Letters

Definitions of a University

The university scholars who were asked to comment on the purposes and functions of a University (20 Mar., p. 1590) might have been more helpful had they taken a practical position nearer to the heart of matters than their advice about "future generations," "qualities of life," "wisdom," "knowledge," and similar verities. Universities *function* essentially as training and research resources for the great institutions of law, medicine, engineering, education, and other professionalized agencies of the nation. The trend has been toward graduate work in these disciplines. Colleges have a different function, variously discussed as concerned with the "cultivation of human understanding," "to prepare for, but not to directly train for these great professions," to "cultivate wisdom," to give the undergraduate opportunities to "learn to live with people," to "know" himself, and so on.

The *purposes* are little understood or their significance appreciated. In the case of universities, these, like the other institutions of the nation, serve to give a certain continuity, stability, and *order* to the nation. . . . Anything eroding or corrupting these institutions would seem to be a matter for serious concern to anyone with the widest public good at heart. The purpose of a university is thus at the very center of a nation's integrity.

As for colleges, their purpose is not to propound the humanities or the sciences so much as to provide the nation's youth with common grounds for conduct and common discourse, so that all will be able, so to say, to speak on equal terms with all others. This, most profoundly, is a *cultural* rather than an *institutional* matter.

Thus, the University of Oxford is an association of 40 or so colleges, almost all of which provide the same basic acculturation at a college level. Students going into the professions finish with two bachelor degrees—one the B.A., and the other the professionalizing degree (B.Sc., B.Ll., B.M., B.Litt., B.D.), the latter being characteristically matters for the wider university, as is the case for the doctorate degrees. . . .

One appreciates, in the above terms, why colleges should not fail their students, whereas at the graduate level, passing and failing are quite in order—a nation can scarcely have unqualified professionals. One appreciates also what needs urgent attention in academia: it is a better understanding of purposes rather than functions.

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Defense of Quick Publication

In her letter (10 Apr.) Jane Loevinger has continued her polemic against the American Psychological Association's plan to develop a National Information System for Psychology (NISP). Consider her statement:

> The American Psychological Association has opened its doors to many who are not primarily research workers, including psychologists in industry, schools, and private practice. The NISP proposal carries the systems approach to the logical extreme . . . Combine these facts and you see that control will slip away from research workers for whom the journals now exist as a communications medium.

The fact is that nearly three-fourths of APA membership now includes problem and operationally oriented psychologists, many of whom are producers and consumers of applied research. Much of the applied research they report, in such fields as transportation, drug abuse, urban problems, and education, by its very nature does not meet the criteria of acceptability set by editors of most APA journals. Yet, their findings are important to applied psychologists working in these societally oriented fields. APA's experimental NISP now provides public outlet for the work of the applied psychologist.

In an earlier issue (27 Feb., p. 1228) Loevinger was quoted as saying that the "engineers and technicians" allegedly are pushing aside the "psychologists" and doing their thing. If applied psychologists (as opposed to clinicians and academics) are the "engineers and technicians" she complains about, then they should do their thing. After all, information system analysis is included as one of psychology's applied fields.

To me, NISP is an important development. Leisurely scientific communication with extensive publication delays may be acceptable to my academic brethren, but as one who daily works in the real world, faced with real problems requiring rapid solution, I would rather pay the penalty of doing my own screening for quality in exchange for the privilege of not having to wait a year or more to get someone's research results. It is worth noting that other disciplines that maintain a fast growth in the scientific world, such as some branches of physics and biology, encourage the equivalent of NISP's alerting function by means of formal preprint and other systems. Can psychology afford the luxury of relying solely on a cumbersome, slow journal system? I think not . . . As a member of APA since 1952, I applaud the attitude of enlightenment that allows APA to reexamine our present communication system in light of the need of modern psychology—a psychology that is no longer tied exclusively to the ivory tower.

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Foundations: Withering or Growing?

Irving L. Horowitz and Ruth L. Horowitz cite old Treasury Department figures and conclude that "since 1950 the total wealth of foundations has grown faster than the rest of the economy" ("Tax exempt foundations: Their effects on national policy," 10 Apr., p. 220). This allegation was valid until the early 1960's. But since that time, foundation assets have grown *more slowly* than the market value of debt and equity in the U.S. economy or than annual gross national product. Table 1 shows the growth from 1938 through 1968. It is based on data compiled and

Table 1. Assets of private U.S. philanthropic foundations in relation to relevant economic aggregates.

Year	Foundation assets (estimated)		
	Market value ($ billions)	As percentage of U.S. debt and equity	As percentage of gross national product
1938	1.4	0.54	1.7
1943	1.8	0.46	0.9
1948	3.5	0.65	1.4
1953	6.5	0.85	1.8
1958	12.5	1.05	2.8
1963	17.5	1.05	3.0
1968	21.0	0.84	2.4

released by the Foundation Center last year.

In connection with the current Securities and Exchange Commission study of institutional investors in the stock market, the National Bureau of Economic Research has developed alternative data of the assets for all foundations from 1953 through 1968. These data, not yet published by NBER and the SEC, are expected to show a similar pattern: a moderate increase in foundation assets relative to U.S. economic aggregates until the early 1960's, but a moderate decline since then. Because the Tax Reform Act of 1969 materially discourages the establishment of new foundations, it is entirely possible that the relative withering of the foundations' economic role in American life will intensify in the years ahead. Incidentally, no longer is it appropriate to label private foundations as "tax exempt" since the Tax Reform Act of 1969 also imposes a federal levy on the investment income of private foundations.

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Ganges Plain: Irrigation Potential

At first glance, India's Ganges Plain does appear to be a suitable area for the "technological fix" suggested by Weinberg ("In defense of science," 9 Jan., p. 141). It is underlain by a tremendous groundwater reservoir—perhaps the largest on earth, and the plain is the site of increasing pumpage from irrigation wells. Because electric power production has not kept up with demand, power lines are often powerless and burned out motors on irrigation wells are commonplace. Certainly there is room for improvement, but to say that the missing element is energy—to be provided by a "network of large power plants, probably nuclear, to supply electricity for the pumps . . ." is to promote a single quick "fix" rather than a comprehensive program for optimum utilization of the water resources available to the Ganges Plain.

The current pumpage in the Ganges Plain is probably as great as that in the Central Valley of California, which has the largest groundwater development in the United States. The two areas are similar in several respects: each year there is a rainy season of 3 or 4 months, a freshet from melting snow in mountain headwaters, and a long dry season when stream flow dwindles to the minimum for the year; each has large underground storage but no natural surface storage of water. In the Central Valley "technological fixes" have been undertaken for placer mining, navigation, irrigation, surface storage and regulation, hydropower, municipal supply, salinity control, groundwater depletion, transport to areas of deficiency, and artificial recharge. Some of these have been countermeasures to others.

The Ganges River has an annual flow nearly ten times as great as the streams of the Central Valley. Its flow varies greatly from season to season, and many of its tributaries dwindle to very low flows in the dry season; but even so, as much as 15 million acres may be irrigated in a good year. The groundwater reservoir beneath the plain is recharged by seepage from streams, canals, and irrigated lands, and any sustained pumping must be matched by equivalent recharge, sooner or later, to avoid progressive depletion of supplies. To provide irrigation water for three-crop agriculture on a major part of the plain will require development of all the water resources to the point of optimum sustainable yield. This may require major stream diversions, flow allocations, regulation, and long-distance transport of surface water, disproportionate local withdrawal and transport of groundwater, and conjunctive use of surface and groundwater supplies. Commitment to a single "technological fix" to the exclusion of other alternatives should be avoided.

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