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University extension and outreach: the university-environment relationship in the case of the national universities of Quilmes and Lanús

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Abstract. This paper analyzes the conceptions about the university-environment relationship held by officials in charge of university extension and outreach at two Argentine universities, Universidad Nacional de Quilmes (UNQ) and Universidad Nacional de Lanús (UNLA). Drawing on documentary analysis and interviews, we show that the conceptions and actions of officials at UNLA correspond more closely to the "engaged" modality, orientated towards social and cultural dimensions in terms of the curriculum and the type of linkages and cooperation activities. Meanwhile, at UNQ, officials' conceptions are located somewhere between "engagement" and "detachment," valuing an educational offer and research groups focused on the production of knowledge in areas of international scope but with some transfer and extension activities in the local production environment.

Keywords: Public universities; aims of education; university extension; community and university; university management; Argentina.

Acronyms and abbreviations

CIN	National Inter-University Council (Consejo Interuniver-
	sitario Nacional)
CONEAU	National Commission for University Evaluation and
	Accreditation (Comisión Nacional de Evaluación y
	Acreditación Universitaria)

CONICET	National Council for Scientific and Technical Research (Consejo Nacional de Investigaciones Científicas y Técni- cas)
CPRES	Regional Council for Higher Education Planning (Consejo Regional de Planificación de la Educación Superior)
DIVT	Office for Innovation and Technological Linkage (Direc-
DNCIEYPP	ción de Innovación y Vinculación Tecnológica) Office for National Coordination and Budget Evaluation (Dirección Nacional de Coordinación y Evaluación Pre-
DVTT	supuestaria) Office for Technological Linkage and Transfer (Dirección de Vinculación y Transferencia Tecnológica)
LES	Federal Higher Education Law (Ley Federal de Educación Superior)
MINCYT	Ministry of Science, Technology, and Productive Inno- vation (Ministerio de Ciencia, Tecnología e Innovación Productiva)
PEID	Strategic Research and Development Plan (Plan Estratégico de Investigación y Desarrollo)
PEP	Permanent Education Program (Programa de Educación Permanente)
PNTIS	Nacional Technological and Social Innovation Program (Programa Nacional de Tecnología e Innovación Social)
PRES	Higher Education Reform Program (Programa de Reforma de la Educación Superior)
PROCODAS	Advisory Council on the Demands of Social Actors (Pro- grama Consejo de la Demanda de Actores Sociales)
PROTIT	Technological Transfer and Linkage Program (Programa de Transferencia y Vinculación Tecnológica)
R+D	Research and development
Red VITEC	Technological Linkage Network (Red de Vinculación Tecnológica)
REXUNI	National University Extension Network (Red Nacional de Extensión Universitaria)
RUNCOB	Network of National Universities of Metropolitan Areas (Red de Universidades Nacionales del Conurbano)
SCSP	Secretariat for Cooperation and Public Service (Secretaría de Cooperación y Servicio Público)
SE	Secretariat for Extension

SIT	Secretariat for Research and Transfer (Secretaría de Inves-
SITTEC	tigación y Transferencia) Secretariat for Innovation and Technology Transfer (Secre-
	taría de Innovación y Transferencia Tecnológica)
SIU	University Information System (Sistema de Información
	Universitaria)
SPOTT	Subsidies for Projects with Potential Technology Transfer
	(Subsidios a Proyectos de Potencial Transferencia Tecno-
	lógica)
SPU	Secretariat for University Policies (Secretaría de Políticas
	Universitarias)
SSE	Social and solidarity economy
UBA	Universidad de Buenos Aires
UNGS	Universidad Nacional de General Sarmiento
UNLA	Universidad Nacional de Lanús
UNLAM	Universidad Nacional La Matanza
UNLP	Universidad Nacional de La Plata
UNQ	Universidad Nacional de Quilmes
UNSAM	Universidad Nacional San Martín
UNTREF	Universidad Nacional Tres de Febrero
UVT	Technological Linkage Unit (Unidad de Vinculación Tec-
	nológica)

Introduction

The extensive literature on the role of knowledge in the socioeconomic development of nations reveals increasing interest in the key role that universities play in generating and distributing scientific and technological knowledge to their surrounding environments.

This phenomenon is studied using a variety of approaches, which range from analyzing processes involving the commercialization and globalization of higher education from a socio-historic perspective (Mollis, 2006) to investigating organizational micro-processes that lead to institutional changes in universities as part of efforts to adapt to new demands (Clark, 1998, 2004; Slaughter & Leslie, 1997). In this sense, the so-called "third role" of universities has reawakened interest among academics, as well as among multinational organizations that have a role in the design of higher education, science, technology, and innovation policies. From the 1980s through the mid-2000s, the debate focused on the study of modes of technology transfer. Studies centered on the increasing influence that the context of application has had on academic activities (Gibbons, Limoges, Nowotny, Schwartzman, Scott, & Trow, 1997), as well as those emphasizing research on national innovation systems (Lundvall, 1992; Nelson & Rosenberg, 1993; Edquist, 1997; Dosi, 1999) were at the heart of debates about the role of the university in the innovative capacity of nations and their level of productive development.

When it comes to the role of universities in local, regional or national development, there are two overarching trends (Gal & Zsibók, 2011): the triple helix approach, and the perspective that stresses universities' regional engagement. The triple helix model developed by Etzkowitz & Levdesdorff (1997) applies an institutional approximation to the study of modes of knowledge application, pointing out the recursive relations between universities, governments, and the productive sector. For these authors, the university plays an essential role in technological and regional development, which leads to its transformation into an institution that is more interdependent with its surrounding environment, in which different actors and modes of intermediation acquire more importance (mediating institutions and transfer activities). In the studies that employ the regional engagement perspective (Holland, 2001; Goddard & Chatterton, 2003; Arbo & Benneworth, 2007), the so-called "third role" of universities greatly exceeds the production of knowledge for application in innovative processes in the realm of production, to include: the development of curricula and teaching methods oriented to the needs of their surroundings; involvement in the creation of programs and plans required by governments and enter-

prises in the region; and an active commitment to the tasks of recruitment and maintaining enrollment.

Another possible approach to the study of interactions of universities with their surroundings involves identifying the ideal types of university organization and discovering the predominant type of interaction of each with its environment, as well as the characteristic tensions arising from each stylized organizational model. One such example is the tension between an orientation toward international excellence and demands for locally relevant knowledge, which is typical of so-called research universities (Pinheiro, Benneworth, & Jones, 2012).

The purpose of this study is to investigate a little-studied aspect of the interactions of universities with their environments: the agency of the actors that make up the university community. In particular, we are interested in analyzing universities' conceptions¹ about their environment, as expressed in the discourses and action orientations² of administrators working in the areas of linkages and community extension at two metropolitan universities in Argentina: the Universidad Nacional de Quilmes (UNQ) and the Universidad Nacional de Lanús (UNLA).³ This focus does not mean we ignore or underestimate the fact that these conceptions are configured within the framework of organizations that have rules, norms, and regulations that shape or condition them, whether by limiting these organizations or strengthening them. Thus, while it is not the objective of this study, in this articulation or mediation between subjective and structural dynamics we take into account statutory and organizational elements, as well as the style of governance on the institutional level, when analyzing and comparing orientations and conceptions regarding the surroundings of the administrators at each university.

This article is organized as follows: the first part presents a brief review of changes in higher education policies in Argentina in recent decades, especially those that had an impact on the relationship of universities with their environments, and succinctly describes the principal organizational and historical aspects of the universities studied. The second part describes

¹ We use the term "conceptions" to refer to expectations, valuations, and significations that the actors interviewed have regarding the university's environment.

² We use the term "action orientations" to refer to the motivations expressed by the university administrators interviewed and to the meanings or goals that they reveal.

³ Interviews were carried out with the administrators responsible for linkages and extension at each university (see the list of the positions held by the persons interviewed, provided at the end of this article after the references). In addition, we analyzed documents such as programs and projects in each administrative area, as well as the statutes of each university and annual reports and evaluations.

the areas in which Quilmes and Lanús universities established linkages and extension activities, as well as the conceptions and orientations of their administrators regarding the environment they engaged with. Finally, we return to some of the aforementioned theoretical issues through the lens of our empirical findings.

1. Recent linkages between universities and their surrounding environments in Argentina

As Rhoads and Torres (2006) note, the views of different governments regarding the state and citizens always influence their respective higher education policies. Thus, in the mid-1980s, the fiscal crises of Latin American nation states paved the way for neoliberal ideology and policies. In this context, by way of loans from the World Bank and this institution's recommendations, higher education was subject to a wave of structural changes, implemented and rigorously guided from the highest level of the system during the 1990s (Krotsch, 2001).⁴

At the same time, in the 1990s, a number of new public universities were created. There are several different theories as to why this occurred: it could have been to take pressure off the Universidad Nacional de Buenos Aires (UBA) and the Universidad Nacional de la Plata (UNLP), which were overwhelmed with applications, or it may have been to create projects that responded to the demands of local clients. Meanwhile, some observers think that the creation of the new universities was a maneuver by the Peronist government of Carlos Menem, then in power, to diminish the prominence

Some of the principal manifestations of this change in Argentina include: the passage of the 1990 4 Law for the Promotion and Advancement of Technological Innovation (Ley de Promoción y Fomento de la Innovación Tecnológica), which promoted connections between productive and commercial activities and public research and development (R+D) laboratories; the creation of the Unit for Technological Linkage (Unidad de Vinculación Tecnológica [UVT]) focusing on "innovative entrepreneurs" to be a legal interface and catalyst for links between enterprises and R+D centers (Hurado de Mendoza, 2010). In addition: in 1993, the Secretariat for University Policies (Secretaría de Políticas Universitarias [SPU]) was established within the Ministry of Education; the Higher Education Reform Program (Programa de Reforma de la Educación Superior [PRES]) was initiated; the Incentive Program for Teaching-Research (Programa de Incentivos a la Docencia-Investigación) was created; the Federal Higher Education Law (Ley Federal de Educación Superior [LES]), No. 24521 was passed in 1995; and, the following year, the National University Evaluation and Accreditation Commission (Comisión Nacional de Evaluación y Acreditación Universitaria [CONEAU]) was established. Starting with LES, a set of spaces were also created to design policies and carry out system evaluations, which changed the terms of power and authority: the National Inter-University Council (Consejo Interuniversitario Nacional [CIN]), which brings together the rectors of all public universities; the Regional Higher Education Planning Councils (Consejos Regionales de Planificación de la Educación Superior [CPRES]; and the University Information System (Sistema de Información Universitaria [SIU]) (García de Fanelli, 1997; Krotsch, 2001).

of the traditional universities (historically dominated by the Unión Cívica Radical party, Peronism's main rival) which opposed the ruling party in the CIN (Albornoz & Gordon, 2011). Others argue that these institutions were intended to better serve the needs of the local community (Rovelli, 2011). Still, the establishment of this group of universities was not carried out in a coordinated manner and nor was it part of a redesign of the university system as a whole. It resulted in the development of a regional academic market that in some cases was based on a mixture of the professional and the research university models, and on the respective university's commitment to local issues (Rovelli, n.d.).⁵

One element that these universities had in common was "the local" as the central point of reference rather than "the regional" or "the provincial," as was the case in previous university expansions. At the same time, in all cases the institutional goals and objectives expressed in the statutes of these universities considered the local community as one of the principal objects of the university's activities (García de Fanelli, 1997). Nevertheless, although a connection to the "local" was a "common origin myth" of the new universities, their level of autonomy vis-à-vis the demands and interests of actors from without and within the university would later vary, presenting a heterogeneous panorama of linkages with local communities that was observable in a variety of institutional projects (Rovelli, n.d., p. 7).⁶

After the 1990s and the crisis of 2001, the universities experienced demands arising from a desperate social reality, which threatened the already weak social cohesion in Argentina, with more than 50% of the population living below the poverty level, urgent nutritional and housing needs, and high levels of unemployment. In particular, it was the universities in the Buenos Aires metropolitan area, whose creation was inspired by an ideology that promoted close relations with the local community, that most increased their focus on local areas, concentrating on social issues as

⁵ The new metropolitan universities are: UNQ, UNLA, Universidad Nacional General Sarmiento (UNGS), Universidad Nacional Tres de Febrero (UNTREF), Universidad Nacional La Matanza (UNLAM) and Universidad Nacional San Martín (UNSAM). The Buenos Aires metropolitan area is very large in size, densely populated, and has the highest levels of poverty, socio-economic inequality, and crime in Argentina.

⁶ Other characteristics of these new universities include: organization based on departments or institutes; the creation, from inception, of areas for evaluation and accreditation, virtual or distance education, international cooperation and technological linkage; representation within some collegiate bodies of one individual who was not a teacher; and, in some cases, representatives from local, community, or social organizations with a voice but not a vote (Herbón & Quinteros, 2015). In addition, in general, all these universities also had to create a *matricula acotada* and implement policies that guaranteed student inclusion and retention (Zangrossi, 2013).

areas of intervention through extension and linkage activities, but also as subjects of research.⁷

The legitimacy of the universities began to be based not only on their intellectual reputation but also on their "social presence," and in the 2000s, certain changes in public science and technology and higher education policies continued to promote these reorientations. Thus, if one analyzes the policies intended to strengthen the links between universities and their local communities, it is possible to find some innovate aspects along with the consolidation of action strategies designed in the previous decade. An example of this is the progressive creation of organizational structures designed to promote and manage linkage activities.⁸ In addition, the national Ministry of Education recently implemented a series of policies and actions whose purpose was to debate and promote the hierarchization of the social functions of universities (national convening of university extension projects, congresses, and national workshops for university extension and the creation of the National University Volunteer Program [Programa Nacional de Voluntariado Universitario] in 2006).

The actions intended to hierarchize universities' extension functions had their counterpart in the CIN, which created the National University Extension Network (Red Nacional de Extensión Universitaria, REXUNI) in 2008 – requiring a series of consensuses about the role of universities in promoting the social and cultural development of the environment in which they are inserted – and prepared the Strategic Plan for Research and Development (Plan Estratégico de Investigación y Desarrollo, PEID), whose objective is the promotion of R+D with innovative or high-impact social or productive ends. On the other hand, in recent years, various universities have

⁷ After the Argentine crisis of the 2000s, there was an appreciable resurgence of a spirit of solidarity at the universities, however fragmentary it may have been, as well a progressive recognition of the singular role that they play in the social context to which they belong: that of institutions as the object of hopes (whether or not explicitly formulated) of effecting social change. The characteristics of the university as an institution can promote this, since universities are organizations with greater public visibility and territorial presence than other institutions in the scientific-technological sphere.

⁸ In 2002, the Program for the Support and Strengthening of Links between the University and the Socio-Productive Sector (Programa para el Apoyo y Fortalecimiento de la Vinculación de la Universidad con el Medio Socio Productivo) was created, under the supervision of the National Office for Budgetary Coordination and Evaluation (Dirección Nacional de Coordinación y Evaluación Presupuestaria [DNCIEYPP]) of the SPU; in 2003, the first and second National Meetings for the Formation of National University Networks for Articulation with the Productive Sector (Encuentro Nacional de Formación de Redes Universitarias en su Articulación con el Sector Productivo) were held; that same year, the CIN created the Network for Technological Linkage (Red de Vinculación Tecnológica [Vitec]) of Argentine national universities, whose principal objectives are to share experiences of technological linkages with the social, productive, and governmental spheres and to publicize the university system's contributions to knowledge development and transfer.

developed initiatives whose purpose is to achieve a more direct articulation with the demands of their surrounding environments through the creation of community consultative councils or social councils, understood as consultative bodies to the hierarchical entities of the university administration. Their goal is to gather contributions and demands of different actors within the universities' spheres of influence.

At the same, in 2008 the newly created Ministry of Science, Technology and Productive Innovation (Ministerio de Ciencia, Tecnología e Innovación Productiva) (MINCYT, n.d.), inaugurated a series of new policy instruments for extension and cooperation with the local environment. Two that stand out are the National Program for Technology and Social Innovation (Programa Nacional de Tecnología e Innovación Social, PNTIS) and the Council Program for Social Actor Demands (Programa Consejo de la Demanda de Actores Sociales, PROCODAS).

Finally, it should be noted that also in 2008 the National Metropolitan University Network (Red de Universidades Naciones del Conurbano, RUNCOB), was established with the objective of articulating a set of activities related to academic programs, territorial technological development, research, management, and institutional planning.

Of course, the existence of these types of initiatives did not in itself entail a change in the normal ways of engaging in science and technology in Argentina, but it did mark the beginnings of the creation of a "climate of ideas" characterized by the questioning of previous ways of understanding the relationship between universities and the social and productive sectors, as well as by an interest in considering alternative policy instruments.

Universidad Nacional de Lanús

UNLA was created on June 7, 1995 (Law 24406). One of the foundational considerations was the implementation of an academic program that did not overlap with other institutions of higher education in the Buenos Aires metropolitan area, and the coursework and degree programs were adapted to the productive profile of the region.

Analysis of the university's statutes (amended in 2014) shows that its relationship with the surrounding environment is mentioned explicitly in its primary mission statement and in almost all of its goals, underlining its role in the social, economic, and cultural development of the community and its articulation of scientific (expert) knowledge with popular knowledge.⁹

⁹ In various institutional documents, the UNLA defines itself as a "committed urban university."

Teaching is established as the most important of the university's stated goals, followed by contributing to community improvement through technology and knowledge transfer and by promoting socio-cultural aspects. This is followed in turn by basic and applied research, "giving priority to the community, regional, and national needs and problems.¹⁰ Also mentioned among the goals of the university are community cooperation (extension), advisement and services to public and/or private institutions, and the establishment of links with government, social, private, and international institutions that share the university's goals ("Resolution 228," 2014). Another explicit way that the social environment is put front and center is through the Social Communal Council (Consejo Social Comunitario), which is made up of representatives of community bodies and well-known local personalities. The principal goals of this entity are: a) to focus on the specific needs of the community; b) prioritize all types of academic, productive, research, cooperation, and technology transfer activities, in concurrence with various social organizations; and c) contribute to drawing up agreements for student internships, practicums, placements and/or work-based training, with community organizations. An advisor-representative of the Social Communal Council sits on the High Council (Consejo Superior) of the university, with voice and vote.

The university is organized into four departments: Community Health; Planning and Public Policies; Humanities and Arts; and Productive and Technological Development (it also has institutes, created by a recent reform). Its curriculum is structured around professional and technical degree programs that do not exist at traditional national universities. Many of these were created in response to local problems, demands, or needs, and include: Food Technology, Public Safety, Nursing, Tourism, and Railroad Technologies.

The university is centralized in structure, since it is governed through strong central control, which cascades the lines of action and conception down to all levels. In contrast to traditional universities, seen as organizations with very strong bases – that is, professors enjoy high levels of freedom of action and thought and therefore are above the institution in terms of power (Clark, 1996) – the UNLA has strong central governance that places the institution above individuals. The UNLA's statutes provide for internal democracy, in which all the members of the university community participate in governance through the University Assembly (the highest governing

¹⁰ Translation by Apuntes.

body), the High Council, the rector, the vice-rector, the directors, members of departmental councils, and directors of degree programs. However, in practice, the rector has a great deal of power to manage and influence the rest of the actors. This goes a long way toward explaining why the same person has held this position since her appointment in 1996 as the organizing rector of the university.

Universidad Nacional de Quilmes

The UNQ was created in 1989 by way of Law 23749. The draft project for the establishment of the university highlights the urgent need for an institution that fulfills local needs. The territorial figures who promoted its creation also proposed that the university adopt a primarily professionalist character that would strengthen "the important factories in the region" by providing programs that were "rare or novel"¹¹ (Rovelli, 2011; "Información de evaluación externa. CONEAU," 2010). This argument complemented the idea that it was necessary to relieve the pressure created by an excess of applicants to traditional universities such as UBA and UNLP.

The UNQ legally achieved its status as an autonomous university in 1992. The rector in charge of the process of the institution's establishment and official recognition (*rector normalizador*)¹² was the architect Di Lorenzis who was replaced in 1992 by engineer Julio Villar, who in turn served as rector for three consecutive terms until his resignation in 2003 following a politico-institutional crisis. As Rovelli points out: "In the foundational stage, the powers of the *rector normalizador* were so broad that their imprint [...] became deeply rooted in the institutional project"¹³ (2011, p. 97). In the case of UNQ, Villar's imprint is visible in different areas such as the use of self-evaluations, differentiations between professors through staggered salaries based on productivity, the implementation of admission selection criteria by way of a system of quotas, an inclination towards department-based internal organization, the creation of a databank of local experiences as a mechanism for articulation with the local production and management sector,¹⁴ the promotion of innovative knowledge transfer, and

¹¹ Translation by Apuntes.

¹² The *rector normalizador* is appointed by Argentina's executive branch and not by the University Assembly. These appointments generally occur when a university is created or after a period of interruption of the "normal functioning" of a university's administration, as was the case in Argentina during the military government (1976-1983). Julio Villar was designated as the *rector normalizador* of the UNQ by Argentina's executive branch in 1992 and later elected rector by the University Assembly.

¹³ Translation by Apuntes.

¹⁴ An important antecedent of the UNQ's linkage with its environment was the creation, in 1997, of

the prioritization of academic scientific research activities.

In this way, although local actors who promoted the university's creation were in favor of giving it a professionalist orientation, the structure ultimately adopted by the UNQ was closer to that of a university that emphasizes research activities, since its research mission had more prestige within the institutional hierarchy. This is evident in the relatively high proportion of full-time professors with graduate studies, as well as the large number of graduate degree programs.¹⁵ At the same, although the university's curriculum included professional degree programs which were not available at the large universities nearby, it was nonetheless structured along the lines of the more traditional areas of study, and had international standing thanks to researchers that the university had hired away from UBA and UNLP.¹⁶

During its early years, the predominant conception of a university among the UNQ's administrators was that of an innovative university. But this conception was relegated after an institutional crisis. Thus, in the new statute approved in 2004, innovation is less prominent and is put on equal footing with other university functions ("Estatuto Universitario," 2004). At the same time, this new statute partially changed the university's mission to the production, teaching, and dissemination of the highest level of knowledge in an atmosphere of equality and plurality (in turn, the 1998 statute had stated that the mission was to be carried out in a climate of "liberty, justice, and solidarity"). As CONEAU's 2010 report states ("Informe de evaluación externa. CONEAU," 2010), this change reflects the university community's concern about emphasizing the plurality of voices within the institution, whose suppression was seen as the principal cause of the institutional crisis at the beginning of the 2000s. Certainly, in contrast to UNLA, UNQ follows a decentralized administrative model, with relatively high levels of autonomy for the creation of guidelines within each administrative area, although this depends on the area in question.¹⁷ Furthermore, in those sections of

the Bank of Local Experiences (Banco de Experiencias Locales), a joint project alongside UNGS. The objective of the program was to work together on collecting, organizing, and analyzing local management experiences, as well as to carry out transfer activities involving results and training.

¹⁵ According to the latest R+D self-assessment (Universidad Nacional de Quilmes, UNQ, n.d.), the UNQ R+D system currently includes 430 researchers, 60% of whom have graduate degrees, and 230 undergraduate, graduate, and post-doctoral students with scholarships, enrolled in 21 programs and 66 research projects.

¹⁶ In 1999, UNQ implemented its Quilmes Virtual University Program (Programa Universidad Virtual Quilmes), making it a pioneer in distance education in Latin America, and introduced virtual relations with its surrounding environment. Its undergraduate programs can be found at: UNQ (n.d.a).

¹⁷ To a large extent, this form of decentralized administration is the product of the university's institutional crisis. As noted above, the highly centralized administration of Rector Villar was seen by

the new statute that deal with the mission, objectives, and functions of the university, there is no mention of its surrounding environment.

The UNQ has a departmental structure, organized around the following three departments: Science and Technology, Social Sciences, and Economics and Administration, with a total of 37 degree programs; in addition, there is a School of the Arts (Escuela Universitaria de Artes). The courses taught at UNQ are designed with the primary aim of being different than the degree programs of "traditional universities" (Buenos Aires and La Plata) and, especially, to generate spaces for research so as to attract researchers with considerable experience from the latter academic institutions – rather than demonstrating an effort to contribute to the training of human resources that are required by socio-productive activities in the local area. In fact, in various interviews with UNQ administrators, the interviewees mentioned that neither professional nor business associations in the Quilmes district played a role in defining the university's curriculum.

UNQ is governed and administered through the University Assembly, the High Council (Consejo Superior), the rector or the vice-rector, the departmental councils, the directors or assistant directors of the departments, and career and diploma programs. The Social Community Council (Consejo Social Comunitario) created by the statute has next to no relevance to the functioning of the university.

2. Conceptions of the relationship with the surrounding environment in terms of linkages and extension

At most universities, offices dedicated to linkages and secretariats for extension constitute the highest level of institutionalization of the school's relationship to their environment.¹⁸ Through an analysis of institutional documents and interviews with administrators that work at these entities, it is possible to identify: the principal external actors with whom the university interacts; reflections and analyses of university participants regarding each of these links; and the modalities that predominate in these relationships, the level of institutionalization of each, and what or who fulfills the role of intermediaries and facilitators.

part of the community as the main problem to be overcome by future university administrations.

¹⁸ This does not mean that all relationships with the outside world occur through these bodies, but it is they that have accumulated the greatest experience in interchanges with the environment over time.

Areas of linkage

The UNQ's Secretariat of Innovation and Transfer Technology (Secretaría de Innovación y Transferencia Tecnológica, SITTEC) was created in 2012.¹⁹ In the UNLA, the corresponding entity was the Office of Technological Innovation and Linkage (DIVT) which was created in 2004 within the Science and Technical Secretariat (Secretaría de Ciencia y Técnica).²⁰

The first noteworthy aspect about the UNQ entity dealing with linkages is that it has a higher hierarchical status than does the equivalent institution at UNLA – the former is a secretariat, whereas the latter is merely an office. The relative importance of the linkage areas at each university is also evident in the resources assigned to each. At UNQ, this area increased its number of human resources, which allowed it to reorganize its tasks and create various sub-areas, such as one responsible for managing intellectual property – which currently has the status of an office (*dirección*) – and another that administrates and manages its own internal and external subsidies.²¹ At the same time, SITTEC-UNQ has a high level of autonomy in developing the university's principal guidelines for knowledge transfer – confidentiality, management of intellectual property, and collecting royalties – while at UNLA, DIVT seems to depend more on the policy directives set by the central administration of the university.

Such differences are, of course, related to the conception of a university that predominates at each institution, as well as the composition of its academic community. Thus, the fact that UNQ has more products, patents, and transferred technology than does UNLA is related to the former

¹⁹ In 2004, the Program for Technology Transfer and Linkage (Programa de Transferencia y Vinculación Technológica, PROTIT) was created within the framework of the Research Secretariat, which had been created a year earlier when the statutes were revised. PROTIT was responsible for issues related to linkage and innovation, handling demands for services and R+D socio-productive activities. PROTIT regulated transfer activities through the creation of Implementation Units (unidades ejecutoras, UE) and established norms for the business incubation and achieving R+D and technology linkage agreements. In 2008, the Research Secretariat became the Secretariat for Research and Transfer (Secretaría de Investigación y Transferencia, SIT). It included the Office of Technology Linkage and Transfer (Dirección de Vinculación y Transferencia Tecnológica, DVTT), which replaced PROTIT. In 2009, the Subsecretariat for Research and Transference was created which included the DVTT; starting in 2012, this subsecretariat became a secretariat and since then its staff tripled from three to ten employees.

²⁰ Previously there was an office within the Secretariat of Science and Technology (Secretaría de Ciencia y Tecnología, CyT), which at the same time handled innovation, linkages, and extension at the university, though in fact the second types of tasks predominated.

²¹ In the case of the latter, since 2012, the secretariat organizes a competition for its own subsidy, called Subsidies for Potential Technological Transfer (Subsidios a Proyectos de Potencial Transferencia Tecnológica,Spott), which are used in part for institutional overhead to support technology transfer projects.

being the type of university that historically values the research function of its staff, and to its having more full-time researchers - both on its own staff and from the National Council of Scientific and Technical Research (Consejo Nacional de Investigaciones Científicas y Técnicas, CONICET) - research institutes, centers, programs, and projects.²² Each of these has a role in promoting and reinforcing consolidated research groups, which in turn and for the same reason have access to greater resources from funding institutions. This poses the problem of continuity/rupture of the agency of individuals and academic groups on the one hand, and organizational structures on the other, in relation to the university's orientation to its environment. In this study, our hypothesis is that the centralized administration of governance at UNLA and the general character of the university's orientation to it surrounding environment - which can be described as activist or committed – gives rise to greater homogeneous internalization of values across the academic community that makes it less necessary to have strongly structured organizational spaces.

The most important differences between the two universities are evident in the types of activities carried out in each one of their respective spheres, and the ideas expressed by the administrators interviewed regarding area functions. Thus, SITTEC-UNQ, after a process of organization, is clearly responsible for tasks related to valuation and transfer of university R+D. In UNLA, there is still some disorganization in this area, since there are some services that DIVT does not know about. On the other hand, the dividing lines between the functions carried out by these areas and those related to extension or cooperation are less clear in the case of UNLA than of UNQ. At UNQ, there is a clear understanding about the type of activities that should be carried out by SITTEC, centered on processes of valuation of the knowledge generated by the university. This valuation - except in the area of social sciences, where it primarily concerns consultancies – is understood in terms of a market economy, and consists of identification of knowledge and technologies that have the potential to be adopted technologically and/or commercially. This process also involves evaluation of the opportunities and obstacles for transfer, as well as implementation of a series of actions aimed at shortening the time for R+D results to be adopted: protection of intellectual property, commercialization of products and services, technological diagnostics, concept testing, and preparation of business plans. Conceived

²² UNQ has 47 implementation units (UE) such as university laboratories, centers, and programs, which have the capacities and equipment necessary for the development and transfer of knowledge and technologies.

in this way, SITTEC does not intervene when it comes to knowledge related to the social economy, training, and fieldwork with communities. In contrast, these types of activities predominate in DIVT-UNLA. In this sense, the type of actors with whom interaction is sought are different at each university: UNQ primarily seeks to interact with the business sector (business associations and chambers), while UNLA thinks more in terms of SMEs and third-sector organizations.²³

At both universities, we observed that the administrators interviewed used an institutional learning discourse in relation to how to identify demand. In particular, they referred to an interactive conception of knowledge production – primarily derived from readings about theoretical developments in the economy of innovation, which argue that demand is not clearly defined by external actors but, on the contrary, ends up being defined through the intervention of the university. Nevertheless, this conception coexists with the idea that it is necessary to understand "what the productive sphere needs" (emphasized more strongly by UNQ's administrators), and what the broader social sphere requires (more often stressed in the UNLA management discourse) in order to bring these problems to the university and put them forward as issues to be discussed and acted on by the university community.

A nuance or relative difference between the two orientations is that UNLA's management conceives of the production of articulations as something spontaneous and achieved through personal contacts, while among the UNQ management, there is a more explicit desire to plan linkages. At UNQ, there is manifest interest in catching the attention of what might be called "scientific-academic entrepreneurs," rather than generating "potentially applicable" knowledge.²⁴

We found some similarities in conceptions about the environment in these areas. One that stands out is while the immediate territory around the university does not exactly coincide with the municipality that gave each

²³ One difficulty pointed out by the administrators from both universities was that of conceiving, organizing, and formulating transfers in the social sciences and humanities, due to the limitations of researchers in these areas when it came to thinking of their research results as "products or developments."

²⁴ One element shared by both administrations is an interest in arranging fairs and informal encounters and preparing analyses of the demands of the productive environment of the universities in order to later issue calls for work to the academic community. At UNLA, at first, the task of the DIVT was very "linear" and primarily involved visiting cooperatives that provided assistance to technological modernization processes so that it could then inform researchers about "demands" or "problems." In the case of UNQ, SITTEC initiated an exploratory research project to identify the latent demands and needs in terms of knowledge and scientific services among businesses in the area, in order to later incorporate industry problems into the research agenda.

university its name, rarely is it viewed as stretching beyond the boundaries of what is known as the Buenos Aires metropolitan area. At the same time, there is a shared concern with reviewing the adequacy of the university curriculum in terms of the demands of the immediate environment.

Despite these similarities, conceptions about the environment and its links with the university are different in these two cases. In the case of UNO, discursive references demonstrate its efforts to differentiate itself from the social economy and cooperativism, while at UNLA these are precisely the frameworks with which they identify their visions and lines of action. The predominant conception of the environment for the function of technology transfer at UNQ is based on the criteria of a regional innovation system in which there are knowledge flows between different institutions; within these, agents with dissimilar capacities exchange knowledge in order to evaluate their market value in a context characterized by economic policy directives and various government regulations. The borders of the environment are thus set by the routes followed by potentially innovative knowledge among agents – who are part of institutions – and can potentially give them commercial value. The differentiation criteria in this environment is based on the level of innovation (in the case of enterprises) or entrepreneurship (in the case of the producers of knowledge) which the agents possess. In this space, the university, or its entities that are engaged in transfer, takes on the role of detecting these capacities and articulating them in joint projects.

Extension/cooperation

The metropolitan universities, and especially the two that are the topic of this study, have adopted a meaning and a practice with regard to extension that is different from the traditional assistential-illuminist-lineal model of university extension, and from the model that emerged in the 1990s, based on raising funds by providing services and/or consultancies for external agents.

At UNLA, there is a highly institutionalized reflection in relation to overcoming the idea of extension through the concept of cooperation, which implies a bidirectionality in the relationship between the university and its environment. In the university statutes, cooperation appears on the same level as teaching and research, as an inherent function of the professors. This importance is also evident in the fact that cooperation is given the hierarchical rank of a secretariat. The Secretariat for Cooperation and Public Service (Secretaría de Cooperación y Servicio Público, SCSP)²⁵ was created

²⁵ The SCSP has five offices: Cooperation, International Cooperation, Continuing Education, Student Welfare, and Sports and Recreation. The SCSP Office of Continuing Education has two lines

in 2004. Of its existing programs, two have been the most substantial and dynamic over time: the Permanent Education Program (PEP) and the Program for Young Community Leaders.²⁶ In the case of UNLA's cooperation/ extension function, the predominance of a "political activism style" is evident (Vaccarezza, 2015), a characteristic that very possibly reflects the highly ideological and activist management style of the university administration.

The UNQ's Extension Secretariat (SE) currently runs six institutional programs²⁷ and its organizational structure is made up of the General Office for Extension, with its dependencies: the Office for Culture, the Department of Training and Learning, and the General Office for Social Linkages, with its Projects Department.²⁸ In the mid-2000s, the UNQ created two instruments through which to revalue the extension function within the university: the Regulations for the Evaluation of the Teaching Career, which introduced extension responsibilities among the academic activities as elements that awarded points to professors towards retaining positions and gaining promotions; and the Regulations for Extension projects. These were two important institutional innovations that made the

of work: a) linking the university with the community through workshops and labor and productive training; and b) articulation with the education system, particularly high schools. During its early years, the SCSP worked on the approval of regulations of procedures for signing agreements with other institutions and pre-professional internships and practicums. One activity currently underway is the preparation of an instrument that would allow it to keep track of cooperation activities carried out within the university but not through the SCSP.

²⁶ The PEP consists of a mentoring project related to literacy and technological and trade proficiency, provided to youth between 13 and 17 years of age who are subject to various forms of social vulnerability and live within the UNLA area of influence. This program breaks with common conceptions regarding access to educational institutions and promotes completion of high school and the articulation of high school students with the university. The Program for Young Community Leaders is aimed at youth between 16 and 24 and seeks to encourage them to develop a life plan that they identify with as their own and not as something imposed by the demands of the situation in which they live. Participants receive guidance through workshops organized by the Permanent Program and, in addition, there is also a space for Awareness-Raising and Orientation, where the emphasis is on different thematic areas (training projects, educational trajectory, territorial conflicts, neighborhood issues, power, citizenship, autonomy, participation, public policies, economic policies, leadership, roles, empowerment).

²⁷ a) Student Affairs and Welfare; b) Social Integration and Sports Development; c) Labor Observatory (arranges internships); d) Senior Citizens; e) Graduates; and Social Incubation (with the purpose of promoting processes of strengthening, development, autonomy, and sustainability of the social and solidarity economy (SSE). The platform is made up of a coordination and management team and follows eight university SSE incubators that act in the field: a) Economy, Market, and Finances; b) Environment and Ecology; c) Communication and Design; d) Community-Based Solidarity Tourism; e) Social Enterprises; f) Community Art and Culture; g) Social Technologies; and h) Inclusive and Sustainable Technologies.

²⁸ The latter office has four lines of work: a) intervention of the university community in socio-economic development, which takes advantage of externally financed projects; b) management of programs and projects convened by UNQ; c) training, extension, and territory; d) promotion and participation in social and productive networks; and violence against women and treatment of persons.

UNQ a pioneering university in the accreditation of extension activities as part of professorial careers.²⁹

On the other hand, it is interesting to analyze extension as a relationship between experts and nonspecialists, where at least two models of citizen participation can exist (Vaccarezza, 2015): a) coproduction: the relevant cognitive resource is local knowledge, whereby the nonspecialist is an expert because of his or her own experiences, and the stimulus for participation is that it favors solutions to problems; and b) participation in local decision-making: the nonspecialist participates as a decision-maker in proposed solutions to local problems. Given that there have been no empirical studies about the organizations and actors or extra-academic groups that participate in extension projects, in this study we approach this subject by analyzing the discourse of administrators from the universities studied. Thus, UNLA, at least on the discursive level, employs a conception of knowledge coproduction by the child or youth (nonspecialist) and the professional or university community member (expert), where local wisdom and the young people's concerns are the starting point for the work to be done. Nevertheless, this approach is combined with a more classical extension approach – such as in literacy and leadership training programs – in which the university appears as a center of knowledge and values that possesses a higher moral authority within society.

The concept of coproduction of knowledge was also expressed as a value and guiding principle of "new modes of university extension," in contrast to "traditional" activities associated with "extending" the university's knowledge to the community through the UNQ area administrators. In this case, the notion of coproduction is associated with the exchange of knowledge, which at the same time was linked to the participation of actors outside academia in the extension project. Nevertheless, the university unilaterally decided upon the design of the project and, along with it, the definition of the problem to be "solved," the mechanisms through which this was to be carried out, the evaluation criteria, the timetable for execution, and the resources assigned. At the same time, the responsibility for project implementation fell to the extension teacher. Of course, it is necessary to empirically explore the dynamic of these interactions, but it can be provisionally hypothesized that the process of coproduction seems more related to an ideal of interrelations

²⁹ Despite this institutional recognition, extension activities had a lower valuation among the activities of research professors, both on the level of academic culture as well as formally within the institution.

- which works similarly to the ideal of a regional system of innovation in the case of transfer – than to effective practices.

Finally, as to the predominant conception of the environment, in these administrative areas we also observed a view of the environment as the territory close to the university. However, for both universities, the actors that participate in this environment include a broader range of actors than those defined in the transfer function, extending to citizens from different age groups, such as local high school students who use the universities' facilities for sports activities or participate in leadership and entrepreneurial development programs; senior citizens who participate in various courses and workshops; and local residents who shop at fairs and markets that are held from time to time on the grounds of both universities and participate in cultural activities and extension courses; as well as cooperatives, cultural organizations, and small and medium enterprises that are included in the concept of social economy. On the other hand, contact with municipalities plays a smaller role in both cases. But the environment also includes other universities located in the Buenos Areas metropolitan area and, although it was noted that it is essential to coordinate activities in order not to duplicate errors, there is currently a kind of "political synchronization" regarding the conception of the environment, ideas about working with actors within the social economy, and generating processes of amplification of the university community.

In the case of UNQ, different ideas regarding extension and the environment appear to co-exist. On the one hand, the environment is conceived of as the territory near the university and extension as intervention in this area, to include activities that lead to changes in this space; this is understood as territorial support in social and environmental conflicts, productive and labor configurations, or modalities of local management. In this case, the focus of extension activity is on the result that the intervention produces in each of these areas. On the other hand, the environment is conceptualized in terms of community, a category that has fuzzier boundaries and cannot be represented by its extension within a territory. Those who adopt this conception, at the same time, conceive of extension as the "articulation of substantive functions," that is, as a predominantly academic task that allows university actors to articulate and expand their knowledge of social, educational, cultural, productive, and other problematics that affect social collectives outside academia, so that this knowledge can then serve to inform their teaching and research activities. In this case, the focus of the extension function is based on the production of knowledge – and its enrichment

through contact with problematics unconnected to the university – rather than social intervention.

Final considerations

The universities analyzed here have recent institutional trajectories within Argentina's system of higher education; their creation was due in large part to a conception of these institutions that go beyond the functions of teaching and research, extending to their role as agents of economic and social change in their areas of influence. In this sense, they represent institutions of higher education that take on innovative functions and maintain links with a wide range of actors and institutions — extending from the productive sector to cultural and civil organizations and social movements — which have increasingly been studied from different analytical perspectives (Etzkowitz & Leydesdorff, 1997; Holland, 2001; Goddard & Chatterton, 2003; Arbo & Benneworth, 2007).

The literature on this subject has also drawn attention to the relationship between the organizational characteristics of a university and the ways in which it relates to its environment (Clark, 1998, 2004; Pinheiro et al., 2012; Kruss, Visser, Aphane, & Haupt, 2012). For example, it has been pointed out that a university that considers research as the highest goal in its organizational hierarchy, such as UNQ, and which considers itself as an innovative university, sees the environment primarily in terms of the function of circulation of knowledge. The role of innovation relates to technology transfer, and the capacity for feedback through contact with community issues, when it comes to the extension function. On the other hand, the predominant conception of a committed urban university such as UNLA influences the way its interactions with the environment. This principally occurs by way of channels through which, while knowledge is important, organizational and management resources (in the case of third sector organizations) and symbolic and leadership resources (in the case of links centered on the construction of citizenship) circulate primarily.

In previous studies, we used the concepts of commitment and detachment as ideal types of university relations with the environment, located at opposite poles. It could be argued that "commitment" implies the university's orientation to "social problems" existing in the environment, while "detachment" supposes either disengagement from the application of knowledge or an applied orientation defined by "demand" (Romero, Buschini, Vaccarezza, & Zabala, 2015). In this sense, if we compare the two universities in terms of their secretariats dedicated to linkages and extension and, at least, in terms of conceptions, UNLA appears to be situated closer to the pole representing commitment, while UNQ is in an intermediate position between the two poles, oriented toward the generation of knowledge in areas related to international insertion but also engaging in some transfer and extension activities focused on the local area.

On the other hand, in terms of the influence of the university's organizational structure on its predominant form of relationship with the environment, we think it is necessary to analyze variables related to the level of centralization of university policies; that is, whether the relationship of the university with its environment is forcefully guided, stimulated, or promoted by its central administration's policies, or whether this relationship is fundamentally the responsibility of "dispersed" administrators (Romero, *et al.*, 2015). Thus, the strong, centralized leadership within UNLA permeates the conception that emanates from its formal management and refers to an institution whose functional bodies in their entirety are committed to the surrounding environment. In contrast, UNQ has a more dispersed organization in which each area has a certain degree of autonomy in regard to its own policies, which results in more heterogeneous conceptions of the environment and of how the university interacts with it.

In relation to the focus of actions directed towards the environment, we have detected a certain tension between the areas of linkage and extension. This can be seen either in the similarity of activities carried out, the actors participating, and the guiding ideas, in the case of UNLA; or in the high degree of differentiation between these two areas and the competency in creating activities with the environment in terms of the paradigm of the market economy – (dominant in the area of linkage) or of the social paradigm (dominant in the extension area), in the case of UNQ. This also has to be thought of in terms of the problematics of power and conflict that exist in every university: this means noting how these areas compete for resources and thus for spaces of material power (subsidies, programs, scholarships) and symbolic power (prestige) within the institution as well as social recognition from outside it, and how they attempt to position themselves as the most dynamic representative vis-à-vis the environment.

Reviewing the conceptions about the relationship of the university with the environment through linkage-innovation and/or extension, we were able to discern conceptions focused on: a) research and the production of knowledge; b) training professionals for the labor market; and c) civic education.

In the case of UNLA, both the function of linkage as well as that of extension (cooperation), are fundamentally conceived of as social dimensions of the environment: one related to the labor market and the other to civic education (for different sectors of the population – such as senior citizens,

youth, and children – whereby they are included in the life of the university and hence the conception of the university community is expanded and changed). On the other hand, what stands out at UNQ are representations that are linked to the application of knowledge in the productive sphere of its immediate environment, whether through developing relationships with enterprises or extension work with actors in the social economy.

The administrators we interviewed from both universities had conceptions of the environment that represented it as a physical space close to the territorial area of influence of the university. Nevertheless, the practices and functions assigned to this environment differed notably. For the area of the UNQ that works on linkages, the functions and practices which are taken into consideration by the administrators are those related to productive ventures capable of valuing academic knowledge in terms of the market. At UNLA, the territorial venues in which the exchanges with the university take place are composed of practices primarily linked to the social economy. For the extension function, the conceptions of the environment are broader, both in the type of function and practices included and the size of the territory covered. In this case, the location of the environment is represented both as the political territory near the university that benefits from its intervention actions, as well as the broader version of the community collective involved in the exchange of knowledge with the university community. The functions and practices of the environment are also dissimilar in the conceptions of the administrators interviewed. Thus, in some cases, they are centered around carrying out an intervention related to a particular social problem, while in others, they have to do with functions centered on primarily cognitive aspects, defined as such by academic spaces.

Certainly, the analysis provided in this study, based on an analysis of conceptions and action orientations among administrators in the areas dealing with linkages and extension at the two universities, makes it possible to understand one dimension of the phenomenon, namely: the subjective representations of the actors in the university administration. A broader study of the modes of interaction between universities and their environments requires a multidimensional approach to the problem, connecting the agency of the administrators with that of academic groups and linking this with the characteristics of the university organization, its disciplines or areas of knowledge, and national higher education policies.

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- Director of Innovation and Technical Linkages (Director de Innovación y Vinculación Tecnológica), UNLA (February 23, 2016)
- Director of Cooperation (Directora de Cooperación), UNLA (March 16, 2016)
- Director General of Social Linkages, Secretariat for Extension, UNQ (Directora general de Vinculación Social, Secretaría de Extensión) (April 14, 2016)
- Secretary for University Extension, UNQ (Secretario de Extensión Universitaria) (March 10, 2016)
- Secretary for Innovation and Technical Linkages, UNQ (Secretario de Innovación y Vinculación Tecnológica (March 17, 2016)