a wide variety of graduate and professional programs and schools. Moreover, they differ in purpose. While many undergraduate institutions define their purpose

as that of general or liberal education, others are concerned with technical, vocational or professional education, and still others offer several alternatives. Finally, there is the variety in clientele. The levels of achievement and even the levels of academic potential, as best we can measure it, differ significantly between our various schools. The dominant values arising from cultural and family backgrounds, the motivations, the degree of dedication, the career objectives, all of these differ significantly.

And then we see higher education undergoing very rapid change. Many of our institutions are and have been in the process of redefining their roles. For example, the last few decades have seen many of our normal schools and schools for teacher education, blossom into general colleges, and many of our colleges have moved into graduate and professional work. Moreover, the students are raising new questions of relevance. Questions are raised by many students but in a very special form by the minorities. The latter are only beginning to enter many of our educational institutions in significant numbers and are questioning whether the educational programs defined by the previous dominant purposes of these institutions serve their minority groups.

The functions of undergraduate education are three: remedial, liberal, and (although this is not characteristic of all undergraduate schools) professional.

In view of the diversity of standards in our secondary schools, and the admissions policy followed by most colleges, much remedial work has to be done by most. Recent emphasis upon admission of minority students is making such remedial work increasingly important.

The provision of a liberal education, or general education, is the professed principal purpose of many of our colleges. In fact it is the sole professed purpose of many. Although there is a good deal of ambiguity as to what we mean by a liberal education, in the face of current knowledge explosion I assume that we can arrive at some common agreement that it means an introduction to and some experience with the variety ways of knowing including the assessment of knowledge and the making of choices in the light of value systems.
Many colleges are quite explicit about their intention to provide professional education. However, professional training has been increasingly moved into the graduate schools. This has clearly been the case in Law, Medicine and Divinity and there is a strong trend in this direction in the case of Engineering and Business. Moreover, personnel policies of our school systems have put a premium on teacher training at the graduate level. These trends have been based on the assumption that a strong liberal education is a pre-requisite for the successful study of the professions.

At the same time the colleges have long since moved toward the development of an undergraduate concentration. This concept of a "concentration" or "major" was justified on the assumption that part of a liberal education is learning some one thing in depth. As a result there has been something of a bifurcation in the undergraduate experiences of our students. Many of those in the sciences have really been preparing for a professional career, while in the social sciences and humanities the major has had, to a large extent, a non-career or non-professional orientation.

The functions of the graduate and professional schools have been to define the standards for competence in the various disciplines and professions, and to prepare people to practice these disciplines and professions. In the case of the professional schools the objectives have been on the whole clear: the practice of the profession or the teaching of those who will practice the profession. In the graduate schools of arts and sciences the objectives have been somewhat less clear. They have moved increasingly toward emphasizing the Ph.D. degree which has always been conceived as a research degree. Successful training in one of the disciplines is designed to prepare one for a career of research but many go on to careers outside of research and many in all disciplines go on to teaching careers in which the continuation of research is not necessarily a part of the way of life.

This is the theory of the present relations between graduate and undergraduate education. But it seems to me that the educational processes and administrative structures that we have inherited are unduly rigid. Moreover, they diverge significantly in some respects from reality and are ill-adapted to their purposes.

The assumption that our secondary schools and colleges are devoted to liberal education is often belied by the facts. In many institutions the college curriculum has become the captive of the professionally oriented departments. In the face of restless students and in the name of increasing flexibility and self-determination many faculties have in fact, if not in theory, capitulated to the disciplines. But the disciplines, catering to a captive audience have compromised their professional standards. Is there any wonder that many students who seek a liberal education with relevance find themselves unsatisfied with an education which is neither liberal nor professional -- a semi-professional education unsuited to their purposes?

I also question the general presumption that students proceed from general education to professional education. Is the sequence from general education to a major and then to graduate or professional education appropriate for all, or even most students? Are we being as responsive as we should to the different motives, the different rates of personal development, the different personalities and potentials of our students? Does the educational structure provide the necessary flexibility for young men and women passing from adolescence to positions of responsibility in education, the professions or the world of affairs? Is it appropriate in all disciplines and for all students to follow the normal progression from general education to the graduate or professional
school? We should recognize that for a thinking and developing man, that is to say an educated man, life is a continuing alternation between learning to breadth and learning in depth. We should not expect all students to progress in lock-step.

I urge that we reconsider the whole sequence of higher education and more particularly the relation between the college on the one hand and graduate and professional schools on the other. Present programs and administrative structures were developed in an early era when our college students came less well prepared and when the bachelor's degree was the capstone of higher education for most students. We should experiment with elimination of the "non-professional" major and the anticipation of graduate or professional training in junior and senior years for those among our students who have found their way or at least think they have found their way. This would be a reasonable response to the request for relevance and one way of reducing the boredom and frustration that we find in so many undergraduates once they have learned how you "beat the system".

I urge then that we consider early concentration, even early graduate professional training. And, likewise, I urge that we consider seriously injecting more training in breadth along with the student's graduate and professional work. Moreover, we should reconsider the character of our graduate training in light of the increasing emphasis upon post-doctoral education and the increasing need for continuing education throughout one's professional life.

A second aspect of the problem is the contribution that graduate schools make to the provision of college teachers. This is a vexing problem about which much has been said. The first responsibility of our graduate schools of arts and sciences is to define and defend the concepts of competence in the various disciplines and to train people for research. This is the prime objective of the Ph.D. But they have another very heavy responsibility in providing college teachers. It is customary today to blame the graduate schools for the excessive research emphasis in their Ph.D. programs. I think the attack has been misdirected. The problem arises not from the inadequate definition of the Ph.D. but from the excessive emphasis placed by those who recruit college faculty and those who accredit our colleges upon the Ph.D., and the failure of our graduate schools to develop alternative degrees. This over-emphasis upon the Ph.D. has been accentuated by government agencies and foundations which in the post-war years have provided exceptional financial incentives for prospective students to seek the degree.

I do not deny the desirability of reexamining and modifying our Ph.D. programs. But their objective should remain that of training persons in the disciplines and in competence in research. I recognize, of course, that some programs do this more effectively than others and that some who hold the Ph.D. have greater competence than others. I recognize that Ph.D.'s are given to persons who have not achieved competence. I recognize, also, that many Ph.D.'s will do little research after receiving the degree. But I insist that we distinguish between the Ph.D. degree designed to attest to research competence and degrees that are designed to attest to teaching competence, without competence in research.

Our college faculties, the federal government and the foundations have all in recent years put great emphasis upon increasing the supply of Ph.D.'s and have made much of the need for additional college teachers. Much of this energy has been misplaced. We need a more rational distribution of educational effort. There is a place in all disciplines for people of great competence in research whatever their capacity to teach. And for others who have competence in research and teaching and will be involved in both. Those who may reasonably aspire to such careers are the appropriate candidates for admission to Ph.D. programs.
For those who by inclination and competence may be good expositors and critics, we need new training programs and degrees, and we need a recognition by the colleges and accrediting agencies not of the equivalence but rather of the need for persons of different talents. The Ph.D. degree is a research degree appropriate for those who will devote their careers to research and others who will devote their careers to a combination of teaching and research. But there is a large need for college teachers which can be satisfied by people with other degrees, including the Master of Philosophy, Doctor of Arts and similar teaching oriented degrees. It does not follow that all schools should be engaged in training both types of people. There may be good reasons for specialization between schools. Some schools may emphasize research degrees and others teaching degrees. Those schools that have sufficient resources may wish to offer both. The danger, of course, arises when the two degrees are offered on the same campus that one will come to be thought second class and the home for drop-outs from the other program. For this reason I suspect we should expect considerable specialization between institutions in their degree programs.