# Brazil's Leading University: between Intelligentsia, World Standards and Social Inclusion

Simon Schwartzman



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#### **INTRODUCTION**

The creation of the Latin American nation-states, in the early 19<sup>th</sup> century, was accompanied by the notion that it was important to establish, in each new country, national institutions of higher learning, which could bring to them the values of modernity and rationality that were also shaping the construction of the modern nation states in Europe, and more particularly in France. Some countries did it more successfully than others, and in some places the old colonial Catholic universities, established since the 16<sup>th</sup> and 17<sup>th</sup> centuries, were transformed and incorporated into the new academic and educational setting (Halperín Donghi, 1962; Schwartzman, 1991a, 1996; Serrano, 1994). This is the origin of the national flagship universities in the region – Universidad de Chile, Universidad de Buenos Aires, Universidad Nacional Mayor de San Marcos in Peru, Universidad Nacional Autónoma de Mexico, Universidad de la República in Uruguay, and others.

In the early 21<sup>st</sup> century, the prevailing notion of what is a "flagship university" is strongly associated with scientific research and technology. One reason is the perception that we live in a "knowledge society", where national survival depends on the country's ability to participate fully and compete internationally in terms of scientific and technological prowess. The other reason is that, in the leading Western universities, prestige in the academic profession is strongly dependent on the scholar's scientific

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productivity and recognition. Latin American flagship universities, however, were slow to incorporate the research component, and, still today, research has to compete with other values and motivations in the debates on what the priorities of the universities should be.

In this article, we examine the case of the Universidade de São Paulo, USP, which is Brazil's leading academic institution in research and graduate education. It is also the first university in the country, created in the 1930s – about a hundred years after its sister institutions in other countries in the region. USP is not a national university, but an institution created by the political elite of the State of São Paulo, Brazil's richest economic region, in clear competition with the federal government, which was working at the same time for the establishment of a national university in Rio de Janeiro, the Universidade do Brasil (Schwartzman et al., 2000). Today, Brazil has Federal, State, private and some municipal universities and higher education institutions, with about 4 million students, 70% of which in private institutions.<sup>2</sup> Many states have their own universities, financed with public money (the Constitution forbids charging tuition in public institutions), but the São Paulo states system occupies a special place. Besides USP, the State of São Paulo has two other, more recent public universities, Universidade de Campinas, UNICAMP, and the Universidade Estadual Paulista "Júlio de Mesquita Filho", UNESP. Together, they are responsible for about a third of all doctoral degrees awarded in Brazil in a given year. No US institution graduates as many Ph.D.s as USP, except if we take all the campi of the University of California together.

<sup>&</sup>lt;sup>1</sup>On paper, the Universidade do Brasil was established in 1920, supposedly to be able to grant an honorary doctoral degree to King Leopold of Belgium, who came to Rio de Janeiro for a visit. In practice, it combined several preexisting, independent professional schools under a nominal rector. When, in the 1950s, the Federal government created a network of federal universities, its name was changed to Universidade Federal do Rio de Janeiro.

<sup>&</sup>lt;sup>2</sup> See the article by João Steiner in this volume for an overview of higher education in Brazil today. See also (Schwartzman, 1992, 2004)

The top 10 doctorate-granting universities, Brazil and US, 2003

Institution	Doctoral degrees awarded
Universidade de São Paulo	2180
Univ of California, Berkeley	767
Universidade de Campinas	747
Nova Southeastern University, Florida	675
University of Texas, Austin	674
Universidade do Estado de São Paulo (UNESP)	663
University of Wisconsin, Madison	643
Universidade Federal do Rio de Janeiro	653
U. MI-Ann Arbor	618
U. MN-Twin Cities	565
University of Illinois at Urbana-Champaign	614
Source for US institutions: Survey of Earned Doct	torates 2003, Table 3.
Brazilian data is also for 2003	

This impressive achievement is still more significant because of the high quality of most of these doctoral degrees, thanks to the strict system of peer review assessments implemented by the Brazilian Ministry of Education, as will be discussed below. Nevertheless, USP is relatively unknown internationally, and is not well placed in the several international rankings of universities that have been published recently. This could be attributed, in part, to the general ignorance that exists internationally about Brazil. In this paper, however, we argue that this also a consequence of the lack of an explicit effort from the University and the public authorities to prepare it to play the role of a leading, world-class research university in the current sense, and this discussion provides a window to understand some of the current predicaments of Brazilian higher education as a whole.

#### USP, BRAZIL'S FIRST UNIVERSITY

In Latin America, Brazilian higher education is a special case, both because of its narrow coverage and the high quality of some of its best professional schools, graduate education and research programs. It is also special because of the tardiness of its institutions. Other countries in the region have universities dating back from the 16<sup>th</sup> century, or at least from the 19<sup>th</sup>, while the first Brazilian universities are from the 1930s and 1940s. Thus, Brazilian higher education was for a long time immune from the "university reform" movement which, starting in Cordoba in Argentina in 1918, swept many countries in the region – Argentina, Peru, Uruguay, Venezuela, Mexico – leading to a peculiar pattern of university autonomy and politicization, and poor academic standards.

The first Brazilian university legislation, from 1931, granted the future institutions with the authority to issue "university privileges", which included the right of diploma

holders to practice in the learned professions, through their faculties of law, medicine, dentistry, engineering, and others. The legislation paid due respect to the usual notions of culture, research and institutional autonomy; but the main concern was to keep the standards and size of the professions under control, and for that the universities were placed under tight ministerial oversight. The assumption was that there would be one "model university" in the country's capital, which should be set the pattern for all others.

As it happened, the 1930's were also a period of intense ideological disputes and political conflict, and, for a while, it looked as if the national government would put the Catholic Church in charge of the main institution within the Universidade of Brasil, the Faculty of Philosophy, Sciences and Letters (Faculdade de Filosofia, Ciências e Letras) (Schwartzman, 1991b; Schwartzman et al., 2000). This Faculty was supposed to be the core unit within the university, to develop research and high level teaching in science and the humanities, prepare teachers for secondary schools, and infuse scientific competence in the old professional faculties that were brought in when the university was established. For different reasons, this agreement with the Church did not work, and in 1940s the Catholic Church decided to create its first private university, also in Rio de Janeiro.

As it turned out, the first and most successful university of the 1930s was not to be the national Universidade do Brasil in Rio de Janeiro, but the University of the State of São Paulo, known until today as Universidade de São Paulo – USP, established in 1934. For several decades, the State of São Paulo had been the most important pole of economic growth in the country, first as the leading region of coffee plantation and exports, later as a dynamic industrial center, making use of the entrepreneurial skills of large numbers of European immigrants, as well as of Brazilians coming from other regions. The São Paulo elites were successful in helping to bring down the centralized monarchy that had ruled the country until late in the 19<sup>th</sup> century, replacing it with a decentralized republic that redistributed power among the leading states. In 1930s, however, they failed in the attempt to stop a new centralization drive, and in 1932 they led a frustrated armed rebellion (which became known as the "Liberal Revolution") against the government of Getúlio Vargas. This combination of wealth and political frustration goes a long way in explaining the original ambitions of the Universidade de São Paulo, as well as its early success.

A leading personality in the creation of the University of São Paulo was Júlio de Mesquita Filho, whose family owned (and still do) the newspaper *O Estado de São Paulo*, a very respected and traditional publication, dating from the 19<sup>th</sup> century. He believed that, in order for São Paulo to recover and maintain its preeminence in the country, it was

necessary to create a new elite, educated both in the modern sciences and in the most advanced business and management practices. The project received the support of the State governor, and led to the creation of two new institutions: the new university and an independent school of sociology and political science. In both cases, professors were brought from abroad, to teach and to develop their research interests. The School of Sociology and Political Science (originally the Escola Livre de Sociologia e Política de São Paulo), staffed mostly by Americans, remained obscure, in spite of some significant achievements in sociology proper, and still exists (Limongi, 2001). The Universidade de São Paulo, as the one in Rio de Janeiro, brought together several preexisting institutions in the State (including the old faculties of Law, Medicine and Engineering, and the Escola Superior de Agricultura Luiz de Queiroz, all established in the late 19<sup>th</sup> century) and created a new institution for Science and the Humanities, the Faculdade de Filosofia, according to the 1931 legislation. It became the first academic institution in Brazil to carry research (except from some medical research that already existed in the faculties of medicine), and it is still the major public university in the country. This is how Mesquita Filho, writing in 1937, described his motivations:

> Defeated by the strength of arms, we knew perfectly well that only through science and continuous effort could we recuperate the hegemony we had enjoyed for several decades in the federation. Paulistas to the bones, we had inherited from our ancestors, the bandeirantes, the taste for ambitious projects and the patience needed for large undertakings. What larger monument than a university could we build for those who had accepted the supreme sacrifice to defend us against the vandalism that had just desecrated the work of our elders, from the bandeiras to independence, from the Regency to the Republic? (...) We came out of the 1932 revolution with the feeling that destiny had placed São Paulo in the same spot as Germany after Jena, Japan after its bombardment by the American navy, or France after Sedan. The history of those countries pointed to the remedies to our evils. We had experienced the terrible adventures caused, on one hand, by the ignorance and incompetence of those who before 1930 had decided on the destiny of our state and our nation, and on the other hand, by the emptiness

and pretentiousness of the [1930] October revolution. Four years of close contacts with leading figures of both factions convinced us that Brazil's problem was above all a question of culture. Hence the foundation of our university and later the Faculdade de Filosofia, Ciências e Letras (Mesquita Filho, 1969; Schwartzman, 1991b).<sup>3</sup>

The key decision in those years was that all the professors from the new Faculty of Philosophy should be from abroad. Thanks to the economic and political uncertainties in Europe in those years, and the wealth available for the project from São Paulo's government, it was possible to send a recruiting mission to Europe, and to attract young professors from Italy, Germany, and France. One of them was Claude Lévi-Strauss, who used the opportunity to visit the Bororo Indians and collect materials for his writing years thereafter, without living much imprint in Brazil. Others, less known, had a much more enduring influence: the anthropologist Roger Bastide, who formed a whole generation of well-known Brazilian social scientists, including Florestan Fernandes, Fernando Henrique Cardoso and Octávio Ianni; Gleb Wathagin, a white Russian living in Italy, who worked on particle physics and established a strong group of disciples, including Cesar Lattes, Mario Schenberg, Marcelo Damy and others; Gustav Brieger, who brought modern genetics to the Luiz de Queiróz School of Agriculture; and Heinrich Reinboldt and Henrich Hauptman, who introduced the German tradition of Chemistry research.

Paulo Duarte, a journalist and writer who joined Mesquita and participated in the decisions on how the university should be organized and who should be hired, stressed in a interview many years later that there was an explicit effort to bring only natural scientists and mathematicians from the fascist countries, Germany and Italy, reserving the places in the social sciences and humanities for France (interestingly, England, although mentioned, seemed to be out of their conceptual map; the United States was out of question; and economics did not exist as a meaningful subject):

<sup>&</sup>lt;sup>3</sup> "Bandeiras" – literally, flags – was the name given to the explorers that, since the sixteenth century, went from the old captaincy of São Vicente, now São Paulo, to faraway regions in the unknown continent of South America in search of gold and slaves, opening new territories, creating settlements and expanding the frontiers of what is Brazil today. The myth of the "Bandeirantes", or flag carriers, became a symbol of São Paulo's entrepreneurship (Moog, 1964; Morse, 1965).

<sup>&</sup>lt;sup>4</sup> For Lévi-Strauss unflattering recollections of the University of São Paulo in those years, see (Lévi-Strauss, 1997).

We wanted to make use of the best not just from one advanced country but also from all advanced countries. Thus, Italy was to provide professors of mathematics, geology, physics, paleontology, and statistics; Germany would provide those in zoology, chemistry, and botany; England could help in another branch of natural history and perhaps psychology; and for France would be reserved the chairs of pure thought: sociology, history, philosophy, ethnology, geography, and perhaps physics. It was not always possible to meet this plan (Schwartzman, 1991b), p. 130.

So, from the beginning, the Universidade de São Paulo was a world-oriented institution, staffed by European academics, and attended in large part by the children of European immigrants that constituted a sizeable part of the population of São Paulo. In those years, the ambition of the new university was not just to develop professional competence and applied knowledge for the economy to growth, which it did in any case, but to bring civilization to Brazil, through "pure science" and "pure thought".

The adoption of the French model (both Mesquita and Duarte had studied in Paris) meant that the professors that came were not perceived just as scientists and specialists, but as intellectuals, founders of a new cosmopolitan intelligentsia, and were perceived as such, with their words and deeds always on the spotlight, thanks among others to the permanent coverage of Julio de Mesquita's influential newspaper. Except for the French, perhaps, the foreign professors never assumed this role, but some of their disciples did, not only in the social sciences but also in physics. The building of the old Faculdade de Filosofia in Rua Maria Antônia, downtown São Paulo, became the symbol of the unity of the Brazilian intelligentsia, above the disciplinary barriers. For the physicists, the big challenge was to bring the benefits of atomic energy to Brazil, and they provided intellectual and technical support to the policies of atomic self-sufficiency developed by the Brazilian governments since the 1950s, with the ups and downs associated with the cold war. The social scientists did not limit themselves to academic work, but adopted the French-type, Marxist oriented approach that seemed to provide them with the answers for the country's economic and social predicaments, and to point the way for solutions. They wrote in the newspapers, published for the wider public, and got involved in party politics. Many, natural and social scientists, joined the Communist party at some point, and remained associated with the traditional left.

#### USP IN THE CONTEXT OF BRAZILIAN HIGHER EDUCATION

What is the place of this university in the broader context of Brazilian higher education today? Does it still play the role of setting the standards for culture and civilization, as intended by its founders, or as a center for intellectual leadership and the education of the national intelligentsia, as intended by some of the successors of the first European professors? Has it come closer to the ideal of a "research university" in the current sense? Or is it just one institution among others?

Brazilian higher education expanded very rapidly in the last decades, with a total enrollment of about 4 million students in 2004 (still a small figure, considering the existence of about 20 million youngsters between 18 and 24 years of age), one million of which in public institutions. The federal government is responsible for the maintenance of a network of 44 universities and 39 smaller Centers for Technological Education – at least one in each state, and several in a few states such as Minas Gerais and Rio de Janeiro (INEP, 2003). Some of them are considered good, like the universities of Rio de Janeiro, Minas Gerais and Rio Grande do Sul, and others less so; and there are always large variations in quality in every institution among different fields of study. institutions, student selection is carried on through written examinations, most course work is done during the day, and there is no tuition. Besides, several states have their own public institutions, most of them providing evening courses for working students who could not get admitted to federal institutions, and cannot afford to study during the day. Most private higher education is also of this kind, for students who cannot enter the public institutions, want to study in the evening, but are able to afford a modest tuition; and there is a growing segment of expensive private higher education institutions, catering to upper class students in fields like management, economics and dentistry, who want more than what the public institutions can provide.

Within this picture, the São Paulo state has several peculiarities. Besides the Universidade de São Paulo, it has two other state universities. The Universidade de Campinas, about half its size, was established in the 1960s as a high technology institution, with a larger proportion of graduate students than any other university in the country; and the Universidade do Estado de São Paulo, which grew from a network of local institutions in the state's municipalities, geared towards professional and undergraduate education, which were brought together under a common administration. Since São Paulo is Brazil's richest state, and had its own universities, the federal government never invested much in

higher education there, and has today only two small institutions in the area, one specialized in medicine (the Universidade Federal de São Paulo, formerly the Escola Paulista de Medicina) and another in engineering, the Universidade Federal de São Carlos. Put together, all the five public institutions in São Paulo do not attend to more than 10% of the students in the state, leaving the place for a large and vigorous private higher education sector.

#### THE UNIVERSIDADE DE SÃO PAULO TODAY

After the Second World War, as Brazil's economy continued to expand, the Universidade de São Paulo also grew, moving from old downtown buildings to a modern campus, establishing branches in other cities in the State, and consolidating several of its main research and graduate programs. In 1968, a new national higher education reform ended with the old university chair system, and introduced the American model of graduate education. Very soon, the natural sciences left the old Faculdade de Filosofia, creating their own institutes and academic departments. Today, the Universidade de São Paulo is a large complex of more than fifty departments, institutes and faculties, enrolling 25 thousand doctoral and master's students in more than 200 degree programs, and admitting about 5,500 students a year in its 43 first degree professional course programs, selected from about 75 thousand applicants. It is not the largest institution by number of students (superseded by a few private universities<sup>5</sup>), but has the largest budget: 1.5 billion reais (1.272 billion US\$ PPP) from the State treasury in 2003, plus substantial research grants and other resources obtained for research, technical assistance and extension work<sup>6</sup>; and the most extensive graduate and research programs and activities. Graduate programs in Brazil are permanently assessed by the Ministry of Education in terms of their research, academic standards and productivity. Of the 1,189 graduate programs assessed up to 2003,

<sup>&</sup>lt;sup>5</sup> The total enrollment in first degree programs in 2003 was 44 thousand, compared with about 100 thousand for the Universidade Estácio de Sá in Rio de Janeiro, and 92 thousand for the Universidade Paulista in São Paulo, both private, mostly teaching institutions. (Brasil Ministério da Educação, 2004)

<sup>&</sup>lt;sup>6</sup> The three São Paulo universities are entitled to a fixed percentage of 9.57% of the State main tax revenues (Imposto de Circulação de Mercadorias, ICMS), according to rules established by the State legislative: 5.029% for USP, 2.196% for UNICAMP, and 2.345% for the third University, UNESP. In addition, there are resources from medical authorities for university hospitals, and research money both from the State and the Federal Governments. In 2003, the medical complex of Hospital das Clínicas of the University of São Paulo had a budget of about 500 million reais, or 423 million dollars PPP, with most of the resources coming from the Health Ministry. (Hospital das Clínicas da Universidade de São Paulo, 2003)

62 were considered of international standard; of those, 20, or a third, are at USP: ten in the natural sciences, five in the social sciences and humanities, and the others in engineering, agrarian sciences, health, literature and multidisciplinary degrees. Of the about eight thousand doctoral degrees awarded in Brazil in 2003, two thousand were given by USP. At the professional, or undergraduate level, some of its institutes and departments are very prestigious, as measured by the number of applicants per place, and of good quality, as measured by the national assessment of courses; some are prestigious, but not good; and a few are clearly below standard. Thus, there are more than 20 applicants per place in Administration, Architecture, Civil Engineering, Journalism, Pharmacy, and Psychology; and the best rated programs are those in Accounting, Administration, Agronomy, Economics, Engineering (civil, mechanical, chemical), Law, Literature, Mathematics, Medicine and Veterinary Sciences

This is, then, the place of the University of São Paulo in Brazil's higher education: a large institution, with about 65 thousand students, responsible for the education of a large portion of Brazil's Ph.D.s and academic research, and including some of the leading professional faculties, in areas such as medicine, engineering and law, as well as Brazil's largest medical complex. It is fully supported with a fixed fraction of the state's revenues, and is able to tap the resources of Brazil's largest science research supporting agency, São Paulo's Fundação de Amparo à Pesquisa (FAPESP); and a large body of about five thousand academics, most of them holders of doctoral degrees and 78% working full time.

How expensive is this university? International comparisons show that Brazil spends several times more per student in public higher education than any other country in the region, and the equivalent of many countries in Western Europe. These estimations vary according to whether resources for retirement benefits and the maintenance of university hospitals are included (as it is usually the case for Brazil), and whether revenues from research grants, technical assistance, contract and extension work are included (usually not). It depends also on how the conversion between the Brazilian currency and the dollars is carried on. Data for 2002 suggest that USP spent about 19 thousand dollars PPP per student, against 12 thousand in the federal system. Although high by many standards, these figures are well below the expenditures of the University of California:

<sup>&</sup>lt;sup>7</sup> In 2003, there were 3873 academic working full time, out of 4,953. The largest proportions of part-time academics are in the professional schools of Medicine, Dentistry, Law, and Agrarian sciences. (Universidade de São Paulo, 2004), table 2.11.

Expenditures of the Universities of São Paulo and California, 2003

	USP	U California
Enrollment, undergraduate	44,696	159,486
graduating students	5,515	37,125
enrollment, graduate	24,312	44,317
Dissertations (MA level)	3,366	7,359
Doctoral dissertations	2,164	2,764
Docents	4,953	9,093
Yearly budget (rhousands)	1,530,475	9,933,455
Dollar PPP Budget(*) (thousands)	1,290,842	9,933,455
expenditure per student	18.71	48.74
expenditure per docent	260.62	1,092.43

Prepared originally by Carlos Alberto Brito Cruz. The source for Universidade de São Paulo is USP, Anuário Estatístico, 2004.http://sistemas.usp.br/anuario/; The source for the University of California is

http://budget.ucop.edu/rbudget/200304/contents.pdf . Data for UC refer only to "Budget for current operations" and does not include "extramurally funded operations"

(\*) "Dollar PPP" refers to the purchasing power parity between currencies, which is supposed to be more accurate than market exchange rates. The exchange rate was about 3 reais per dollar in 2003.

In spite of these impressive credentials and relatively high cost, USP enrolls less than about 5% of the demand for higher education in the State, and a tiny proportion of the country's demand. What role should this institution play? Are the aspirations and ideals of its founding fathers still valid? Should it aspire to play the role of a leading, world-class university, or, on the contrary, should it shed its elitist bias and extend its reach, providing more access to more people, perhaps at lower costs? Should it demand more public resources, to increase enrollment? Or, should it remain relatively small, and stress is role as an elite, standards bearing institution? Is it already playing this role, without saying so? Or, is it losing its hedge, and forsaking its original purpose and ambition?

#### DO THE OLD IDEALS STILL HOLD?

Comparing now with sixty years ago, one could argue that the old ideals do not hold any longer, if they ever did. One could say that the notions of "pure philosophy" and "high culture", that were in the minds of the university founding fathers, proved to be little more than ideological constructs, while uninterested, pure science was replaced by the quest of practical results. In practice, the professional faculties that were brought together when the university was created resisted from the beginning to the presence of the academics brought from Europe to the new Faculty of Philosophy (they used to be scorned

as "the philosophers"), and continued their traditional tasks of providing skilled and prestigious liberal professionals for an expanding urban and industrial economy.

Did the university succeed in the creation of a "new elite" for the country, and, with them, to recover the national preeminence the State of São Paulo lost in the 1930s, in line with the ambitions of the old Latin American flagship institutions? Up to a point, the answer is yes. Fernando Henrique Cardoso, Brazil's President between 1995 and 2002 was a direct product of the Universidade de São Paulo, and probably the best representative of the French-type intelligentsia it hoped to create. His successor, Luis Ignacio Lula da Silva, is a metalworker with little formal education, born in the poor Northeast, but has been always surrounded by intellectuals and militants educated at USP. The largest Brazilian companies and most of the country's more influential newspapers and magazines are based in São Paulo, and it is very likely their top managers had their degrees from USP.

Still, the causality is not obvious. The preeminence of USP alumni in Brazilian society could be just a consequence of the economic weight of the State, not the result of the special characteristics of its main university. It is interesting, in this regard, to look at USP in combination with its younger sister, the Universidade de Campinas, UNICAMP. UNICAMP was established with the clear intent of becoming a modern research university, the leading place for the incorporation of high technology, as part of an ambitious project of economic and technological development led by the Brazilian military government in the 1960s and 1970s. One of its more important initiatives was the creation of a department of solid-state physics, led by Sérgio Porto, Rogério Cerqueira Leite, José Ellis Ripper and other Brazilian scientists trained in the US and working at Bell and other preeminent US laboratories and research centers, attracted back to the country with the promise of strong support for their projects. Another initiative was the creation of the Department of Economics, staffed by economists trained in the nationalist tradition of the United Nations's Economic Commission for Latin America (ECLAC/CEPAL), including Maria da Conceição Tavares, Antônio de Barros Castro and Carlos Lessa.

It is possible to argue that, for this new generation of physicists and economists, the new features of a modern research university and the more traditional role of political intelligentsia were indistinguishable, and in that sense they followed the same path that USP had started. The main project for the physicists was not atomic energy any longer, but self-sufficiency in the computer science and the production of new materials. For the economists, induced industrialization and economic planning replaced the Marxist sociological interpretations that dominated the work of the USP intellectuals.

Technological self-reliance was part of a broader project of import substitutions that, for many years, provided Brazil with many years of sustained economic growth.

However, Brazil never became self-sufficient in atomic energy or computer sciences (Schwartzman, 1988b), and its economy was never ruled according to the principles of central planning or the precepts of the United Nations Economic Commission for Latin America. The more ambitious projects for technological self-sufficiency, of both the physicists of the older generation at USP and of the new generation at UNICAMP, ultimately failed. The reason was not that their science was bad, but that science was not enough. Very soon after the Second World War, the quest for self-sufficiency in atomic energy became embroiled on issues of national security and the Cold War, and the scientists lost their influence in the field to the military and the utility companies (Adler, 1987). Years later, the ambitious project for self-sufficiency in computers and semiconductors was overwhelmed by the sheer speed of technological change in this area, an international trend with which Brazilian firms and research centers could not keep up, in spite of a closed market that protected them for a few years (Botelho & Smith, 1985).

As the technological and business frontier moved away, the scientists in these fields had trouble getting enough demand and resources to keep up with their work. In some cases, they were able to establish long-standing relationships with military projects and state-owned corporations, in the areas of atomic energy, space research, electricity, telecommunications, transportation, and environment. In the 1990s, as most Brazilian public corporations were privatized, and the nationalist ambitions of the military lost ground, these partnerships also suffered. In other cases, important private spin-offs were created, under the leadership of former academics, who left the universities for the business sector. Several scientists from these universities developed important careers as public personalities, managers of large public corporations, ministers and vice-ministers in the areas of energy, science, technology, and economic decision-making. These individual success stories often meant, however, that the universities lost some of their brightest minds, and their academic departments suffered.

In the social sciences, it is also possible to argue that the growing influence of some of the best known sociologists from USP and UNICAMP as writers, intellectuals and politicians, was not matched by a corresponding improvement of their academic work. The Universidade de São Paulo was slow in incorporating the Anglo-Saxon traditions of empirical sociology that became dominant worldwide since the 1960s, as Marxism lost its intellectual appeal, and for many years did not differentiate among sociology, political

science and anthropology in its organization. In the meantime, economics at USP remained close to administration and business, in isolation from the other social sciences, and did not lead to an intellectual drive to shape the country's economic policy<sup>8</sup>, as tried later on by the economists from Campinas. There, the economists tried to play a direct role in shaping the country's industrial and technological policies, and were always very active in politics and policy making. In the 1980s, the first civilian government after twenty years of military rule created a Ministry for Science and Technology that was supposed to continue the policy of technological self-reliance of the previous years, and was led by an economist from UNICAMP, Luciano Coutinho, in his role as vice-minister. Other economists from that university became very well known for their participation in the debates on economic policy, and occupied important government posts at different points in time.<sup>9</sup>. However, none of them remained in the university, and today the Department of Economics in Campinas is not rated by CAPES as among the best, having lost the edge to institutions such as the Getúlio Vargas Foundation, The Catholic University in Rio de Janeiro, the Federal University of Minas Gerais, and USP.

So, in many ways, both USP and UNICAMP succeeded in projecting themselves as institutions with a strong national influence, and became references for other higher education institutions. But it is fair to say that these success stories were the exception, not the rule, and seldom led to a consistent and long-lasting improvement in the academic and research quality of the departments from which they originated.

#### FROM INTELLECTUAL LEADERSHIP TO SOCIAL INCLUSION

It is possible to conclude, from these brief stories, that intellectual influence and academic excellence are not the same thing, and perhaps do not even go along very well together. Today, there is little or no space for intellectuals trying to play the role of national

<sup>&</sup>lt;sup>8</sup> An exception was Antônio Delfim Netto, a professor of economics at USP and currently a Congressman, who was Brazil's economics minister between 1967 and 1985, the years of the "economic miracle" and of deep transformations in the economy. Delfim Netto was easily the most effective Brazilian economist in the 20th century. Still, it is difficult to identify a "Delfim Netto school of economic thought" at the University of São Paulo, as we do with the social scientists at USP, or later with the economists at the University of Campinas.

<sup>&</sup>lt;sup>9</sup> Barros Castro was President of Brazil's largest public investment bank, the National Bank for Economic and Social Development – BNDES – in the mid-nineties (and the banks Planning Director in 2005), and Lessa occupied the same post ten years later, in a very different political context. Conceição Tavares became a member of parliament, an influential intellectual of the Workers' Party, and for a while led the opposition to the conservative economic policies of Luis Ignácio Lula da Silva's government.

intelligentsia, and, in the social sciences, the ideological flag moved away to a large extent from sociology, political sciences and economics, from where it occupied the central stage, to restricted niches in areas such as geography, education and literature<sup>10</sup>. The best academic departments and institutes are not those that tried to play the roles the intelligentsia and to shape the country's culture and the economy, but those that built their competence by keeping in touch with the international community and developing much more pragmatic links with the surrounding society.

There is an important gap, however, between this more pragmatic and less visible quest for professional and academic quality and the growing demands for political participation and social inclusion that prevail in Brazilian society these days. The election of Luis Ignácio Lula da Silva as Brazil's President in 2002 marked an important shift in the perceptions about Brazil's priorities. Until then, the dominant notion was that Brazil was an "underdeveloped" or "developing" country, a condition which was to be overcome through the incorporation of advanced technologies, the modernization of the economy, and the rationalization of public bureaucracies. This view was shared by political, military and civilian elites, and led to unexpected alliances between left and right, particularly in high technology areas such as atomic energy and information technology policies, based on a common belief in the powers of planning and the importance of modern science and technology. There were important variations in this common view, expressed for instance in the conflict between the São Paulo elites and the national government in the 1930s, which was in essence a dispute between the relative weight of traditional politicians and of private and independent sectors and interest groups in running the country and managing the economy (Schwartzman, 1988a). The Fernando Henrique Cardoso period, from 1995 to 2002, was perhaps the last of a sequence of "modernizing" governments dating back from the 1930s, and was very successful in bringing inflation under control after many years of fiscal irresponsibility, and opening the country the international economy. This, however, was not enough to make the economy to grow again, nor to deal with the

<sup>&</sup>lt;sup>10</sup> The case of the Centro Brasileiro de Análise e Planejamento, CEBRAP, established by Fernando Henrique Cardoso and his colleagues after his return for political exile in the 1970s, is emblematic: as Cardoso's political presence in the country as a leading politician increased, the intellectual significance of his center declined (Sorj, 2001).

problems of poverty, inequality and growing demands for political participation that came to dominate the political agenda.<sup>11</sup>

The election of Lula as President was the turning point. The backbone of his party, PT (Partido dos Trabalhadores, the Workers Party) was the organized unions and social movements. Earlier, PT had been strong with industrial workers, particularly so among the unions in São Paulo's modern car industry, from where Lula emerged. More recently, however, the unions in the civil service had become more important – health workers and doctors, teachers, academics, even policemen - as well as social movements created and supported by the sectors of the Catholic Church and national and international NGOs, the best-known being the Movement of Landless Workers, MST. The motto of the presidential candidate, that Cardoso had "forgotten the social", was brilliantly conveyed through a very skillful and highly professional marketing campaign. With the new government, money would be spent on social issues, not paying interest to the bankers; management of public agencies and implementation of social policies would be handed over to unions and the social movements, not to bureaucrats; and the economy would grow through the increase of the purchasing power of a newly empowered and subsidized population, not through special privileges granted to national and international capitalists.

Electoral victory did not translate easily into policy implementation. The new government tried, simultaneously, to implement a very orthodox economic policy, based on high interest rates and budget restraint, and innovative social initiatives, such as the "hunger zero" program, based on subsidies given to poor families. New or recycled goals were set for education – literacy campaigns, adult education, and race-based affirmative action. Union leaders and social activists were designated for public jobs in education, health, environment protection, and agrarian reform. After the first two years, the economic policies seemed to be working<sup>12</sup>, but the social programs were in disarray. The "hunger zero" program was a flop, and closed down; the Minister of Social Assistance, Benedita da Silva, a black woman raised in a shantytown in Rio de Janeiro, was dismissed;

<sup>&</sup>lt;sup>11</sup> It is not true, as it is sometimes said, that the social conditions in Brazil deteriorated during the Cardoso period, as a consequence of fiscal and economic adjustments. It is true, however, that the economy remained mostly stagnant, as it had been since the early 1980s (Schwartzman, 2000).

<sup>&</sup>lt;sup>12</sup> In 2004, GNP grew 5.2%, thanks to the recovery from a period of depression and an extraordinary growth on exports, but it is clear that these results will not be achieved in 2005 and thereafter.

the first Minister of Education did not last more than a year; and the second Minister put higher education reform as its main priority.<sup>13</sup>

As of this writing (July 2005), the government has issued a draft of a new legislation for higher education, which is being debated, and is supposed to lead to a new, revised version to be submitted for Congressional approval sometime in 2005. The main points of this proposal are a significant increase in resources for federal universities, increased restrictions and control of private higher education, increased presence of "organized society" in the oversight of public and private institutions, coupled with more institutional autonomy, and affirmative action, with the introduction of quotas for blacks and students coming from public school in public universities.<sup>14</sup> Without waiting for the approval, the government launched a program called "Universities for All", which exchanged fiscal benefits for the admittance of about 100,000 low income and minority students in private institutions, and several public universities started to implement quota policies for blacks and students coming from public secondary schools. Also, together with the promise of additional money, federal universities are being pressed to increase their enrollment by opening up more evening courses, for poorer and elder students. The notions that universities should strive for quality, and that student admissions should be based on merit, were never challenged as such, but the new emphasis is clearly on the side of social inclusion, rather than academic excellence.

The Universidade de São Paulo was not immune to this trend, and has tried to find a middle ground. Talking about race quotas, a very controversial issue in Brazil, where race boundaries are not as clearly marked as in the US, this is what USP's rector had to say:

Regarding quotas, this is something we have to discuss: if we establish quotas for blacks, will this be a solution, or we will be creating more discrimination against the blacks that can enter to the university without quotas? Perhaps the best would be to establish quotas based on income, for poorer social classes. Personally, I do

<sup>&</sup>lt;sup>13</sup> The main social programs of the Brazilian government today are the "bolsa familia", providing small grants to poor families with children in school age or health conditions, and the retirement benefits granted to poor, aged persons.

<sup>&</sup>lt;sup>14</sup> The expression "organized society" is part of the new jargon used by members of the PT party to refer to trade unions, social movements and other grassroots organizations. For a critical view of the governments higher education reform proposal, as well as the original document, see (Castro & Schwartzman, 2005).

not believe and do not share the view that, if we introduce quotas, the teaching levels of the university will be lowered. I do not think so. I believe we have mechanisms (to avoid that), and one of them, which is being discussed by the federal government, is to establish a minimum cutting point in the entrance exams for the students being admitted through quotas. This is a possibility we have to consider. The problem is that we have to be very careful with this issue, to make sure that, with the quotas, we do not create a new discrimination against students who cannot participate in an entrance examination for lack of resources (Universia, 2004). (My translation).

So far, USP has not introduced quotas, or any kind of affirmative action policy, as UNICAMP did. Its main initiative was to open a new campus in one of the poorest quarters of the city of São Paulo, the East Zone (Zona Leste). Starting in 2005, the new campus will admit about a thousand students a year, in course programs like environment management, information systems, management of public policies, marketing, technology of the textile and clothing industries, teaching in natural sciences, leisure and tourism, sciences of physical activities, gerontology and obstetrics.

These are mostly vocational-type courses, and the assumption is that admissions, to be done through competitive examinations, would require less previous education than the more traditional careers. The newspaper *O Estado de São Paulo* wrote a long editorial on the new campus, which was reproduced later in website of the São Paulo government:

While in the University City [USP's main campus], in the Southern part of São Paulo, only 10% of the students are black, in the new campus the mean is above 21%. Besides, only 29% of the students in the traditional units of USP come from public schools, but in the new campus the figure is 47%. In other words, half of the students came from families who could not pay private schools for their children. (...)

The most important is that the students in the Zona Leste campus did not enter USP through some kind of privilege, as it is happening in universities that are implementing the quota system.

On the contrary, since there is no racial filter, the new USP students are the ones who got the highest marks in a rigorous and competitive exam. 'Before that, they used to see USP as something very far away, in all senses', said Sônia Penin, USP's vice-rector for undergraduate studies.

The decision to preserve meritocracy is the main difference between the model adopted by the São Paulo government and the quota policies of the Federal Government. The quotas, insofar as they allow less qualified students to enter the university instead of others more qualified, replace competency for other criteria, like race and school origin. Those who benefit from these policies are admitted, but many of them are unable to follow the programs, and end up flunking their exams or being treaded as second-class students by their teachers. ("A USP na Zona Leste", 2005)

This can be a successful experiment, but it is obviously small in size, and not likely to change the University in any significant way.

## PUBLIC UNIVERSITIES AND THE "PRIVATIZATION" OF HIGHER EDUCATION

The other component of the higher education policies proposed by the Federal government, with strong support from the teachers unions and the students associations, is the opposition against what is perceived as a trend for the privatization of higher education. With 70% of enrollment already in private institutions, there is a real issue of the role of public and private higher education in the country, and of the regulatory framework that should exist to stimulate quality, make sure that philanthropic institutions are authentic, and limit the excesses of profit-making. Another issue, however, is whether the existing public institutions, like USP, are also being privatized in some sense of the word.

From the point of view of unions, this is a real threat, associated with at least four issues: the charge of tuition in public institutions, the status of teachers and university employees as civil servants, the introduction of external assessment leading to competition among the institutions for prestige, recognition and resources, and the ability of the universities to raise and manage money independently. According to their view, a fully

public institution should be free for the students, provide job stability to its staff, and do not have to worry about going out and competing for resources. In practice, the right for free tuition in public universities is written down in the Brazilian 1988 Constitution, and no government dared to suggest changing that. The same Constitution granted life-long job stability to all employees, teachers and staff in public universities, and the same principle is adopted in state institutions like USP; and none of the assessment systems tried by the different governments, except perhaps the assessment of Graduate education by CAPES, has linked achievement with resources.

The only break with this fully public model was the creation, by public universities, of foundations established as private entities, to be able to manage resources unencumbered by the rigidities and formalities of the civil service. Initially, these foundations were created with the support of other public agencies outside the Ministry of Education, to receive and manage research and contract grants that were given to specific departments and projects, bypassing the central bureaucracies. In other cases, they were created by the university's central authorities, also to provide them with flexibility to manage extra-budgetary resources. There are many institutions of this kind, and the Universidade de São Paulo has 32 foundations established by its different departments and institutes, besides one created by the rector's office.

Universities, departments and institutes that are able to raise resources through research grants, contract work and extension courses, which can be charged, and handle them through these foundations, can derive important benefits. The foundations can buy equipment, pay the salaries of visiting professors and short-term staff, provide fellowships students, complement the salaries of professors and employees, and pick the bill of general and extraordinary expenses when the regular budget is not sufficient. They can also facilitate the links and interchanges between the universities and the external world, reducing their isolation. The negative side is that, if they are not properly administered, they can easily develop interests that benefit a small group of academics, at the expense of broader goals of education, research and scholarship. Another consequence is the creation of rich and poor departments and institutions within the same universities, both in terms of their resources and the income of their staff<sup>15</sup>.

<sup>&</sup>lt;sup>15</sup> The first version of the Higher Education Reform bill proposed by the government in 2005 included an article dismantling all these foundations and concentrating all the resources in the hands of the university's central administration, to be controlled, in turn, by mechanisms of collective and collegial decision-making.

This is how a journalist from *Folha de São Paulo* described the situation:

One of the most controversial alternative ways of raising resources are the MBA programs offered by FIA, the Fundação Instituto de Administração, and Fipecafi, the Fundação Instituto de Pesquisas Contábeis. Atuariais e Financeiras (Institute of Administration Foundation and Institute of Accounting, actuarial and Financial Research Foundation) both linked to the Faculdade de Economia e Administração (Faculty of Economics and Administration). The courses cost between 18 and 20 thousand reais 16, and most of them provide a certificate that is recognized by USP. Part of the resources is transferred to USP, but most of it remains with the foundations. Last year, FIA received 63 million and handed 3 million to the university. The remaining 60 million were used to pay its 450 employees and about 55 professors from the accounting departments that teach at FIA. The big discussion is whether it is legitimate to use the name of the university in private activities and if there is a conflict between the activities of the professor in the University and in the Foundation, where his earnings can be higher than the regular salary. (Trevisan, 2004)

For the faculty union, this is a scandal:

The use of the USP trademark, of its facilities, and the tax exemption granted to the private foundations are enough to characterize the support of private interests with public money. To this, one should add all the millionaire contracts with the public sector, surprising by the variety of areas involved and services provided. Differently from what the managers of these foundations

This was a strong demand of the teacher's unions in public institutions, and particularly so at the Universidade de São Paulo, with the support of groups of students. In a second, revised version, these foundations remain, but come under tight supervision from the university authorities (articles 47 and 65) (Brasil Ministério da Educação, 2005)

<sup>&</sup>lt;sup>16</sup> The market exchange rate was about 3 reais per dollar in 2003; the purchanging power parity was estimated to be 1.18.

say, regarding the consulting projects, research and courses they provide, most of the money do not do go to the university, but to the pockets of the foundation's partners and to the foundation's overhead, used to start up other private deals". (ADUSP, 2001)

Roberto Macedo, now a columnist of *O Estado de São Paulo*, but formerly director of FEA, the Faculdade de Economia e Administração (Faculty of Economy and Administration), which runs one of the largest foundation in the University, was one of the voices defending the foundations. It is not true, he said, that their money do not benefit the university, since most of it is used to complement the salaries of the professors, according to well-established procedures. The foundations are important not just for the money they bring, but also for the quality of their work and the enhancements they bring to the university. "Many of the best talents of USP work in the foundations, and their entrepreneurship is indispensable for the growth and consolidation of institutions. It will be a big disaster if their initiative is curtailed. Without them, USP would be waiting forever for additional resources from a Godot who never arrives". (Macedo, 2004)

A final aspect of privatization has to do with internationalization. Brazil has an important tradition of sending its best students to study abroad, particularly to the United States, France and England, and there is a permanent flow of academics traveling back and forth between Brazil and these and other countries. The official information is that, in 2003, USP received, as visiting professors, 297 Americans, 91 Germans, 82 Portuguese, 63 Mexicans, 42 Italians and 36 Japanese, among others. However, the percentage of foreign graduate students is just about 3% - about 180 in a population of around 5,500. The number of foreign students among the 45 thousand undergraduates is unknown. There are no established procedures for foreign students to apply to the undergraduate programs without going through the regular written exams in Portuguese. Admittance to graduate programs is more flexible, but the University does not have an active policy of bringing in foreign students and providing them with support. It is unlikely that Brazil would attract many students from Asia, the US or Western Europe, but USP could become clearly a pole of attraction for students coming from other Latin American countries, and an excellent choice for students and scholars interested in interchange programs from all over the world. One reason why the international dimension of the university did not develop is that there would be no direct befits from a large influx of foreign students, since the university cannot charge tuition of them, and it would require significant changes in the way the

university operates, affecting admission procedures, the use of foreign languages in classes, exams and dissertations, investments and support for housing, and so forth.

More broadly, Brazilian universities, including the Universidade de São Paulo, remain local, inward looking institutions, in spite significant numbers of leading academics that received their advanced degrees in American and European universities.

It would not be difficult to draw a large list of professors in the best universities that were educated abroad and keep academic links with their colleagues in other countries, of foreign academics that come to work or visit these institutions in a regular basis, and of articles published by their professors in the international literature. In this sense, they remain linked to the international scientific community.

However, for most of these scholars, studying abroad was a step in their local careers, and their reference remains their local institutions. This was seen very clearly in the 1993 Carnegie Foundation international survey of the academic profession, in which Brazilians showed to be much more attached to their institution than scholars in other countries.<sup>17</sup> This is coherent with the fact that academics working in public institutions in Brazil have civil service status and are stable in their jobs, and cannot usually change from one institution to another, except on retirement. An important correlate of this localism is inbreeding, which is particularly strong in the São Paulo universities. The Carnegie Foundation survey showed that a fully 90% of the academics with doctoral degrees and higher in the São Paulo universities had obtained their higher degrees from Brazilian institutions (presumably the Universidade de São Paulo itself), against 63.3% for those in federal universities. This was not an effect of age differences, as one could imagine, since the average age in the two groups was about the same – 48 years old; but is related to the fact that São Paulo has the oldest and best doctoral programs in the country, limiting therefore the need (and the benefits) of its academics of going abroad for their higher degrees. In 2003, a similar survey showed that, in a national sample of academics, 41% of those from the Universidade de Minas Gerais and 25% of those from the Universidade do Rio de Janeiro had obtained their doctoral degrees abroad, against only 15% of those from USP. 18

<sup>&</sup>lt;sup>17</sup> In the survey, 76% of the Brazilian academics considered their institutional affiliation to be "very important", the highest of the 13 countries in the study, compared with 65% in Chile, 56% in Mexico, 36% in the US, 19% in Sweden and 8% in Germany, among others.(Boyer *et al.*, 1994), p.80.

<sup>&</sup>lt;sup>18</sup> I am grateful to Elizabeth Balbachevsky for sharing this information from the 2003 Brazilian National survey on the Academic Profession, sponsored by the Ford Foundation.

This local culture, combined with the fact that Portuguese is also a local language, and Spanish is less widely known and understood than is usually thought, makes Brazil less accessible to the trend of internationalization of higher education that can be observed in other countries. Foreign institutions have difficulty getting established in Brazil, and Brazilians tend to see them with mistrust. The new higher education legislation proposed by the Brazilian government limits the participation of foreigners in proprietary private higher institutions in country by 25% of controlling assets, and this is justified as a move to resist the invasion of and destruction of Brazilian culture through the international flow of educational services that is being proposed to the World Trade Organization.

## IS USP A WORLD CLASS RESEARCH UNIVERSITY, OR SHOULD IT BECOME ONE?

In a recent text, Phillip Altbach remarked that, in the world today, "everyone wants a world-class university. No country feels it can do without one" (Altbach, 2003). In Brazil, however, there is no general feeling that the country needs a world-class university, and USP, the university that could aspire to this role, prefers to see itself as a local institution. Considering its size, the qualifications of its staff, the research being produced, the assets and the resources it mobilizes, USP could be considered already among the leading universities in the world. However, considering the way it recruits its students, the small number of foreign students and scholars, and the almost exclusive use of the Portuguese language<sup>19</sup>, it is a local institution. More than that, it remains a provincial institution, strongly identified with the State of São Paulo, and with less national presence than it could probably have<sup>20</sup>.

World-class universities are important and needed for many reasons, not only because of the need to participate and compete internationally in the areas of advanced science and technology. It is not true, as it is often said, that the new "knowledge economy" requires that everybody should have a higher education degree, and become a specialist in some kind of advanced technology. Everywhere, employment grows mostly

<sup>&</sup>lt;sup>19</sup> The university bylaws require that all dissertations should be written in Portuguese, with possible exceptions in foreign literature (I am indebted to Elizabeth Balbachevsky for confirming this information). <sup>20</sup> In the ranking produced by the Institute of Higher Education of Shanghai Jiao Tong University, the best placed Latin American universities are the Universidad Nacional Autónoma de México and the Universidade de São Paulo, both tied at the 153th ranking place; and neither USP nor UNAM appear in the ranking produced by the Higher Education Supplement, although they are obviously better than several institutions listed there in many dimensions. (Institute of Higher Education, 2004)

in the services sector, and there is ample working space and opportunities for persons with general education, that can read and write, know more than one language, and are able to understand and to move around in the social context in which they live.

The exclusive emphasis on research is exaggerated. World-class universities should develop science and technology, but also persons endowed with culture, general education, and the ability to understand what is happening in one's country and the world. They need to educate diplomats, civil servants, politicians, journalists, historians, and writers. They should work as bridges between the country and the larger world, and provide standards of intellectual excellence to other institutions.

Finally, world-class universities are the only intelligent way of dealing with the globalization trends of higher education, a very broad process that includes the creation of branches of prestigious, world-class universities in other countries and the expansion of a growing "knowledge industry" led by big companies, through the use of new technologies of distance learning or the spreading of local franchises. It is difficult to imagine that one could stop this trend by closing the country to foreign influences, forbidding the entrance of foreign institutions or controlling the access of students to distance education. In general, the regulation powers of public authorities can only be applied to courses providing formal degrees that are associated with professional licensing and market privileges of some kind. Increasingly, however, the markets are looking for other kinds of certification, provided, for instance, by extension courses such as the MBAs provided by the FIA and other Foundations at USP, or non-university institutions such as Fundação Getúlio Vargas, which could be easily provided also by foreign institutions; and there is no way to stop the flow of informal knowledge through the Internet. In no country, not even in more homogenous societies like Germany or the Scandinavia, could all the universities try to play this international role. However, some of them can do it, and could be stimulated to develop and grow in quality, competence and international outlook.

In his overview, Altbach looks at this drive for world-class universities with skepticism, and we will come back to his doubts later on. First, however, we should look at the characteristics such universities should have, according to him, to justify this title.

First, world-class research, internationally recognized. For this, it is necessary to have excellent professors, with good working conditions, and competitive salaries. Good working conditions include job stability for the best qualified, and salaries should be high enough to compete with the private sector or other universities in the country and abroad.

Second, freedom of research, teaching and expression. Professors, researchers and students should be free to choose their research topics and to express their findings and interpretations without limitations or constraints. This freedom should not be limited to the specialties of each professor or researcher, but should include the freedom to take stands on broader issues of social and cultural importance, that concern society as a whole.

Third, academic autonomy. The universities, through their best qualified academics, should have the freedom to establish its main areas of teaching and research, the mechanisms to select staff and admit students, and set the criteria for the provision of degrees and certificates.

Four, infrastructure. Good universities need up-to-date laboratories, libraries and computer facilities, access to national and international data banks, and good working environments for academics and students – offices, lecture halls, an efficient administrative staff, and permanent maintenance of buildings and open spaces.

Last but not least, money. High quality universities are very expensive, costs are constantly raising, it is impossible to replace high quality, personalized teaching with technologies of any kind, and not all departments and institutions are equally able to get external resources on their own. World-class universities, to exist, need substantial and permanent public support.

The first characteristics listed by Altbach were present in the creation of USP 70 years ago, and were adopted, at least on paper, by all the Brazilian higher education legislation thereafter. They derive from the classic writings on the universities by Cardinal Newman, Abraham Flexner and the admirers of the old Humboldt University, ideals that still hold in broad terms, but do not account for the dramatic transformation higher education has gone through since their writings (Newman, 1959).<sup>21</sup>

In Brazil, as in many other countries, these values suffered when confronted with the demands, values and perceptions of education authorities, professional corporations and the generalized demand for higher education credentials. At its worse, research, from the free search of new knowledge, became a game for points measured by publications, which are converted to grades, promotions and resources, with little attention to the merit of what is actually being researched and published. Job assurance for academics turned into rigidity and immovability, and the hiring of new academics developed into

<sup>&</sup>lt;sup>21</sup> For a contemporary overview, see "knowledge" chapter 1 in (Clark, 1983), pp. 11-26.

bureaucratic rituals that are not immune from manipulation by small cliques. Public financing for the universities seems to have reached its ceiling, and resources are distributed according to past history or the political clout of the universities, without due consideration of needs and the quality of teaching and research. Autonomy turned many institutions into mini-republics, governed by the majority votes of its students, academic and administrative staff, without much regard for the hierarchy of knowledge and competence, and the broader goals of the institutions. Clearly, not all the institutions are like that, and there are many places where the academic values and culture prevail; but these trends are very well known, and particularly strong in institutions created by political and administrative fiat, without a strong academic community at its core. Given these trends, is it still possible to try to come back to the old ideals of Newman and Flexner, as the core values of the new, world-class universities?

I do not read Altbach's text as a plea to a return to the past. It seems to be true that the best universities today are traditional institutions that were able to keep, through the years, their culture of autonomy and standards of quality in the recruitment of their staff and students. Money is very important, but money alone is not sufficient to create this kind of academic culture; and, without it, it is not possible to attract the best talent and the best students. However, in order to keep the old values, these traditional universities had to go through deep transformations and modernization. The Iberian world has many universities that had their years of glory, and have lost their importance and significance. The secret, and the difficulty, is to combine these two things, the best academic traditions and the required transformations and adaptations to modern times.

What are these transformations? There are three other characteristics that should be added to Altbach's list: cosmopolitanism, diversity and modern management. World-class universities should combine professors from the country and abroad, and a large number of foreign students. With them, they can create an environment in which local assumptions and experiences are permanently compared and contrasted with the experiences of other countries, not only regarding specific contents of research and course programs, but mostly regarding the tacit assumptions and ways of life that are visible only to those who have had the experience of living with different cultures. The use of English as a second language is essential. Some countries, particularly in Asia and Africa, decided to adopt English as the working language of their main universities. European countries such as Holland, Sweden, and, to a growing extent, Germany and France, are offering courses in English, and admit students working in English, particularly in graduate programs. In Brazil, besides the

adoption of English, it would be necessary to adopt Spanish as an alternate language option.

Diversity has to do with social inclusion, but it is more than that. World-class universities should be open to persons from different cultural and social origins and backgrounds, and allow for the emergence and strengthening of a more diversified leadership. This can be done through different means, including admission and hiring policies that take social and cultural diversity into consideration, and the creation of alternative course paths to enrich the university experience for all participants. This is difficult to do in Brazil, given the general assumption that all procedures for admission of students and the hiring of academic staff should be done through formal procedures and written tests. These formalities are perceived as "objective" procedures, meant to limit the use of particularistic and self-serving practices that could prevail in more informal, "subjective" methods. These assumptions are an important obstacle for the implementation of affirmative action in higher education institutions, since the introduction of racial quota leads to clear violations of the principle of objectivity, which should be immune from racial, ethnic, regional and religious considerations.

Then, there are crucial issues of autonomy, management and financing. University autonomy today is very different from the ideals of the 1918 Cordoba University Reform movement in Latin America, as political autonomy, coupled with slow, collegial decision or indecision-making procedures. This kind of autonomy is convenient for leaving things as they are, and very inconvenient for making decisions that can affect established interests. Latin Americans still talk with pride about their tradition of university autonomy, but usually do not consider that this kind of political arrangement may be one of the reasons for the academic weakness of most of their institutions. A modern university should be autonomous enough to open and close departments, hire and dismiss teachers and researchers, and direct resources to meet new challenges, without having to ask permission to the government or to negotiate each decision with all their students, staff and employees.

To exert this autonomy, they need a new type of management. University rectors cannot remain as paper shufflers, or presidents of endless meetings of university councils. It is necessary to establish priorities, to assess costs and benefits, to develop long-term financial plans, and to manage assets. Instead of routine competitions for academic posts, it is necessary to develop active policies of human resources, searching for talent, attracting the best with good offers of salaries and working conditions, and administering the leave of

those who are considered below standards or inappropriate for the institution. Instead of routine and formal procedures for student admission, they need to develop active policies for searching and attracting students in the country and abroad. It is necessary to decide the fields where the research resources should be concentrated, and take decisions about traditional sectors that have become obsolete and lost their edge.

It is not easy to reconcile this management style, which is more typical of business corporations, with the traditional values and cultures of academic life. The ideal situation is when institutional leadership is carried on by persons who also have strong academic and intellectual credentials and recognition. This, fortunately, is not an impossible combination, given the fact that successful scientists and academics are very often persons with strong managerial and entrepreneurial talent and experience.<sup>22</sup>

The issues of management are related to the question of the organization of the universities along professional and disciplinary lines. Originally, Brazilian universities, following the Napoleonic model, were organized along professional schools (in fact, the professional schools preceded the universities, and in many cases were never fully integrated to them). Later, with the 1968 university reform, they started to be organized in terms of departments and institutes, defined along disciplinary lines. One negative effect of this transformation was that many course programs, particularly in areas with little professional traditions, turned into a sequence of unconnected courses given by different departments, without a unified management and leadership. In addition, research today does not recognize disciplinary or professional boundaries, and the universities have found it very difficult to open spaces and provide support for this new type of trans- or multidisciplinary work.

The negative aspects of the organization of universities in departments and institutes have led many to believe that the departments should be abolished, a difficult proposition to sustain, since it does not seem to make sense to return to the traditional combination of the chair system and the professional faculties, or schools. In practice, different institutional arrangements can work well, or may fail. The main issue is how to endow the universities with strong and relatively autonomous decision and management centers to lead its different activities in teaching, research and extension work, keeping them in tune with the institution's overall management and institutional goals.

<sup>&</sup>lt;sup>22</sup> Bruno Latour has elaborated this point in several places. See, for instance, the introductory chapter of *Science in Action* (Latour, 1987).

In research, academic freedom should be combined with clear policies of priorities and focusing. No teacher or researcher can be stopped from saying what he thinks, in class or outside it, and from doing the research he believes to be more important. This, however, has to be combined with proper peer review, and with the clear notion that research is an expensive and potentially profitable activity, and may also lead to ethical problems. There are issues of intellectual property and ethical behavior, particularly in the social and medical areas, which have to be addressed, and cannot be totally left to the discretion of the individual researcher or department heads. Finally, the recognition of the fact that the boundaries between basic and applied research are mostly gone, if they ever existed, leads to difficult and complex issues and new opportunities, associated with partnerships between universities, governments and business interests that universities must learn to face and administer.

All things considered, nothing can be done without significant levels of money. World-class universities cannot exist without public support, but this is not enough. It is necessary to charge for services, to carry donations campaigns, to charge tuition, and to have a professional policy of long-term investments. Then, it is necessary to have incentive policies to stimulate good results. If the money comes earmarked in the budget for specific purposes, if the savings in one area and point in time cannot be used later on in another area, then there will be no incentives to manage the resources efficiently. There is a clear incompatibility between the management requisites of a world class university and the rules and regulations of the public service, which, in Brazil as in most countries, tend to be characterized by detailed budgets, rigid procurement procedures, and formalized rituals for hiring staff and admitting students. This does not mean that such institutions cannot be public. But they need a new kind of working contract with the public sector, based on global budgets, long-term investments, autonomy to establish their own policies for personnel and admissions, and much more flexibility in the management of resources.

#### LIMITS AND POSSIBILITIES

There are clear limits in what a university can do to achieve world status. The costs are high, and not all countries and regions could or should make the necessary investments. Revenues from services, research grants, tuition and other "soft" sources cannot fully compensate for the lack of very significant public support. Worldwide, besides Europe and the United States, there are serious efforts in China, Korea, India and Singapore to enter

this selected club. England is concentrating its research resources in leading universities, such as Cambridge and Oxford, to keep them as internationally competitive. Germany, with a much more egalitarian tradition, is also starting to confront the issue. Even the best universities cannot be excellent in all areas. Harvard, the first in all rankings, is considered not very strong in engineering, and Princeton does not have a medical school.

Finally, it is necessary not to go to the extremes. Even the most global universities exist within countries, from which they receive most of their resources, and recruit most of their students and staff. There are subjects, issues, research topics and professional profiles, which are typical of specific regions and countries, and need to be respected. World-class universities need to have strong roots in their societies, and it is only from these roots that they can branch out to other cultures and societies. Lastly, not all universities and higher education institutions should aspire to the same goals and follow the same models. In the large universe of higher education institutions that exist today, there is ample space for different roles and vocations, and to be a world-class institution is one option among others.

On its seventieth anniversary, USP needs to decide whether it wants to come back to its original ideals and become a leading, world-class university, making the necessary adjustments and changes, or whether it will remain one among many other higher education institutions in Brazil, teaching and doing research with competence, but not aiming more than that. This cannot be a simple decision to be taken by a university rector or a group, since it would require the commitment of the State government, and the support of the broader academic, professional and business communities. For such a project to develop, it will be necessary to identify with more clarity the role of a leading university in the contemporary word, which cannot be the nurturing of old-fashioned intelligentsias, professional education for the elites or the provision of mass higher education, but entails a much more complex and daily integration and interchange with the worlds of high technology, business and public policy, and a much more cosmopolitan outlook. Brazil needs world-class universities, and the University of São Paulo, with the support of the state's resources and tradition of leadership, is one of the few institutions in the country that have the intellectual, material and political resources to accept, confront and win this challenge.

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