Redefining the concept of excellence in research with development in mind¹

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Abstract

Excellence in research is a situated concept: it does not reflect any universal trait but a concrete need for differentiation issued from requirements of research institutions and of research policy. Excellence is a socially structured concept; it is as well a socially structuring concept. Characterizing excellence and applying it to academic decision-making, particularly referred to individuals, has deep consequences on the research done. Even if this is present all over the world, such consequences are particularly strong in low and medium income countries, which generally have comparatively weak scientific communities. In such countries, a universalistic and quantified conceptualization of excellence is usually put forwards as a way to push researchers to narrow the research productivity gap with the highly industrialized countries. The effect of this trend in the building of research agendas may be counter effective in terms of putting research at the service of developmental goals. The paper analyzes these issues in general and discusses in particular the experience of building alternative practices of research evaluation at the University Research Council of the public university in Uruguay.

1.- The reasons behind the drive for excellence

In Mexico, at the beginning of the 1980s, a great devaluation of around 140% plummeted the salaries of academic university employees with the consequence, among others, of an important brain drain. Rising handsomely the salaries for the whole staff was not possible, and it was decided to give substantial bonuses to some of them, 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, 2017) 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 prove of excellence. In the UK, at the beginning of the 1990's, polytechnics were converted into universities. To avoid spreading resources over the whole university system, a competitive allocation for funds system was put in place; 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 them. 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

¹ Capítulo 2 del libro *Transforming Research Excellence. New ideas from the Global South,* Edited by Erika Kraemer-Mbula, Robert Tijssen, Matthew L. Wallace and Robert McLean, <u>African Minds</u>, 2019, pp. 19-38

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 a fewer number of academics, academic departments, and universities. Becoming excellent has important economic consequences. Belonging to the Mexican NSR may imply a bonus for 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 being high in the rankings, and this has immediate consequences on the number of students, particularly foreign, coming to the university, which fees cover around 50% of the university budget. These observations point 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-naturalize the drive for excellence, particularly so 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.

2.- The structuring effects of the strive for excellence

Excellence is a socially structured concept; it is as well 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 not to be left in the lower side of differentiation. A copious literature have analyzed 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 strive for excellence in very different settings presents striking similarities of the structuring effects. The Mexican NSR and the British RAE are good examples of that because both have been implemented for more than twenty years. In both cases, a "unimodal" trend towards a specific type of research was found: that which results may be published in a given set of international journals strongly biased towards English language. In both cases other academic functions were found to be given lower attention, including teaching, institutional building and societal relationships. (Foro Consultivo Científico y Tecnológico, 2005, Martin and Whitley, 2010)

The strive for excellence, even if its consequences appear as similar everywhere, has become a dominant feature of science and university policies in the North and in the South for different reasons. Why bother with the place "southern" universities achieve in the international rankings if they do not sell in the international market of HE services? What is the use, in a relatively young, small and weak academic community, to signal in different ways that only those that 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 to which Southern academics should try to arrive. These trends have been merciless 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 done and that not done: Hess's (2007) concept of undone science is particularly relevant here. It seems fruitless to ask LMICs scientists to work in the yet undone science, relevant to their context, that nobody but them 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 on its results is missing, pushing towards external approval, the trend we just described. Lack of demand from the productive structure for indigenous capacities is one of the most serious sources of de-legitimization of local science (and local innovation).

This problem was theorized more than fifty 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) which vertex 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 vertex in relation to science and technology, the key for development is the strength of the interaction between them, the "inter-relations". He also points that each national system of science and technology is immersed in a wider international milieu; each vertex interact with external actors through "extra-relations". When the inter-relations in a national triangle are weak, particularly affecting Academia, the concomitant isolation push 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 vertex and weak, isolated and hardly legitimated ones. A vicious circle follows. The academic milieu of an underdeveloped country tends to adopt the agenda and academic legitimization procedures of the highly industrialized countries, including predominantly their concept of "research excellence"; this alienates even further their national integration; government and the productive sectors turns almost systemically towards foreign knowledge; the inter-relations 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 had 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. <u>This is one of the central problems that Latin</u> <u>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, our translation)</u>

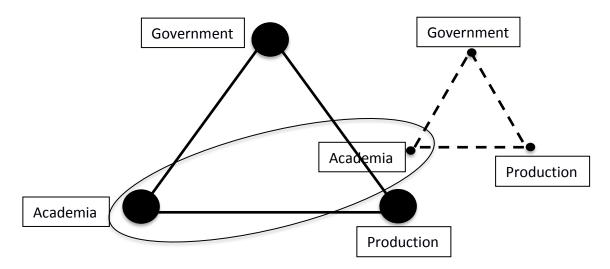


Fig. 1 The asymmetrical relationships between academia in peripheral countries' systems and in highly industrialized countries' systems (in base of the Sabato's Triangle conceptualization)

Summing up: if there are reasons to consider socially damaging the consequences of the prevailing strive for excellence in the North, they may be considered even more severe in the South.

3.- A developmental view on research and on excellence in research

As proposed before, the concept of excellence in research is historically situated; moreover, it is ideologically molded. In the case of universities, what counts as excellence in research depends on the aims 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 is seen as maximizing the impact of knowledge production on development. The latter as nothing to do with the so often presented dichotomy between basic versus applied research; it relates to fostering the connection of universities with societal problems through high quality research and its tight relationship to high level teaching and relationships with society. Developmental universities have been characterized in the following way:

"The *Developmental University* is characterized 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 generalizing 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 characterized by its commitment to the democratization of knowledge" Arocena et al a, 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 conceptualization 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 which to build relationships conducive to a more useful utilization of knowledge.

It is worth recalling that to serve developmental purposes research should be sound; mediocre results in scientific terms, regardless the developmental importance of the topic, are useless. The soundness of a research effort and of its results should not be measured by proxies, like 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 to judge how useful the results may be for development. This is not an exclusionary criterion: science that wants to answer fundamental questions within a discipline or wants to build theoretical lens through which better understand the world and the own reality are legitimate goals 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 recognizing the particularities of other places by not recognizing 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 export 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 import turn-key industries or technologies to which at most some adaptations are made..." (O'Donnell, 2004: 8, our translation)

So from a developmental perspective, "excellence in research" needs to be considered from a different angle than the one analyzed 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 analyzes "research excellence" as a "contested concept", showing unmistakably the inherent complexity involved in its characterization. (Ferreti et al, 2018) The word we use is not however the important thing. The question is through which attributes do we spot those research projects, research programs 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 of excellence or quality should be identified.

We may have "relevant attributes" and "not so relevant attributes" for assessing research proposals from a developmental perspective in LMICs. For instance, aiming at publishing in Nature or Science and presenting a program to achieve that aim is not a relevant attribute; strengthening the physics -theoretical and experimental- community 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 a researcher's activity is a relevant attribute. It can be indirect, by strengthening a weak research area that will allow having senior researchers able to teach creatively and rise 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 itself 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; the same goes for 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; the same goes regarding 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 basket is a fine work to be done 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, 2018b)

4.- 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 with the World Bank classification, based on per capita income. Other indicators are as follows: R&D/GDP is 0, 35; participation of Development in total R&D effort (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 related to oil, electricity and telecommunications); researchers working in business firms are less than 5%; 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 STI indicators; the other LA country on this league, Chile, shows the same STI figures than Uruguay. Clearly high per capita income is not necessarily a good predictor of good S&T behavior; 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 extremely unequal (as many Latin American countries); in general, their endogenous efforts towards enhancing S&T capabilities are low. Even when efforts are made to increase HE enrollment there are no concomitant efforts to find productive and creative jobs for graduates. Usually, the most complex and intellectually challenging problems are derived abroad, via imports or consultancies; the long and expensive process of building capabilities to solve problems is thus dwarfed. Moreover, the configuration of innovation systems in those countries shows weak interactions among actors and missing actors as well.

The question about how to "do good" through research policy in contexts like those 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 competence 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 programs 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, put emphasis on rising the academic level of researchers, and be monitored continuously to detect problems early.

Second, international exposure needs to be enhanced but not only sending local people abroad. A dynamic of local seminars, workshops, 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; thinking that only by being praised abroad can they be recognized as good researchers is an obstacle to reconcile 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 giving visibility to research as a solving-problem tool and to local researchers as problem-solvers.

5.- 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 cultivating all research fields and granting 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. It is an uncommon institution, sharing only with Argentinean public universities its identity features: it is free of charge, all those that finish high-school are entitled to enter university regardless their past academic performance, and they may choose freely in which faculty they want to study, without any limitation (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 reconstructing and enhancing 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. It operates mainly by competitive calls for academic activities related to research.

The evolution of the academic fields since the reconstruction of the university 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 well as social sciences and the humanities. Within each field, disparities were also significant. So, a goal and a foe were identified. The goal was to strengthen research capacities in all fields and sub-fields; the foe was the Matthew effect that lies in wait to concentrate resources in those better off 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 summarized as follows: allow research evaluation to make room simultaneously to 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 recognized in the texts of the Research Council calls: "efforts will be made to assure that all disciplines and sub-disciplines are represented in the results of this call".

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

This mechanism helps avoiding the Matthew effect. Another procedure with the same aim is to try that the competence is established between proposals and not between proponents. The CVs of the proponents are used mainly to assure that there is enough scientific capacity to lead the research to harbor. None of these two mechanisms is easy to implement, and in each evaluation round it must be remembered that they are "official policy". But over time, a shared evaluation culture takes precedence over just picking the best proposals, leaving the Matthew effect operate freely to the eventual detriment of younger researchers and not so well developed areas of research.

Another policy guide for the Research Council is that there is no single research policy instrument, regardless how well conceived, 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 are outside the "band of acceptable research quality"; this is certainly the case in Uruguay. They will continue to be outside this band unless specific measures are taken to allow them to improve their research capacities, as a healthy research ecosystem requires.

A type of program aimed at this type of goal has been already mentioned. In the Uruguayan case, a Program called "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-years "enhancement of the quality of research plan" is elaborated, establishing annual goals; the deployment of the approved plans are accompanied by a special group of researchers, to monitor the advances and to early detect problems. The "units" of this instrument may be whole fields of knowledge – like psychology- or weak parts of a strong field -like medical-physics-. 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 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 programs; this is done by means of a four-years 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 program devoted to young researchers the definition of the target kept on changing, according to a better comprehension of what "young researcher" means as well as by considering institutional changes that affect that meaning.

6.- "Plural evaluation"/"engaged evaluation" or how to assess proposals oriented to developmental goals

Managing the program "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 recognized as such by some involved stakeholder. This provides key information to evaluate if the proposal has merit to belong to the program; 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 in practice, in which case mediators are also 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 that may facilitate the application of the results 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 usual indicators defining the evaluation outcome.

The combination of these sources of information helps spotting loopholes in the proposals that may then be discussed with the proponents if the overall merit of the projects suggest the convenience of supporting them. The proposals presented to this program 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 program 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 to know better 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 program was put in place: the presentation of a short proposal to explore and clarify the aspects needed to prepare a full-fledged project. The evaluation of this modality follows also 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 refining research policy instruments aimed at developmental goals.

7.- An ongoing struggle and a needed redefinition of excellence

Coming now to individual researchers, a National System of Researchers (NSR) was implemented in Uruguay in 2008, providing a "categorization 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 years old stimulus regime grants a 60% rise in salaries

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 post-graduate teaching, but its main criteria to appraise research activities relates to number of publication in international journals or international editing houses in the case of books. The evaluation relies on the information provided by a normalized CV form. To climb the hierarchy of the system -and not to be excluded from it-it is fundamental to gain international visibility through publications in recognized journals or through high citation counts. On the other hand, even if research is particularly important for granting the full-time university regime, it is not the only activity that counts. Moreover, the diverse traditions of knowledge production and communication within the university are recognized, 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 the CVs.

Around 80% of all university researchers belonging to the full-time regime also belong to the NSRs. Even if in economic terms the full-time regime is significantly more important than the NSR, the latter started "colonizing" the evaluation criteria of the former. Part of this stem from the "external" character of the NSR, supposedly less affected by endogamy than the university regime. However, with a small academic community where the valuation committees of the NSR consists almost exclusively by university researchers, this argument is more rhetoric than real. But perhaps more important is the idea that the NSR spots those best, while the university full-time regime supports researchers that 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 are researchers 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 so the younger ones.

The "regime of prestige" of the NSR out powered that of the university full-time regime that used to be highly valued. The problem is, as in so many other experiences of the sort, that university activities that take time from research began to be seen as burdensome if mandatory, like teaching, and simply left behind if they used to be voluntary, like institutional building or community service. To countervail this trend it was proposed in 2012 to give researchers in the university full-time regime the freedom to choose plural research paths. They may tackle complex problems without accumulating publishable results in the evaluation period and be nevertheless highly regarded if their working strategies are sound. They may produce one good paper and devote the rest of the time to perform meaningful and difficult tasks like preparing a new master program 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 that its researchers combine quality research with quality performance of other academic and social activities based on their research capacities.

The proposal, even if 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 criteria 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 with the argument that they needed to publish quickly; other recognized an increasing academic misbehavior associated with salami papers, co-authorship cooperatives and the like. 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 research evaluation of researchers, on how to appraise excellence considering 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 that locally criticize such practices. Pluralism seems to be slowly recognized 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, organized by the University Research Council and attended by an important number of researchers, a message that resonated with force and was retaken 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: programs 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, for instance. The conflicts are centered on how to appraise individual merits, on how to give and earn academic prestige. How this conflict is resolved has consequences on the demand to research policy instruments: those instruments that allow to concentrate on the type of academic work that ends-up more easily with the products praised by the individual research evaluation criteria will be over selected.

There is a complex web of interactions between research policy instruments, 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 with 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 much difficult to perceive it at national or international level. As already mentioned, national criteria striving to achieve international visibility for national science, may jeopardize efforts done 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 reasonably goal may be seen as a colonizer recommendation; a much more productive approach would be to legitimize the variety of small roads by which science may contribute to human wellbeing.

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 been taking place recently. Something similar could be done, as an experiment, putting to work together actors across these different research policy levels. This strive for plurality in research evaluation would imply, in present times, sailing against the strong wind of quantified homogenization, but it would unite concerned researchers North and South, which holds promise of change.

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