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Freedom and Interdisciplinarity: The Future of the University Curriculum

TOWARD GLOBAL CONTEXTUALISM

I WOULD LIKE TO ARGUE THAT TO A LARGE EXTENT UNIVERSITIES ARE themselves to blame for their failure to respond adequately to the external pressures of the day. Barring the work of a few exceptional departments and individuals here and there, universities are incapable of addressing precisely those problems that most preoccupy our societies today.

Granted, universities rightly regard themselves as playing a key role in preserving intellectual, academic, and cultural traditions. This, however, should not be taken to be an acceptable excuse for not dealing with fundamental social injustices and discrepancies—problems often deemed to lie outside the scope of a university's legitimate interests. Since universities are by far the most important institutions in any modern society entrusted with the task of creating knowledge (whether the exclusivity of this knowledge-creating role is a good thing is another question), they should also strive to apply the knowledge created there to major social issues at any given time.

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A few examples will illustrate my thesis. It would be difficult to find a significant department of economics sponsoring a major research program focused on the nature of the public good. Further, there is almost no serious university department that would work to combine sociological, anthropological, historical, and psychological knowledge to help us deal with the spread of infectious diseases such as HIV/AIDS, multidrug-resistant tuberculosis, or malaria. By the same token, few university-based research centers or integrated research programs investigate the political, economic, societal, and cultural implications of the spread of religion in our world today. It is clear that political theorists cannot do this job on their own. Finally, even though by now there is almost universal consensus about the fact of global warming, we do not have the sought-after intellectual answers to this crisis—to the extent that leading experts disagree not only on possible solutions—but also on whether the catastrophe is due in two years or rather two hundred years.

Paradoxically, by stretching the university's functions and capacities to the breaking point and blurring its identity, globalization created the exact opposition of what we should expect of places of learning and scholarship today. As I have argued in a number of my writings, what we need is to move away from local universalism and work towards global contextualism (see, for example, Elkana, 2000).

In a nutshell, global contextualism is the idea that, whatever the academic discipline, every single universal or seemingly context-independent theory or idea rooted in the tradition of the Enlightenment should be rethought and reconsidered in every other political or geographical context. Global contextualism is one of the most important developments in world history since the Enlightenment, and universities are uniquely placed to help us to understand it and to promote its growth. All the more regrettable that practically no university raises serious questions concerning the structure of the relevant contexts.

Although it is hard to do justice to the complex issues of contextualism here, it is clear that to raise a question about context is first and foremost to raise a question about meaning. But it is precisely

meaning—with all its flexibility, plasticity, ambiguities, and contradictions—that is neglected by universities for both systemic and intellectual reasons, and to which reasons I now turn.

ACADEMIC FREEDOM

Academic freedom is severely limited for students, graduate students, and early career academics alike. What results from the way an academic career is currently structured is that young people are thrown into a groove that they can never leave if they ever want to remain successful in academe.

Let me offer a number of further examples. Consider, first, what is happening in economics departments. The problem is not so much pluralism. Rather, the real challenge is to create an integrated discipline, a new body of economic theory, bringing together mathematics and other traditional interests of economists with a novel emphasis on norms, aspirations, values, and social ideals. Such a unified theory is a must if economics is to remain pertinent to today's needs and problems.

Here is a second example. Jerome Bruner (1990) has convincingly argued on a number of occasions that psychology, cognitive science, and other related disciplines systematically neglect meaning and ignore the fact that meaning is socially constructed. This failure is not just a coincidence or a fluke. It is perpetuated by well-entrenched systemic failures, incentives, or even express institutional prohibitions.

As a result, graduate students are frequently not allowed to carry out research in these areas. They simply are not given the place, the infrastructure, the incentives, and general wherewithal to do and publish innovative work on meaning. To be fair, this situation has changed somewhat owing in no small measure to Bruner's pioneering work on narratives. For example, narrative was introduced at Columbia in the teaching of law. Interestingly, this development has been paralleled by the introduction, also at Columbia, of narrative medicine at the medical school. These are laudable attempts to break with earlier practices to exclude the study of meaning from teaching and research

at psychology and cognitive science departments, but they are not sufficient on their own.

There is a good case to be made that the exclusion of semantics is largely due to the success of the Chomskyan research program. I should make it clear, however, that I do not advocate here a return to the pre-Chomskyan era. Nor do I wish to underplay the enormous achievements of Chomskyan linguistics. Having said that, it is imperative that we develop universities in areas beyond what has been achieved so far. In particular, we must look to develop a kind of semantics based on Chomskyan syntax and linguistics. That is a considerable challenge, but it has to be tackled and has to be tackled by the universities themselves.

Another important example is the ongoing struggle at many universities to separate the study of sociology from anthropology: "Sociology is about us, anthropology is about them." This is another old-fashioned distinction that needs to go.

These antiquated curricular practices are paralleled by the design of the grant system for funding academic research. Foundations attune themselves entirely to the research agenda and institutional organization of universities. This is an unholy alliance that severely limits the academic freedom of the research community. In Germany, for example, the richest donor, the Volkswagen Foundation, talks about embracing interdisciplinarity as an important priority. At the same time, it has no committees to foster and to evaluate truly interdisciplinary research. These are, I am wholly aware, controversial claims. But what I am describing here are fundamental mutations in the institutional framework of academic research and urgently need to be addressed.

Discussions on curricula and institutional design often tend to concentrate exclusively on elite universities—that is, the great research universities of the United States and the handful of leading universities in Europe. However, this focus on a few outstanding institutions can easily mislead those thinking about the future of academic research and higher education.

Witness the growing pressure to produce publications. This by now has become a sine qua non of academic success, indeed even of mere survival in academe. But it is perhaps the most important limitation on genuine academic freedom, a constraint that is all the more regrettable as all practicing academics are familiar with the inferior quality of arguably as much as 80 percent of international publications. This figure stands in stark contrast to the huge burden the imperative to publish places on the shoulders of scholars and professors.

Once again, we will find that this imperative was originally suited to small elite universities and a small group of outstanding researchers. It is only in the case of this select group that the teacher and the researcher must in fact be identical. Yet this requirement has by now spread to huge "multiuniversities": every faculty member has to be a researcher and, what is worse, author of an unending outpouring of publications.

As a matter of university policy, it would be worth investigating whether these two activities could be separated. The basic idea would be to offer different streams to those who really deal with the top 3 percent going into advanced scholarship and to those who are going to combine teaching and research or not undertake independent research at all. Most important, for this second group we should consider doing away with the unbearable burden of publishing because this has now spread in the system to such an extent that it threatens to undermine it as a whole.

RETHINKING THE CURRICULUM

Further solutions to the problems sketched above must concentrate on developing a new kind of undergraduate curriculum that responds to basic demands for the twenty-first century. These demands cluster around the following three challenges: genuine interdisciplinarity, education of concerned citizens, and fostering nonlinear thought. I will address each of these.

We cannot abandon teaching disciplines without giving way to the loss of intellectual responsibility. However, it is time we took note

of the fact that a young person, after completing three or four years of university studies, will typically face problems "out there" that are interdisciplinary in nature. This is irrespective of whether he or she goes on to do research, joins an NGO, goes into politics, or chooses some other profession.

When a problem is interdisciplinary in this sense, no existing discipline will provide the wherewithal to deal with it on its own. But how can young people be trained for such a situation? Higher education today lacks the resources, both institutionally and intellectually speaking, to prepare young graduates for these real life situations posed by the exigencies of their profession or research.

Even when universities, research centers, or funding organizations do take on board the notion of interdisciplinarity, they usually commit what we can call the "interdisciplinary fallacy." We see this fallacy at work when donors or university administrators act on the mistaken assumption that to solve a problem that goes beyond the scope of any given discipline, one merely has to convene representatives of various disciplines and "put them in a room" for a solution to emerge. What is fundamentally wrongheaded about this approach is the failure to recognize that 10 different mindsets sitting in one room will not come to much. Instead, we need scholars who in addition to knowing their own disciplines are capable of a genuinely interdisciplinary way of thinking.

In order to acquire this interdisciplinary way of thinking, rigorous and stimulating training is required from the early undergraduate level. I do not have the space here to describe in detail how such training ought to be designed, but I can offer a few examples. First, as already noted, in order to train a person to think in terms of disciplinary paradigms *as well as* beyond the limits of the disciplines, we will need to begin with freshmen and not with advanced students already seeking a doctoral degree. It is too late for someone writing a doctoral dissertation in physics to discover that, for example, quantum theory and the theory of relativity can conceptually conflict in a most fundamental way.

For these reasons, the idea proposed here is to teach, for example, a basic introductory undergraduate course in physics or a basic introductory undergraduate course in economics, and in parallel to each of these introductory courses another course that exposes students to conceptual inconsistencies, to facts where the theory does not work, or even to the basic incoherence or incompleteness of the theories as such. In an ideal world, one and the same professor would teach these parallel courses in the given discipline, although everybody familiar with the exigencies of higher education knows that this last suggestion would be hard to put into practice.

Our century-old resistance to such ideas stems from preconceptions concerning the needs of children and young people. Particularly popular and of most sinister influence has been the thought that what an aspiring and gifted young person really needs is intellectual certainty. But what a young person really needs is emotional certainty, not intellectual certainty! Overseeing this basic truth has been responsible for the overwhelming ambition of most authors of university curricula not to expose young people to contradictory or conflicting ideas. This is an absurdity. Highlighting and even embracing contradictions should in my view be a key desideratum of higher education from freshman level on.

The second fundamental objective in redesigning curricula is to foster the education of what I call concerned citizens. Although the term "concerned citizen" carries moral implications too, I am not so much concerned here with the ethical dimension, but rather with the underlying cognitive and intellectual content of this term.

Quite simply, educating concerned citizens is to educate young people to understand the main problems of the world you find on the pages of any good daily newspaper. Why is it, we may want to ask, that we have so little understanding of how to fight poverty and how to help the "bottom billion" (to use Paul Collier's term) (Collier, 2007)? Why is it that we do not know how to come to grips with the medical, social, and economic problems of worldwide epidemics? Problem-oriented thinking focusing on such issues must be introduced already at the undergraduate level.

Finally, we need to understand and draw practical conclusions from the fact that almost all the problems we grapple with today are nonlinear in terms of the mode of thinking and method they require. That is to say, they are nondeterministic and often resist reductionism or a breakdown into "digital" polarities. They are much more complex and ambiguous, seething with contradictions.

However, very little nonlinear thinking is taught at universities today. Our undergraduate education in the natural sciences and the social sciences promotes purely linear approaches in the hope that the Great Truth is "out there" somewhere.

Needless to say, nonlinear thinking is a complex and difficult idea. However, I suggest we resist the answer favored by many mathematicians. The gist of this answer is that the adequate mathematical expression of nonlinear problems is given by partial differential equations and so one can begin to talk about nonlinear problems only once one has reached the subject of partial differential equations in one's fourth or fifth year of studying mathematics. That is nonsense. Nonlinear thinking is an approach that we have to introduce from the first year on and we have to redesign our curricula accordingly no matter how difficult that may seem at the outset.

CURRICULUM RESEARCH AND THE FUTURE OF HIGHER EDUCATION

I will conclude by saying a few words about curriculum research. The notion of curriculum research is almost entirely unknown in Europe. It is typically confused with didactics. The United States is the only country where serious attention is paid to curriculum research.

Curriculum research involves the epistemologically oriented study of the foundations of areas, disciplines, or clusters of disciplines and the utilization of theoretical findings in teaching and the design of research programs. Without a serious commitment to curriculum research—a complex undertaking involving the concentrated effort of several teams over many years—no university reform can be successful.

The short-term prospects for such an intellectual enterprise are not optimistic. In the wake of the financial crisis, "the gatekeepers" are becoming stronger and stronger and more and more resistant to the idea of change. Therefore, universities are unlikely to become our main partners for curriculum research and curriculum reform in the near future. Support has to come from the outside: from independent foundations, strategic alliances with stakeholders in the private sector, intergovernmental research organizations, and more. At a later stage, the novel curricula will have to be tested at a few experimental universities as well. This, I believe, is a formidable but worthwhile challenge for the years to come.

Let me end on an optimistic but, I hope, not irrationally optimistic note. Many of the problems I have outlined emerged because young people have tended not to go into politics or into academe for the last 30 years. As a result, the world of academe has very few genuinely gifted researchers and politics has very few genuine thought leaders and agents of change. Talent has preferred making money or choosing law instead, more so than ever during the last 10 years.

According to some recent estimates, as many as 60 percent of the most talented graduates have gone to Wall Street during the last few years. Clearly, this bubble has burst. Perhaps we can draw some optimistic conclusions from this too. For the last decade, many thought wrongly that globalization would abolish the nation state. That did not take place, but the nation state certainly did become weaker.

Once again, however, we see national governments and national institutions acquiring new strength in the wake of the global economic and financial crisis. At the same time, the increasing influence of governments will predictably lead to a strengthening of the party system. As a result, many gifted young people who now have nowhere to go will once again choose academe and politics. This may well become the trend dominating the higher education sector in the coming years.

This forecast is certainly optimistic, but perhaps not overly optimistic. We have some reason to hope that the growing significance and intensity of political life will attract better people, who in turn will

turn to the universities again for intellectual ammunition and knowledge better suited to handling today's problems. That could provide new incentives to change the university system and put pressure on the political domain to seriously engage with science, research, and universities in a dialogue of equals. If the diagnosis I have sketched does justice to the facts on the ground, then such new incentives and such encouragement will be sorely needed for a brighter future in higher education.

REFERENCES

- Bruner, Jerome. *Acts of Meaning*. Cambridge: Harvard University Press, 1990.
- Collier, Paul. *The Bottom Billion*. New York: Oxford University Press, 2007.
- Elkana, Yehuda. "Rethinking, Not Unthinking the Enlightenment." *Debates on Issues of Our Common Future*. Ed. Willhelm Krull. Weilerswist: Velbrück Wissenschaft, 2000.

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