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The “soy-ization” of Argentina: The dynamics of the “globalized” privatization regime in a peripheral context

Pierre Delvenne ^{a,*,1}, Federico Vasen ^b, Ana Maria Vara ^c^a *Chargé de recherches FNRS, Université de Liège, SPIRAL, Research Centre, Belgium*^b *Universidad Nacional de Quilmes and Consejo Nacional de Investigaciones, Científicas y Técnicas (CONICET), Argentina*^c *Universidad Nacional de San Martín, Centro de Estudios de Historia de la Ciencia, Argentina*

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ABSTRACT

Based on extensive fieldwork conducted with actors from public, private and associative sectors, we explore the expansion of genetically modified soy in Argentina and we aim to figure out how the neoliberal “globalized privatization regime” unfolded in a peripheral location. Our case points at two inherent contradictions with such a regime’s main tenets, namely that it needs a weak antitrust policy (thus leading to a market situation dominated by a monopoly of transnational companies) and a hyper-restrictive system of intellectual property. We highlight the participation of two groups of local actors in the regime. The first group is aligned with the globalized privatization regime agendas, while the second is involved in protest and regulatory actions focusing on the health, environment and safety issues related to the GM soy complex. To a different extent, both groups share a local agenda of resistance and an anti-imperialist imaginary. Both have national development objectives of Argentina in their ideological roots, although their conceptions of “development” are different (industrial development vs. protection of peasants’ life and the environment). We conclude that it is not enough to postulate that the neoliberal globalized privatization regime will just expand to the South as it did in Northern countries. Rather, combined with the commercialization of science, peripherality creates protest, activism and local regulation.

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1. Introduction

Biotechnology has been considered “the engine of a knowledge-based bioeconomy” [1–4], which refers to an economy based on industrial and economic sectors that “produce, administer and exploit biological resources and related services” [1]. It aligns with neoliberal proposals and narratives by renouncing to the passive notion of a *laissez-faire* economy in favor of an active approach to the spread and promotion of “free markets” [5, p. 661]. For Science and Technology Studies (STS) scholars, this turns biotechnology

into a central site to “study up” [6, p. 225] and analyze current reconfigurations concerning corporate globalization, the increasing commodification of science, and rising social inequalities as a result of a weakening Welfare state. A renewed focus on “structural dimensions of power and the inequalities in knowledge policies” [7, p. 7] is required to analyze in which ways these dynamics are more profitable to some specific social groups. The commercialization of science, as has been discussed in STS by Mirowski and Sent [8, p. 665–662], addresses a “globalized privatization regime”, characterized, among others, by the privatization of publicly funded research, commercial agreements eluding national controls and a general trend toward a commodification of scientific knowledge.

In those outstanding and timely critical STS contributions to a better understanding of how exactly the

* Corresponding author. Tel.: +32495431014.

E-mail addresses: pierre.delvenne@ulg.ac.be (P. Delvenne), federico.vasen@gmail.com (F. Vasen), amvara@yahoo.com.ar (A.M. Vara).¹ Address: Boulevard du Rectorat 7/29, B31, 4000 Liège, Belgium.

external political-economic forces of neoliberalism are transforming technoscience [5,9–13], what we often find missing are studies which go “beyond the charmed circle of Organization for Economic Cooperation and Development (OECD) countries” [14] to take into account the full texture of interesting developments that are taking place in other countries, for instance Latin American. The literature on the commercialization/privatization of science is no exception to this: the peripheral contexts and the international division of labor most of the times remain out of the scope of the STS analysis. In the 1970s and 1980s, the simple message was that core countries focus on higher skill, capital-intensive production, and the rest of the world focuses on low-skill, labor-intensive production and extraction of raw materials. In today’s multipolar world, big countries like India or China, or middle-size countries like Brazil or Argentina show internal tensions and a blurring of the international division of labor: just like with other sectors such as ICT or media, agricultural biotechnology introduces new patterns.

In Argentina, genetically modified (GM) crops have turned into a central axis of the national economy. Indeed, GM soy, corn and cotton crops encompass 23 millions hectares of cultivated land, and the sector has generated enormous accumulated gross benefits over the last 15 years [15,16]. But how are these benefits distributed? Who gets the gains and who endures the risks and eventual impacts of the global expansion of GM crops? In her analysis of biotechnology in an age of imperialism and neoliberalism, Sheila Jasanoff [17, p. 288] doesn’t seem to have any doubt about it as she argues: “GM crops are developed in the laboratory, usually in science-rich Western nations, tested in the field, and transported thence for commercial propagation in both naturally and socially variable environments. Monsanto, in this respect, is like the Kew Gardens of the nineteenth century: a metropolitan “center of calculation” from which standardized products flow out to take root in the world’s economic and political peripheries”. We find this quote all the more challenging as it captures what we want to test and scrutinize more closely in this article. We will review the case of GM soy in Argentina in order to explore what it tells us about the unfolding of a neoliberal “globalized privatization regime” [8]. Our starting hypothesis is that there are complexities that turn out to be neglected by Mirowski and Sent’s characterization, which are linked to the impact of neoliberalism and bioeconomy in peripheral or semi-peripheral contexts.²

² We borrow these terms “peripheral” and “semi-peripheral” from world system analysis (WSA). WSA divides the world between core, semi-peripheral and peripheral countries. The core-periphery dichotomy is a relational concept: it lies on the inability of the periphery to develop an autonomous and dynamic process of technological innovation because the terms of trade are structurally favoring the center at the expense of the periphery. In theory, core countries try to maintain their privileged position in the world-system, while peripheral countries cannot do much to change their situation. Semi-peripheral countries, like Argentina, are comparatively more advantaged in the global economy but they are also in a most fragile position: they compete with other semi-peripheral countries to obtain the core status and to avoid to be demoted to the periphery.

How has such a regime developed in Argentina? Can we point at trends that reflect the general pattern of commercialization of science, or do we see different dynamics, contradicting this general pattern to a certain extent? Are central (corporate and political) power and resources unevenly distributed at the expense of the periphery? To what extent has the peripheral character of Argentina influenced the process of biotechnology’s expansion in this country? We have chosen to focus on GM soy for two reasons. On the one hand, with 19.5 million hectares planted, which represent half the total cultivated area, GM soy ranks first among crops cultivated in Argentina [15]. On the other hand, in contrast to neighboring countries such as Brazil, the development of the GM soy complex in Argentina has gone through a number of peculiar conditions that render it particularly interesting in order to explore the ambiguities, complexities and in-between situations that can take place when the neoliberal globalized privatization regime takes root in a semi-peripheral country.

To inform our analysis, we rely on literature and secondary data analysis as well as on an extensive fieldwork that was conducted in the cities of Buenos Aires and Rosario during 2010 and 2011. A first stage involved 8 interviews to local experts in science, technology and innovation (STI) policies and institutions, and was aimed at understanding the institutional landscape, rules and arrangements that shape current science, technology and innovation developments in Argentina. The second stage included 31 semi-structured interviews to actors involved in the GM soy complex or that have had a saying in the public discussion around it (including members of the academia, public administration, seed and agricultural production, regulation, distribution sectors, and related civil society organizations). This stage was aimed at getting to know the opinions of a number of actors on the identification of stakeholders and the assessment of the biosafety and intellectual property rights regime, as well as on the socio-technical controversies around social and environmental impacts attributed to GM soy adoption—such as deforestation, the displacement of other crops and of cattle raising, soil degradation, and the increasing use of agrochemicals due to monoculture.

In the next sections we start with a brief outline of how GM soy was introduced in Argentina and significantly expanded in scope and impact. Then, we rely on the peculiarities of the case study to point at two inherent contradictions with the globalized commercialization of science’s main tenets. This does not, however, lead us to deny the inclusion of Argentina in such a regime. Rather, we confirm the progression of a neoliberal “capture” of biotechnology in Argentina, with the active participation of local actors connected to international value chains and relying on the backing of national regulatory agencies that have harmonized regulation with that of importing countries and international agencies. Against this background, we also find local actors concerned with the impacts of what has been called by critics the ‘soy-ization’ or the ‘Pampean-ization’ of Argentina, since GM soy expansion has gone well beyond the Pampa’s region, traditionally devoted to agriculture and cattle raising, reaching diverse settings in the North-Eastern and North-Western provinces

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