Incepted neoliberal dreams in school mathematics and the ‘Chilean experience’

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This work aims at portraying a rhizome of circulating naturalized truths about who citizens should be and how they should act within neoliberal governmentality. It does this by a historization of an incepted belief entangled in diverse social spheres. It unfolds how the ideas of human capital and welfare become the top right on mathematics education. The ‘Chilean experience’ is used as an example to construct a rhizomatic historization of events, strategies and technics of government that enabled to incept the neoliberal dreams into school mathematics.

Keywords: Governmentality, neoliberalism, historization, rhizome, school mathematics.

Introduction

An idea. Resilient... Highly contagious. Once an idea has taken hold of the brain it’s almost impossible to eradicate. An idea that is fully formed—fully understood—that sticks; right in there, somewhere (Dominic Cobb, Inception).

It is intriguing how highly perceived the Chilean models are—whereas economy, education or health systems—to other countries. According to Taylor (2003), Chilean systems have been taken as models ‘worthy of emulation’. Is Chile doing something marvellous? The country has been seen as an example of organization and ‘proper’ policies for economic progress and welfare (Silva, 1993). Its policies are considered as trendsetters among privatized pension systems (see Mesa Lago, 2012), among health care reforms (see Bruce, 2000), and it was one of the first countries implementing neoliberalism as a framework in education (Aravena & Quiroga, 2016). The results in PISA, particularly in mathematics literacy, have progressively increased over the years—2000 (384); 2006 (411); 2009 (421); 2012 (423). And so, Chile has risen to be seen as one of the most developed countries in Latin America (Gregorutti, Espinoza, González & Loyola, 2016). Chile is considered, by the World Bank’s annual reports on development, the proven example of the benefits embedded in ‘conforming’ to a neoliberal approach to social policy.

[Chile] is often viewed as a trendsetter in introducing fundamental and far-reaching neoliberal reforms […] the Chilean example as been heralded as proof of the success to be gained from an uncompromising commitment to neoliberal policy prescription (Taylor, 2003, pp. 21-22)

But… it is not all sunshine and roses! By building on Foucault’s work, this paper aims at portraying how neoliberal discourses about mathematics education have been (re)produced and how they have circulated amongst diverse spheres of human interaction, (re)shaping citizen ways of being and acting in the world. It does this by taking “a critical attitude towards those things that are given to our present experience as if they were timeless, natural, unquestionable” (Rose, 1999, p. 20). This paper deploys a historization of the present of entangled historical events, strategies and techniques that enabled to incept the neoliberal dreams into school mathematics in Chile. This narration is not a critique about the implementation of educational policies in Chile; rather it is the tracing of
naturalized truths in mathematics education as an assemblage of diverse governmentality techniques (Foucault, 1991). These naturalized truths are traced in five moments. First, regarding the introduction of neoliberalism as a set of political movements. Second, regarding neoliberalism as a system of reason for economic improvement. Third, regarding the specific type of citizen that the new economy requires, a consumer of goods. Fourth, regarding the productive subject of schooling for the market, a competitive subject. And finally, regarding how school mathematics becomes the vehicle to shape the desired subject for economic growth. The plot of the movie “Inception” inspires the style of writing of this paper. In this movie a series of dreams are unfolded. Each dream should be understood as a new and deeper dream occurring inside the previous one. The dreams do not follow a chronological arrangement. It is not a lineal story; it is a rhizomatic construction (Deleuze & Guattari, 1987). Hence, all dreams are connected not as a consequence, but as continuities and discontinuities. All narrations are entangled, even in different times, spaces, and voices. The paper is written in this form in alignment with Foucault’s rejection of causality.

We consider the understanding of the way one event succeeds another as a specifically historical issue, and yet we do not consider as an historical issue one which in fact equally so: understanding how two events can be contemporaneous […] History is quite frequently considered as the privileged site of causality […] But we have to rid ourselves of the prejudice that history without causality would no longer be history. (Foucault, 1999, p. 92)

First Dream: The Cold War and the neoliberal revolution

It is the late 60s, in a country apparently far from the War, but close enough to be in the spotlight. There is the danger of it becoming the first socialist nation in South America, and this is threatening for the US. Silent voices were saying “under no circumstances should Allende be elected!” But, he was… Salvador Allende became the first democratically elected socialist president in the Western hemisphere. What a revolutionary! Fighting for the people! Chile has begun to increase its role in the provision of social services.

By subsidising the reproduction of the labour force through allocating resources to the development of state systems of health, education, housing, staple-food subsidies and social insurance, universalistic social policies tended to reinforce the purchasing power of wages thereby expanding domestic markets for industrial goods. (Taylor, 2003, p. 23)

Something is starting to go extremely wrong in Chile. Suddenly there commenced a crisis that led to most of the population clambering for improvement. The, so-called, socialist experiment “united capitalists, landowners, the middle classes, and their political party allies against labor, peasants, and leftist part” (Silva, 1993, 535). Apparently the US government, also pressuring the World Bank and the Inter-American Development Bank to do the same, minimized the aid they provided to Chile… And so, Chilean foreign reserves plunged from $400 to $13 million in one year (Moreno, 2008). Discontent people wanting the president out are growing in number. It is socialism versus capitalism… “$7 million channelled to anti-Allende groups”, according to a report of the US senate (Moreno, 2008, p. 93). And he was overthrown, on a September 11th of 1973, by the military force commanded by General Pinochet. Now, neoliberal ideas are being forced into Chilean minds that
are afraid all the time, afraid for their lives, afraid to raise their voices. Meanwhile, those in favour of the new regime are enjoying the pleasures of the new order (Salazar, 2003).

**Second Dream: The Chilean experiment, Friedman and the School of Chicago**

The year is 1950; the place, Chicago. Milton Friedman is developing a new approach to economy theory. This new theory is in opposition to socially conscious economies, which have been prominent in Western governments after 1929. Friedman believes that “economic benefit could best be optimized if the individual has the autonomy to pursue his or her own self-interest” (Moreno, 2008, p. 92). This new theory was the hope for a group of technocrats that moved to Chicago, the “Chicago Boys” (García & Wells, 1983). In the 1970’s, Pinochet decides to leave the economical management of Chile on the hands and knowledge of the Chicago Boys. This is going to be the first time that a group of Friedman has “an opportunity to influence governmental policy and put their theories into practices […] They already have a complete programme aiming to re-structure the economy and to reverse Allende’s social reforms” (Moreno, 2008, p. 94). The military regime and the Chicago boys established neoliberal economic and social policies here (Salazar, 2003). “[T]he market supplanted state intervention in the economy, except in labor relation. (Silva, 1993, p. 527)

Within the first six years of dictatorship, the ‘shock therapy’ was the only approach to curb social policy and state expenditure (Huber, 1996). Chilean reform “has been led by both the advocates of monetarism, located principally in US institutions and universities, and by the Chilean reformers themselves” (Taylor, 2003, p. 22). Neoliberal ideas were taken as a sort of ‘second independence’ and, also, an entrance to the first world of developed countries (Salazar, Mancilla & Durán, 2014).

**Third Dream: Consumerism as the ever-growing economy**

Here, in this place of earth, everything could be marketed, everything could be sold, and most people would feel the urge to buy it. Health and education are, by constitution, social rights to every citizen. But here, those basic social rights fade into consumer goods. Public and private enterprises competing with each other, providing services for customers willing to pay for them, after all it is their choice (Taylor, 2003). Parents have the opportunity to choose freely the type of school—municipal, subsidized private or fee-paying private schools—and the type of education they want for their children (Mizala & Romaguera, 2000). Free choice… if they can afford it!

Public against private institutions… In a place where private institutions have the right to charge in excess to ensure better and better quality. Private schools enjoy, without any guilt, “having greater resources, enabling a stronger quality of education to be taught, and thereby reinforcing the desire of parents with available income to send their children to such schools” (Taylor, 2003, 34). After all, the more you pay the better you get; the less you pay the worst you obtained. In a time and place where education policies are transformed into economic policies of education (Castiglioni, 2001).

**Fourth Dream: Competitiveness in schools, education and freedom of choice**

After the introduction of ‘welfare’ as a method to increase efficiency, “the element of competition and the response of enterprises to public desires as indicated by market forces were suggested to create an optimal allocation of resources throughout welfare provision” (Taylor, 2003, p. 26). The reform of the 80s, under the military regime, changed Chilean education system. Decentralization
was key to encourage private providers to enter the market (Mizala & Romaguera, 2000). And there was more, so much more than that. This reform involved a reformulation of the interplay between state and schools, a voucher system that indirectly funded schools by assigning the resources to students (Parry, 1997). This measurement left schools receiving financial aid depending “on the number of students that they could attract […] If schools were unable to compete in this new marketplace environment, they would be allowed to fail and face dissolution” (Taylor, 2003, p. 33). A highly competitive system generated by an educational market and by the policies aiming at improving the quality of education (Mizala & Romaguera, 2000) was shaped. And so, state accountability systems were able to reward and/or punish schools by allocating resources regarding the performance of each school (Elacqua, Martínez, Santos, & Urbina, 2012). A system in which, schools, teachers, students are constantly competing and being assessed.

**Dream 5: The sky is the limit! Mathematics to the people**

Welfare and mathematics, always hand by hand. Here, mathematics has been granted with a great importance and status. In the 60s, logic was taken as the foundation of every science, reasoning accurately and rigorously was the core of any argumentation and of critical thinking (Diaz & Giudici, 1970). Mathematics was the one that helped to develop reasoning and logical thinking and reading proficiency was thought as a tool to better understand mathematical instructions (Ministerio de Educación, & CPEIP, 1967). In the 80s, the military regime reformed the curriculum and school textbooks to reflect the regime’s doctrine: “education was recast to promote studies functional to the new productive structures of Chilean society, whereas traditional arts and humanities studies were discouraged” (Taylor, 2003, p. 32). It was indispensable to embody in individuals certain knowledge skills—mathematical knowledge—, and attributes to facilitate the creation of personal, social and economic well-being (OECD, 2001). Economic growth was about human capital.

National assessment started to be taken as the key to achieve economic progress, on the one side, to test current policy changes, on the other, as a mean to set standards. And so, competitiveness and accountability, within school mathematics testing, led to higher performances, higher incomes, higher social mobility and welfare (OECD, 2014). Nowadays by knowing students’ numeracy proficiency in PISA it is possible to predict, amongst many others, their likelihood of being employed (OECD, 2015, p. 117) or to calculate how different their hourly earnings would be (Op. cit., p. 183). And so, the promised state of welfare is side by side with mathematics proficiency. Mathematics is now the key for a brighter future, all students have to do is to be good at math and the sky will be their only limit! [End of dream 5]

The standardized test SIMCE has been a key element to promote competitiveness and pressure to the system. Since its results are publicly published, it becomes an objective indicator to assess school performances (Mizala & Romaguera, 2000, 393). It also enables parent, as consumers, to demand better services for their children (Meckes & Carrasco, 2010), for students to be successful, entrepreneurs. [End of dream 4]

School mathematics is now an investment! Reforms have shaped education into a capitalist marketplace, by promoting entrepreneurial profit-minded investment and by remodeling education to consolidate the productive structures of economy (Taylor, 2003). [End of dream 3]
And the so-called ‘economic miracle’, product of the economic growth in the late 70s, helped raising the prestige of neoliberalism “under the banner of ‘the Chilean model’” (Taylor, 2003, p. 25). By now, Chile has become famous for its neoliberal restructuring followed under General Pinochet (Silva, 1993; Aravena & Quiroga, 2016). [End of dream 2]

This is it! Chile is no longer an underdeveloped country (Salazar, Mancilla & Durán, 2014). Chile is now part of the first world; the “tiger” of Latin America (Teichman, 2016). [End of dream 1]

Incepted Neoliberalism

You create the world of the dream. You bring the subject into that dream and they fill it with their subconscious (Dominic Cobb, Inception)

From a Foucaultian perspective, conduct is governed, through diverse techniques, strategies, and devices (Foucault, 1991), within a space of government that “is always shaped and intersected by other discourses” (Rose, 1999, p.22). In doing so, each individual conducts him/herself by (re)shaping his/her own modes of being and acting in a space of ‘regulated freedom’ and under a promised state of welfare. In this sense, “people are governed by and through their own interests” (Cotoi, 2011, p. 113). This is precisely the idea behind the ‘inception’ of a neoliberal mentality. A set of naturalized truths circulating amongst diverse times and places, knitting a web to govern the self and to regulate habits and desires of cultural and historical subjects through school mathematics. These discourses help governing productive citizens, in the sense that intend to insert subjects in regulatory practices that (re)shape their conduct “without interdicting their formal freedom to conduct their lives as they see fit” (Rose, 1999, p. 23). Reforms, according to Dussel (2003, p. 94), “have to be understood as part of government technologies that intend to shape the way people are to act, think, and feel about the world, that combine the old and the new in unique ways”. And so, welfare becomes “a ‘technology of citizenship’ that empowers people to be citizens but in ways that also disable them” (Schram, 2000, p. 25).

One possible narrative to understand the success of neoliberalism in Chile could be grasped through the articulation of certain discourses about consumerism and competitiveness. Being SIMCE in mathematics, for example, the first step of knowledge consumerism and of a marketable education/society. SIMCE’s results are publically published in national newspapers and widely discussed through other means of public communication, so parents and society could judge schools by their performance in standardized tests. ‘Judge’ in the sense of deciding which school is the best option for their children’s future. This marketing of schools and teachers leads to the most utopian non-sense practices. For example, within the belief that welfare is only achieved by a high quality education, parents, in order for their children to be enrolled in those schools with “higher quality”— with good scores in national tests—are willing to stay all night in line, outside a school, to submit the admission application. Figure 1 shows a Chilean newspaper, Las Últimas Noticias, reporting the news: “Parents slept on the street under -3,6°Celsius because of enrolment. They are trying to enroll their children in pre-school for next year in Santa María School in Osorno”. One of the parents, who waited in line for 12 hours said: “It is demeaning but what else can we do. This school is good and affordable. I have three kids and they all need to study”.

[End of dream 2]

[End of dream 1]
These discourses are not separated from school mathematics. The importance that mathematical literacy has within OECD’s indicators help moving research towards how to improve students’ performances in mathematics. For example, in order to be successful in SIMCE, students should not be allowed to miss classes. If students are “absent 9 days during the school year (the sample average of absences) reduced performance by at least 23% of the standard deviation of the score on the SIMCE mathematics test” (Paredes & Ugarte, 2011). Welfare can also be measured in relation to students’ performances in national tests, by correlating SIMCE scores in mathematics to predict students future income (Bharadwaj, Giorgi, Hansen, & Neilson, 2012).

The Chilean Ministry of Education released the “Learning standards” in school mathematics to help teachers evaluate “what students should know and are able to do for displaying, in national tests, appropriate levels of achievement” (MINEDUC, 2013, p. 4, my translation). These learning standards categorized students in three levels of achievement that, at the same time, predict their future outcome in SIMCE in mathematics. So, if students do not want to be labeled at the lowest level, they have to engage in regulatory school practices, they have to compete with their classmates and with themselves. In this fashion, SIMCE in mathematics also operates as a technique to generate ‘self-entrepreneurs’, “individuals that self-regulate, self-direct and are continuously in a process of redefining their competences” (Cotoi, 2011, p. 116).

As portrayed within the dreams, Chilean neoliberalism have been (re)producing discourses that circulate within diverse time and places in order to obtain economic growth, progress and welfare through school mathematics. School mathematics, since it was thought to shape productive citizens, was taken as the key for Chile to become a developed country. Mathematics needed to be a good people wanted and were willing to consume. With marketable school mathematics, whomever wanting to achieve welfare would have to pay for higher quality. And, therefore, Chilean economy should increase. This would not have occurred without the dictatorship and Friedman thoughts: Economy would be best optimized if people have the freedom to pursue their own self-interest.

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