

Autonomy and accountability in institutions of higher education

Richard N. Zare

I come from a Jewish background, and my family and I celebrate each year Passover, a week-long spring festival that commemorates the liberation of Israelites from slavery long ago in ancient Egypt. It is one of my favourite holidays, not only for the special foods that are served and the chance to be together with family, but more for the opportunity to reflect on freedom and how important it is to making life meaningful. It is the only religious holiday I know that emphasizes how precious freedom is.

Therefore, I noted with great pleasure the recent announcement in India that 60 institutions of higher education had been granted autonomy by the University Grants Commission, New Delhi. I am sure there will be some experts who will question the number and choice of institutions, but I am too distant from the Indian higher education scene to hazard any such opinion. Rather, I want to express my strong support for this government action. It does let the winds of freedom blow, and it is my hope that this freedom can be used wisely and constructively. In making this announcement, Prakash Javadekar, the Minister of Human Resource Development, stated that the government is striving to introduce a liberalized regime in the education sector. He also went on to emphasize the linking of autonomy with quality.

Not everyone has greeted this granting of autonomy with praise. In a 30 March 2018 article in the *Indian Express*, Shahid Jameel (The Wellcome Trust/DBT India Alliance, New Delhi) has expressed the strong worry that Independence without adequate funds and leadership will not help universities flourish¹. He points out, 'A big impediment to the autonomy of universities is the manner in which its leaders are chosen. Vice-chancellors are appointed not for their vision, scholarly work and leadership qualities, but due to political patronage'. In the 1 April 2018 issue of *Scroll.In*, Balveer Arora (political science professor and formerly rector and pro-Vice Chancellor of Jawaharlal Nehru University, New Delhi) is even more pessimis-

tic in his outlook, suggesting that granting autonomy to universities is like giving power to Khap Panchayats, a gathering of village elders having no legal status but known for the strict enforcement of highly conservative positions². The deep worry is expressed that greater autonomy is actually code for the withdrawal of public funding to the institutions.

I am more optimistic, but guardedly so. To me, the big question is how will this autonomy be used to advance quality? Too often I have seen abuse in the appointments system, where positions are filled not based on merit so much as on friendship and familiarity. I have written before of the tyranny of simply using metrics rather than examining more closely whether an individual has made a significant contribution in advancing our understanding of a topic and whether an individual has the ability to teach and promote the growth of others under that supervision^{3,4}. Yes, it takes more work to determine how well these two criteria are met, but to do otherwise squanders a huge opportunity to allow an institution to attain greatness. The ranking of Indian institutions of higher learning is nowhere as high as I believe they deserve to be. This freedom of choice must also be accompanied by accountability.

As I understand autonomy, it will be possible to start new courses, establish off-campus centres and research parks, hire foreign faculty members, enroll foreign students, enter into new collaborations and give incentive-based rewards to faculty. The possibilities are awesome and the opportunities for significant positive changes are real. I particularly champion the idea of adding non-Indian faculty as no country has a monopoly on talent, and as I have experienced at Stanford, diverse points of view and cultural backgrounds are intellectually stimulating and promote the concept of striving for excellence in all possible forms.

University administrators face a big challenge in how to make autonomy work well in their specific institutions, and the answers should not be all the same. Here I am reminded of a key con-

cept I learned from my own time (1994–1996) as Chair of the National Science Board, the policy-making body of the US National Science Foundation. Leadership is essential. However, the proper role of a leader is not to imagine the future, alone, but rather to enable it to unfold by enlisting the opinions of all those involved in making the future happen. We call these other people the stakeholders, because each has some stake in the outcome of some imagined new programme. It is only by careful consultation and discussion with all the stakeholders can some consensus be reached on how to proceed. Here consensus does not mean unanimity, but a sufficient group of advocates to make some change self-sustaining. India rightfully prides itself as the largest democracy in the world. Unfortunately, the principles of democracy in which every voice is heard do not seem to apply to how Indian universities are run, in which top-down management often seems to be the accepted norm. I am not advocating 'one person one vote' in the operations of any university, but without the inclusion of and consultation with all stakeholders, I regretfully foresee that the status quo will be maintained with no significant advance being achieved from the granting of autonomy.

Let me try to explain in more detail what I am advocating. Take, for example, the introduction of new courses in a department. It is not only necessary to ask and receive the thoughts of the faculty in the department, but also know what students recommend and to understand what others who will benefit from a course change are asking for, such as future employers. It is still more difficult to imagine the introduction of courses and programmes that draw upon the talents of two or more departments. This cannot happen without leadership pointing out the advantages that might be achieved by a jointly-taught class, or a jointly-operated research enterprise, but such an initiative will fail unless this new course or programme receives support from faculty members of different departments and fulfils a need sensed by students and also by those who support the university. Successful examples are

few, but those that do exist seem to be among the most outstanding courses offered. For example, I was among the four founders of what is called Bio-X at Stanford University that supports, organizes and facilitates interdisciplinary research in the biosciences that includes faculties from the School of Medicine, the School of Engineering, and the School of Humanities and Sciences. The idea for this programme came from the faculty; the ability to implement the same and make it a reality could only have happened with the support of the university administration.

In my own department at Stanford University I serve as one of the members of an undergraduate curriculum committee. We receive input from teaching staff, students, other faculty members, and from the university administration. We also worry about whether any change can have a life beyond one particular faculty member who may want to offer the course. We also face the problem that many faculty feel that they 'own' certain courses, a practice that often causes the course to become stale with the particular faculty teaching the course in the same way for too many years in a row. I must add that university intervention is

sometimes fully needed. For example, it was only with the promise of various benefits to the department did mine agree to offer some biological chemistry track to major in this discipline. Yet, the success of this new track is not simply because of some university administrator, in this case the Dean of the School of Humanities and Sciences, asking for this programme, but by a number of faculty deciding it was in the interest of the department and the students to have such a programme. Many faculty initially opposed this new way to major in chemistry. If the plan had not been thoroughly discussed, it certainly would have failed and at best would have had only a short life. Presently, it is a positive way we attract students to major in chemistry.

Freedom is the ability to set your schedule, to decide on the work you do, and to make decisions. Responsibility is being held accountable for your actions. To have exclusively either one or the other is a recipe for disaster. Freedom and responsibility go together. At the same time, as more autonomy is granted I believe more accountability is also required. This accountability can be achieved in many different ways, for example, periodic outside reviews by pan-

els of experts. An intriguing question is whether national academies can be encouraged to play an important role in upholding standards and certifying successes. It is the true challenge to university administrators to effect the right balance between prescribed and overprescribed. This challenge of how to make autonomy succeed is not exclusively the provenance of university administrators. All stakeholders need to voice their concerns and aspirations.

1. <http://indianexpress.com/article/opinion/columns/the-anatomy-of-autonomy-ugc-hrd-ministry-prakash-javadekar-5116607/>
2. <https://scroll.in/article/873128/granting-autonomy-to-universities-now-is-like-giving-power-to-khap-panchayats-says-jnu-professor>
3. <http://www.currentscience.ac.in/Volumes/102/01/0009.pdf>
4. <https://onlinelibrary.wiley.com/doi/abs/10.1002/anie.201201011>

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Is export-oriented and currency dynamics-based Indian soybean revolution environment-friendly?

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Export orientation, market liberalization and currency dynamics have significantly promoted agricultural and industrial growth in export commodities. Rapid spread of soybean in South America and India is a glaring example of this. The saga of Indian soy revolution has been told¹ and ramifications of the Indian soybean industry have been documented^{2,3}. Soybean expansion in South America has been associated with environmental loss. The Indian soy revolution needs to be viewed from this angle.

Emergence of the South American soybean industry has been associated with the rise in global prices for protein meals in the 1970s (ref. 4). This was also the period

of phenomenal growth in Indian soybean area and export of soymeal. A favourable exchange rate as well provided for related developments and expansion of soybean⁵. The profit from export was an incentive in itself for making soybean production and the industry boom in India and South America. India normally exported soymeal plus other soybean products valued at around US\$ 2.5 billion annually till 2013–14. After 2013–14, the exports declined due to instability in production, stiff global competition and currency dynamics. Domestic use of a substantial amount of soymeal and almost the entire soy oil produced (~1.7 million tonnes per year) is also appreciable.

Soybean spread and deforestation in South America

Soybean spurt in South America was held responsible for neotropical deforestation^{6–8}. Brazilian cerrado, the Atlantic Forest and the Amazon in particular were affected. In Mato Grosso, Brazil, soybean displaced pastures further north into the forested areas, causing indirect deforestation. In South Brazil, soybean production has been accounted for severe shrinkage of the Atlantic Forest. In Argentina, soybean spread was associated with the loss of 2.7 million ha of forest between 1972 and 2011, the major loss occurring after 2002.