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Gentrification in (re)construction: Talca's neighbourhoods post 2010 earthquake

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Abstract

Purpose – This study aims to explore the complex relationship between post-earthquake reconstruction processes and gentrification in neighbourhoods of intermediate cities, calling on the critical role of recovery strategies in altering neighbourhoods physical and social urban structure identities.

Design/methodology/approach – The paper uses a case study; the reconstruction process of the neighbourhoods post-2010 earthquake in Talca, Chile, and analyses in a six-year timeline its socio-spatial changes. The latter based on mixed methods, primary data from strategic interviews with key stakeholders, cadastres of land value and real estate housing projects and neighbourhood polls, and secondary data from official documents such as plans and policies.

Findings – The findings suggest that patterns of incipient gentrification are an outcome of the reconstruction strategies. Acknowledging the intricate interplay amongst urban neoliberal conditions, historical heritage and identities and post-disaster recovery, inadequate housing subsidies and normative plans are causing the displacement of hundreds of historical residents and resistance, arrival of newcomers with higher debt capacity in new housing typologies and increasing land value. Process related to neoliberal politics of state led to new-build gentrification.

Originality/value – Gentrification and reconstruction are both processes that modify urban structures, society and perceptions, and yet their socio spatial effects have never been studied in a cumulative and integrated manner, even more, in intermediate cities. The value is to rethink the critical role of recovery strategies in halting and containing gentrification in fast transforming secondary cities.

Keywords Rehabilitation, Earthquakes, Post disaster reconstruction, Resilience, Social impact, Law and regulatory frameworks

Paper type Research paper



1. Introduction

The two defining terminologies that lead this work, gentrification and reconstruction, do certainly seem epistemologically and disciplinary distant[1]. However, being both social phenomena, they share several common elements that help us set up the theoretical framework, which underpins the work presented here. At first, they both seem to represent

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emergent regimes of “fast” urban policies, not only because of their rapid emergence but also due to their capacity to travel quickly transnationally and amongst professional circuits, as well as injecting fast and rapid changes in the social reality (Inzulza-Contardo, 2014).

A tangential point can be represented in the expansion, especially in disaster sociology, studies of market-centred disaster recovery and rebuilding projects underscored by neoliberalism. Naomi Klein’s “disaster capitalism” describes the ways in which economic meltdown, wars, disaster and other traumas across the globe have been routinely subjected to further “shocks” treatments by governments and their corporate allies since the early 1970s to transform economies into laboratories for private entrepreneurship and free market forces (Klein, 2005). Gentrification is not far from these “shocks”, considering it is “one of the spatial facets most typical of the urban neoliberalism imposed in cities” (Janoschka and Casgrain, 2013, p. 24).

Gentrification’s evolution from Glass’s (1964) original sporadic phenomenon of displacement of working class tenants by middle class homebuyers in the historical district of Islington, London, to a systematic global practice of property profit exploitation (or rent monopoly) by investors and speculators (Harvey, 2008) denotes the above. A global exercise referred to as the “third wave of gentrification” – anchoring at last – Latin-American cities to the practice of transferring state regulations and functions to private agents (Smith, 2002) in the name of urban regeneration. For Lees (2000), leading ultimately to wider geographies of gentrification of multiple actions of indirect and direct displacement altering class-based nature of wider neighbourhoods (Davidson and Lees, 2010). Alterations that for Latin-American contexts spatially constructed under social polarisation and inequality can create higher impacts on territorial disparities.

Thus, when cities centres are affected by earthquakes, great quantity of empty sites, real estate speculation and active government intervention for housing recovery create the perfect scenario for brownfield redevelopments portrayed as “new-build gentrification” (Davidson and Lees, 2010). This is increasingly evident when reconstruction strategies are physically biased in the provision of housing and infrastructural services (MINVU, 2013) or they overlook the safeguard of civic capital (Mitlin and Satterthwaite, 2013). Recovery scholars agree to see post-disaster as risky moments that increase the opportunity to invest in new projects following market forces and property speculation (Ozerdem and Rufini, 2013), rather than implementing strategies to adequately address the physical, social and psychological effects of disasters (Mansilla, 2011; CEPAL, 2010).

In this light, intermediate cities do seem, not only for their territorial relevance and their specific attractive elements, more subjected to the combined transformations of reconstruction and gentrification. Centrality, value of localities and manageable distances make intermediate cities, the object of desire for speculative development that also seems to be part of reconstruction policies. The last of critical concern is when considering that more than 48 per cent of the urban population lives in mid-size cities of less than 500,000 inhabitants (Bolay and Rabinovich, 2004).

Within this context, the review of the six-year timeline of the reconstruction process in Talca after the M8.8 earthquake and tsunami on 27 February 2010 in Chile can help to disentangle the complex and cumulative effects of “gentrification under (re)construction” as the paper title suggests. Denoting how neoliberal reconstruction policies supported by real estate market pressures can cause the displacement of many original residents of historical neighbourhoods to the peripheries replacing them with newcomers in newly built typologies triggering hints of gentrification (Letelier and Boyco, 2013). Evidence that suggest Janoschka *et al.* (2014) signs of neoliberal politics of state led new-build gentrification (Davidson and Lees, 2010).

As a methodology approach, the paper uses a longitudinal case study strategy showing the reconstruction process of the neighbourhoods post-2010 earthquake in Talca, Chile, and analysing a six-year timeline of its socio-spatial changes. The latter based on mixed methods from a research project sponsored by the Chilean Government 2014-2016[2], which includes primary data from 20 strategic interviews with key stakeholders[3], cadastres of land value and real estate housing projects and 188 surveys in six neighbourhoods (Centro, Centro Sur, Las Heras, Chorrillos, Santa Ana y San Agustín)[4]. For the 45-min interviews, open questions were conducted about the reconstruction measures in Chile and particularly, on the perception on the policy actions, master plans and subsidies applied to reconstruct the inner Talca.

Likewise, secondary data analysis based on the revision of state policies official reconstruction reports and local media reports is included such as the Chilean Census of Population and Housing 2002 and preliminary results 2011; 2010 Talca Reconstruction Plan and 2011 Talca Master plan; and Maule Regional Development Strategy 2009-2020. All this material combining with the author's fieldwork in 2015 and undergrad and postgrad thesis developed under this research has allowed us to get a narrative of a reconstruction process with the effects of incipient gentrification in an intermediate city. It is discussed as a theoretical framework in the following section, and also as findings of this research by using the Talca's case to recalibrate the final reflection around the potential of social cleansing and the physical transformations that erode and negate the very meaning and cultural place assets in a reconstruction process.

2. Gentrification in (re)construction

2.1 *Relating terms*

Gentrification and reconstruction both seem to represent post-ideological terms, as it means they can be co-opted by those in any part of the political spectrum. It is difficult to justify their nature of "ameliorment", "betterness", progress "future", therefore sharing the same communicative effects in their policy determinations. Although variegated, in terms of the material form, the process of neoliberalisation has evolved into two pivotal and complementary strategies of destruction and creation that are similar to the one that happened in post-disaster reconstruction and recovery plans. [Hackworth \(2011\)](#) describes this process of Keynesian artefacts as public housing and public spaces, policies, institutions, while creation consists of establishment of new – or co-optation of existent, institutions and policies to reproduce and maintain neoliberalism.

Gentrification is sold as something inevitable in the creative process of change. It is camouflaged as urban "renaissance", rebirth of the central city, or rediscovering of vitality and specificity. But also, reconstruction is a new born life, a new time and a new light that emerges from the ashes (metaphorically or physically speaking) of any obscure, traumatic and disastrous event. Besides the semantic, the agitated discourses of recovery and reconstruction yield a vocabulary of names, rhetorical devices and narratives that beyond the banner of the "new normal" concealing opportunistic creative destruction policies and practices.

Moreover, reconstruction and gentrification seem to have a strange relation with time. Fast regeneration opens the possibility for aggressive social changes where obsolescence and controlled dilapidation allow for speculations over land and volumes. In this sense, gentrification means a set of outcomes with both local and global factors, which lead to the loss of use value and cultural capital as soon as the neighbourhood space is re-valued by wealthier and more powerful users. This imposes their specific class-related demands on the

space, to the point that any other value consideration or expectation from the different groups is ignored.

2.2 Reconstruction in intermediate cities: contesting historical neighbourhoods' identities

Post-disaster recovery is a complex matter. It is not only a process of rebuilding damaged structures, but a process of re-establishing and rebuilding communities, livelihoods, infrastructure, housing and spaces alike, which often lasts for years (Jha *et al.*, 2010). It is “profoundly developmental in nature, risky because it deals with transformations and equality, and multiple because it takes place across different domains” (Boano and Hunter, 2010, p. 1).

In this paper, we adopt the definition of recovery suggested by Tierney and Oliver-Smith (2012) as:

A socially-configured process existing at different levels [...] both the public and the private sector; and both civil society and government [...] spans multiple entities and social sectors, multiple processes, and a variety of potential outcomes (pp. 123-124).

Thus, these processes should not only attend to the recovery of basic needs such as permanent shelter, employment and education, but also to the recovery of socio-cultural and psychological elements that relate to identity.

In this matter, sizes of cities become a crucial element for recovery when considering the above. Intermediate cities, as opposed to metropolitan areas, can promote better sustainable urban living through their human scale capacities, such as walkability, accessibility, social proximity and tight neighbourhoods (Delgadillo, 2008; Inzulza-Contardo, 2012). Nevertheless, intermediate cities in Chile are developing under planning politics of deregulation as consequence of neoliberalism, and thus constantly hold the above at risk (Borsdorf *et al.*, 2008). More so in historical neighbourhoods, that by their location in central and pericentral location with the original nucleus of the city (Inzulza-Contardo and Galleguillos, 2014, p. 141), are seen as “objects of desire” (Carrión, 2005).

Subsequently, recovery policies for inner historical areas in Latin America have favoured private sector's development capturing the needs of middle classes over the inhabitants, and thus contributed to gentrification. Policies that have resulted in the expulsion of original residents from poorer classes that had appropriated the city centre in the past (Janoschka *et al.*, 2014) and relocation into the few remaining working class neighbourhoods and/or ultra-marginal areas (Davidson, 2007) altering all aspects of human scale, collective memory in an aggressive, fast and hyper-modern fashion.

Norris *et al.* (2008) identify the need for improved understanding of how disasters (and the response interventions thereto) impact on communities as perhaps the most critical and complex matter confronting disaster researchers. Pelling (2003, p. 7) elaborates on these notions and further highlights the challenge to increase an understanding of how “local-level, bottom-up participatory approaches articulate with international and national top-down agendas”.

Recent cases of Haiti, China and Japan highlight the relevance of urbanism and urbanity are central to recovery reflections. Although it is not an absolute rule, the role of the “urban” in a disaster aftermath could be significant in reducing the impact of future disasters. In that respect, housing reconstruction should go beyond the mere production of houses and its implications for an individual household, though responses often focus on houses as entities rather than centre on “recuperating a sense of domestic and public space and place” (Zetter and Boano, 2010, p. 206), contesting the view of place as a static concept due to its association with “character” or “identity”.

However, the main challenge that governments developing and implementing effective social policies of reconstruction to promote inclusive and resilient post-disaster scenarios. Some best examples of practice such as the [Republic of Indonesia's \(2005\)](#) and the “forgotten” Skopje reconstruction master plan ([Lozanovksa, 2012](#)) show how national and local governments could also include the reconstruction of community, economy, infrastructure and governance ([Achmad et al., 2015](#); [Syamsidik et al., 2015](#)). Scholars as [Aldrich \(2012\)](#) demonstrate – studying comparatively post-disaster processes in the USA, Japan and India – the importance of social resources are important as much as material resources and are the foundation of resilience and recovery. Holistic and multisectorial approaches at scale were also central in recovery planning in Sri Lanka and in Thailand ([Jayasuriya and McCawley, 2008](#)).

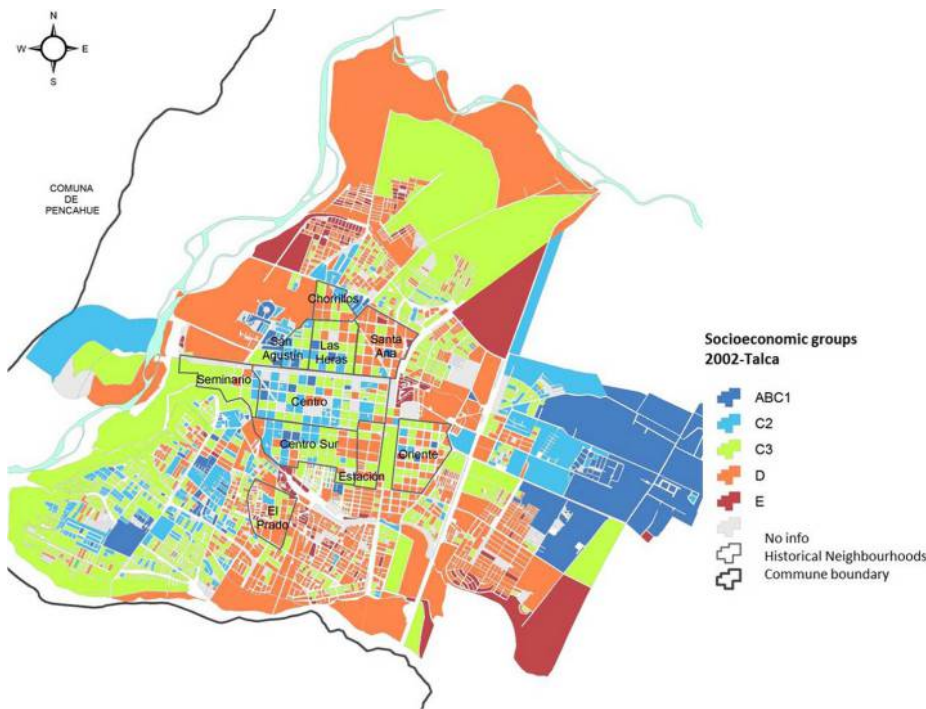
We do situate our paper in this body of literature on social recovery processes that highlight the positive role of both social capital and cultural capital and we wish to contrast it with the process of reconstruction where gentrification acts as promoting more displacement of people with lack of legal ownership and master planning system to include original residents. This reflection about the influence of reconstruction in gentrification highlights the relationship between recovery, people and place. In the following section, we present the policies and practices that induce gentrification in an interlinked and mutually influential process of transformation, which are also influenced by and responsive to both external sources of power and the initiative of local actors in reconstruction.

3. The case study: Talca and the historical neighbourhoods

Talca is an intermediate city with over 249,993 inhabitants ([INE, 2012](#)) and capital of the Maule region. Located in the central valley of Chile between two metropolitan areas, Santiago – Chile’s capital (256 km north) – and Concepcion (246 km south). Talca is not new to face earthquakes and has suffered many in the past, transforming from a colonial city in the 1800s to an industrialized one in 1930s-1940s, to a contemporary city of services. Its holds an extended urban pattern of low density, that despite of, remains with a singular nucleus (city centre) and human scale capacity. The last associated more to the central areas surrounding city centre known as the historical neighbourhoods.

Centro, Centro Sur, Chorrillos, Las Heras, Santa Ana, San Augustin, Seminario, Oriente and Estación are the areas of city’s centre colonial expansion developed during the mid-1800s by working-class groups seeking housing, which after the expansion of the city post-1928 earthquake, were left in a privileged area. These are known as the historical neighbourhoods. They distinguish themselves from the rest of the city not just for their centrality to city centre but also for their socio-cultural assets ([Rasse and Letelier, 2013](#)). This, associated to their heterogeneous social fabric (with over 50 per cent of the residents belonging to the low income groups ([INE, 2002](#)), built over historical urban attributes related to colonial checkerboard streets and low stories continues façade housing architecture ([Figure 1](#)).

In the past years, due to the value of centrality of these areas, a systematic yet slow increase in land values has led to emerging small pockets of incipient gentrification led by the arrival of new residents with higher income in restored homes and new built gated communities ([Rasse and Letelier, 2013](#)). In spite of this, many buildings still belong to lower-income groups, most related to elderly households and multiple occupation households ([INE, 2002](#)). In term of tenures, a third (35 per cent) of such families are tenants of low rentals and subleases. Hence, centrality and social capital becomes the core assets for such citizens.



Notes: E and D representing the poor class, C3, C2 middle class and ABC1, highest class
Source: Author's elaboration based on census, (2002)

Figure 1.
 Boundaries of the
 historical
 neighbourhoods and
 Talca's socio-
 economic groups
 (INE, 2002)

3.1 The reconstruction process

3.1.1 (27 Of February 2010) *post-disaster vacant land and real estate speculation.* After the 8.8 Richter magnitude earthquake on 27 February 2010 in Chile, Talca became one of the cities with the highest registered damages post-earthquake (MINVU, 2013) in a region that holds one of the lowest socio-economic indicators of the country (CEPAL, 2010). Talca's proximity to the earthquake's epicentre led to more than 20 per cent (6,98 km²) of its urban area completely destroyed (Figure 2), most related to the historical neighbourhoods. The last, with over 67.6 per cent (2,683 units) of homes with significant damage, and amongst them, 34.6 per cent (1,375 units) completely demolished.

Subsequently, large quantities of vacant land became available. Victims' despair in addition to zero state regulation over land tenure post-disaster led to real estate speculation processes to quickly begin and unfortunately most resulting in "Illegal" land purchases. Reports after the event support the earlier statement, revealing private investors purchasing land at low cost in the historical neighbourhoods, regarding sellers receiving less than half of the "real or fair price" of the property (Lawner, 2010).

The above, mostly related to the fact that most of the affected home owners did not "fit" state's housing subsidies criteria and had no debt capacity to rebuild their homes. For researchers, this stage was the most controversial of the reconstruction process arguing a perverse process aggravator for displacement of the original residents (Letelier and Boyco,

2013). Under this context, brown-fields redevelopments are considered the first crafting element for new built-in gentrification to spur in the historical neighbourhoods.

3.1.2 (2010-2012) *Neoliberal policies subsidizing displacement and replacement.* One of the main characteristics of contemporary gentrification policies is the promotion of normative change led by the state and developed through private sector. On 11 March 2010, Chile's government shift from left (President Bachelet) to right wing (President Piñera), favoured a clear pathway for neoliberal policies. After attending the emergency stage, the Ministry of Housing and Urbanism (MINVU) rapidly stimulated public-private partnerships to fulfil the immediate and massive need of master plans and housing reconstruction solutions. These were the following:

3.1.2.1 *Talca's strategic reconstruction master plan (PRETALCA).* In response to the considerable physical damages, a 14-year reconstruction master plan (2011-2025) was launched in September 2010, proposing strategic projects linked with investments offering "[...] the harmonious, comprehensive and sustainable development of the whole city [...]" (MINVU, 2013, p. 61). The renewal of two central streets, the creation of a grand urban park, the creation of an intermodal substation and solution for housing typologies in the historical areas were the main strategic projects to set of urban regeneration. However, two critical factors involving the manufacturing of this plan made it highly criticised by the affected community.

First, with government's political shift and openness to private sector, the making of the plan was delegated to one of the largest economic groups in Chile, *Hurtado Vicuña*, specifically to the real estate company, *El Bosque S.A*, introducing 51 per cent of the private investment over the total budget (MINVU, 2013). A massive involvement that proved state's not only neoliberal approach to reconstruction, but also its position to become a guarantor rather than a developer of the recovery process (Cárdenas, 2015).

Second, all projects' proposals were formulated in a non-participative manner, lacking of civil representation considering the plan's vision, was prepared under a commercial and tourist identity instead of a local one. Recycling old urban projects and proposing housing reconstruction solutions not "fit for all" excluding those affected

Figure 2. Left: Talca's context within the 8.8 epicentre (source: author's elaboration), right: post-disaster damaged area concentrated around city centre in relation to the total urban area Talca



Source: Author's elaboration

without land (Letelier and Boyco, 2013). Nevertheless, as it did not form part of the normative instruments of the city, at last it remained only at a proposal level.

3.1.2.2 Talca's city plan (PRC). At the time of the seismic event, Talca's regulatory planning instrument that defines through zoning land uses, infrastructure and building codes was in the final stages of a long nine-year planning process approval (Ilustre Municipalidad de Talca, 2011). Consequently, in the evident need to reappraise the plan accordingly to the new state of art, pressures from all sectors to avoid continuity of the strenuous bureaucratic planning process caused its rapid approval in October 2011, placing two bipolar measures that to the day halt true regeneration processes to occur. The first, being the extension of the urban area up to three times Talca's original size (6.000 more hectares) and the second, being the densification of the historical central areas.

With regards to the urban boundary extension, interviewees confirmed the measure was decided based on real estate pressures to allow cheap and large housing developments in the peripheries. An academic from the Universidad Católica Del Maule stated:

It is a PRC with two souls [...] basically on one hand it consecrates the expansion that the real estate sector previously defined, and on the other - by others allegation- it opens inner densification in the central area.

From private sector, an architect manager from a real estate company called ALC in Talca supports the latter:

They are three or four real estate companies developing extended neighbourhoods in the outskirts [...] I think those pressures extended the PRC more than it should have.

With regards to the inner densification area, a zoning classification of "U-3 area, residential densification" was established around the historical neighbourhoods to promote construction of residential units of between 8 and 15 floors. The last, holding no regards for special considerations to safeguard the historical neighbouring image, characterised by one and two storeys colonial architecture façade. A decision that amongst interviewees denoted differences, where while the urban advisor of the municipality of Talca considers the new city plan "one that allows a number of investment opportunities", the representative of the Architect Association in Talca, "one lacking sense of place".

3.1.2.3 Housing subsidies. With over 67 per cent of damaged housing in Talca, housing subsidies became the most relevant tool for the reconstruction process. Accordingly, the ministry of housing decided to respond with three formulas based on existing subsidises. These were: to repair, to rebuild and to purchase a new home. With evidence of the provided subsidises in 2011 (MINVU, 2013), the first was largely used for housing with little damage, the second was of little use as the amount of money given was not enough to rebuild under pre-existing conditions bearing in mind the grand size of the historical houses. And the last, to purchase a new home was the preferred choice of *de facto*, as it was the only response for those without land tenure to secure a home. The last, representing over a third of the approximate number of 10,000 affected families in the historical areas.

The last option, to purchase a new house, offered two options:

- (1) one to acquire a built social house entitling between US\$14,000 and US\$18,000; and
- (2) a second choice to co-finance a new built flat in the new U-3 designated density area mentioned before entitling between US\$11,000 and US\$19,000.

Nevertheless, only a few families had the debt capacity to complement the awarded subsidy and top-off the elevated market values in the historical areas to stay in place where homes were around US\$64,000 and flats US\$72,000 (Cárdenas, 2015). The rest were forced to

migrate to the peripheries where home values were attainable with no extra effort because costs were around US\$15,000 mounting to the given average by both acquisition subsidies. The last supported by the extension of the urban boundary, allowing large social condominiums to be built in newly cheap urban land formerly rural.

Regarding the choice to purchase new built flats in the designated density areas, an interviewee with the chief director of SERVIU Maule (the public organisation that executes state housing subsidies), stated that only 8 per cent of the families who benefited from this programme came from families affected by the disaster. The rest were purchased by families with “regular” social risk (not affected from the earthquake) coming from other parts of Talca with debt capacity interested in buying flats in accessible central areas.

In the end, these recycled subsidies became a discriminative tool between those who had debt capacity. Cardenas in 2015 studied the above subsidy’s effect in two historical neighbourhoods north of Talca (Los Chorrillos and Las Heras) and determined them as motors of eviction calling the process “subsidiary displacement”. [Rodríguez et al. \(2015\)](#) refer to the expelled residents as the “subsidized without right”, calling on a state subsidy imposition with no legal protection to stay in place.

The above actions, fired up callings of a “neoliberal reconstruction process” in many local journals and reports, condemning the process to act upon market logics addressing victims as individual “consumers” ([Letelier and Boyco, 2013](#); [Rasse and Letelier, 2013](#)). And subsequently, a wide social movement called “Cabildo y Movimiento Ciudadano Talca con Todos y Todas” merged that sought a more just and inclusive reconstruction process, in defence of, the built heritage, the right to remain in place, and to the protection of those without land.

[Rasse and Letelier \(2013\)](#) who studied the reconstruction process in the historical neighbourhoods in Talca mentioned:

For the residents of the central neighbourhoods, housing is much more than a roof: it is the location, and by this, the access to opportunities (material and symbolic) of the city. Losing their homes and leaving the neighbourhood to a social house implies not only the reduction of space to which they were accustomed, but also a high cost in terms of quality of life and integration with the city (2013, p. 147).

3.1.3 (2013-2015) Incipient hints of gentrification. The combined effects of post-disaster’s first phase land clearance and real estate speculation in hand with second’s phase normative change unfolded a series of socio-economical and spatial changes in the historical neighbourhoods that can be identified as patterns of incipient gentrification. Regarding the physical changes, a cadastre of the real estate projects built post-2010 identified more than 16 projects in six out of ten historical neighbourhoods; two in Centro, six in Las Heras, three in Chorrillos, one in San Agustín, two in Centro Sur and two in Seminario ([Table I](#)), a number that doubles the average construction of buildings in the past 20 years.

Such buildings are replacing the traditional scale and architectural image of low-stories housing of continues façade with new Mediterranean condominiums of mid- and high-rise residential buildings. Most of them are concentrated in the northern area of Talca, specifically in Las Heras neighbourhood and around its main public square (Plaza Las Heras) a sub-centre of grand public value not only to locals but for real estate market ([Plate 1](#)).

In addition, new strips of commercial stores (bakery, café and restaurant) have appeared adjacent to this plaza, bringing other activities to the area and attracting the newly installed young families to inhabit this area. Caro in 2014 studied these morphological changes in Las Heras and called them “friendly gentrification” because of their mid-scale intervention by responding to the Talquino’s urban living style, by houses with courtyards similar to the old

Neighbourhood	Location in relation to city centre	Housing stock (n°)	Damaged		Demolished		Post-2010 real estate projects
			n°	(%)	n°	(%)	
Centro	City centre	846	515	60.8	231	27.3	2
Las Heras	North	245	179	72.9	122	49.7	6
Santa Ana		522	393	75.1	191	36.5	0
Chorrillos		166	128	77	77	46.3	3
San Agustin		223	124	55.1	56	25.1	1
Seminario	West	168	109	64.8	51	30.3	2
Centro Sur	South	689	499	72.5	255	37.1	2
El Prado		497	237	62.3	103	20.7	0
Estacion		341	256	75	124	36.3	0
Oriente	East	270	243	89.9	165	61.1	0
		3.967	2.683	67.6	1.375	34.6	16

Source: Author's elaboration

Table I.
Amount of projects
in six out of ten
historical
neighbourhoods in
Talca



(a)



(b)

Notes: (a) Building built post 2010 located in front of Las Heras square; (b) building built post 2010 located in the corner of Las Heras square

Source: Author's fieldwork (2016)

Plate 1.
Changes around Las
Heras square, two
mid rise buildings
built post 2010

terraced houses (historical continues façade) and flats with adequate height with the surrounding regarding eight stories instead of 15 as the maximum allowed.

Regarding the socio-economic changes, a survey conducted in 2015 in the six historical neighbourhoods that contained real estate projects post-disaster confirmed three main results related to patterns of gentrification:

- resident mobility;
- changes in household's education; and
- changes in the perception in land values.

Regarding the first, important levels of resident mobility were detected in the past five years with almost a third of the surveyed population (26.6 per cent) recently living in the area (from 0-5 years). This mainly associated to young couples, which, for many existing residents, has

revitalized the neighbourhoods that contain high percentages of elderly population. However, they do not establish social networks with existing residents (Cárdenas, 2015).

The second, when comparing to the 2002 census, changes in the educational level of the household heads in the historical residents has improved, pointing out 39.3 per cent of household heads holding a completed high school degree, followed by 33.5 per cent with a full professional technical education or university. Regarding the third, land values, 50 per cent of the residents' perception in the historical neighbourhoods believes there is an increase in their home values after significant investments in the area post-disaster. The latter influenced by the city's plan density promotion area. An interview from a real estate investor confirms this perception, stating that land values in these areas has rose almost five times their original value passing from US\$75 to US\$380 per sq. m.

4. Discussion and conclusions

After following the almost six-year reconstruction timeline in Talca-Chile and specifically the historical neighbourhoods as illustrated above, we can assert that socio-physical changes and segregation are not spontaneous processes. Talca's experience manifests the perfect Latin-American laboratory of gentrification under reconstruction and the reality of it, given by the form of the interventions propagated by entrepreneurial city and state governments, as public-private partnerships, as well as seeking to see post-disaster rebuilding as an opportunity to enhance cities' competitiveness and business climate. A process that we relate to Janoschka *et al.*'s (2014) neoliberal politics of state led gentrification description and of Davidson and Lees (2010) "new-build gentrification".

In our findings, gentrification was not generated directly by the reconstruction processes, but was amplified and accelerated, increasing its effects of social deterioration and socio-spatial segregation, which in normal times occurs in a more "modest" manner or is accepted as "inevitable". Post-earthquake urbanism was shaped around a series of socio-economic and spatial transformations that create the condition of opportunity for gentrification to emerge in the historical central neighbourhoods. These are:

- accelerated land clearance for an orchestrated dilapidation and ruination to increase real estate speculation;
- instrumental introduction of unaffordable housing subsidies that accelerate the displacement of and replacement of the historical residents and residence; and
- the expansion of the urban limits and the increase of building land, used by direct state intervention on behalf of entrepreneurs and corporations to bolster the market, increase density and profits and reward parochial interests at the expense of the public good.

Its effects were recorded as almost invisible local gentrification with the arrival of newcomers in the central areas with higher debt capacity by the development of new alien typologies in the built environment leading to a loss of sense of space and place (Zetter and Boano, 2010) for those historical native residents who remained.

An affirmation to Harvey's (2008) "right to the city" discourse, placing gentrification more than the exploitation of a monopoly rent by investors and speculators, as also a series of cultural, relational and symbolic capital that determine the effectiveness of this type of process. Reshaping not only the urban image through new building typologies accordingly to market needs, but as well, in constructing a new urban imagery through the introduction of new residents with new social "values".

Post-disaster reconstruction, rather than being directed at reconstructing social fabric, provided incentives to spur reinvestment to private sector subsidies – fundamentally

shifting what recovery, reconstruction and rebuilding mean, and for whom. Facing an increased cost attached to centrality and impossible and unaffordable subsidies. The result of such reconstruction policies was the expulsion of its most disadvantaged citizens, and so the emergence of gentrification.

Therefore, the task of making cities resilient (Haigh and Amaratunga, 2012) with inclusion of communities is crucial to promote a holistic and human scale reconstruction and recovery for intermediate cities, reducing the effect of gentrification and recognising the neighbourhood as a strategic unit of intervention in the social and physical fabric. Bornstein *et al.* (2013) suggest that the framing of disasters' influences power relations, as these events are an opportunity to push certain agendas. This is the reason why it is critical to go beyond the tangible destruction when approaching reconstruction and consider all multiple dimensions that comprehend the territory, revealing that social resources (communities with social capital) are as equally important as material resources (houses) for recovery process.

Notes

1. This paper is part of the research project Fondecyt N°11140181 “*Diseño cívico resiliente en la ciudad intermedia frente a procesos de gentrificación y reconstrucción. Estudios de barrios históricos en Talca, Chile*”, sponsored by the National Commission for Scientific and Technological Research (CONICYT) of Chile.
2. Further information available at: <http://repositorio.conicyt.cl/handle/10533/170743>
3. The interviews were conducted between April and May 2015 with 20 key stakeholders who are politicians, professionals, academics and community leaders belonging from Chilean public, private and community organisations as follows: Ministry of Housing and Planning (three), National Reconstruction Office (two), National Heritage Council (one), Talca City Council (two), universities (two), National Architects Association (one), estate agencies (three), Talca community leaders (four) and NGOs (two). Some of key questions were: Are the reconstruction policies applied at both national and local level appropriate for improving historic neighbourhoods? Is the 2011 Talca reconstruction master plan helping to reconstruct neighbourhoods in terms of physical and social dimension? Has Talca been a successful process of reconstruction? Is gentrification happening in Talca historic neighbourhoods?
4. The 188 surveys were applied in six neighbourhoods of inner Talca – Centro, Centro Sur, Las Heras, Chorrillos, Santa Ana and San Agustín – covering the 16.7 per cent of the total number of households.

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