

CHAPTER 2

Redefining the concept of excellence in research with development in mind

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The reasons behind the drive for excellence

In Mexico, at the beginning of the 1980s, a great devaluation of around 140% led to the plummeting of university employees' salaries, with the consequence, among others, of a significant brain drain. Raising salaries for all staff was not possible, and it was decided to give substantial bonuses to those considered more productive, giving birth to the Mexican National System of Researchers (NSR). Productivity was measured largely by publication count in and citations from ISI-listed journals (Neff 2018). An implicit concept of excellence was built. To be excellent in research for an individual researcher is to belong to the NSR, achieving the marks that the NSR considers proof of excellence. In the United Kingdom (UK), at the beginning of the 1990s, polytechnics were converted into universities. To avoid spreading resources over the whole university system, a competitive allocation for funds system was put in place and the weights used to measure performance were raised over time, to push further a process of differentiation (Cremonini et al. 2017). Again, a concept of excellence was implicitly built; it works exactly as the Mexican NSR works, defining who is excellent and why; that is, the place of excellence and how to get there. The irruption of the university rankings in the early 2000s unleashed what Hazelkorn

(2007) denominated a ‘gladiator obsession’ with the place occupied by national universities in the rankings. In Germany, following its poor performance in the 2003 Shanghai ranking, the Excellence Initiative was implemented, with the explicit goal of introducing further differentiation in the university system to achieve better research performance (Cremonini et al. 2017). In France a similar trend can be seen and for similar reasons, breaking a long tradition of equal funding treatment of universities through fostering a smaller group of universities ‘that focus on excellence, have modernised governance, and are highly productive’ (Hazelkorn and Ryan 2013: 90).

The current drive for excellence can be seen as a way, historically situated, to circumvent the limits that previous ways of assessing the value of academic work had for selecting fewer academics, academic departments, and universities. Becoming excellent has important economic consequences. Belonging to the Mexican NSR may imply a bonus of more than 50% of the total salary of a university professor. Being high in the Research Assessment Exercise (RAE), in the case of the UK, implied helping the university to rise in the rankings; this has immediate consequences in terms of the number of students, particularly foreign, coming to the university, whose fees cover around 50% of the university budget. These observations point to the need to consider the drive for excellence in context, the reasons why it appeared and some of the reasons why it endures. This helps to de-naturalise the drive for excellence, particularly in low- and medium-income countries (LMICs), as the right way to achieve capacities to create and use the best possible science for developmental goals.

The structuring effects of the strive for excellence

Excellence is a socially structured concept; it is also a socially structuring concept, once put into practice. Differentiation is at the heart of the social structuration of the concept; consequently, its structuring effects foster a race to not fall into the lower side of differentiation. A copious literature has analysed the consequences of this trend. ‘[I]nstitutions are measured against other institutions, researchers compete with one another for funds and universities for students. This leads to

a permanent state of war between all the parties, destroying the social fabric of the university [...] Of all tasks in the academic workplace, teaching is the least appreciated and has to be outsourced as soon as possible, allowing people to focus on the battle for coveted research money' (Halffman and Radder 2015: 168). The striving for excellence in very different settings presents striking similarities in the effects of structuring. The Mexican NSR and the British RAE are good examples of that as both have been implemented for more than twenty years. In both cases, a 'unimodal' trend towards a specific type of research was found: results may be published in a given set of international journals strongly biased towards the English language. In both cases other academic functions were found to be given less attention, including teaching, institutional building and societal relationships (Foro Consultivo Científico y Tecnológico 2005; Martin and Whitley 2010).

The striving for excellence, even if its consequences appear similar everywhere, has become a dominant feature of science and university policies in the North and South for different reasons. Why bother with the place which 'Southern' universities achieve in the international rankings if they do not sell in the international market of higher education (HE) services? What is the use, in a relatively young, small and weak academic community, of signalling in different ways that only those who could be considered as scientists in the international community deserve to be considered scientists in the national community? There is an implicit argument behind these trends: Northern science (and its procedures) is a lighthouse, signaling the land in which Southern academics should try to arrive. These trends have been mercilessly described: '[T]he Third World looks to the North for validation of academic quality and respectability. For example, academics are expected to publish in Northern academic journals in their disciplines. Promotion often depends on such publication. Even where local scholarly publications exist, they are not respected. While it is understandable that small and relatively new academic systems may wish to have external validation of the work of their scholars and scientists, such reliance has implications for the professoriate' (Altbach 2003: 6).

A main point is that this type of mimetic behavior influences the science that is done and not done: Hess's (2007) concept of undone

science is particularly relevant here. It seems fruitless to ask LMIC scientists to carry out the as yet undone science, relevant to their context, which nobody but they would attempt to work in, if the expected reward is lack of academic prestige and recognition, given that those interested in publishing the scientific results are mainly local or regional journals.

On the other hand, a main difference between North and South in this regard is the structure and dynamics of production. If imports – of artifacts or ideas – are the main and systematic way of solving problems in LMICs, the important legitimating source for research efforts implied in the expectation society has of its results is missing. The result is a push towards external approval, the trend described above. Lack of demand from the productive structure for indigenous capacities is one of the most serious sources of de-legitimisation of local science (and local innovation).

This problem was theorised more than 50 years ago by an Argentinean metallurgic engineer, Jorge Sabato. He proposed an ‘interactionist’ and systemic approach to the relations between science and technology and development, explained through a triangle (Sabato’s triangle, widely used as a metaphor in Latin America), the vertices of which are Government, Knowledge Producers or Academia and Business Firms or Production. One of his main points is that more important than the strengths of individual vertices in relation to science and technology, the key for development is the strength of the interaction between them, the ‘inter-relations’. Sabato also points out that each national system of science and technology is immersed in a wider international milieu; each vertex interacts with external actors through ‘extra-relations’. When the inter-relations in a national triangle are weak, particularly affecting Academia, the concomitant isolation pushes the academic vertex to strengthen the extra-relations with the international academic milieu. Such extra-relations are deeply asymmetric: they are established between strong, well ingrained in society and legitimated science and technology vertices and those that are weak, isolated and barely legitimated. A vicious circle follows. The academic milieu of an underdeveloped country tends to adopt the agenda and academic legitimisation procedures

of the highly industrialised countries, including predominantly their concept of 'research excellence'. This alienates even further their national integration; government and the productive sectors turn almost systemically towards foreign knowledge; the inter-relationships within the triangle become even weaker; underdevelopment stays in place. Freeman used to call the trend of relying mostly on knowledge imports 'voluntary underdevelopment' (Freeman 1992). In Sabato and Botana's words:

In a society where the triangle of relationships behaves well, the openings to abroad in the realm of exports of original science and technology or of adaptation of foreign technology produce real benefits in the short or in the long term.

Historical experiences show that societies that have achieved the integration of the S&T triangle are able to produce answers and to be creative when facing external triangles of relationships.

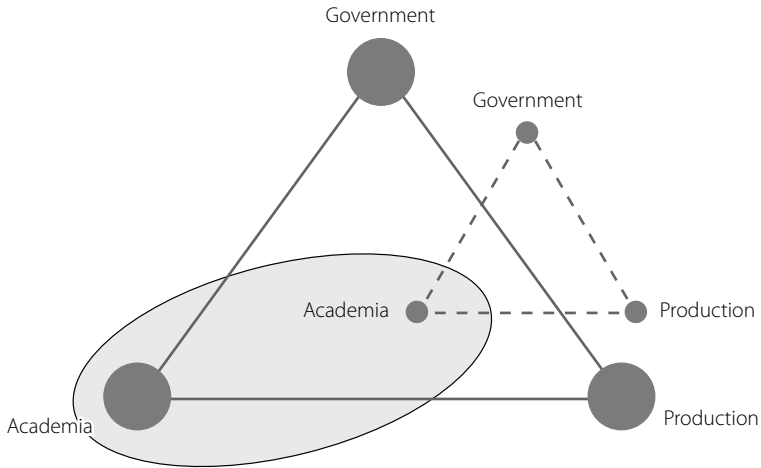
Very different is the situation, though, when the extra-relationships take place between dispersed vertices – not inter-related among them – and an external completely integrated S&T triangle. *This is one of the central problems that Latin American societies need to resolve, because in our continent [...] the base of the triangle shows an increasing and marked tendency to build independent relationships with the triangles of relationships of highly developed societies.* (Sabato and Botana, 1968: 23, emphasis added, author's translation)

Summing up: while the consequences of the prevailing striving for excellence are socially damaging in the North, they may be considered even more severe in the South.

A developmental view on research and excellence in research

As previously proposed, the concept of excellence in research is historically situated; moreover, it is ideologically moulded. In the case of universities, what counts as excellence in research depends on the aims

Figure 1: The asymmetrical relationships between academia in peripheral countries' systems and in highly industrialised countries' systems (base of the Sabato's Triangle conceptualisation)



of the university. If the main aim were to climb the ladder in international rankings, the definition would be quite different from the one adopted if excellence were seen as maximising the impact of knowledge production on development. The latter has nothing to do with the often presented dichotomy between basic versus applied research; it relates to fostering a connection between universities and societal problems through the promotion of high-quality, relevant research and a tight relationship to high-level teaching and relationships with society. Developmental universities have been characterised in the following way:

The '*Developmental University*' is characterised by its commitment to Human Sustainable Development by means of the interconnected practice of three missions, (i) teaching, (ii) research, and (iii) fostering the socially valuable use of knowledge. Such commitment means that developmental universities must contribute to building inclusive Learning

and Innovation Systems by cooperating with other institutions and collective actors:

- (i) The teaching mission aims at generalising access to Higher Education, seen as lifelong advanced learning of increasing quality and increasingly connected with work, citizen activities, cultural expansion, and, in general, freedoms and capabilities for living lives that people value and have reason to value.
- (ii) The research mission aims at expanding endogenous capabilities for generating knowledge – at local, regional and national levels – in all disciplines and in interdisciplinary activities, with international quality and social vocation.
- (iii) The mission of fostering the socially valuable use of knowledge aims above all to cooperate with a wide variety of actors in interactive learning processes that upgrade the capabilities for producing goods and services as well as for solving problems, with priority given to the needs of the most deprived sectors.

The definition could be given in a nutshell by saying that ‘the Developmental University is characterised by its commitment to the democratisation of knowledge’. (Arocena et al. 2018: 169–170)

To the extent that the concept of excellence structures in part institutional aims, it seems clear that fostering developmental universities requires a specific conceptualisation of excellence. In particular, it can be said that more pluralism is needed to consider not only ‘excellence in research’ but also ‘excellence in the search’ of external actors with whom to build relationships conducive to a more useful utilisation of knowledge.

It is worth recalling that to serve developmental purposes research should be sound; mediocre results in scientific terms, regardless of the developmental importance of the topic, are useless. The soundness of

a research effort and of its results should not be measured by proxies, such as the journal in which the results have been published or the scientific prestige of the proponents, even if these criteria may add arguments to a judgement based mainly on a direct appraisal of merits. A second assertion is that the questions and problems that research aims to solve are relevant criteria in judging how useful the results may be for development. This is not an exclusionary criterion: the need for science to answer fundamental questions within a discipline or to build a theoretical lens through which to better understand the world and the own reality is a legitimate goal for ‘peripheral science’. This is a point worth stressing. Guillermo O’Donnell, an Argentinean political scientist, indicated that we should reject the pretension of some exponents of the dominant countries’ academic milieu to consider that they speak from a sort of universal place, not recognising the particularities of other places by not recognising that they belong to a place too. He says, talking about Latin America but entailing a much broader scope:

To conceive ourselves, in fact or right, as research assistants, as gatherers of data that are processed afterwards by theorists of the North, is equivalent to exporting raw materials with low value added to be processed by the industry of the North. On the other side, that of imports, this subordinate role means to ‘apply’ mechanically theories already developed in the North, which is equivalent to importing turn-key industries or technologies to which at most some adaptations are made. (O’Donnell 2004: 8, author’s translation)

From a developmental perspective, excellence in research needs to be considered from a different angle than the one analysed so far. Of course, we may dispense with the concept of excellence, given the meaning it has acquired, using instead ‘quality research’, for instance. A recent work analyses research excellence as a ‘contested concept’, showing unmistakably the inherent complexity involved in its characterisation (Ferretti et al. 2018). The term we use is not however the important thing. The question is through which attributes do we spot

those research projects, research programmes or individual researchers that deserve support from a developmental point of view? After that, we must consider the question of how to proceed to select among them the few that will receive support. First, those considered to be excellent or of high quality should be identified.

We may have ‘relevant attributes’ and ‘not so relevant attributes’ in assessing research proposals from a developmental perspective in LMICs. For instance, aiming to be published in *Nature* or *Science* and presenting a programme to achieve that aim is not a relevant attribute; strengthening the physics community – theoretical and experimental – through building research groups devoted to some of the fundamental branches of the discipline in a country with very low capabilities in the field is a relevant attribute. The dichotomy between ‘the best and the rest’, implying that the rest is worthless from a scientific point of view, is not acceptable.

The ‘teaching trickle-down’ effect of a research proposal or of a researcher’s activity is a relevant attribute. It can be indirect, by strengthening a weak research area, thereby allowing senior researchers to teach creatively and raise creativity among their students; it may be direct, by adding new perspectives to a current course or even by developing new courses. The importance for concrete stakeholders of the problems addressed is also a relevant attribute. Originality is an important attribute; sometimes the value of a proposal from a developmental point of view is the degree of deviation from orthodox approaches. The number of young people substantially involved in a research proposal is a relevant attribute, as is non-subordinate participation in international networks.

There is not a single set of relevant attributes, valid in all circumstances, even though the few just mentioned may be considered useful in general. Countries have different needs in terms of the knowledge required to advance developmental goals and relevant attributes should take this into account. This also applies to the strengths of the research community, which may put a premium in certain directions if they promise to start redressing important weaknesses.

A funding agency needs clear assessment criteria to be fair and accountable. To combine this with ‘developmental soundness’, the

basket of relevant attributes at its disposal should be sufficiently ample and well fitted to the unit of analysis. Building such a basket is a fine work to be carried out by funding agencies, in cooperation with the beneficiaries to devise the attributes that proponents should highlight in their proposals. This points to a situated redefinition of excellence in research, taking developmental goals into account (Arocena et al. 2019).

A weak scientific community in a small peripheral country with an unsatisfactory innovation system: How to do good through research policy

Uruguay is a high-income country according to the World Bank classification, based on per capita income. Other indicators are as follows: research and development (R&D) GDP is 0.35; participation of development in total R&D efforts (the other two components being basic science and applied science) is 13%; participation of business firms in R&D investment is less than 30% (including public firms in the oil, electricity and telecommunications sectors); researchers working in business firms are fewer than 5%; the number of researchers per million inhabitants is slightly over 500. A rapid comparison with other small high-income European countries shows important differences in all science, technology and innovation (ST&I) indicators; the other Latin American country in this league, Chile, shows the same ST&I figures as Uruguay. Clearly, high per capita income is not necessarily a good predictor of good science and technology (S&T) activities; the other way around makes more sense empirically.

All LMICs show poor performance in S&T indicators. Some of them are extremely poor; other are not so poor but are extremely unequal (e.g. many Latin American countries); in general, their endogenous efforts towards enhancing S&T capabilities are low. Even when efforts are made to increase HE enrolment, there are no concomitant efforts to find productive and creative jobs for graduates. Usually, the most complex and intellectually challenging problems are solved via imports or consultancies from abroad; the long and expensive process

of building local capabilities to solve problems is thus weakened. Moreover, the configuration of innovation systems in LMICs shows weak interactions among actors and missing actors as well.

The question about how to 'do good' through research policy in contexts such as those described above cannot be answered by a cut and paste from recommendations prepared for other realities (as is often the case). Diversity conspires against general principles, but some can be proposed.

First, the whole gamut of the national research community needs to be strengthened. This is fundamental to achieve a healthy research ecosystem. However, there is no single instrument to do this, because in any quality-based competition for funds it will not be possible to avoid the 'Matthew Effect', particularly so when strong asymmetries among fields of knowledge, research groups and individual researchers are present. Specific programmes to enhance the quality of research in weak fields of research are important. They need to plan in the medium term, be based on sound appraisals of the current situation, emphasise raising the academic level of researchers, and be monitored continuously to detect problems early.

Second, international exposure needs to be enhanced, although not only by sending local people abroad. A dynamic of local seminars, workshops and conferences with the participation of invited professors from abroad may be more 'spreadable' in terms of benefits for the national research community.

Third, demonstration effects are important in places where local capacities for knowledge production and problem-solving are not much valued. Low morale is a problem for researchers in LMICs; the belief that only by being praised abroad can they be recognised as good researchers is an obstacle to reconciling research excellence and developmental goals. Reversing self-defeating imaginaries in relation to S&T is a very difficult cultural challenge in which several actors need to be involved. Interdisciplinary research teams convoked to work on problems where their contribution may make a difference can help to give visibility to research as a problem-solving tool and to local researchers as problem-solvers.

Some general working principles developed at the University of the Republic's Research Council

The University of the Republic was until some years ago the only public university in Uruguay; it is the only one which cultivates all research fields and grants professional education in all fields of study. In terms of research, combining all current indicators, it is responsible for around 75% of the academic knowledge produced in the country. The University of the Republic is an uncommon institution, sharing only with Argentinean public universities its identity features: it is free of charge; all those who finish high school are entitled to enter university, regardless of their past academic performance; and they may choose freely in which faculty they want to study, without any limitations (*no numerus clausus*). There are other academic institutions devoted to research, but they are concentrated in the life sciences.

The military dictatorship (1973–1984) included the military rule of the university and the destruction of almost all the national academic fabric; the migration rate of the academic staff during these years was huge.

In 1992, the University Research Council was created; it was endowed with a budget with the mandate to help reconstruct and enhance university research. It is a 'central' body of the university governance structure, meaning that it is, in principle, independent of the will and policies of individual faculties. The council operates mainly via competitive calls for academic activities related to research.

The evolution of the academic fields since the reconstruction of the university's autonomy that accompanied the recovery of democracy was very uneven. Exact and natural sciences were able to recover and grow quite rapidly; clinical research was much more difficult to strengthen; agrarian sciences and technologies had mixed outcomes, as did social sciences and the humanities. Within each field, disparities were also significant. So, both a goal and a foe were identified. The goal was to strengthen research capacities in all fields and subfields; the foe was the Matthew Effect that lies in wait to concentrate resources in those better-off disciplines if attention is not paid to its dangers. The way to

achieve this emerged from a consensual common sense built over time within the Research Council and, more importantly, within the evaluation committees convened to work on the appraisal of the proposals presented at the Research Council's different calls. This common sense can be summarised as follows: to allow research evaluation to make room simultaneously alongside academic quality and research policy goals. This entails a compromise, particularly on the side of research evaluation, implying that not necessarily the best – designed as such by an agreed mechanism – will necessarily be those chosen for support. This is formally recognised in the texts of the Research Council calls: 'efforts will be made to assure that all disciplines and subdisciplines are represented in the results of this call'.

The mechanism to achieve this was to visualise a 'band of acceptable research quality' outside of which proposals are rejected due to lack of merit and within which proposals of relatively similar merit are considered. This implies that if proposal x in discipline A, which for the first time would receive support to perform research activities, falls within the band, it may be given precedence over proposal y in discipline B, which has several good proposals, even if the evaluation received by proposal x is not as good as that received by proposal y.

This mechanism helps to avoid the Matthew Effect. Another procedure with the same aim is to try to establish competence between proposals and not between proponents. The CVs of the proponents are used mainly to ensure that there is sufficient scientific capacity to lead the research to harbour. Neither of these mechanisms is easy to implement, and in each evaluation round it must be remembered that they are 'official policy'. However, over time a shared evaluation culture takes precedence over simply picking the best proposals, leaving the Matthew Effect to operate freely to the eventual detriment of younger researchers and less well-developed areas of research.

Another policy guide for the Research Council is that there is no single research policy instrument, regardless of how well conceived, which is able to address the diversity of policy aims. In a weak scientific community, it is probable that whole fields of knowledge or disciplines or sub-disciplines fall outside the 'band of acceptable research quality'; this is certainly the case in Uruguay. These will continue to fall outside

this band unless specific measures are taken to allow them to improve their research capacities, as a healthy research ecosystem requires.

A programme aimed at this type of goal has already been mentioned. In the Uruguayan case, a programme called the ‘Enhancement of the Quality of Research in the Whole University’ was put in place. It starts with a self-appraisal of research weaknesses with the support of a foreign expert; then a four-year ‘enhancement of the quality of research plan’ is elaborated, establishing annual goals; finally, the deployment of the approved plans is accompanied by a special group of researchers, who monitor the advances and detect early problems. The ‘units’ of this instrument may be whole fields of knowledge, such as psychology or weak parts of a strong field, such as the medical-physics field. This is an expensive instrument; it directs important resources to the weakest part of the university’s research capacities amidst budgetary constraints. Nevertheless, it has won legitimacy at the university as a whole because there is a consensus that research weaknesses that need to be redressed can be found everywhere.

Finally, two additional guiding ideas for the Research Council are that early career researchers and ‘the best’ need specific support. Regarding the latter, it is worth stressing that avoiding the Matthew Effect should not imply ‘leveling down’. Those areas of research that excel need to be supported by giving them breath to work over medium-term programmes; this is done by means of a four-year funding scheme directed to consolidated research groups. Support for early career researchers has proven to be a tricky issue, because what is considered ‘early career’ varies among cognitive areas and institutional trajectories. In fact, along the fourteen editions of the programme devoted to young researchers, the definition of the target kept on changing, according to a better comprehension of what ‘young researcher’ means, and due to institutional changes that affect that meaning.

‘Plural evaluation/engaged evaluation’ or how to assess proposals oriented to developmental goals

Managing the programme ‘Research and Innovation Oriented Toward Social Inclusion’ is quite difficult for the University Research Council.

The difficulties stem from various sources, of which the evaluation process is not the smallest. First, there is a need to assess the degree of social engagement of the research proposal; that is, to what extent the research tackles a problem of social exclusion recognised as such by some involved stakeholders. This provides key information to evaluate whether the proposal has merit to belong to the programme. If the research problem appears to be of interest mainly for the research team, then the proposal is rejected before any academic appraisal. The information is gathered through personal interviews with the stakeholders indicated in the proposals. Sometimes the interested stakeholder has the power to incorporate the research results into its practices, typically when public policy is involved. Other situations require mediations to put results into practice, in which case mediators are interviewed to assess, first, if they have been contacted, and second, to what extent they are willing to assure the needed actions to implement the research results. Once this ‘engaged part’ of the evaluation is completed satisfactorily – that is, it is confirmed that the research proposal tackles a problem that is considered as socially exclusionary by a concerned stakeholder and that the actors who may facilitate the application of the results have confirmed their engagement – the proposal passes to ‘ordinary’ research evaluation. The academic merit of the proposal is appraised through the justified opinions of two reviewers, generally foreign, given the small size of the local research community. Once at this stage, the process regains its classical form, with academic quality measured through the usual indicators defining the evaluation outcome.

The combination of these sources of information helps to spot loopholes in the proposals that may then be discussed with the proponents, should the overall merit of the projects suggest the convenience of supporting them. The proposals presented to this programme are much more difficult to prepare than ordinary R&D projects and so the volume of demand is low. The social commitment of the university explains the efforts made not to lose a good project if it could be reasonably reformulated.

This programme aims, of course, to help social inclusion with the concourse of research. But more fundamentally it aims at helping

researchers to become aware of and interested in putting their knowledge at the service of social inclusion. At some point, it was understood that researchers frequently needed to reflect thoroughly about a series of matters before being able to prepare a proposal. They needed, for instance, a better knowledge of the perspective of stakeholders in relation to the way they were seeing the problem; sometimes they needed to make sure that the methodology through which they wanted to tackle the problem was accurate enough. So, a second entry point to the programme was put in place, namely, the presentation of a short proposal to explore and clarify the aspects needed to prepare a fully fledged project. The evaluation of this modality also follows a plural path: first, the evaluation committee assesses the social merit of the proposal and then experts are required to evaluate its scientific quality.

These ‘plural’ and ‘engaged’ evaluation processes are extremely time consuming and can be implemented if the number of proposals is small. However, the experience gathered from them feeds reflexive appraisals of the dynamic of research that help to refine research policy instruments aimed at developmental goals.

An ongoing struggle and a needed redefinition of excellence

Turning now to individual researchers, an NSR was implemented in Uruguay in 2008, providing a ‘categorisation by excellence’, accompanied by a monetary reward according to the category achieved. At the university level, where the vast majority of researchers work, a 60-year-old stimulus regime grants a 60% rise in salary to those devoted full time to university activities – including undergraduate teaching – with particular emphasis on research. The conflicts between the evaluation criteria of the NSR and those of the university regime became rapidly apparent. Not only does the NSR concentrate exclusively on research and postgraduate teaching, but its main criteria to appraise research activities relate to the number of publications in international journals, or international editing houses, in the case of books. The evaluation relies on the information provided by a normalised CV form. On the one hand, to climb the hierarchy of the system – and avoid exclusion

from it – it is fundamental to gain international visibility through publications in recognised journals or through high citation counts. On the other hand, even if research is particularly important in order to gain grants for the university, it is not the only activity that counts. Moreover, the diverse traditions of knowledge production and communication within the university are recognised, and so plural evaluation criteria are put in place, including the direct appraisal of a piece of work selected by the applicants, besides the information included in activity reports and CVs.

Around 80% of all full-time university researchers also belong to the NSRs. Even if in economic terms full-time work is significantly more important than the NSR, the latter started ‘colonising’ the evaluation criteria of the former. Part of this stems from the ‘external’ character of the NSR, supposedly less affected by inbreeding than the university regime. However, in a small academic community, where the evaluation committees of the NSR consist almost exclusively of university researchers, this argument is more rhetorical than real. But perhaps more important is the idea that the NSR spots the best, while the university full-time regime supports researchers who perform well and with high intensity, but do not necessarily strive to belong to any ranking. Attribution of academic prestige within the country according to how near researchers are to be considered excellent by international standards has proved to become, in a short period, the most powerful tool to discipline researchers into the NSR path, particularly the younger ones.

The ‘regime of prestige’ of the NSR overpowered that of working full time in the university, which used to be highly valued. The problem is, as in so many other similar experiences, that university activities such as teaching, which take time from research, began to be seen as burdensome if mandatory, and were simply left behind if they were voluntary, such as institutional building or community service. To countervail this trend, it was proposed in 2012 to give full-time researchers in the university the freedom to choose plural research paths. They may tackle complex problems without accumulating publishable results in the evaluation period and nevertheless be highly regarded, if their working strategies are sound. They may produce one

good paper and devote the rest of their time to performing meaningful and difficult tasks, such as preparing a new masters programme or building relationships with external actors to be able to address some of their problems. In short, a signal was given that the university considers highly valuable the fact that its researchers combine quality research with quality performance of other academic and social activities, based on their research capacities.

The proposal, even though formally approved, encountered fierce opposition from influential researchers, with the argument that its application would undermine the quantity and quality of university research. The idea that the quantity of papers in international journals should not be a main evaluation criterion was particularly contested. Nevertheless, uneasiness started growing from below as time went by. Some senior researchers were surprised by the reluctance of their students to tackle complex problems in their PhD theses, giving the argument that they needed to publish quickly; others recognised increasing academic misbehavior associated with 'salami' papers, co-authorship cooperatives and so on. For researchers in some disciplinary orientations, the tension between the NSR requisites and their vocation to tackle problems of national importance became a real problem.

Discussions around the evaluation of researchers on how to appraise excellence, taking into account the national context, or on how to reconcile quality research with the aim of achieving developmental goals, have gained momentum. The growing international criticism of the prevailing research evaluation practices helps to put aside dismissive arguments against those who locally criticise such practices. Pluralism seems to be slowly recognised again as an important feature of a research evaluation system that makes room for diversity, for interdisciplinarity and for social engagement. In a recent workshop on the subject, organised by the University Research Council and attended by an important number of researchers, a message that resonated with force and was taken up by many was 'one size does not fit all'.

It is interesting to note that the conflicts around research policy are not centered on policy instruments: for instance, programmes devoted to social inclusion or to the public understanding of problems of general interest in society are not accused of deviating scarce resources

from the pressing needs of excellent research groups. The conflicts are centered on how to appraise individual merits, and on how to give and earn academic prestige. How this conflict is resolved has consequences on the demands made on research policy instruments: those instruments that allow a focus on the type of academic work that is praised by the individual research evaluation criteria will be overselected.

There is a complex web of interactions between research policy instruments, the evaluation criteria of individual researchers, the decision-making of a single academic unit taking these two dimensions into account – for instance a university – and decision-making at supra-levels which have their own criteria, national or international. This complex web of interactions does not work smoothly towards a common end. The Matthew Effect, for instance, is something that can be detected at local level; it is more difficult to perceive it at national or international levels. As already mentioned, national criteria, which strive to achieve international visibility for national science, may jeopardise efforts made at local level to better produce knowledge related to developmental goals.

Achieving a minimum level of consensus around a redefined meaning of research excellence – a counter-hegemonic meaning – is important to avoid weakening, by the overpowering of some meanings over others, the directionality of research policies aiming at developmental goals. This is an extremely complicated task involving ideological aspects, as well as more technical ones. Telling a developing country that trying to play in the great leagues is not a reasonable goal may be seen as a recommendation which has a colonial mindset; a much more productive approach would be to legitimise the variety of small roads by which science may contribute to human well-being.

A mutual comprehension of the problems involved in any redefinition of research excellence needs dialogues among the different stakeholders of research policy, international, national and local. In some countries, interesting exercises of research evaluation involving academics and non-academics have recently taken place. Something similar could be done in Latin American countries, as an experiment, allowing actors to work together across these different research policy levels. This striving for plurality in research evaluation would

imply, in present times, sailing against the strong wind of quantified homogenisation, and would unite concerned researchers in the North and South, which holds promise of change.

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