

Peripheral Scientists, between Ariel and Caliban. Institutional Know-how and Circuits of Recognition in Argentina. The “Career-best Publications” of the Researchers at CONICET*

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Our symbol, then, is not Ariel, as Rodó believed, but Caliban. This becomes particularly evident for us, the mestizos who inhabit the same islands where Caliban once lived: Prospero invaded the islands, killed our ancestors, made Caliban his slave and taught him his language in order to be able to communicate with him. What else could Caliban have done with that language besides curse Prospero and wish the “red plague” upon him? I know no better metaphor for our cultural milieu, our reality (Retamar, 1971)

INTRODUCTION

Many authors have argued that there is a global language system, a linguistic dimension of the world-system built on power relations and exchanges, which evolves along with political, economic and cultural dimensions (De Swaan, 2001; Heilbron, 2008). In the case

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of Latin America, the imposition of one language over others was a form of symbolic violence that began during the Conquest in 1492 and continued during colonization, as a result of the physical violence exercised against the native communities of this subcontinent. Two dominant languages, Spanish and Portuguese, were established as official, encroaching on hundreds of indigenous languages like Nahuatl, Quechua, Aymara, Guarani, Mapuche and others. Many indigenous people continue to speak these languages as a form of resistance within native traditions and cultures that continue even today.

The colonial experience yielded a strong intellectual tradition that began during the struggle for independence when Latin American thinkers began questioning political and economic domination and its effects on what they called “intellectual dependency” (Beigel, 2006, 2016). Throughout the 19th and 20th centuries, this topic was part of the heated debate of nationalism versus cosmopolitanism, meanwhile Spanish and Portuguese were consolidated as official languages and the continent’s nation-states were built. As the United States strengthened its military, political, economic and cultural hegemony, a challenge to colonial domination gave way to the struggle against imperialism and these languages became fertile ground for a locally rooted Latin Americanism. This is why Spanish and Portuguese verbalize the colonial experience within Latin America yet can be seen currently as subordinate languages from a global perspective.

The academics are not the main actors of these identity struggles but they do participate in the linguistic, cultural and political disputes surrounding the international circulation of knowledge. There are prosperous-style scholars who write in English, their native language, inhabit the “centers of excellence” of the core countries and who know little of other languages or believe they have little reason to learn to speak them. On the periphery, there are also scientists who write in English, a language they learned during their education or scientific training. They live in countries of the South but move on internationalized circuits that have been annexed by the kingdom of indexing systems, journal rankings and bibliometrics. Ethereal, “pure” like Ariel, they have no motive to write in Spanish or Portuguese because for them, science is “universal” and communication takes place in the lingua franca of English. On the other hand, Caliban-style scientists resist academic globalization by writing in their mother

tongue, publishing in non-indexed journals and rarely venturing off their islands, which are sustained by endogamy.

The analytical trigger of this work is a metaphor, Latin Americanist par excellence, one that has appeared in many essays by authors in this region about Shakespeare's play *The Tempest*. The three characters are Prospero, the conqueror of an island that will become his kingdom during his exile; Ariel, his spiritual counselor; and the native slave, Caliban. In 1900, the Uruguayan author José Enrique Rodó argued that Latin America was represented by Ariel, spirituality and beauty in their purist form, in contrast to U.S. materialism and expansionism. Later in the century, the Cuban writer Roberto Fernández Retamar (1971) argued that we Latin Americans were "Calibans", colonized natives who learned Prospero's language in order to curse him, to bring the "red plague" upon the conqueror.

It would seem that today the Ariel scientists loyally embody the role of the spirit, bound to serve Prospero. The "native" scholars, on the other hand, resist Prospero but are nowhere near insurrection. Instead, they construct spaces of power to subjugate other Calibans. Masculinity comes into play in the metaphor and within our field of observation, where players vie to build prestige and establish a sense of superiority over others. The unique nature of these characters and what they symbolize will allow us to construct two opposing profiles to analyze the circuits of recognition on the periphery. By limiting ourselves to these two profiles, we bring attention to polarized orientations within science and academia. This by no means suggests that these are the only existing styles of production and publication. Quite the contrary, a wide range of different types of academic practices coexist between the Ariels and Calibans.

In recent works (Beigel, 2013, 2014a), I have analyzed the construction of the world academic system and the remapping of the geography of science through a publication system that progressively established a "universal" language and writing style. Over four decades, the mainstream circuit helped build prestige for a handful of centers of excellence and certain disciplines while relegating to the periphery entire scientific communities that did not publish in the journals accepted by the Institute for Scientific Information – ISI (now Thomson Reuters/Web of Science). I have also examined the progress of the open access movement, especially the Latin American circuit of

scientific publications and the processes of “regionalizing” academic prestige on these circuits, particularly in the social sciences and humanities (Beigel, 2014b). Outside these international circuits, there are local circuits comprised of numerous non-indexed journals exclusively in print format. The circulation of these journals is limited but they are indicative of the production on non-internationalized academic spaces (Beigel and Salatino, 2015). One reason this occurs is because academic dependency alters national cultures of evaluation and deepens structural heterogeneity. But this does not result in a “colonization” of the field. Instead segmented circuits of recognition are created.

In this article, I examine the endogenous dynamic of one peripheral scientific field to better understand the polarized orientations that develop as a “two-headed” academic elite evolves. Argentina is an interesting case for analyzing production styles and circulation because in recent years, there has been a hefty increase in public funding for research and a visibly “nationalist” emphasis in the system for fellowships, researcher appointments, and the consolidation of various Ph.D. degree programs. The Argentine scientific field is dynamic and predominantly public and the number of full-time researchers has tripled in the past decade from 3,694 researchers in 2003 to 9,236 in 2015. During this same period, the State put together programs to repatriate more than a thousand Argentine researchers who had left during the crisis, and these returning researchers have capitalized on the networks that they built during their time abroad. Between 2004 and 2015, new graduate degree programs have been created and the number of Ph.D. holders in all areas has risen. This was the result of fellowships provided not only to Argentines but to anyone working towards a doctorate at a university within the country¹. As a result, Argentina has become a magnet for Latin American students, with public universities offering quality programs at a much lower cost than other countries in the region, rekindling its old role as a *peripheral center* (Beigel, 2010).

During this same period, however, the gap deepened between Argentine scientists versed in the dominant production styles of the world academic system and those with a more endogenous agenda. In any case, it is important to note that autonomous and heteronomous trends exist in both the internationalized and the locally-oriented spaces. In this article, I intend to show that the dynamic of these styles of pro-

duction is connected to the symbolic capital at play in the field, the institutional asymmetry, the existence of “altered” cultures of assessment and the incidence of segmented circuits of recognition. The social construction of prestige among academic elites, a group for which “birthright” and wealth hold little importance, is a critical aspect to explore in this regard. Two types of prestige – international versus local/national prestige – are a subject of dispute among these elites.

The initial catalyst of this work was the corroboration that researchers at CONICET (Argentina’s National Scientific and Technical Research Council) generally write papers in English and publish on mainstream publication circuits. These scholars, however, did not hone their language skills abroad, since almost the entire universe earned their bachelor’s degree at one of Argentina’s public universities and 90% did their doctorate in the country as well. Class difference does not play a determinant role either, as we will see further on, given that the Ariels and Calibans are both “heirs.” On the other hand, recent studies (Lillis and Curry, 2010; Gerhards, 2014) have shown that language skills acquired through socialization in no way guarantee scientific publication in high-impact academic journals. In order to explain this apparent paradox, I review the history of the field, the institutional know-how and skills that are reproduced over the course of academic formation, differentiating publication styles and circuits of recognition.

Finally this article focuses on the internationalized profile through an empirical study of the publications by CONICET researchers. The study builds on a database that provides information on the researchers’ academic trajectories. It was constructed as part of the Research Program on Academic Dependency in Latin America (PIDAAL, CONICET-UNCuyo, Mendoza, Argentina) after filing a formal request with CONICET to access the information included in the Integral Management and Evaluation System (SIGEVA, its Spanish acronym)². Within this universe of researchers, I worked on a subpopulation of those who applied for a promotion at CONICET in recent years. For this application, they must select what they consider the “five career-best publications”. This yielded a total of 23,852 publications. I examine this corpus of publications by academic discipline, researcher’s age, publication type and language. Afterwards, I focus on a sample in order to analyze the publications by country and circuit. The universe’s database was built on the information released by

December 2014. The subpopulation of the individuals who applied for promotion and the sample for the circuit analysis were based on the information delivered in June 2015. In this final section, qualitative and quantitative observations are combined in an overview of the publication style of Argentina's academic elites who fit the Ariel profile. The empirical analysis on the Caliban-style publications is not presented here, because it is part of a study in progress.

PRESTIGE-BUILDING AMONG ACADEMIC ELITES IN ARGENTINA: "LOCAL HABITUS" AND "INTERNATIONAL HABITUS"

Freed of the biological or mental racism that inspired the first theories on the "natural" superiority of certain minorities, the concept of elite allows us to observe the forms of recognition that certain dominant groups seek in order to be recognized as a unique sector within society (Gérard and Wagner, 2015). Studies on the elites done in and on France suggest that the broad social foundation of the elites is even larger at the intellectual level than at the economic one. For this reason, the fact that academics are a subordinate group within the bourgeoisie is a historically constant structural factor (Charle, 2009). Yet the homogeneity of the ruling classes and the consensus on their republican and meritocratic discourse is very unlike what occurs among elites in dependent countries such as Argentina. If an Argentine bourgeoisie ever existed, it didn't constitute a hegemonic class with a coherent, legitimate discourse. Furthermore, the last dictatorship (1976-1983) undermined what was left of this pseudo-bourgeoisie through policies that debilitated industrial production (Basualdo, 2003:7). Even with the recent revival of the industrial sector economic elites today have a foreign orientation and identify more closely with high-income professionals, whom Luci (2012) has defined as "managerial." Taking all this into account, it is superfluous to identify the intellectual elites of Argentina with the trajectory of a social class, yet it is important to understand how the meritocratic discourse of this group is constructed. On one hand, it is a discourse built exogenously – in opposition to the economic elites – and endogenously, through a dispute between the "internationalized" scientists and those who have more of a local base.

Generically, Argentine university professors and "scientists" perceive themselves as heterogeneous in terms of their social origin and

egalitarian, in terms of the equal effort their careers require. Unlike other Latin American countries, the predominantly public nature of the scientific field and of higher education in Argentina suggests equal opportunities for anyone with an intellectual calling who wishes to enter academia. Public universities across Argentina offer free undergraduate programs and prestigious low-cost graduate programs. In countries like Chile, undergraduate applicants must take an academic aptitude test, but in Argentina entry is generally free, only based on test performance in a few degree programs. The percentage of total undergraduate students inscribed at public universities stood at 79% by 2012 (SPU, 2012:38). In 2013, among the lowest income quintile, the percentage of tertiary students at public institutions was 80.9%; among the highest income quintile, this percentage drops to 69.7% but still vastly exceeds the percentage of the richest quintile attending public universities in other countries where the upper classes more frequently opt for a private education. Historically, Argentina has had one of the highest net rates of university enrollment in Latin America, with 29.8% of the population having attended a university (for 2013). If this percentage is analyzed by income quintile, differences can be seen: 19.1% of the poorest quintile had attended a university, but among the richest, university attendance soared to 54.1% (SEDLAC, 2015).

As Tiramonti and Ziegler (2008) argue, the Argentine tradition of a secular, public and free university is part of an egalitarian worldview of a society reluctant to associate social hierarchies with privileges or even acknowledge them. In accordance with an integration model where the State successfully incorporated a significant portion of the working class and expanded the salaried middle classes, public education provided channels for upward social mobility. However, the foundations for this worldview lasted only until the last military dictatorship. After the crisis in 1989 and the shift towards neoliberalism, a spike in poverty was accompanied by a widespread belief that this model for social integration had come to an end. The State left the schooling of elites to *laissez-faire* and the most privileged sectors gradually colonized private institutions. This process resulted in an exodus from public education among the middle classes and a “segregated democratization” (ibidem:15). The composition of student enrollment at public and private education changed as a result of this process. While public universities continued to be the most popular option for higher education among all income groups,

the rich increasingly opted for private education at the elementary and high school levels³.

Among others, Ezcurra (2011) found that social background strongly influences attendance and graduation at Argentina's public universities, because middle and upper class students arrive better prepared from private high schools. As Chiroleu (2012) has argued, the public university is the preferred institution of higher education among the middle and upper middle classes, though certain universities do receive a handful of lower class students, with a higher prevalence in certain degree programs. These differences are not exclusively owed to existing educational trajectories but to the growing heterogeneity of Argentina's university system, where segmentation is on the rise (ibid.:96-98).

This selectivity at higher levels of education should have a "positive" impact on the foreign language skills of university students, as private elementary and high schools place strong emphasis on teaching the English language and public schools do not. As Bein (2010) has noted, the Argentine State has no language policy: the federal education laws stipulate that schools must teach one foreign language but do not specify which one. Finally, the growing heterogeneity of Argentina's university system explains why at some national universities – especially within certain schools (typically the social sciences and humanities) – there are more students from social groups with less cultural and linguistic capital.

Indeed, building a career as a professor or researcher involves several factors anchored in socialization. These include cultural capital and what Bourdieu and Passeron called *savoir-vivre*, which begins at birth and is associated with family socialization.

All teaching, and more especially the teaching of culture (even scientific culture), implicitly presupposes a body of knowledge, skills (*savoir-faire*), and above all, modes of expression (*savoir-dire*) which constitute the heritage of the cultivated classes" (1979 [1964]:21).

There is thus no doubt that our academic elites are mainly comprised of "heirs". Yet what is particularly interesting here is why an heir's itinerary produces some scholars who – to use the terms of Xavier de Brito (2004) – develop a "local" habitus and others who cultivate an

“international” habitus. Many elements associated with the structure of the field are involved in building academic trajectories, as do factors like publication circuits, academic mobility, financing, transnational networks for collaborative research, etc.

To understand how all of these factors are combined in the case of Argentina, it is necessary to analyze the history of the scientific-academic field and how internationalization affects the way prestige is constructed locally. In previous studies (Beigel, 2010, 2013), I have delved into the historical building of two different types of recognition associated with a double-sided *illusio* among Argentina’s academic elites, deployed on parallel paths and varying according to scientific discipline and by institution. The first is an institutionally recognized prestige, which is associated with a university’s power and militant capital. This prestige is most prevalent at universities in the provinces, and especially in the social sciences and humanities. The second is an internationally recognized prestige, understood by its holders as the result of “pure” scientific capital. Such *illusio* is particularly strong at an autonomous institution like CONICET, where the exact and natural sciences have always been predominant.

This forked path for building academic prestige can mainly be attributed to the tension between CONICET and the national universities, a tension that dates back to Argentina’s last dictatorship when more than a hundred new research institutes were created at CONICET with no ties whatsoever to national universities (Bekerman, 2013). In addition to achieving the immediate goal of depoliticizing science and academia, one of the main consequences of this military intervention was a rift between research and teaching that progressively isolated the CONICET institutes from university life. During this period, exact and natural science researchers took the vast majority of directive CONICET posts and established scientific assessment criteria based on “international recognition”. For a decentralized institution, it was easier to impose international requirements and ISI (International Scientific Indexing) standards than it was at universities. The latter, in exchange, are autonomous and traditionally politicized, namely reticent to accept exogenous standards for evaluation.

After the return to democracy in 1983, some efforts were made to renew the ties between CONICET and national universities. In 1990, however, neoliberal policies led to a severe reduction in public

spending in science and technology. During these years, science deteriorated significantly and it appeared that Argentina would forfeit the enormous value citizens had historically placed on public education. At this point, numerous scientists began to emigrate; CONICET drastically diminished its offer of new researcher positions; funding for scholars and public universities declined; and private universities expanded enormously. By the socioeconomic crisis of 2001, science was de-financed and in 2002, the system experienced negative growth in the amount of researchers. The average age of the council's researchers kept rising, with a majority in the upper positions and over the age of 45; the base of its population pyramid was comprised of a disproportionately small number of researchers in lower categories i.e. adjunct and assistant. The researchers who survived the 2001-2002 crisis without leaving Argentina appeared to be an elite in danger of extinction. At that time, publishing in renowned English language journals became the main goal of CONICET researchers, who were all too aware of the government's disregard for scientific investigation in Argentina⁴. Thus CONICET and its evaluation committees gradually came to prioritize "international" recognition in a national context of limited funding and few prospects.

These Ariel-style researchers were convinced that their superiority resided in the "pure" scientific capital that they brought to bear in conferences abroad and their publications in English; they believed that the "others" published only in Spanish and in Argentina because their scientific findings were insignificant for the global scientific community. However, the internationalization of our Ariels cannot be attributed exclusively to successful strategies for entering the mainstream circuit or to a social background that allowed them to learn English. In order to make such strategies viable, it was necessary to articulate inherited and acquired capital, putting into motion the social use of what Wagner (2007) has referred to as "cosmopolitan capital," but also a set of competences honed over the course of an academic trajectory. The following section explores the role that institutional know-how plays in differentiating profiles.

A TWO-HEADED ELITE: INSTITUTIONAL CAPITAL, STYLES OF PRODUCTION AND CIRCULATION

Although there are many tensions in Argentina's academic field, in this work the focus is put on understanding the features of differen-

tial principles of recognition. One of the most persistent issues today is the dispute between scholars who work exclusively at the universities and the full-time CONICET researchers who hold (or are seeking) a teaching post. On top of the historic tension between public universities and CONICET during the last dictatorship, those returning from exile embodied another related conflict after democracy was restored in 1983. Many of these scholars had been able to continue their academic career abroad, unlike those who were expelled from the universities but remained in Argentina with limited options for furthering their education or publishing. Among more recent generations, this conflict has been restaged as professors who have dedicated their professional trajectory to teaching versus CONICET agents dedicated exclusively to research. When CONICET researchers apply for tenured teaching posts, faculty members see them as “external” candidates, while “internal” candidates have often been teaching the subject in question for a long time under a contract renewed yearly.

Not all institutions or all scientific areas are subject to such conflicts, which are generally observed in those spaces where research is not as high a priority. Certain universities located in provinces have gone so far as to modify the conditions for applicants in order to prioritize teaching experience over research and emphasize an applicant’s “trajectory” at the university⁵. At CONICET, the tension can be seen in the regulations for the listing order of each researcher’s affiliations when publishing (see CONICET Board Resolution No. 515/2016).

Faculty members’ self-perceived “superiority” over “external” competitors is based on their familiarity with the local agenda; their involvement in building institutions; and their teaching expertise and experience, which they consider the foundational function of the university. This perception can partly be attributed to the 1990s, a decade of widespread cutbacks for both scientific research and higher education. During this time, most teaching posts were temporary and researchers who managed to enter at CONICET did so through non-university affiliated institutes. These faculty members, were driven to a career in teaching and to solving everyday problems at underfunded institutions, experiencing a personal commitment on the survival of public university. For these professors, the prestige associated with university teaching is combined with a set of know-how constructed as a result of an institutional immunity to external

influence, and a sort of social capital that is acquired in the political dynamics of their respective schools.

Unlike CONICET researchers, accustomed to being examined by national committees with increasing internationalized evaluation criteria, university professors work at autonomous institutions, many of which resisted the implementation of external evaluations and accreditation imposed in the 1990s. This favored a discourse where “the people’s” professors were pitched against researchers viewed as inhabitants of ivory towers. Each university has its own regulations for tenure and the selection committees are generally nominated in an endogenous environment, conditioned by the groups with power on the governing councils of their respective schools. This university dynamic also contrived its own “aristocrats” with academic discourses that often resist the decisions made by councils or deans. It is an endogamy forged in the institutional practice itself, one rarely discussed outside the university. Follari (2008) has argued that an ideology that boasts of “purity” and academic transparency is often accompanied by a corporate behavior that responds to individual or group interests. “Academic autonomy” is an argument that is sometimes used to justify internal quarrels or to keep professors away from involving themselves in the agenda of social problems.

This crude glimpse at the academic practice within universities points to real institutional behaviors that are common to the Argentine university system, but overlooks the specific academic *illusio* that is forged around a professor’s prestige when he/she is recognized by fellow faculty and cannot be reduced to a mere ideology aimed at defending certain interests. It is a combination of a relatively autonomous type of politicization with a specific knowledge inherent to this institutional environment and specific abilities required to access dominant positions in the university world.

As Gérard and Wagner (2015) argue, the knowledge these elites build is never exclusively academic, theoretical or applied, but always involves *savoir-faire* (know-how) and *savoir-être* (etiquette). Feeling entitled to a position of privilege and the ability to recognize and hold other members of one’s group in high regard are part of what defines an elite. Such knowledge is cultivated at the institutions where elites get their education and in order to be effective, they must always be bound to certain types of social and political resources. The *institu-*

tional know-how is thus an interactional competence that ensures peer recognition and differs from the abilities of the non-chosen. The elite constructs itself but seeks approval from above and also from below, because the groups whom elites intend to dominate must also accept the principle of their superiority (ibid.:5).

Between the structural properties of the scientific field and the properties that the agents embody, there is a set of symbolic capital responsible for this “magic”, this power of making others believe, establishing worth, acknowledging and distinguishing. To understand the working and the reproduction of this *institutional know-how*, it is useful to recall Bourdieu’s distinction between the “three states” of cultural capital: embodied, objectified and institutionalized. The first state, embodied, is tied to an individual through his or her family and education: the second, is related to the material products and outlooks developed at the academic institutions. Institutionalized cultural capital consists of academic credentials whose symbolic value exceeds the capacities and outlooks acquired by the individual because these are capable of making others believe and consolidating prestige regardless of the current status of the bearer (Bourdieu, 1979).

Now, within a structurally heterogeneous scientific field located along the periphery whose public universities are adamantly autonomous – the case of Argentina – the magical transition into the kingdom of the Ariels or the Calibans requires more than just a title from a prestigious school on one’s résumé. Although an award, a title or other forms of academic capital are valuable during a competition for tenure, it is not enough to succeed. Having graduated from the institution where one aspires to work is valuable during recruitment in an endogamous system but does not suffice to ensure employment or even to ensure equal opportunity among applicants with the same title. The differential here lies in a set of dispositions and skills that are acquired through teaching or research experience at certain institutions. This *savoir-être* and *savoir-faire* are incorporated as advanced students, assisting professors, participating in competitions for fellowships, learning in classrooms with other fellows, acquiring the know-how passed on by successful researchers, becoming familiar with the publication styles at the institute in which their work is done or within their team networks. This *institutional capital* is about much more than an institutionalized form of academic capital involved in a degree: it is incorporated as embodied knowledge that operates

when seeking an entry-level post as a researcher or professor. These skills and *savoir-dire* (know-how to say) are relevant when building one's *métier* (craft) that comes to bear when drafting an application or a project proposal for a research grant. In other words, merely holding a degree from Universidad de Buenos Aires (UBA) does not make an applicant any more likely to get a post at CONICET. Instead, their likelihood of being chosen has to do with the types of abilities learnt at UBA, their participation in networks and their possibility to construct an academic career with a style of production and an internationalized profile, all of which fit the expectations at CONICET. It can be said, then, that this institutional capital and the skills it entails are a particular type of social capital.

Through Shakespeare's character Ariel, we have sketched the profile of scientists at an institution like CONICET, where applicants for entry-level posts and promotions are evaluated based on the "prosperous" criteria of the world academic system: publication in indexed journals, preferably in English, on mainstream circuits, and gaged according to their impact factor and rankings. Through the character of Caliban, we attempt to describe a style of production and circulation more profusely extended within professors (*docentes-investigadores*) who are not researchers at CONICET but teach and make research within the public university system and hold a category. Their career depends on their experience in teaching, their involvement in extension or university administration and, to a lesser extent, their publications, which can be in Spanish and in non-indexed journals.

Both profiles reveal a drive to get a foothold in the field and both can accumulate recognition, but the capital each hold is difficult to transfer. It would be nearly impossible for an adjunct or full professor at a provincial university (with experience in administration and teaching) to be accepted for an entry-level post at CONICET. Similarly, a CONICET researcher with a slew of international publications but little teaching experience would probably not be considered apt for a post at in a provincial university. One candidate possesses forms of academic capital that are institutionally (locally) recognized, a set of knowledge that corresponds to the university culture in which he or she is immersed and a certain amount of social capital (relations with university authorities, experience on university committees and networks). The other candidate boasts "international" scientific prestige that is recognized basically at the national level. He or she possesses

a set of know-how associated with the craft of being a researcher-fellow of an institution like CONICET and another type of social capital (relations with renowned researchers, journal editors, evaluation committees, academic associations, etc.).

From the arguments presented here, it could be inferred that all CONICET researchers are Ariel types and all professor-researchers at national universities are Calibans, yet this would be an oversimplification. First of all, because the two profiles exist side by side at Argentina's national universities and second, because when considering both institutional affiliation and discipline, the myriad profiles along the continuum appear. The metaphor of Ariel and Caliban serves to explore two contrasting orientations in Argentina's scientific-academic field, but it is essential to recognize a dense gray area between the two. At the empirical level, then, who are these elite professors and researchers that could be compatible with these two profiles in Argentina?

In Beigel, Bekerman and Gallardo (2016) we provide an exhaustive analysis of the population of Argentine researchers-professors and their geographical and institutional distribution within the two major conglomerates: the universities and CONICET. There are 166,810 teachers at national (public) universities in all categories, but this is a highly heterogeneous population where only 15% conduct accredited research and just 10% hold a doctorate (SPU, 2013:236, 316). This is a complex universe in which a relatively small subpopulation, the so-called *professor-researchers*, are actively participating in the contending evaluative culture and thus enrolled in the Incentive Program for Professor-Researchers (PIDI), a classification system that goes from Category I to V in order of hierarchy. In 2012, the last year of available data, this subpopulation was comprised of 24,014 professors. In terms of the dedication and hierarchy, 64% of them hold full-time posts and 77% are in the lower categories (III, IV and V). Therefore, there are plenty of "new players" among these agents, and the evaluative culture of the Caliban style elite weigh heavily in establishing the conditions for rising to a higher category in the university classification for researchers.

Fifty-eight percent (1,298 out of 2,235) of the professors in the highest category (I) are affiliated in five universities (Universidad de Buenos Aires-UBA, Universidad Nacional de La Plata-UNLP, Universidad de Córdoba-UNC, Universidad Nacional de Rosario-UNR and Universidad Nacional de Tucumán-UNT). UBA alone employs 24.5% of

the category total I professors and many of these are also high-category CONICET researchers. UBA's share of categorized professors drops in the lower categories to just 10-12% of those in categories IV and V (SPU, 2013:320). In other words, the high share of UBA professors in the higher category cannot be explained by the enormous size of the university alone.

UBA's dominant role in the universe of the professor's hierarchy can also be seen in the morphology of CONICET's population. Out of 7,905 CONICET researchers by December 2014, 21.3% are employed at UBA, and this percentage rises to 29% in the social sciences. Seventy-three percent of CONICET researchers hold a post at some national university (5,816) and 25.7% (1,498) of this group is affiliated with UBA. The higher the CONICET researcher category, the more likely the researcher is to hold a job at this university: one-third of all superior researchers works at UBA⁶.

Now, the concentration of the undergraduate and graduate degrees from UBA among CONICET researchers is even stronger than the percentage of researchers who teach at this university; this speaks much about the segmentation of academic elites in Argentina. Pre-graduates from UBA make up 32.5% of all CONICET researchers and 30.3% of the population also received their doctorate at that university. Those who earned a Ph.D at the UNLP (5%) and at UNC (2.8%) are a small minority and the rest of the university's share is tiny. As we see on Table 1, the predominance of Ph.D holders from UBA varies according to scientific discipline.

Table 1
CONICET Researchers and Ph.D. holders from Universidad de Buenos Aires by Scientific Area, n=2,398/7,905 (2014)

Area	Doctoral Degree at UBA	Total Researchers	%
Social Sciences and Humanities	608	1,710	35.5
Exact and Natural Sciences	486	2,012	24.1
Agriculture, Materials Science and Engineering	295	1,749	16.8
Biology and Healthcare	1,009	2,434	41.5
Total	2,398	7,905	100.0

Source: Compiled by the author from primary data provided by SIGEVA-CONICET Human Resources (December 2014).

Although it is logical that a degree from the country's most prestigious university contributes to a successful career in academia, it would be an oversimplification to say that appointment as a CONICET researcher depends entirely on the "tyranny of the initial degree." The weighting of one's degree depends on the value that each scientific community attributes to it and according to our previous survey, the university where a candidate earned his/her Ph.D. is not particularly valued in the assessment of application for entry-level positions. Similarly, earning a degree abroad does not appear to offer special rewards, since 91% of all CONICET researchers received their doctorate in Argentina.

In fact, the connection between internationalization and earning a degree abroad is challenged in our observations of the current universe of CONICET researchers. In terms of scientific areas, scholars from the social sciences and humanities are most likely to have earned a degree in another country (34%), though they publish less internationally than their colleagues from other areas who mostly earned their doctorate in Argentina, with percentages at 92% for the exact and natural sciences, 88% in agriculture and engineering and 95% in biology and health. As we will see below, these scholars publish almost exclusively in English and on the mainstream circuit.

Table 2
CONICET Researchers According to the Country Where They Earned their Ph.D.
by Scientific Area, n=7,343⁷

Area	Argentina	Abroad	Total
Social Sciences and Humanities	1,233	427	1,660
Exact and Natural Sciences	1,712	148	1,860
Agriculture, Materials Science and Engineering	1,390	175	1,565
Biology and Healthcare	2,135	123	2,258
Total	6,470	873	7,343

Source: Compiled by the author from primary data provided by SIGEVA-CONICET Human Resources (December 2014).

More than the degree itself, our study suggests that the causal relations for explaining the entry to CONICET and its production style can be attributed to the competences and the institutional know-how that certain prestigious academic spaces reproduce. During a scholar's education as an undergraduate and graduate student, he/she acquires knowledge and abilities that are valuable in an internationalized eval-

uative culture, along with a *savoir-vivre* that is essential in order to rise in this culture's ranks. These type of skills do not guarantee a teaching career at the university but are effective for an entry-level position at CONICET because they reflect the assessment criteria of the research institution, given the great number of members of evaluation committees who either studied and/or teach at UBA.

Let's take a brief look at the composition of the CONICET evaluation committees from 2005 to 2015. These are mainly comprised of the institution's own researchers (2,431 out of a total of 2,732 committee members). Fifty-six percent were men and the majority belonged to three categories (independent, principal and superior active or retired⁸). The small group of non-CONICET members that integrated these committees were university professors in categories I-II (301/2,732)⁹. Education at UBA again and more clearly holds considerable weight, as 41% of all researchers on committees during this period studied at this university (994/2,431)¹⁰. Many of those who earned their doctorate at UBA did a master's degree abroad and often had foreign thesis directors. Almost all lived abroad for a considerable period and a good number are also UBA faculty.

This universe of CONICET committee members is similar to the CONICET's structure in the 1990s, that is, an age pyramid comprised of the most prestigious researchers over 45 with a higher share of degrees earned abroad than the complete universe of researchers. Twenty-seven percent (647/2,431) of CONICET committee members completed their Ph.D. in another country. These are the mentors of the new wave of young scholars at the base of the current pyramid, researchers who generally earned their doctorate in Argentina, as we saw earlier. It is interesting to note that, together, 68% of all committee members have a degree abroad and/or a degree at UBA, a fact that helps explain the increasing preference of internationalized production styles. A smaller percentage of this universe of committee members hold a Ph.D from UNLP (15% 337/2,431) and 8% at UNC. Aggregated, 62% of all CONICET committee members were trained at just three Argentine universities – not coincidentally, the oldest and most prestigious of the country's institutions of higher education. If we examine only the subgroup of members who accumulated five or more participations on committees during the decade under analysis, more than half studied at UBA. The CONICET's Merit Qualifying Board – which plays a major role in the evaluation

process – deserves special attention: 80% of its members studied and or teach at UBA.

The importance of UBA in CONICET's structure reveals that the principle for differentiating between the Ariels and the Calibans cannot be reduced to the institutional division between CONICET and universities in general. Although the Ariels are generally CONICET researchers, they have been educated in the oldest institutions of Argentina's university system (UBA, UNLP and UNC), where *internationally recognized prestige* has a long tradition and scientific "universalization" was imposed early on. In all scientific areas there are renowned UBA scholars who circulated worldwide and internationalized the institutes that they headed in different periods (Prego and Vallejos, 2010). In addition, Argentina's five Nobel prize winners were all UBA faculty (four out of five also earned their degree at UBA; the exception is Adolfo Pérez Esquivel, who graduated from the UNLP but later taught at UBA's School of Social Sciences).

If we now focus on the 4,266 professor-researchers in categories I and II who are not CONICET researchers, we see that UBA's share descends to 10%, quite less than the role played at the national research agency. While international publication in indexed journals is important to CONICET, at the national universities teaching is prioritized and university subsidies for faculty research are generally meager. As Vasen (2013) notes, the guidelines for research funds distribution at the university can be characterized as "solidary" and fellowships generally support undergraduate programs. A full time professor-researcher (not-CONICET) spends little time in these university-funded research projects, which expect little of the scholar and generally do not require him/her to present published results in international journals. On the other hand, the amount of the salary bonus paid to professor-researchers for working on such projects has been frozen for years and, given the country's rising inflation, is currently more of a symbolic gesture than an actual stimulus for research. However, holding a category in PIDI system is important for a professor's career-building. The number of faculty members participating in PIDI has gradually risen over the past two decades and a significant number of new faculty members filed to join the program in 2016.

Until now, publishing in mainstream circuits has not been an explicit requisite in either PIDI or in the university's external evaluations.

Besides, evaluation processes are relatively autonomous by academic region. According to the PIDI regulations, scientific publications in “refereed/peer-reviewed” journals receive more points than other journals, and only for those who aspire to the highest two categories indexing is “preferred” but no reference is made on which database or repository (Res. ME No. 1543/2014, Art. 18-e). A professor without a Ph.D. but with teaching experience could obtain the points corresponding to the maximum category (I), because teaching background, production for teaching, university extension and administrative positions are all weighted heavily in the score grid (Res. ME No. 3564/2014)¹¹. Moreover, many professors who reached categories I or II fifteen years ago can remain in the category during two categorization periods and those who obtained category I twice consecutively hold that category for life.

With the situation as it stands, it is understandable that the Caliban-style agents view the CONICET evaluative culture as a threat to their possibilities to survive within the system. Therefore, they have had many reasons to curse Prospero and an actual possibility to do so by publishing solely in Spanish, in non-indexed journals or journals indexed outside mainstream circuits. What we don't know is how long they will be able to continue to do so in Argentina's current political context, because the institutional autonomy of universities is in jeopardy and international evaluation criteria can gradually be imposed at universities as well.

THE ARIEL STYLE AND RECOGNITION AT CONICET: THE FIVE “CAREER-BEST PUBLICATIONS”

The available literature shows that English is the most powerful language globally and that other languages have a progressively subaltern participation in the international flow of ideas (De Swaan, 2001; Hagège, 2002; Heilbron, 2008; Casanova, 2015). This implies that linguistic exchanges in the academic world are asymmetrical because languages are valued differently and scholars do not have the same access to the skills associated with writing in scientific English (Chardenet, 2012; Gerhards, 2014). However, in previous studies I have argued that in order to explain the growing segmentation of the circuits of recognition in the world academic system (and accordingly, to determinate the position of scientists from the periphery), merely observing the supremacy of the English language does

not suffice. A threefold principle of hierarchy based on publication language, institutional affiliation and discipline is necessary to distinguish between unequal academic regions (Beigel, 2014a, 2014b). In fact, as noted earlier, cultural capital – particularly the linguistic capital acquired as part of family socialization – is not enough to guarantee an international habitus or publication on mainstream circuits. In the construction of this internationalized elite, discipline is a differential factor and institutional capital plays a fundamental role, especially the knowledge condensed by prestigious groups like those at UBA which strongly influence the evaluation processes and the morphology of CONICET.

Analyzing a survey performed to the coordinators of evaluation committees I argued that international publications are essential when determining whether a candidate qualifies to be a researcher, and evaluations for the entry-level CONICET posts are associated more with the journal's indexing than the analysis of the quality of the scientific output itself (Beigel, 2014b). In what follows, I will analyze a database of CONICET researcher's publications consisting of a subpopulation of 4,842 agents who applied for promotion at least once between 2007 and 2013 and were then asked to choose the "five career-best publications of their trajectory."¹² This subpopulation includes more than half of all active researchers employed by CONICET at the time and it is balanced in terms of discipline, age and hierarchy. Regarding the youngest agents (ages 31-44), who are quite numerous given the recent injection of new blood at the base of the pyramid, the same percentage is included in the database: 1,859 of the 3,650 young researchers at the institution. When analyzed by scientific area, the group is comprised of more than 50% of the investigators in each of CONICET's four areas¹³. In exchange, in terms of hierarchical category, assistant researchers are relatively underrepresented since they may not meet yet the conditions required to apply for a promotion. Of the 4,842 agents who make up the database, 29.7% (1,441) earned their Ph.D. at UBA, a percentage similar to the global share at the institution. In terms of gender, 51% are women. A good number of researchers did not enter language information on the SIGEVA database, but among those who did, 36.5% stated they have some knowledge of English – generally "advanced"¹⁴.

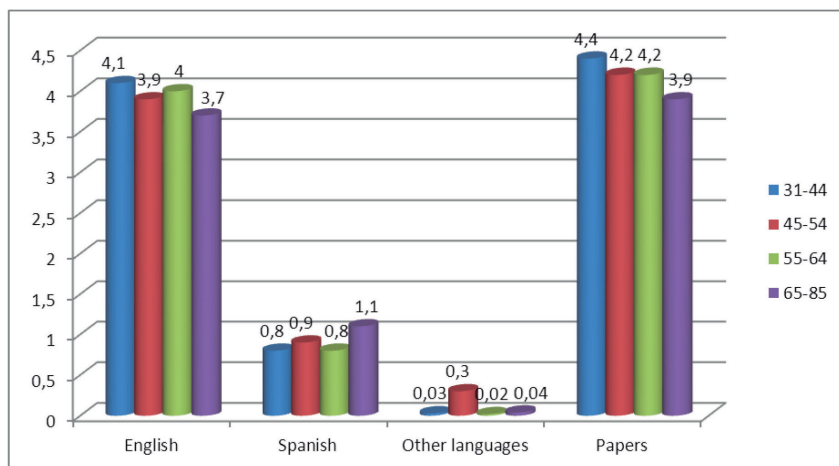
There are currently five positions a researcher can hold at CONICET and these are, in order of rank: assistant, adjunct, independent,

principal and superior. The lowest position (assistant) is reserved for young researchers under 35; adjunct, ages 36-40; independent, ages 41-45; and principal, ages 46-50. The highest position, superior researcher, is assigned through a special selection process. The institution accepts applications for promotions once a year and applying is voluntary. When young researchers do not apply for promotion, it is generally because they have not been in their current category for long enough to apply; among the older researchers, not applying often means they have not published enough to qualify for a promotion or are simply not interested in competing.

It is important to note that the applicant him/herself selects the five "career-best publications", based on what he/she believes is most likely to impress evaluation committees. As a result, this selection provides insight into the consensus on evaluation criteria within the institution. But, in many cases, particularly in the social sciences and humanities, the style of these selected publications does not reflect the rest of the publications listed on the researcher's CV. In other words, to apply for a promotion, researchers generally select articles over books and indexed publications in English over Argentine journals, although the pattern of their overall trajectories may be less internationalized than what is shown in the selected five publications.

Considering all of the works presented by the subpopulation under scrutiny, the database includes a total of 23,852 published works, accessing title, type (book, book chapter, article, conference paper, technical report) and language. By averaging the number of publications in English, Spanish and other languages for each researcher, we observed that the general style is highly homogeneous and defines well into the Ariel profile. The general average of works in English is 4.02 out of 5. For men, this average rises to 4.13 and falls for women to 3.91. Analyzed by age range, the average is a bit lower for the oldest generation (ages 65-85) but the difference is so minimal that it appears clear that writing in English is a phenomenon that dates back several decades in Argentina. The type of published works reveals a bit more dispersion, with a higher prevalence of books and book chapters among the older generations. The fact that 4.4 out of 5 of the published works chosen by the 31-44 age group are articles is evidence of the increasing dominance of the "paper" as the production style among the youngest in all scientific areas.

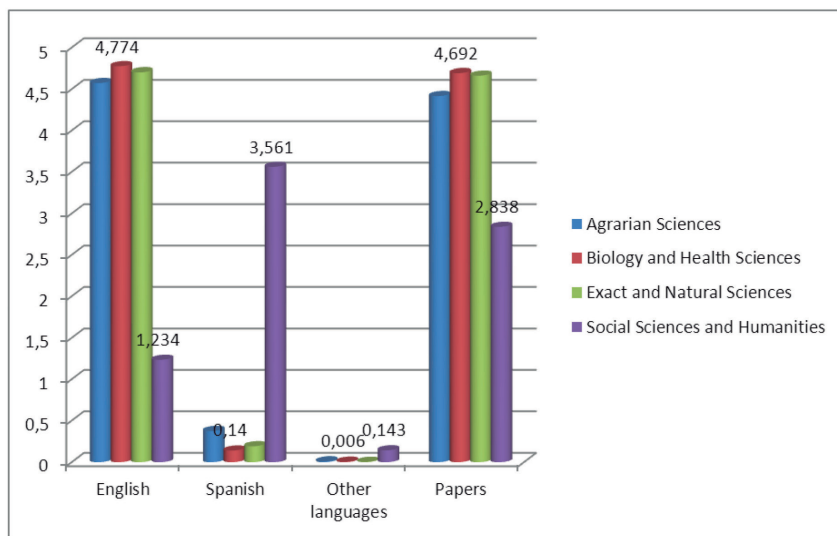
Figure 1
 Five Career-Best Publications by Age n=23,852 (2015).
 Averages by Language and Type of Production (out of 5)¹⁵



Source: Compiled by the author from primary data provided by SIGEVA-CONICET Human Resources (December 2014).

While papers have been the most common type of published work in the exact and natural sciences for a few decades, books continue to be important in the social sciences and humanities. Unfortunately, there are no regional or national studies on the publication of academic books and this information is often lacking in world science reports as well. In the few studies that are available, information is limited given the difficulties associated with the statistics traditionally measured by UNESCO (the Statistical Yearbooks and Index Translationum). When analyzed by area, our database reveals interesting differences in relation to the predominance of articles vs. books, although the average articles for SSH researchers stands at 2.8/5, a number that can be considered high. In terms of language predominance, the observation by areas shows that the overwhelming majority of publications in English are in the “hard” sciences, reaching averages of 4.77, while in the SSH, an average of 1.23 out of 5 publications are in English.

Figure 2
Five Career-Best Publications by Scientific Area n=23,852 (2015).
Averages by Language and Type of Production (out of 5)



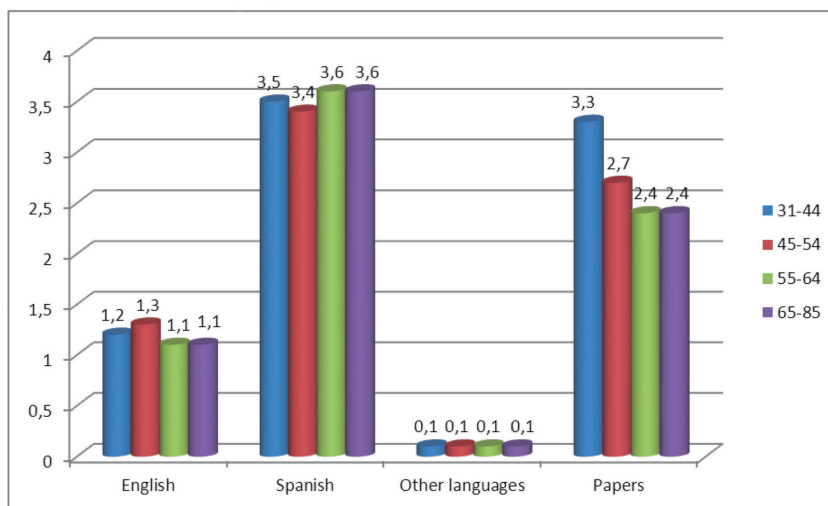
Source: Compiled by the author from primary data provided by SIGEVA-CONICET Human Resources (December 2014).

There is no doubt that the universal extension of one style of production is related to an evaluation system that prioritizes articles over books, but the circulation of both forms of production are not completely separated. A market concentration clearly exists in academic publishing. Larivière, Haustein and Mongeon (2015) analyzed 45 million documents indexed on ISI-Web of Science between 1973 and 2013, revealing that in the exact and natural sciences as well as in the SSH, four publishers progressively increased their share of works published in journals. This oligopoly formed by Reed-Elsevier, Wiley-Blackwell, Springer, Taylor & Francis and SAGE is responsible for more than half of all academic articles published in 2013. In terms of books, these same publishers are also responsible for a great portion of works published in English in all areas.

The homogeneous type of production (article) and language (English) among researchers from exact and natural sciences, biology, agriculture and engineering reveals no differences in terms of a scholar's age or discipline. In the SSH, different generational profiles can instead be discerned based on the type of work published, though the proportion of English language texts remains almost homoge-

neous among all generations. A study by Molteni and Zulueta (2002) showed that in the 1990s, Argentine social scientists who published in English tended to do so in journals on psychology, economics, literature and Latin American studies. This continues to be the case, though political science now also has a strong presence in English language journals.

Figure 3
Five Career-Best Publications in the Social Sciences and Humanities,
by Age n=4,691 (2015)
Averages by Language and Production Style (out of 5)



Source: Compiled by the author from primary data provided by SIGEVA-CONICET Human Resources (December 2014).

It is interesting to note that most of the 941 SSH researchers who are part of this subpopulation work at a national university or at joint centres where CONICET collaborates with national universities (UBA being the most frequent). In terms of their education, 33.7% earned their doctorate at UBA, a bit higher than the global average, and 43.5% also received their bachelor's from UBA, a good deal higher than the global average. As for gender, 56% of SSH researchers are women and on average, 1.14 of their career-best publications were in English. The average number of works in English for men in this category is slightly higher, 1.35. But if we compare certain disciplines typically considered feminized, the gender variable does not prove to be decisive. In literature, for example, women's average quantity of publications in English falls to 0.80 but in psychology, it rises to 1.72¹⁶.

Among the 335 researchers in the youngest group (ages 31-44) who began their career at CONICET between 2004 and 2012, 38.3% earned their doctorate at UBA and only five did not hold a teaching post at a national university. In contrast, 30% of the researchers in the oldest generation (ages 65-85) do not hold a teaching position, 23% earned their doctorate abroad and 15% do not have a Ph.D degree. Adjunct or independent researchers in the 45-54 age group show a slightly higher preference for publications in English, a trend that can be attributed to the fact that English language publications were weighted more heavily in the intense competition for entry-level posts between 1993 and 2003. Although publication in other languages in this corpus is scarce, we can mention, in order of their frequency, French, Portuguese, German and Italian.

With regards to the circulation of these works, in Beigel (2014a) I observed at least four circuits associated with the construction of academic prestige in the periphery, and I employ these same circuits to classify the researchers' publications¹⁷:

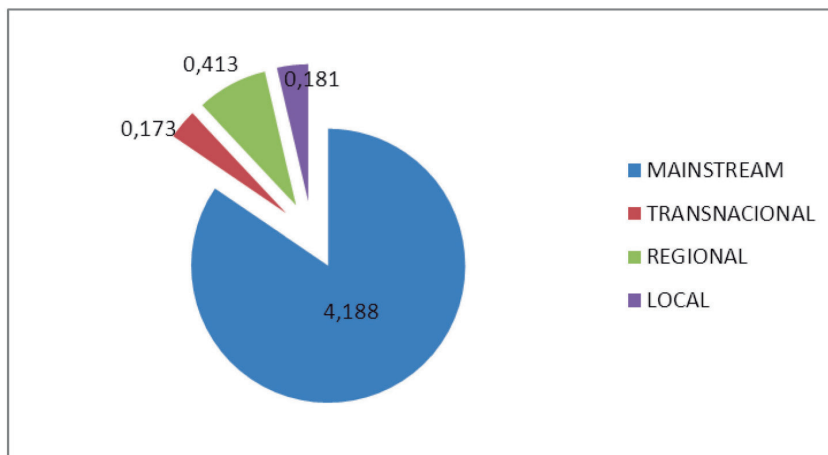
- a) the mainstream circuit, which is built of indicators of journal impact factor and rankings: ISI – WoS/Thomson Reuters (today Clarivate) and Scopus, represents a “universally” extended and accepted circuit of academic recognition. However, its scope is limited in terms of actual circulation/readers because its access is restricted (with paid subscriptions). Moreover, the coverage in terms of journals and scientists from the periphery is also limited.
- b) transnational circuits in open access, which include indexing systems like DOAJ (Directory of Open Access Journals), with diverse results in terms of rewards for the scholars who are evaluated with the these indicators;
- c) regional circuits, also open access, including the repositories like SciELO (Scientific Electronic Library Online), Latindex (Sistema Regional de Información en Línea para Revistas Científicas de América Latina, el Caribe, España y Portugal) and Redalyc (Red de Revistas Científicas de América Latina y el Caribe, España y Portugal) in our region, which confer academic prestige mainly in the SSH;

d) local circuits made up of journals which are not indexed in any repository and generally released only in print, which bring certain benefits to faculty members in the evaluations within the university. There are national systems for the classification of journals, such as Núcleo Básico de Revistas CAICYT/CONICET in Argentina, Publindex in Colombia, QUALIS/CAPES in Brasil, CONACYT in México. But these normally are more or less attached to international criteria (mainstream or regional). Therefore, its features and power of national recognition must be analyzed empirically in the national level.

To examine the circulation of the “career-best publications” I used a new database built with a purposive sample considering quota. The database contains 30% of the researchers from each of the four scientific areas and also by age range existing in the subpopulation that applied for a promotion. It consists of 1,418 individuals who applied for promotion and a total of 7,071 published productions. For these works, we have the complete information on the name of the journal, publisher, country and year of release, the title of the article or book, the type of publication and the language. In order to observe the circulation of these publications, we began by analyzing their composition by circuit.

Although there were few books and book chapters, we classified the publishers of these works by circuit as well. We treated the publishers that Larivière, Haustein and Mongeon (2015) consider part of the oligopoly of scholarly publishing as part of the mainstream circuit, along with Cambridge, Oxford and California Press. We included all non-Latin American publishers on the transnational circuit: U.S., Spanish and German universities; as well as academic societies from Europe, North America, Asia and Africa. In the regional circuit, we included publishers that circulate mainly within Latin America like CLACSO, Siglo XXI, Fondo de Cultura Económica and Sudamericana. The publishers whose distribution is limited to Argentina (or the provincial level within the country) were considered within the local circuit. As can be seen on Figure 4, 83% of all the publications circulate on the mainstream circuit. In terms of the productions outside the dominant circuits, 76% correspond to SSH researchers and the remaining 24% are papers presented at international conferences and intellectual property records.

Figure 4¹⁸
Average Five Career-best Publications by Circuit¹⁹, n=7,071 (2015)

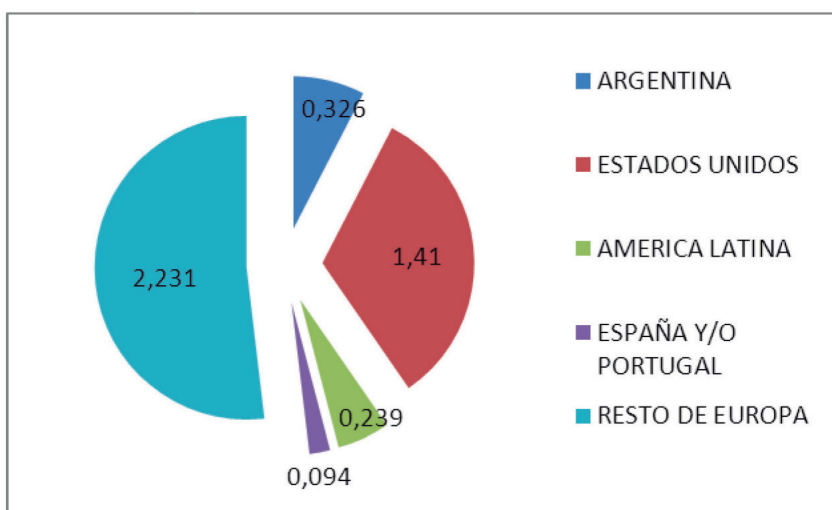


Source: Compiled by the author from primary data provided by SIGEVA-CONICET Human Resources (December 2014) and Indexed Journals lists in WoS, Scopus, Scielo, Latindex-Catalogue, REDALYC. For the classification of books See especifications in the text.

In Beigel (2014b), I described a general pattern of evaluating the quality of articles based on indexation rather than the originality of the piece, and the SSH are no exception. Accordingly, although this area presents fewer publications on the mainstream circuit, the priority given to regional indexation can be noticed. Latindex and the transnational systems like DOAJ and Dialnet are the repositories where most of the publications observed in the social sciences and humanities are indexed. It is interesting to compare these findings with the results presented by Gantman (2011), who analyzed 414 *curricula vitae* of researchers in four disciplines: economics, sociology, psychology and political science. In this study, the author noted the prominence of local journals in Argentina and the rare cases of articles published in journals indexed in ISI/Web of Science. In cases where international publications or works in English were significant, the scholars had earned their doctorates abroad (2011:418-419). The history of these disciplines is in fact marked by shifts back and forth from dictatorship to democracy; as a result, internationalized teams and networks are not as consolidated as in other disciplines. In the past few years, however, new generations of researchers have joined CONICET in an environment more demanding in terms of international publications. This is the reason why the regional circuit has become the most common publishing option among these new agents.

This becomes particularly clear when we analyze the five career-best publications by the country where these works were published. Figure 5 shows the massive internationalization of the researchers' publications. Publications in Argentina represent under 7% of the total and a great number of these correspond to the SSH, although there are also publications in conferences from other areas. The dominant trend in the SSH is to publish in Spanish or Portuguese in Latin American journals indexed principally in Latindex.

Figure 5²⁰
Average Five Career-best Publications by Country, n=7,071 (2015)



Source: Compiled by the author from primary data provided by SIGEVA-CONICET Human Resources (December 2014).

As noted from the beginning, this does not mean that the publication style observed in the “five career-best publications” is representative of all publications by the researchers. Instead, it is indicative of the Ariel profile that currently reigns in the CONICET culture of evaluation. To analyze patterns in academic career building, it is necessary to observe the complete list of a scholar’s publications in a quantitative and qualitative perspective. That is to say there are two separate corpuses: the work on the curricula reveals the scholarly trajectories while the “five career-best publications” are a selection that these researchers make based on their belief of which publications will be most highly appraised by the evaluation committees. As a result, this article provides insight into the consensus that have taken hold at CONICET in terms of what scientific and prestigious work

implies, though it does not suggest that these beliefs have an absolute determination on the trajectories of these scholars. Undoubtedly, Ariel-style researchers believe that it is necessary to publish within the mainstream circuit in order to rise up in the ranks at CONICET but they know that they can be partially Caliban in order to help draft national agendas and contribute to solutions for local social issues.

FINAL REMARKS

Beyond the analytical interest of distinguishing two separate profiles, there is not a separation or dualism between Ariel living on a cosmopolitan island, one that constructs itself in the image and likeness of the “centers of excellence” of the world academic system, and Caliban, inhabitant of another island – a nationalist redoubt that looks inwards towards its own cloisters. The distribution of prestige in Argentina’s academic field is a complex process where diverse evaluative cultures co-exist within the structure of the higher education system. CONICET has expanded enormously throughout the country, and thus the internationalized criteria appears – albeit to varying degrees – in the whole field. However, as we saw, the Ariel-style scholars are concentrated at the most prestigious universities, where a great number of subjects aspire to “prosperity”.

The current internationalization of Argentina’s academic elites is not the result of inherited linguistic capital or earning a Ph.D degree abroad. Instead, it is the combination of an international habitus (historically consolidated at CONICET and the most prestigious universities) and a specific institutional know-how that arises in a context of research teams with years of experience. A set of exogenous factors and the history of the field itself fostered the global circulation of CONICET researchers and the pressure to prioritize the guidelines of the “centers of excellence” over local norms, which were viewed as endogamous or low quality. The strongly rooted tradition of international publishing in the hard sciences gradually shaped the institutional requirements for entry and promotion within CONICET. And these were replicated as local Ph.D. students were trained to write papers in English for ISI-WoS style journals, encouraging their participation in transnational networks and projects early on. I have argued that this institutional capital is thus a form of social capital.

UBA plays a dominant role in the configuration of this profile but it not only intervenes in shaping the internationalized elite. This university has a huge size and is thus characterized by its own internal asymmetries. Due to its immense enrollment, UBA has historically mobilized more students than any other university in the country. Besides, it is located in the country's capital city where demonstrations are more visible. Plus, it has eschewed the Higher Education Law passed during the neoliberal 1990s, refusing to amend its university statutes. It is a university known for intense political activity that often exceeds the sphere of the university itself. For that reason, it reproduces Ariels but also Calibans and the profiles in between. In the QS World University Ranking 2015, UBA was among the top 50 universities in the world and among the top Spanish-speaking universities according to the 2016 Shanghai ranking. In the end, although it is a massive university, this does not prevent it from also being the bow for Argentina's academic elites.

Regarding disciplines, we have seen that the production and circulation styles at CONICET are relatively homogeneous except in the social sciences and humanities. This not only reflects the specificity of these disciplines in the world academic system but also the history of the social sciences in Argentina, since SSH scholars were jailed, persecuted and driven into exile during the last military dictatorship while their schools and degree programs were shut down. The growth of CONICET in the past decade compensated for inequalities among scientific areas and as a result, SSH researchers are mostly young, with 70% holding adjunct and assistant research posts. International publishing and indexing are both valued in these disciplines, though a profile more focused on academic recognition within the regional (Latin American) circuit has been observed.

The belief a public research institution like CONICET places on the ISI-WoS style is particularly noteworthy, especially since it offers no salary incentives for publication in mainstream journals. Indexing is not a stat included on the scholars' CVs that can be accessed on the SIGEVA database, but CONICET evaluation committees do use indexing to rank applicants in each discipline. On the other hand, in terms of the expansion of material and human resources, CONICET policies could be deemed "nationalist," offering fellowships only for doctoral studies in Argentina and generating a public policy to repatriate researchers living abroad. During the last decade, the Minis-

try of Science and Technology strived to connect basic research, and production needs while stimulating knowledge transfer, a goal that conflicts with a heteronomous evaluative culture and the dominant academicism in career-building.

In spite of the growing dependency on “international” criteria evident within the CONICET’s culture of evaluation, it is important to clarify that publishing in English and on the mainstream circuit does not imply that researchers are subjected to some sort of scientific colonization. Peripheral fields are more than just sites of conquest or passive resistance: heteronomy and autonomy coexist along a periphery that has grown increasingly complex. Latin America is the region where open access and alternative circuits have grown the most (Babini and Machin-Mastromatteo, 2015); as for Argentina, its academic traditions date back centuries and its autonomous intellectual production makes any accusation of acculturation unfeasible. This is reflected in a solid scientific field, a strong publishing industry and a rich history of academic journals. The production of knowledge in Argentina offers newfangled conceptualizations and is not merely a data source for the centers of excellence. The work of its scholars is far from limited to replicating foreign agendas, as is often suggested from the perspective of the “coloniality of knowledge” (Beigel, 2016).

Based on an operational definition of academic dependency, heteronomy can be observed in the segmentation of circuits and in the shift from quality assessment towards a belief in a system of indexing constructed without the participation of science on the periphery. And this points to the need for some serious reflection on the part of CONICET and the broader academic community on the belonging and meaning of the evaluation criteria that are applied in Argentina. This does not mean “disconnecting” from the publishing system or denying the relevance of peer reviews but does mean a call for freely establishing the criteria for quality assessment. The international exigencies for scientific production should be considered, but in conjunction with the needs of the national and/or local research agenda.

The history of Argentina’s scientific field and public university explains the existence of powerful kingdoms of Calibans that resist academic globalization along with prosperous kingdoms of Ariels who resist university corporatism. Could Ariel reconsider the quality of scientific production before blindly trusting in journal indexation,

promoting an orientation towards the community's pressing social issues? Could Caliban emerge from endogamy to dialogue with other Calibans, on open circuits, where science prevails as the common good? It is not necessary to submit to Prospero's rules in order to expand the horizons of circulation. Argentine science has much to gain by stimulating programs for dissemination, translation policies and evaluation practices oriented to "internationalize" its endogamy and "nationalize" its exogamy. Sadly, the viability of achieving this today is uncertain given the electoral victory of the right-wing coalition headed by Mauricio Macri at the end of 2015. As part of the president's neoliberal agenda, Argentina's public science is at risk of commodification. To prevent this, Ariels and Calibans must join forces to protect what has been achieved and reflect on the work that still remains.

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END NOTES

1. CONICET fellowships are offered exclusively for doctoral programs in Argentina. Starting in 2000, the number of grants for Ph.D. programs abroad was reduced annually and finally eliminated in 2007.
2. I would like to thank the Strategic Information team in CONICET's Human Resources Department, especially Isabel Miranda, Hernán Beorlegui and Esteban Moro.
3. Analyzed by income quintile, 85.5% of students from the poorest quintile attended primary public schools in 2013 while this percentage was significantly lower in the top two quintiles (4 and 5), 48.8% and 31.3% (respectively). In secondary studies, the poorest quintile, 87.6% attended public schools while in quintiles 4 and 5, this percentage stood at 53.6 and 45.8%, respectively (SEDLAC, 2015). It is important to note that public high school enrollment among the high income sectors is higher because of the prestige of the university-affiliated high schools i.e. numerous high schools run by the national universities and located in the most important cities in Argentina.
4. One relevant example of governmental disdain for scientific research was the reaction of Argentine Economy Minister Domingo F. Cavallo to a critique of governmental policy by sociologist Susana Torrado (blaming neoliberal policy for the high unemployment rate): he said publicly "Why doesn't that woman just go back to the kitchen to wash dishes?"
5. For example, the Universidad Nacional de Cuyo, modified the call for applicants in 2010 in order to prioritize applicants with teaching experience at the university. Out of 1000 total points a candidate can earn, 600 are reserved for a candidate's background and 400 for an open class given on their topic. In background, teaching at the university is the most valued record (240 points). Administrative positions, university exten-

sion and other professional activities are worth 60 points each, meaning that these four categories represent 420 out of 600 points given to background. Degrees are worth 80 points but an undergraduate degree has to be granted at least 40 of these points. Research experience is worth a maximum of 100 out of the 1000 points. Cf. Superior Council Ordinance No. 23 (2010).

6. The information on the workplace and teaching positions emerges from the data base we built on the basis of the official data compiled at SIGEVA, where each researcher is compelled to declare all positions. It is important to clarify that 830 of these posts are *ad honorem* (unpaid).
7. No information was available on the doctoral degrees of 562 researchers. These researchers are generally over age 60 and most likely do not hold a doctorate as they entered CONICET at a time when a Ph.D. was not common.
8. Adjunct researchers can only serve on the advisory committees for evaluating fellowships.
9. The composition of the evaluation committees that I analyze here is based on a list provided by CONICET after a request. They provided the names of all members of the institution's committees from 2005 to 2015, including the date, the type of committee and the researcher's category. I constructed a database with all these individuals who had served as committee members, the accumulated times each served in committees, the university where they earned their bachelor's and doctorate degree, the teaching position (if held) and the place of work. In this study, only the results associated with the education of the committee members is shown but a more profound analysis is forthcoming.
10. I refer to a Ph.D degree but I have also added researchers without a Ph.D. (but with equivalent merit) who graduated from UBA and are professors there as well.
11. For the highest categories, there is some disagreement in terms of the weighting of teaching experience and administrative service versus holding a doctorate, directing thesis projects and publishing. However, the guidelines have hardly changed over time and there are no studies on differences in categorization by region. At PIDAAL, we are currently conducting a study that includes participant observation of the categorization process currently underway and we expect to garner new information that will contribute to further differentiating scholar profiles.
12. This database of five career-best publications was built after a second official request to the SIGEVA-CONICET system that was delivered to us in June 2015, the date of all the information provided in this section.
13. CONICET has recently added a fifth area, Technology and Social Development. However, when this database was built there were still only four scientific areas.
14. At PIDAAL, a doctoral dissertation (O. Gallardo) is currently being drafted on the educational trajectories and the internationalization of Argentine scientists. We are also conducting a survey on linguistic capacities and international habitus as part of Science and Technology Research Project No. 2013-1442, funded by the National Agency for the Promotion of Science and Technology (ANPCYT) and Project No. 3/2015 of MERCOSUR's Studies and Research in High Education Unit (NEIES) as part of a comparative study between Argentina, Brazil and Chile.

15. Some scholars selected fewer than five works.
16. Gender does not appear to be a decisive factor in production styles, while discipline and institutional capital weigh more heavily. It is useful to note, however, that although there is a gender balance in the universe of researchers (51% are women), gender asymmetries become evident at the higher top of the researchers pyramid, given that men predominate in the higher categories.
17. Classification by circuits contemplates not only indexing differences but also different scales whose importance becomes clear when they are applied to the empirical study of segmentations crossing the data on discipline, institution and publication language. For an analysis of the workings of these circuits in the social sciences and humanities in Argentina cf. Beigel and Sorá (2016).
18. In a handful of cases, four out of five of the publications corresponded to the mainstream circuit and the fifth publication was a patent file, accord or a speech at an international conference. These cases were assigned five out of five.
19. Multiple indexing was not considered. The frequencies were established based on a rank-ordered search done as follows (in descending order of importance): ISI-WoS, Scopus, SciELO, Latindex, DOAJ, Dialnet and Redalyc. The search for the journals on the lists was done manually because SIGEVA does not request or process this information, unlike other CV systems like the Brazilian Lattes, which includes indexing as an official stat taken from the indexing systems themselves (with the high cost that entails).
20. Note: 0.7% of the total did not report the country of publication. The publishing houses of Argentina that appeared most frequently are Prometeo, Edhasa, Prohistoria, Miño y Dávila, Eudeba and other university presses. There are a few published by the Editorial Académica Española (EAE), in these cases information on the country where the work was published varies significantly (Germany, Spain and others). There are reasonable doubt as to whether this latter qualifies as an academic publishing house. However, it does not qualify as a local publication either. For this reason, the works published by EAE are omitted from the analysis.

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RESUMO

Científicos Periféricos, entre Ariel e Calibán: Saberes Institucionais e Circuitos de Consagração nas Publicações dos Pesquisadores do CONICET na Argentina

A Argentina possui um campo científico dinâmico, predominantemente público, que triplicou a quantidade de pesquisadores em tempo integral na última década e repatriou mais de mil pesquisadores argentinos que haviam emigrado em épocas de crise. Paralelamente, no entanto, aprofundou-se a polarização entre os cientistas internacionalizados e aqueles de orientação mais endógena. Ainda que tendências autônomas e heterônomas convivam em todo o campo, foram consolidados circuitos segmentados de consagração, os quais evidenciam a disputa entre dois tipos de prestígio: um internacional *versus* outro local/nacional. Na primeira parte desse artigo, analisamos a morfologia desta elite acadêmica bifronte e descrevemos as suas formas de produção e circulação. Na segunda, concentramo-nos no perfil internacionalizado, através de um estudo empírico das publicações “mais relevantes” escolhidas por pesquisadores del Consejo de Investigaciones Científicas y Técnicas (CONICET) quando se solicita promoção.

Palavras-Chaves: Argentina; campo científico periférico; culturas avaliativas; publicações científicas; elites acadêmicas

ABSTRACT

Peripheral Scientists, between Ariel and Caliban. Institutional Know-how and Circuits of Recognition in Argentina. The Publications of the Researchers at CONICET

Argentina is a dynamic scientific field, dominantly public, having witnessed a three-fold growth in the number of full-time researchers over the past decade and the repatriation of over one thousand researchers that had emigrated in times of crisis. Meanwhile, there has been a simultaneous deepening of the polarization between internationalized scientists and those with a more endogenous orientation. Although autonomous and heteronymous trends coexist throughout the field, segmented scientific circuits have been consolidated revealing the dispute between two types of prestige: one international and the other local/national. In the first part of this article, I analyze the morphology of this double-faceted academic elite, describing its styles of production and circulation. In the second part, I focus on the internationalized profile, by means of an empirical study on the publications considered to be the “most relevant” by researchers on the National Scientific and Technical Research Council (CONICET) when seeking for promotion.

Key words: Argentina; peripheral scientific field; evaluative cultures; scientific publications; academic elites

RÉSUMÉ

Savants Périphériques entre Ariel et Calibán: Savoirs Institutionnels et Circuits de Consécration en Argentine. Les publications des chercheurs au CONICET

L'Argentine dispose d'un domaine scientifique dynamique, majoritairement public, où le nombre de chercheurs à plein temps a triplé au cours de la dernière décennie, grâce notamment au rapatriement de plus d'un millier de chercheurs argentins qui avaient émigré en temps de crise. Parallèlement, la polarisation entre les scientifiques internationalisés et ceux dont l'orientation est plus endogène s'est néanmoins approfondie. Encore que coexistent dans la profession ces tendances autonomes et hétéronomes, des circuits de consécration segmentés se sont toutefois consolidés et démontrent le conflit entre ces deux types de prestige: l'un, international, et l'autre, local/national. Dans la première partie de cet article, nous analyserons la morphologie de cette élite universitaire bicéphale et décrirons ses formes de production et de circulation. Dans la deuxième partie, nous nous concentrons sur le profil internationalisé à travers une étude empirique des publications "les plus pertinentes" privilégiées par les chercheurs du Conseil de recherche scientifique et technique (CONICET) pour appuyer leurs demandes de promotion.

Mots-clés: Argentine; champ scientifique périphérique; cultures de l'évaluation; publications scientifiques; élites académiques

RESUMEN

Científicos Periféricos, entre Ariel y Calibán. Saberes Institucionales y Circuitos de Consagración en Argentina. Las publicaciones de los Investigadores del CONICET

Argentina tiene un campo científico dinámico, predominantemente público, que triplicó la cantidad de investigadores *full-time* en la última década y repatrió más de mil investigadores argentinos que habían emigrado en épocas de crisis. Paralelamente, sin embargo, se profundizó la polarización entre los científicos internacionalizados y los que tienen una orientación más endógena. Aunque conviven tendencias autónomas y heterónomas en todo el campo, se han consolidado circuitos segmentados de consagración que evidencian la disputa entre dos tipos de prestigio: uno internacional versus otro local/nacional. En la primera parte de este artículo analizamos la morfología de esta élite académica bifronte y describimos sus formas de producción y circulación. En la segunda parte, nos concentramos en el perfil internacionalizado, a través de un estudio empírico de las publicaciones "más relevantes" que los investigadores del Con-

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sejo de Investigaciones Científicas y Técnicas (CONICET) eligen para solicitar promoción.

Palabras claves: Argentina; campo científico periférico; culturas evaluativas; publicaciones científicas; elites académicas