

## Guest Editorial

# Research and Teaching in the University: Harnessing a Productive Tension

The university in Western culture has evolved slowly over the past thousand years. But the pace of change has accelerated in the past 150 years as, on the one hand, the needs of the society which sustain and govern it have become more complex and urgent and, on the other hand, the **science** which it generates and disseminates has grown at an exponential rate. The interaction of these two highly complex variables has forced some difficult choices upon all universities.

Relative to the first, what a society needs springs from what it values, and we have seen that it is difficult for a university to pursue policies that do not mesh with the goals and aspirations of the major political and economic institutions of the society in which it is embedded. The university is no longer the relatively self-sustaining unit it may have been in an early period of its history. If the value which it places on its major activities is not shared by those outside its walls, it can hardly be a viable institution. Relative to the second, as the knowledge base of a culture grows and the number of disciplines, professions, and scientific specialities multiply, it is increasingly difficult for any single university to sustain excellent programs in any but a small percentage of them. For the first time in history the university has to make some terrible choices: what sub-disciplines, indeed, what sciences will it exclude from its consideration?

The groundswell of popular interest in research, especially of a technological kind, which we have seen develop in the past generation, has had an inevitable impact on the university. Given the massive amount of funding which a nation's universities require to do well what they do, it is not surprising that their activities have become highly politicized. When public monies are infused into any enterprise, public interests necessarily are pursued. When taxpayers say: we want value for money, they specify **both** the one **and** the other.

The university can no longer affirm that it is simply the transmitter of a cultural heritage, a **Genossenschaft** so to speak, (which it may never truly have been). Still less can it be seen as a clearinghouse for information generated by other institutions. The public agencies that support universities have communicated in increasingly imperative tones the message that public monies which are going to be funnelled into the university coffers will be tied to specific policy objectives and research goals.

A modality of choice for accomplishing this is the research grant-funding mechanism. A large and growing portion of university operating costs is being underwritten by the professorial staff's procurement of research funds. The same can be said for student financial support. This allows the government to function like the donor of highly specified, restricted endowments. It is easy to appreciate that in the measure that such funding becomes a significant proportion of any institution's budget, it loses internal control over the architecture of its policies and becomes the administrator of priorities established by external agencies. Like partners in a marriage, power tends to flow to one or the other in the measure that he or she assures income for the support of the household. Whether this is good or bad is another matter. It seems to be the reality of a situation which it would appear to be quixotic to attempt to alter in the short term.

The other major and essential function of the university is that of teaching. This would appear to be the dominant traditional one. Universities existed in modern as well as in medieval times to educate lawyers, soldiers, clerics, physicians, and other professional classes. There would be no university as we know it today if this teaching function had not or today should not exist. The research function of universities would seem to have grown out of this more basic need: to help professionals perform their socially sanctioned duties more effectively. It can be argued that good teaching and the training of competent professionals cannot be achieved without research, understood at least in the broad sense.

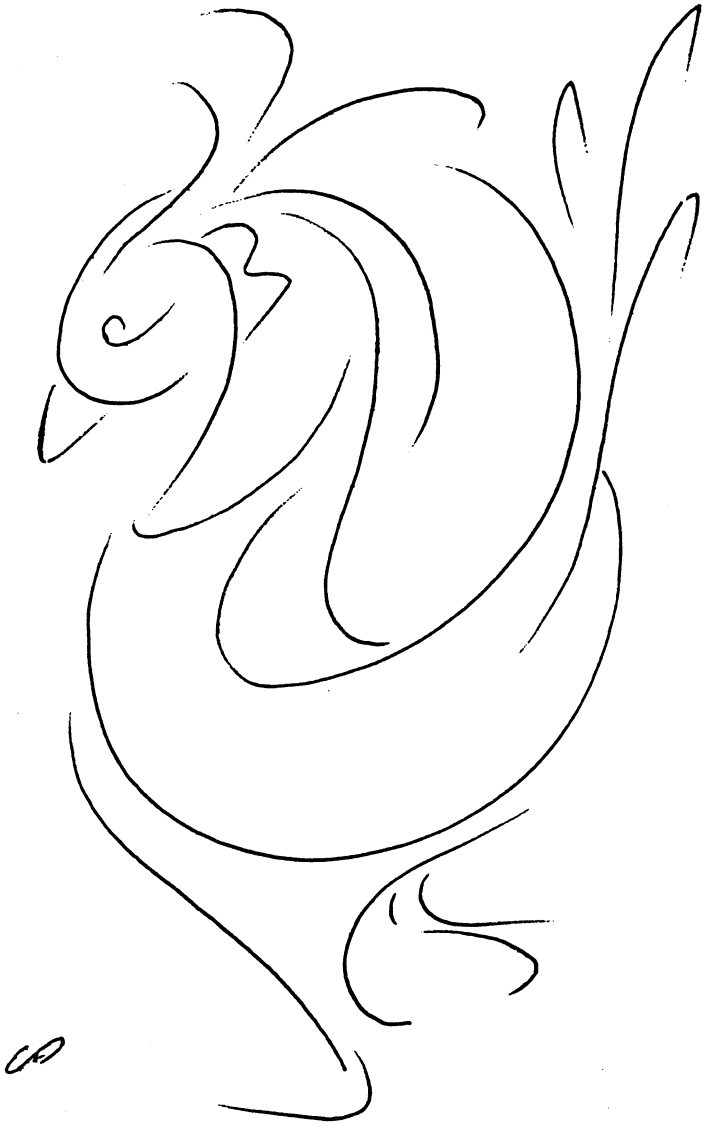
Howard Gardner writes of the mistaken belief that once prevailed among art critics that "the distorted faces in El Greco's portraits were due to an astigmatic condition." The notion was abandoned once it was demonstrated that an astigmatic painter could perceive the faces on his canvas (and in the everyday world) as elongated, but in fact, these faces would appear completely normal to non-astigmatic eyes. We are ignorant, of course, of how many university art critics taught the earlier notion. We cannot deny however the utility to these instructors (and to their students) of scientific findings bearing on the properties of astigmatic eyes. Whether the findings occurred in a Baush-and-Lomb-type laboratory or in an art critic's university studio is of less importance than a) whether we still "know" the truth about the matter (since it is rife with vexing

epistemological problems), and b) whether that information has been transmitted to succeeding generations of university art critics.

Should research at some time overshadow the educative and instructional character of the university a number of common sense questions would be raised: How does the university differ from such research institutes and corporate laboratories as Sloan-Kettering or Carnegie Mellon or Bell Laboratories or the National Institute of Education? Where should candidates for any of the professions seek to receive the gilt-edged education the society expects them to receive before entrusting itself to their services? Which is the cart and which is the horse in this context? If it should be decided that research is the horse, should we be any less concerned about the condition of the cart than the health of the horse? Do we need three superbly nourished horses to pull one dilapidated cart? Perhaps the metaphor is misleading. Should we ask, instead, whether research and education are only marginally complementary and serve, in reality, two different masters? If so, is it advisable to conduct those two activities in different institutions? If so, should universities transmute themselves into bona fide research institutes and should educators go off and found universities to provide post-secondary education for communities that are in need of it?

The opinion of this editorial writer is that the role of the inquirer can exist alongside the role of the educator even in the same institution. He would argue this even on intuitive and anecdotal grounds since he has seen the two functions potentiate each other and harmonize in the creative intellects of some of his most competent colleagues here and abroad. When the posturing, and the defensiveness, and the arrogance have been put aside, there are reasons to believe that the two positions can be reconciled, but not so well, we hope, that some tension would not remain.

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