➲ Schooling System, Earthquakes and Beyond. The Chilean Experience of 2010

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Abstract: The article analyzes the impact in the educational institutions of the earthquake which took place in February 27th, 2010 in Chile. In this sense, the object of this paper is not only to review the role of schooling institutions once the seism happens –as a meeting place, shelter, etc.– but mainly, what happens on its aftermath in terms of reconstruction of the schools on one hand, but also on the redefinitions on the educational policies regarding risk and disasters management. In a transversal way, two fundamental concepts are analyzed: how vulnerability appears in the booklets and specific materials developed for the prevention of disasters at schools, and the one of social participation, that is, which specific role acquired the civil society collaborating in the reconstruction of damaged schools.

Keywords: Earthquake; Schooling system; Vulnerability; Social participation; Risk management; Chile.

Resumen: El artículo analiza el impacto que tuvo el terremoto del 27 de febrero de 2010 en Chile en las instituciones educativas de ese país. En tal sentido, se reflexiona no solo sobre el rol que tenían las escuelas en el momento del sismo –lugar de contención, de asilo y de reencuentro–, sino el día después: qué sucede con las escuelas que fueron dañadas y cómo reacciona la política educativa frente a la redefinición del planeamiento ante catástrofes. El artículo estudia dos conceptualizaciones: cómo aparece la "vulnerabilidad" en los materiales desarrollados para la prevención de desastres en las escuelas, por un lado, y la de participación social, por el otro; es decir, el papel de la sociedad en la reconstrucción de las escuelas damnificadas.

Palabras clave: Terremoto; Sistema escolar; Gestión del riesgo; Vulnerabilidad; Participación social; Chile.

Introduction

The impact of natural disasters – earthquakes, floods, droughts, fires, tsunamis, landslides and biological hazards – can be intensified by historical, social, economic, political and environmental factors. If a natural hazard turns into a social one heavily depends on the policies that are applied to prevent it or to cope with its consequences. The lack of adequate damage precaution generally tends to increase the impact of catastrophes, while well-conceived prevention policies might curtail their consequences. In the following text, the notion of "natural disasters" will be used in a broader sense that comprises their social dimension.

Natural disasters generally mean much more than material and human losses. Especially in the aftermath of earthquakes debates emerge over the political responsibilities in disaster prevention and management on the one hand and over post-disaster

strategies on the other hand, that are to be implemented in the near future. A topic of major importance in these debates is the dimension of destruction of capital goods, infrastructure and human lives. That deficient prevention policies deepen the impact of disasters, can easily be shown by comparing the effects of more or less equally strong earthquakes and tsumanis around the world. For instance, a study published by United Nations International Strategy for Risk Disaster Reduction and the Unión Parlamentaria/ Chile (2010) points out that not only the effects of natural disasters vary according to their intensity, but also – or mainly – according to the conditions under which these disasters are taking place. To take an example, the report shows that a natural disaster of the same strenght would strike the Philippines 17 times harder than Japan in terms of the mortality rate, even if Japan has 1,4 times more inhabitants exposed to it. Furthermore, the mortality risk for the same amount of inhabitants exposed to these risks in low income countries is 200 times higher than in the countries belonging to the OECD (UNISDR 2010).

Social and political inequality makes a difference, when disasters strike. This does not only mean that poorer countries are generally more vulnerable to natural hazards, but is also true for underdeveloped regions within a country. Third world countries or developing countries generally experience different – and major – consequences of similar natural disasters. For example, when Hurricane Mitch hit Honduras in 1998, it caused the loss of 31 per cent of the productive resources of the poorest families. The earthquake, which occurred in Haiti in January 2010, caused losses of U$S 7,9 billions or the equivalent of more than 120 percent of that country's GNP.

A topic that is often left aside when analyzing the effects of earthquakes and other natural disasters, is the education system. While much is said about material and human losses, daily schooling routine in the state of emergency is rarely in the focus of media interest.[1] Nonetheless this is a question that deserves our special attention, given the fact that schools are places of encounter, where victims who have lost all their belongings, find shelter and receive emotional and material support. However, while there are major investigations in other social sciences, education is not commonly taken into account when analyzing the consequences of seismic catastrophes. This lack of research and academic interest is all the more astonishing, as at the same time in Chile – the land under study here – compulsory education is expanding in terms of the number of enrolled pupils, schooling years, days per year and hours per day dedicated to schooling activities due to which a minimum of 180 days ought to be covered by a full day schooling routine.[2] The high or almost universal enrollment rate in Chilean basic compulsory education and good education achievements[3] in general terms may explain the lack of research on what happens inside its schooling system in post-quake times. In addition, international (PISA) and national (SIMCE) students' assessments and quality standards tests records were not touched by the earthquake.

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[1]   A state of the art and main topics in discussion related to natural hazards and earthquakes can be found in the book edited by Warner (2006).

[2]   To learn more about different national schooling systems, see Fanfani/Meo/Gunturiz (2010).

[3]   This indicator refers to social educational achievements, including the illiteracy rate for the population from 15 years onwards, the percentage of population from 15 onwards with incomplete primary education, the percentage of the population from 20 years onwards with secondary schooling studies and the percentage of the population from 20 years onwards with university or tertiary education completed.

In the following pages, which will focus on the earthquake which took place in Chile on February 27th, 2010 – also known as "27F" –, the role of education institutions and their agents during, but especially after the earthquake will be analyzed in more detail. The first part of this paper is dedicated to the vulnerability concept developed in schooling material. In the second part, we will analyze the policies developed after the seism by the government and educational policy makers, and the new roles that were imposed to them by the above mentioned event. We will try to analyze which part of the education policies proposed after the quake has to be attributed to the different agents and which part to government activities and its call for collective efforts to restore educational institutions. Especially, regarding to the investment in infrastructure, we will study its contribution to equality and inequality in the education system and how it can affect the choice to attend a specific school. In order to meet these objectives, we will have a closer look at the booklets and material produced by the Plan de Seguridad Escolar[4] – Schooling Security Plan – developed after the 27F and the campaign Levantemos Chile[5] ("Let's Raise Chile") encouraged by the civil society. However, at a greater extent, as any education system is inserted in a greater social and political fabric (Mayer 2012, Mayer/Schenquer en prensa), we aim to describe general processes and particularities from Chilean society and political response which are rooted and anchored in a previous political and social grammar (Esping Andersen 1993). Hence, a study of the official initiatives to rebuild schools and reorganize the prevention system is much more revealing than that of educational policies. As Tilly (1997) argued, the sociological analysis takes a relational perspective, meaning that on the one hand, we cannot study it without taking into account other social issues related to Chile and on the other hand, that by analyzing it we will learn more about Chilean society as a whole.

Before we start our analysis, it is essential to describe a) the 27F earthquake and its effects, the main zones and areas affected by it and b) Chile's education system.

The 27F earthquake

As many reports show (CEPAL 2010, UNICEF 2011, OREALC 2012) Chile is the most seismic nation, meaning that Chile has a higher probability of suffering quakes than any other country in the world. The United States Geological Service (USGS) established that the earthquake that razed Chile in 2010 took place along the coast of the Maule Region on February 27th, 3:34 am.[6] It reached a magnitude of 8.8 on the MM scale,[7] lasting more than three minutes. The cities that experienced its major destructive force were Talcahuano, Arauco, Lota, Chiguayante, Cañete and San Antonio. With a magnitude

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[4]   All booklets and school material are available at <http://www.onemi.cl/> and <http://www.onemi.cl/
      sites/default/files/plan_de_seguridad_escolar_2011.pdf>.
[5]   See: <http://desafiolevantemoschile.cl/>.
[6]   According to the USGC, the earthquake was caused at the borders of Nazca and Suramericanas tectonic
      plaques, which annually converge at a rate of 7 cm.
[7]   The Mercalli intensity scale is a seismic scale used for measuring the intensity of an earthquake. It
      measures the effects of an earthquake, and is distinct from the moment magnitude Mw usually reported
      for an earthquake (sometimes misreported as the Richter magnitude), which is a measure of the energy
      released. The intensity of an earthquake is not totally determined by its magnitude.

of 7 in the scale of Mercalli, the earthquake was felt and a tsunami alert was extended towards more than 50 countries located on the Pacific coast, including Peru, Ecuador, Colombia, Panama, Costa Rica, Nicaragua, the Antarctic, New Zealand, French Polynesia and the Hawaiian coast.

As mentioned above, the quake epicenter lay on the Maule Region Coast, close to Chile's second largest city, Concepción. The other two regions affected the most were Biobío and O'Higgins. This telluric movement struck the land from Santiago to Temuco – that means a line of 700 km. These regions count more than 13 millions of inhabitants or about 80 percent of Chile's population. After the seism, Chile was touched by a tsunami – triggered by the quake – which destroyed various towns. The 27F earthquake is considered to be the second strongest event of this kind in Chilean history – only surpassed by the Valdivia quake in 1960 – and one of the five strongest ever recorded in the world.

Regarding the amount of victims, the Chilean government stated that the seism killed 507 persons and 440 thousand housing were damaged. The Maule and the Biobío Region faced the biggest damages. Hospitals and education institution faced great damages. The following table shows the post-quake situation of the education system in the three regions most affected.

Table 1: Chilean Schools affected by the 2010 Earthquake

Region	Non operative school	In restoration (partial damages)	Not affected by the earthquake/ tsunami
O'Higgins	67%	30%	3%
Maule	47%	12%	41%
Biobío	68%	21%	21%

Source: CEPAL 2010.

As the percentages show, the education institutions from O'Higgins and Biobío Regions were affected the most: while Biobío has higher percentages, it has better results in terms of non affected institutions. O'Higgins had almost all of its education system damaged, leaving only a 3 percent intact, while the Maule Region registered the highest percentage of schools – among the three regions belonging to the epicenter – that did not suffer any damage.[8]

These regions faced other problems in pre-quake times that are relevant for our analysis. In terms of poverty, while the average of Chileans living in poverty is 10 percent, the Maule and Biobío Regions outweigh these percentages, especially the Maule Region, since together with the Araucaria, they are the poorest ones in Chile: 21.5 and 23 percent respectively (UNDP 2010). The only one of the three most affected regions that shows a poverty index related to Chile's average is O'Higgins (with an average of 10 percent).

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[8] The complete information on how many schools were damaged, faced restoration and were not affected by the natural disaster, can be found in the CEPAL report (2010).

The Education System in Chile

The Chilean education system is characterized by a decentralized organization, which means that its administration is under the auspices of autonomous state institutions, municipalities, individuals and foundations, which assume the responsibility for providing education and maintaining a specific educational institution. Recognized in the constitution, it consists of four educational levels: the kindergarten, the basic level, the middle level and the higher education, the first two being compulsory and the latter two being optional. In terms of years, 9 are compulsory and 4 optional.

The Chilean education system – like any other – went through many transformations. However, the most important change occurred under the Pinochet dictatorship, which shut down any debate on this matter. It is during the Pinochet years that the actual Chilean educational system was shaped, with its main characteristics outlined here briefly:

- The main law that regulates Chilean education system is the General Education Law that replaced in 2006 the Constitutional Organic Educational Law (LOCE) sanctioned in 1990. Though the legislation was changed, its basic grounds remain. Since Pinochet's dictatorship, it was determined that the state was no longer the main provider and guarantor of public education, replacing it by the figure of the private parlayer, who profits from providing an educational service and has the previlege to concede or deny access to it. In this frame, the right of education was subordinated to the freedom of enterprise.
- The Chilean education system is based on the municipalisation of public education, whose decentralization assigns a main role to private parlayers and local governments in education policies. The borough or municipalities – especially the poor ones – often lack of adequate funds, most of the education going to private investors. Furthermore, boroughs not always have technical equipment which guarantees educational quality or standards.
- Regarding the funding or financing system, the state subsidizes with equal amounts both private and municipal schools. Thereby, the system established an unfair competition given the fact that the private schools select students and their public counterparts receive the poorest and most vulnerable ones.

The distribution of education institutions in Chile shows a large private sector with a high subsidy to private demand. The data provided by the Ministry of Education show that 59 percent of the schools are financed only by the state, while 29 percent have a co-shared funding, which includes the state and private agents, and only a 10 percent of the schools do not get any subsidies from the state. The remaining two percent belong to delegated administration corporations corresponding to business associations or private corporations that manage technical-professional schools, publicly funded through agreements, and can also be considered as public schools (Espinoza 2012).

The voucher system

Within the main three different types of schools in the Chilean system, private profit-oriented institutions are financed by their enrollment rate. Public and subsidized private

schools are in general terms free of charge – or have a voluntary tuition fee – and are financed by a fiscal contribution through a scheme that gives the institution a *voucher* (or bounty) per student. Therefore the system subsidizes the demand and not the offer. This mechanism wants to promote competition between schools to attract and retain pupils. By doing this, schools would raise the efficiency and quality of their *services*. The pupil is the owner of his or her voucher, so when changing the school, he takes his subsidy with him. As a consequence, schools considered to be "bad" or in "bad" state can lose their public funds easily, when they are confronted with "better ones".

The earthquake and the education system: the shift to prevention

Until de 27F earthquake, Chilean schooling had an emergency plan developed by the ONEMI (National Office on Emergencies) belonging to the Home Office – Ministerio del Interior – called Operation Deyse, under the concept of ACCEDE (accede): alert, communication, coordination, primary evaluation, decision taking and secondary evaluation, which after the above mentioned earthquake was replaced by the Schooling Security Plan, that focuses on the prevention and strengthens the response mechanisms for accidents and emergencies. While Deyse was a plan focusing on evacuation, this one concentrates upon knowledge building and promotes participatory models for disaster prevention and relief. Providing ten documents and brochures, this new security concept – which will simply be called the "Plan" in the following – provides working tools for the different education levels – kindergarten, primary and secondary school – destined to master the consequences of an eventual natural disaster. It calls for the commitment of the whole "education community", from maintenance personal to heads and deans of schools.

It is worth mentioning that although many damaged schools have been restored – while others have not – a subject that we will discuss later - the Plan does not mention any government efforts regarding the infrastructure. The Plan is related to activities, specific programs and projects to develop in every school and simulation exercises. Based upon a participatory conception, it establishes the creation of a "security committee", in which parents, pupils and school workers' representatives cooperate to ensure the implentation of the security plan. The plan handbooks (Plan Integral de Seguridad Escolar para Jardines y Cunas, ONEMI, 2011) establish some key definitions of social vulnerability and how to deal with it – the term will be analyzed in the next chapter.

Capacity building and vulnerability conditions

In the plan booklets, the "vulnerability" refers to the internal disposition to suffer damages caused by hazards. Thus, from this perspective, the scope of vulnerability depends on the inner strength (or weakness) of individuals or communities. And the definition concludes: the increase of knowledge is the best means to reduce vulnerability.

This one-sided orientation on knowledge omits the socioeconomic dimension of hazard-precaution. Also, the strengthening of community ties seems to be an essential means to overcome structural vulnerability. Though Chile is defined as a neoliberal state, and therefore its society is subjected to the idea of radical individualism, the booklet is

using mutual help as key concept. Collective experiences should be fostered to empower local communities to develop common disaster prevention strategies. The idea of "experiences" aims on merging the individual and community, embraces the local cultural field, and introduces the social empowerment as key instrument of risk management. As outlined before, the idea to combine hazard prevention on the one hand, developing projects and local institutional programs on the other hand, is derived from an alternative conception which emphasizes the importance of calling up the community and its multiple institutions – families, schools, churches, borough among others – to guarantee the development of a "new culture" of care. This approach promotes an intersectorial scheme of action in which state institutions, the community and the individuals are all together leading actors on the field of prevention and its specific knowledge production who act appropriately in case of a disaster.

Although this approach is interesting and fair to promote social participation, its implementation seems to be problematic in many respects. For starters, the whole idea of standardizing procedures but particularizing their application refers to a wrong concept of equality in which all schools would be in equal conditions of develop such projects. In the chapter on the Chilean education system, the question of teachers' salaries was omitted.[9] As in many other Latin American countries, education workers salaries are rather low. The implementation of the participatory prevention projects requires more knowledgeable teachers on the one hand and extra time to develop these projects on the other one. However, working and salary conditions force teachers and professors – especially in the state but also in some of the private subsidized schools - to perform a second job to earn their living – they are known as "taxi professors"; again, this is not a Chilean particularity. To entrust teachers with new responsabilities without monetary compensation, usually is not viable. The only teachers who might have the additional time to develop new projects are those belonging to non subsidized schools, which provide them with full time positions. In any case, these initiatives refer to the commitment of individuals, but many teachers work in different schools to make a living. It is difficult, if not impossible, for them to engage with just one institution and join forces to develop better studying conditions. In addition to this, contemporary literature on daily school routine shows that teachers and professors change their attitude according to their audience. In this regard, several studies (Mayer 2012; Noel 2007), account differential educational processes led by educational agents: by activating preconceptions such as "with these kids we can't" agents tend to undermine extra tasks, like the developing of projects.

Instead of generating better and safer schools for the most vulnerable parts of the population – who tend to be the ones who live in vulnerable areas – participatory projects are more likely to be developed in privileged communities where better working conditions are guaranteed. Furthermore, as we stated that schools "steal" pupils from each other basing on the *voucher* system, the same is happening with teachers: the competitive system tends to generate migrations of schooling agents, since better ones go to better schools, leaving the lesser qualified or newer ones to precarious schools, a process which tends to weaken the affected institutions and to generate a series of microconflicts typical

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[9]   A study conducted by the University of Chile (2010) showed that teachers' salaries are lower than other professionals, earning 45 percent less on average. While it is true that the salary increases with seniority teacher, it is not enough to reduce this gap.

for underprivileged schools, wasting a considerable part of the energies that the development of partipatory prevention projects requires. So, the Plan creates the illusion that the Chilean state is present in disaster prevention on the educational field, where in reality it vanishes more and more.

Participation trends and their limitations

If the invitation of local communities to take part in the design and implementation of hazard prevention projects might strengthen democratic trends, the local implementation of standardized programs can rather be interpreted as an attempt of the state to delegate a part of its responsibility without losing its power of decision. The creation of local authorities – such as the security committee – might foster policies of self-care and at the same moment provides the state authorities two options of self-representation in post-disaster times: if the decentralization of prevention projects turns out to be successful, they may claim the laurels for themselves as initiators of this decentralization. If it fails, local authorities can be used as scapegoats for the misled disaster prevention. By doing this, the decentralization and deregulation processes that are actually taking place in Chile can officially be presented as an increase of social participation and democracy. However, it seems much more realistic to interpret these tendencies as an attemp of state authorities to reduce costs and financial obligations and to get rid of duties commonly attributed to the state, than as the intention to promote the participation rights of local communities.

Furthermore, this appeal to the "people" stands out in many respects. The idea of parents getting involved in school activities is not only subject to debate as will be shown below, but is also related to the socioeconomic function of families according to which parents can get easily involved in schooling routine. For starters, it requires high economic standards which will allow them to have the time and job type to be able to spend additional time at school. In other words, it requires flexible jobs and high salaries – usually associated to top end jobs or people who have their own business – which will allow them to invest time for other purposes.

Poorer families whose working conditions are generally associated with blue collar jobs, inflexible working hours and the obligation of both parents to find a full time work for minimal wages, will hardly find the time to get involved in additional activities. As many other studies show, this is not only the case for Chile or limited to hazard prevention activities. As stated at the beginning of this article, when describing the three regions most affected by the 2010 earthquake, two of them had higher poverty rates than Chile's average. This reinforces our hypothesis about the possibilities of parents' involvement, but the analysis can be extended, taking into account the sociocultural gap between underprivileged families and schools.

Bourdieu (2000) has shown that there is a different appropriation of institutions according the citizens' socioeconomic levels: as we rise in the social scale, the chances to get access to privileged institutions increase. In terms of education institutions, this effect is directly linked to the previous access to the schooling system. As mentioned before, in Latin America in general and in Chile in particular the massification process in this field is a very recent phenomenon. Social and economic constraints still exclude or marginalize considerable parts of its school-age population, generating a correlation between the

agent's position in the social structure and his or her years of schooling: the upper we go on the social pyramid, the higher the school experience is. Therefore, as it happens in many other areas of the educational process, parents of underprivileged social strata and poor literacy skills tend to isolate themselves and avoid school activities, not only because they do not have the time, but also because they lack the knowledge that the specific social practices common to institutions require (Mayer 2012) – an effect, that diminishes participation chances.

Researchers and practitioners view parental involvement not as a single construct, but rather as a range of activities that span both at-home and in-school activities, where there is a continuum between both agencies – families and school –, a continuum which is usually linked to sociocultural and economic parameters. Epstein's (1993) often cited explanation describes six types of school-parental partnerships: (a) assisting with child-rearing skills, (b) school-parent communication, (c) involving parents in school volunteer activities, (d) involving parents in home-based learning, (e) decision making – involving parents in school decision-making, and (f) involving parents in school-community collaborations. Epstein describes a model of overlapping spheres of influence among schools, parents, and community. In the center of the overlapping spheres is the student, recognizing that students are the main actors in their own learning and development. According to Epstein (1993: 703), the more frequent interactions between schools, families, and communities are, the more students are likely to receive common messages about the importance of school, of working hard, of thinking creatively, of helping one another, and of staying in school. This can be extended to our topic: the more everybody gets involved, the more it becomes easy for students to participate in the prevention activities. This is why parental involvement may be more associated with engagement than with the direct outcome of the measures. Especially in such highly competitive systems like the Chilean one, the engagement and involvement of parents may result in other material or symbolic benefits as a consequence of an increased participation that implicates, for example, fundraising. Therefore, this specific model of participation tends to undermine equality, since it is the expression of cultural and social capital accumulated over several generations. As we have argued, not only participation requires time – a limited resource – but it also depends on other resources or forms of capital, whose distribution is generally unequal, making it easier for privileged sectors to acquire them, especially when the state refuses to counterbalance this disequilibrium by intervening in favor of the poor due to its neoliberal orientation (Bourdieu 2000).

Schools reconstruction: rebuilding and restoring

The 2010 quake struck many schools and their infrastructure, leaving a part in ruins while others were only partially damaged. Of course, the most exposed regions – which are as well the poorest ones located on the coastside – suffered the most. Besides from implementing the above mentioned programs, the Chilean government increased the budget funds destined to redress the education infrastructure. The first damage report done by CEPAL (2010) expected that due to the serious damages caused in different areas, funds destined for the disaster relief and local welfare should increase between 15 and 20 percent. In this sense, President Sebastián Piñera announced a month after the earthquake

the creation of a special fund to restore schools. According to the former minister of education, Joaquín Lavín, priority was to be given to schools which suffered minor damages to allow the beginning of the school year – schools which had also to accept host students from their most damaged counterparts. Evidently, the government disregarded the social effects of this decision. Education and social scientists generally agree that the success of an education system largely depends on the learning conditions (López 2005). The overcrowding and a disadvantageous ratio of teachers and pupils are important factors that will rapidly lead to a decline of teaching quality. Due to this, schools in poor regions and in post-quake areas have more the caracter of places of containment than of learning institutions, disconnecting the notion of "being" at schools from its initial academic meaning (Mayer 2012). Ultimately, schools change their mission – from learning to containment in a greater scope – which can make a school stop being one (Tenti Fanfani 2005), since education institutions can be much more than a space of learning. As inequalities increase as a result of this transformation, the fragmentation within the school system is deepened and its social bipolarity tends to aggravate (Noel 2007; Mayer 2012).

The subject of quality standards is particularly important when analyzing Chile education system. As mentioned in the introduction, besides from joining PISA (OECD), Chile has an ambitious Education Quality Assurance System which measures educational achievements. Unlike other countries, Chile ranks not only districts or cities but also schools. After every annual tests, the agency SIMCE publishes the result in each discipline (maths, reading and/or writing, history and sciences) not only per school year but also per institution. As a matter of fact, official pedagogical standards cannot be the only point of reference of learning achievements; they heavily depend on other factors such as academic self-esteem, school motivation and atmosphere, a healthy lifestyle, school attendance, and gender impartiality. So if Chile's Education Quality Assurance System takes these factors into account, concrete government actions on the same field are in contradiction to its goals. It can be argued, however, that the post-quake intervention occurred in an emergency situation, but the chosen solutions – as will be shown in the next section – are political and ideological. The idea of overcrowding schools and rebuilding schools in precarious lands affect, as Chile ministry states, learning possibilities and standards.

Quality standards and educational outcomes were not affected by the earthquake. SIMCE's record shows a certain continuity between prior rankings and the ones performed after 27F. However, this is not necessarily *good news*, but means that the "best schools" (according to the ranking) are still in the "best" areas – mainly Santiago and its surroundings – and the not so good ones in other parts of the country. According to Cornejo (2006) 70 percent of educational results depend on socioeconomic conditions, so worse situations lead to bad learning achievements and assessments.

Coming back to budget issues, the increase of relief funds is crucial for any education system after a disaster of this size, especially in the Chilean case. As according to its design and laws, Chile education system subsidizes the demand – pupils – and not the offer – schools –, the only way for institutions to get incomes is by receiving students. When schools are damaged, it is easy to expect that with the voucher conditions established, those schools will lose much of their public. Acknowledging these drawbacks Chilean governments developed a special plan and budget to restore schools.

However, CIPER (Centro de Investigación Periodística) and the Instituto para la Igualdad (Equality Institute) among others, show the inefficiency of this relief plan and its execution. According to them, from the funds assigned to restore schools, only between 10 and 15 percent have been allocated until 2011. Nevertheless, the launching and reopening of schools received much attention, leaving *only* 37 to be restored in recent times (Gobierno de Chile 2013).[10] Although the Chilean government was involved in the country's restoration, other social actors must have taken a significant role in that process. Therefore, the next chapter will compare the role of state and non-state actors in the restoration of the school system.

State, market and society

Once the earthquake – and the subsequent tsunami – passed, the extent of devastation became visible. It was time to reconstruct the destroyed public and private buildings. Schools were among the priorities to guarantee the start of the academic year by April, 2010. The CIPER reports (2013) show that not only the execution, but also the conception of the initial relief plan and the related budget were deficient. As a result, the available funds could not be allocated at least during the first year. At the same time, private actors – individuals or NGOs – organized campaigns to collect money for the Chilean earthquake relief.

- Since Pinochet's dictatorship, Chile became a neoliberal society. The constitution ruling Chile – designed under authoritarian rule and therefore illegitimate – allowed the "free market" to undermine the state in the name of economic "efficiency". While the experience of many other Latin American countries has shown the negative consequences of this policy, Chile keeps moving into this direction facing the numerous social and economic aberrations inherent to neoliberal policies.
- It is not surprising, that under these circumstances the reconstruction of damaged schools was mainly the work of the private sector.[11] Although its involvement in disaster relief accelerated the reconstruction works, it mainly rewarded the already privileged sectors of the Chilean society and reduced the scope of action of poorer social agents.
- As a matter of fact, this statement is supported by the University of Berkeley report (2013) that shows for the Chileans case not only a strong government involvement in disaster relief in the aftermath of the earthquake compared to other countries, but also a very strong presence of private actors and the civil society:

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[10]   We stress the word only, in order to state that at least at the moment of writing this paper – three years after 27F – a considerable number of schools have been restored, while there is still a small amount out of work to be done.

[11]   Although the constitution of the private sector excedes our work, many newspapers and academic work analyzed in depth the articulation of the private sector, mainly in terms of Corporate Social Entrepreneurship (CSR). Some on these analysis can be found in many news and fundraising campaigns such as <http://www.rseprohumanablog.cl/2010/03/rse-tras-el-terremoto/> and <http://www.anda.cl/not_terremoto.asp>.

Table 2: Community and Government Participation in Disaster Relief
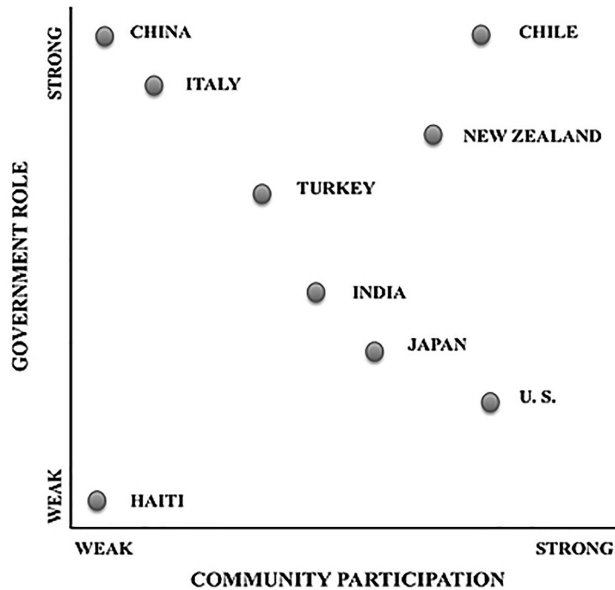
Source: University of Berkeley (2013: 51).

A very good example was the Campaign "Chile ayuda a Chile" (Chile Helps Chile) and especially "Levantemos Chile" (Let's raise Chile) belonging to the homologous foundation, which aimed to restore schools with funds donated by private enterprises. According to Chile's mediatic traditions – i.e.: the "Teletón" (fundraising organized by a "television marathon") – a model of centralized aid was implemented under the *eye* of television. The relief campaigns then choose the order and ranking of needs as well as the way and places to redistribute the donations. The state does not decide *where* and *when* the collected money is allocated; this decision is reserved to foundations, businessmen and entrepreneurs.[12] Under these circumstances, powerful social actors manage to monopolize the decision making process; they belong to social groups which, in accordance with Bourdieu's categories, already dispose of a greater amount of social, economic and cultural capital when the struggle for the control of the disaster relief funds begins.

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[12] Some examples for the specific case of the education institutions, the following internet links show the CSR reconstruction initiatives of a school in an affected area: <http://www.pactoglobal.cl/2012/barrick-reconstruye-escuela-en-boyeruca-afectada-por-sismo-de-2010/>, the campaign involving citizens to donate books: <http://www.rseprohumanablog.cl/2010/06/campana-%E2%80%9Cdona-un-libro-2010%E2%80%9D-en-ayuda-de-escuelas-danadas-por-terremoto/>, and the reconstruction of a school library by private actors: <http://vtr.com/empresa/sustentabilidad/index.php?opc=newsletter03-detalle-bibliotecas>.

These actors and sectors do not only have a particular idea of economic priorities and particular ways of resolving problems, they also follow common political guidelines and promote elitist citizenship models that may create new inequalities or deepen existing ones.[13] If the catastrophe was an opportunity of promoting new actors in the public sphere, the post-quake policy implemented by the Chilean government strengthened existing hierarchies and increased the distance between the decision makers and the recipients of the disaster relief (Franch/Hernández 2012). As Franch and Hernández point out (2012: 101), this schema maintains the paternalistic relationship between state and citizens – here meant as the vulnerable parts of the population – who are supposed to play the role of simple background actors. This is functional to neoliberal societies, in which both participation and reception lose their citizenship dimension: people give and receive according to moral standards, that is, the social actors who get involved do so because of their solidarity and the receptors of those handouts receive them as beneficiaries and not because of their citizenship (Mayer 2009). In this conception the states is not supposed to intervene and is not responsible for the damages of a natural disaster. This scenario systematically passes over government and state responsibilities and conceals the question of inequalities. Thus the only actors able to interfere and change the course of events are those who generally do not need or resort to the public institutions in need of help. So, the post-quake reconstruction only appears to have reinforced an elitist mode of participation, passing over the most vulnerable parts of the population.

Vulnerability, Ideology, Public Policies and Education: Conclusions

The Chilean education system and the changes induced by the 27F earthquake cannot be analyzed within the narrows limits of this sector, it is rather indispensable to put them into a broader context embracing their ties to Chile's society. The concept of vulnerability spreading in the prevention education handbooks and guides may demonstrate the complexity of the matter. If the Schooling Security Plan is using this concept, it abstains from identifying vulnerable groups. Every school – in this source – appears to be facing the same risks, regardless of its location and its management type – public or private. In this perspective, every school has the same means to reduce potential risks by building prevention capacities. Although this idea excludes political responsibilities it is a highly political definition, what will be shown in the concluding remarks.

As many scientists argue (Santha/Sreddharan 2010; Wisner/Blaikie/Cannon 2004) the impact of natural disasters is directly linked to the social and ecological conditions under which they occur. Factors such as impoverishment, epidemics, colonial policies and marginalization, oppression, dispossession and state failure strongly influence the magnitude and long-term consequences of destruction. Studies on other natural disasters define the 'pre-hazard' vulnerability of people as the result of the interplay of social, political and economic factors. This is, for example, demonstrated by case studies on epidemics in India (Santha/Bhuvaneswari 2009). However, in Chilean education handbooks on disaster prevention, no reference is made to social and political surroundings, and the new risks

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[13]   In a previous work related to the youth in Buenos Aires, we arrived at these conclusions. For a more detailed analysis of these issues, see Mayer (2009).

brought about by the emergence of the industrial society that may exacerbate the impact of natural disasters is systematically omitted (Beck 1986).

Social vulnerability refers to the inability of people, organizations, and societies to withstand adverse impacts from multiple stressors to which they are exposed. However, this vulnerability, far from being natural, is the result of power relations inherent to a specific society (Weber 1999) and therefore a social construction (Durkheim 1988, Tilly 1997). It becomes manifest when calamity occurs; therefore many studies of social vulnerability are found in risk management literature. However, social vulnerability is a pre-existing condition that affects a society's ability to prepare for and recover from a disruptive event. Social vulnerability is created through the interaction of social forces and multiple stressors, and resolved by social – as opposed to individual – means. While individuals within a socially vulnerable context may break through the "vicious circle", social vulnerability itself can persist because of structural influences that reinforce vulnerability conditions.

Although schools suffered great damages in the regions affected by the 2010 earthquake, and the reconstruction process has left the structural vulnerability and previous hierarchies untouched, the Chilean government policies were highly rated and praised. The decentralized education system fostered decentralized modes of school reconstruction, a fact that clearly emerges from the analysis of the prevention handbooks, presented in this paper. Chilean education policies seemed to follow common principles, but were in fact relegated to each school, depending on its financial capacities. The same is true for the above mentioned post-quake relief campaign, where the state appears to have played a central role as supervisor working "together" with the diverse stakeholder (who, in fact, controlled the distribution of the funds).

In national and international education policies, decentralization has been a major issue for many years – especially since the seventies –; it was treated like a synonym for participation, equal opportunities and autonomy. In education reforms, it meant the transfer of centralized (national) entities to statutory corporations located on a lower level or local governments who had now to care for quality standards (Polsby 1979: 2).

However, the Chilean case shows that the decentralization of responsibilites in the sphere of disaster prevention did not lead to a higher degree of autonomy and participation that the initiators of this power transfer initially expected. In Weiler's study (1992) of education reforms in several countries of the world that opted for a decentralized system, the author inquires the reasons that lead to a favorable reception of decentralized management modes, even if they are implemented in a socially precarious ambiance. In his study, he claims that in modern – or postmodern – societies states in general transit through a stage of legitimacy crisis, due partially to its principal agents (Weber 1999). So the choice for decentralized systems is inspired by political utility. The present article takes the Chilean case to exemplify the consequences of a specific decentralization process in the context of school autonomy, privatization of education services and crisis management under the impact of a major natural disaster. Decentralization can be interpreted here as a struggle for legitimacy and control, allowing the state to maintain (centralized) power over the system, while delegating parts of the management tasks to local authorities, who assume the responsibility for daily routine.

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