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Abstract

This article, based on the official census in Chile in 1907, notes its quantitative inaccuracies, reviewing the use of the category of population and its detrimental impact on the Indians, emphasizing how it erases the territorial, political and identity conflicts that traversed the tense relationship between the nation-state and the Indians. The article studies how this problematic shifted at different historical moments in Chilean institutions, showing that despite the different positions taken, it maintained the same epistemological and political configuration, compromising the implementation of public health policies in Chile. The figures of Orrego Luco, Murillo, González y Allende are quoted in these analyses and debates.

Keywords: population; Araucano Indians; census; Chile.

The official census performed in Chile on November 28, 1907, included 101,118 Araucano Indians (Honorable..., 1907). The 2002 census reported 604,349 Mapuches (INE, 2005). These figures suggest that while the Chilean population had grown five times larger, the indigenous population had grown by a factor of six, a population dynamic that is not borne out by everyday experience. In 1964, an official estimate of the Araucano population put it at 173 thousand (Corfo, 1965), while the 1992 census suggests a population of over one million Mapuches (Valdés, s.d.).¹

This anomaly calls into question not just the accuracy of the count but the construction of categories such as Araucano Indian and the scientific practice behind them. This is not only a problem of wrongly classifying Indians as Chileans or vice versa, but also of the validity of using such categories. Questioning the census also, by extension, affects the use of 'population' as a tool for a quantitative and political approach to the 'social'. The objective of this article is to review the framework within which the census, Indians and populations were articulated at the beginning of the twentieth century in Chile.

Background

The work of the central census commission of 1907 (Honorable..., 1907) amply attests to the effort and rigor with which the census was carried out. The commission was headed by Ramón Santelices and included Fidel Urrutia, Enrique Phillips, Ernesto Bianchi, Oscar Viel, Luis Risopatrón, Ventura Piedrabuena, Luis Manuel Rodríguez, Alberto Edwards and Vicente Grez. The members' occupations are listed as including intellectuals, technicians, soldiers and politicians, congressmen, senators, judges, writers, journalists, lieutenant general, and engineers. The commission put in 68 work sessions, at a cost of 183,069.28 pesos, equivalent to some \$410 thousand nowadays², thus saving part of the 220 thousand pesos allotted by the government. Its work cannot be split into two epistemologically opposing halves: one a consistent and scientific way of counting Chileans and the other an inconsistent and unscientific way of counting the Araucano Indians.

Thus, on one level – investigating the size of Chile's population – we are the intellectual contemporaries of the commission and on another – measuring the indigenous population – our logic would be radically different; we would use dissimilar investigation criteria, since we would not commit the obvious error that they were incapable of seeing. One way to put it is that an epistemological rupture has occurred between them and us.

But if we examine the problem on the assumption that there is a continuity between the members of the commission and ourselves, we may be able to find some different and useful disciplinary keys. Indeed, this case serves as an illustration that seeks at the very least to: (a) examine a specific, central object in public health projects: the population, a controversial object, although not in relation to the current hot topic of the 'original nations'; (b) measuring is an everyday occurrence in our disciplinary field, so that a corresponding investigation of errors should also be undertaken regularly; (c) measurements and uncertainty call into question public health research, in the light of "three kinds of interludes – on problems, methods, theory – [that] ought to come out of the work of social scientists, and lead into it again" (Mills, 2012, p.209).³

In the population category, statistical and epistemiological issues underlie public health exercises such as for example mortality rates, from which risk is deduced as a logical, immediate corollary organized around deaths as a numerator and populations as the denominator.

Why use population at all?

Performativity

The expression population usually refers to a piece of data, a figure, a measurement that signals a fact: the number of people found in a territory. However, the word fact is ambiguous in Spanish: an *hecho* is both a given and something that has been made or fabricated. In both cases, it refers to something for which there is evidence, something about which there is great certainty. The words used by the dictionary of the Spanish Royal Academy of Language to define it are finished (*acabado*) and mature (*maduro*). The Araucano population in 1907 fluctuates between both meanings of the word *hecho* (fact). On the one hand, via measurement it becomes finished; on the other, the census merely confirms something that pre-dated the counting process.

Whilst in the early twentieth century, Araucanos were classified based on their "lifestyle, dress and language" (Honorable..., 1907, p.XXII), in the twenty-first century, one's membership in one of the original nations depends on the answer to the question: "Do you belong to one of the following original or indigenous peoples? Alacalufe (Kawaskar), Atacameño, Aymara, Colla, Mapuche, Quechua, Rapanui, Yámana (Yagán) or none of these" (INE, 2005, p.8).

We can hardly criticize the 1907 criteria as racist or biologically determinist, since they are based on characteristics expressing active choice – such as clothing or dress – that fit a matrix comparable to the self-identification implemented in the 2002 measurement.

Thus, both in the 1907 and the 2002 census, the quantification of a population is an intrinsic part of the fact that is being measured. Not as a theory or intention from which a construct or fiction is invented (a narrative, a story), nor as a linguistic expression that constructs or determines reality, which it can then deconstruct, but instead as the fortunate articulation of proposals relating to language, people and things. As Latour says, these issues cross the material, the discursive and the social: "or else the networks are as we have described them and they cross the frontiers of the great fieldoms of criticism – they are not objective, nor social, nor effects of discourses, but real, collective and discursive" (Latour, 1997, p.14). The appearance of Indians in the census in the early twentieth century is linked to a reawakening of anxiety and intellectual production related to the Araucanos, as seen in works by Friar Félix José de Augusta (Gramática araucana, 1903; Lecturas araucanas, 1910), Rodolfo Lenz (Estudios araucanos, 1895-1897; Diccionario etimológico de las voces chilenas derivadas de las lenguas indígenas, 1905-1910) or Tomás Guevara (Historia de la civilización de Araucanía, 1903) (Coña, 1995; Bengoa, 2000). This anthropological concern ('folklore' was the discipline and method of the period) was paralleled by republican and geopolitical issues, which in the census take the shape of registration forms in different colors and specific instructions for the census workers.

The appearance of Indians on the census was not an arbitrary construction, but rather the conjunction of various actors and occupations. Grammar books are part of politics. After

the parliament of 1605, Luis de Valdivia published his *Arte y gramática general de la lengua que corre en el Reyno de Chile, con un vocabulario y confesionario*. In this "first text printed in the Mapuche language ... [w]e see the Jesuit as a figure who concentrated all the grammatological functions of political mediation" (Pavez Ojeda, 2004, p.49). The rise and fall of sociological categories and statistics is the product of a two-way process of both emergence and dissolution. In our own time, the disappearance of the working class from health statistics, for example, is not merely a phenomenon of changes in registration categories, but also in the world and theory. On this issue, Bolstanki comments that: "the reciprocal confirmation among divisions of nomenclature and observable divisions in the world was what ultimately lent credibility to nomenclature" (Boltanski, Chiapello, 2002, p.419).

Quantifying a population is, in this sense, a performative proposition, an enunciative exercise that articulates beings with different modes of existence: things, humans, and words. Indeed, Austin provided the distinction between sentences that can be declared true or false and sentences that form a part of the very action they are referring to (Austin, 1979).

The classic expression is "I now pronounce you man and wife", in which the truth of the phrase cannot be evaluated, because it is paradoxically the sentence itself, uttered of course by the right person in the right place, that creates matrimonial union. Austin called these kinds of utterances performative, since they co-participate in the situation they refer to. Performative utterances are neither false nor true, nor do they depend on one's evaluation of them. As their name shows, they express the form of the process they allude to; if that allusion is correct, if what they propose is accepted by those involved, they are part of the world and they become valid. As Austin puts it, these utterances have 'felicity' conditions, conditions of satisfaction, when they achieve an effective performance.

From this perspective, 'population' is an action that involves performative possibilities, characteristics that also involve public health, not in the sense of evaluation or a purely linguistic phenomenon, but because they co-participate, along with material arrangements and historical developments, in constituting the object of study.

Counting the Indians, measuring the size of their population, is a performative act, since its validity lies in making 'Indianness' a positive fact. This achievement does not stem from the activity of performing the census, but from its links to other proposals circulating in spaces where material arrangements, political interests, border issues with neighboring countries and the debate of the time about "the social question" [the plight of the working class] coincided. In this sense, counting Indians in 1907 turned the people subjugated and defeated in 1881 into ordinary, peaceful members of the Republic. The satisfaction conditions of such acts/ proposals then become the issue to examine in order to understand a specific example of the articulation of population in linguistic, political and material terms.

Thus, the concern with counting the Indian population in the 1907 census and doing so with the utmost accuracy was one of the commission's main activities:

Nothing is more uncertain and contradictory than previous estimates of the Araucano population: sometimes boastfulness or fear enlarged the number, other times self-interest and greed made it smaller. This same uncertainty has continued even in recent years, since there was a lack of any kind of positive data. What has always been accepted, pending further inventory, is the fact, never proven, of the rapid decline

of the indigenous race. The solution to this problem, however approximate, has concerned the Commission from the beginning, and to that end it resolved to carry out the census of indigenous people on forms of a special color, and instructions were given to census workers in the Araucano provinces to record the Indians in such a way as to be able to identify them without difficulty in the calculation of numbers (Honorable..., 1907, p.XXII).

The commission took into account the difficulties, confronted them and argued that its approach was essentially appropriate, implementing a categorization of Araucano "without paying attention to the degree of racial purity" (Honorable..., 1907, p.XXII) and even acknowledging the existence of something wrongly classified: "many pure-blooded Araucanos, who live and speak like other Chileans, have not been taken into account in the registration of indigenous people; on the other hand, mixed-race individuals who observe the customs and use the language of the primitive inhabitants of the country have been included" (p.XXII).

Value of the 1907 census

The 1907 census marks a turning point in the history of official statistics, and it is now considered "as a work of modernity, representing a significant change in comparison to previous experiences" (INE, 2009, p.105). The fact that this particular moment in population measurement included Indians as a population, with an attempt to establish the features and characteristics that made it a visible, autonomous and independent phenomenon, merits particular examination. Modern methods to wage a war of alliances, a test of strength in which this new Indian protagonist was covered with the cloak of population and appears in the census.

The story of the work of the researcher, whether in demographics, statistics or public health, is in a certain sense "the description of a struggle":

Every time a unit is constructed, a group is defined or given an identity, a purpose, a project, every time he explains what is going on, the sociologist as Sovereign and Author – in the Hobbesian sense – adds new identities, definitions and purposes to the Leviathans, which allows others to grow or diminish, be hidden or revealed, expand or shrink (Akrich, Callon, Latour, 2006, p.30).⁵

Indeed, the quantification that occurred in the census, via administrative nomenclature, closed the debates and struggles over the category 'Indian': there was not one single way to be Indian, and furthermore, this was seen as a plural and diverse issue.

Historically each census devoted a huge amount of effort to determining the exact figures. In the colonial era there were regular statistical procedures such as *matrícula de encomienda* or Encomienda registration, Indian surveys, the *matrícula de confesión* (confession registration) and *empadronamientos* or residence registrations (INE, 2009), but the form of the census as a way of generating population belongs to the republican period. In 1811 there was a need for a census that would allow the creation of an electoral roll for parliamentary representation. In the weak institutional culture of the period, the census of 1813 and that of 1835 were dependent on the organizational and administrative powers of the Church. In 1843, the newly-founded Office of Statistics and the Census Law sought to create the first state framework for a material and technical mechanism, to propose a timetable for a population count. The census

became crucial for the construction of the nation's territory and identity and the republican statute as long as the vote was tied to property ownership. The census had to count those who, by accrediting their status as property owners, had the right to vote. Thus the electoral mechanism was termed census suffrage or censitary suffrage.

After 1865, there was a census every ten years, with the notable exception of that of 1907, which had been postponed for two years thanks to the government's economic problems (Honorable..., 1907).

Up to that point, Indians were not included in the population count, since although they were citizens because they owned land, they did not have the right to vote, in other words, they were not summoned to participate in political activity in the Republic. Although they formed part of the nation, they were not considered potential voters. The 1881 electoral reform law, which abolished the census vote, did not include mechanisms to give suffrage to the Indians, so there was still no need for an official count of their numbers.

In 1843, the figures given by tribal leaders had been used. The 1865 census, "like the earlier ones, limited itself to vague conjectures" about the size of this population (Honorable..., 1907, p.XXII).

The 1907 census on the other hand is seen nowadays as a modern one, since it incorporated a new problem for the nation: it attempted to answer the question of whether indigenous territory constituted a nation or not, and whether as a result there were still ongoing border issues as there were with other neighboring countries.

It is not surprising that territory and population were so closely linked in 1907. In recent years, the nation's borders had undergone significant redrawing. In January 1881, thanks to Chilean victories against Peru at Chorrillos and Miraflores during the War of the Pacific, Antofagasta, Tarapacá and Tacna were incorporated into Chile. Ownership of the Atacama Plateau was negotiated with Argentina in 1896 and at the meeting between president Roca of Argentina and president Errázuriz of Chile in February 1889, the eastern borders of continental Patagonia were fixed, and ratified in the Arbitration Treaty of 1902, between Chile and Argentina. Meanwhile, Easter Island was incorporated into Chile on September 9, 1888, and real colonization of Tierra del Fuego began in 1881. As for the Araucanos, a military occupation by the Chilean army finally put an end to any independence in 1881 (De Ramón, 2003).

An official headcount of the Araucano population was part of the process of defining a territory and a nation. However, in 1907 the Araucano Indians were counted as being radically different from other Chileans. They were demographically, territorially, and ontologically other. The official count of the Araucano population did not list the age, marital status, property, or education level of its members – the census mentions only whether they were literate or illiterate – nor did it record any physical defects. In addition, census figures for the Araucano Indians appeared as an appendix to the 1907 census. The count included Indians from 115 subdelegations, 18 departments and six provinces. The evaluation of Chileans, on the other hand, was multidimensional, and divided into six characteristics, which were grouped into 11 categories: age, marital status, education level, profession, property, and physical defects (deaf, deaf-mute, blind). This information occupied 1,258 pages out of a

total of 1,273, whereas a mere seven pages were devoted to the Araucanos, who, under these conditions, represented a little over 3% of Chile's inhabitants.

In terms of the Araucano Indians, only gender and number mattered. As to religion, the census shows that some 24,100 of them "still profess their primitive religion: the rest have become Christians, although their practices differ little, as a general rule, from those of pagans" (Honorable..., 1907, p.XII).

The size of the indigenous population, which was listed only by gender and place, required population sizes of only one individual, as in the subdelegations of Los Notros, Ñauco, and Angachilla, which had only one male Indian and no females. Or the other way round, with only one Indian woman and no men, such as in Cañete, San Carlos de Purén or Millapoa.

Thus, the way the Indian population was represented, the tables and even the census itself can be read as a multi-layered narrative that was both political, economic, linguistic, literary and territorial.

In the end, the 1907 census managed to achieve its felicity conditions, its performative act. It also recruited allies, including Indians in the official count, so that this became an obligatory step. Operatively, it managed to provide a number that stabilized the controversies about the extinction of Indians. The census categorically affirmed that, as an independent political phenomenon, the Indians no longer existed: from then on they were a population.

But if the indigenous population of Araucania does not appear to be dying out, its fusion with other ethnic elements has not been consummated to the extent one would wish; on the other hand, it has finally ceased to form a compact whole, a nation with defined 'frontiers' as it was up until a quarter-century ago. The 101,118 Araucans are scattered throughout the civilized population of six of the richest provinces in Chile. A quick glance at the indigenous census reveals that only in one department, Imperial, do the Araucanos make up half of the population and that not even the smallest portion of territory in the Republic is populated exclusively by them. The conquest and occupation of Araucania has ended without annihilating the defeated. No one solution to the long-running dispute of the last three centuries could be more desirable than this one (Honorable..., 1907, p.XXIII).

Thus, the census created an indigenous Chilean population. Chile's army colonized the Indian question, tamed the savages and civilized the other. The results wiped out any possible rebellion or autonomy. Thus, the mechanism of the census, thanks to its laborious effort, was a success. It managed to end the controversy, stabilize discussions and produce an obvious, unarguable and relevant fact: there was no longer an Indian nation; it had become merely a part of Chile's population.

For this reason, it seems appropriate to call the Indian population in 1907 quasi-objects, as Serres does (2007). Objects are not counterposed to subjects, but are associated in turn with quasi-subjects. They are part of a debate, they wield arguments and justify their existence, they parasitize or are parasitized. Or perhaps we could also call them 'acting principles', like Greimas and Latour, so as not to get hung up on the distinction between human and non-human: "'anything' that influences and thus modifies a state of things is an actor, or, if it is not yet represented, an acting principle" (Latour, 2008a, p.106). Without attributing subjectivity or intentionality to objects, the notion of the acting principle allows us to acknowledge their

importance and specify their action. It also makes it possible for an association of humans and non-humans to be understood as part of a proposal.

Population

Population can be described as a mechanism in Foucault's sense (2008) in terms of prison and crime, a quasi-object or a 'factish' (Latour, 2003). This neologism, coined as a combination of fact and fetish, seeks to show that belief and the objectual are linked: "factishes are types of action that do not form part of the threatening judgement that separates fact from belief" (Latour, 2003, p.365). In other words, it involves hybrids that cannot be resolved between fact and fetish, associations in the sense used by Tarde (2006) to generalize the association to all kinds of real beings, both discursive and collective (Latour, 1997).

In 1907 the Araucano Indians were not a 'naturally existing' ethnic group, nor on the other hand were they a false belief manipulated by racist thought. The Araucano Indian population can be understood instead as a composite of geopolitics, economics, Darwinism, nationalism and social justice.

While we may disagree with that composite nowadays, we do not do so in terms of another natural or purely social concept of the Araucanos, but because of an alternative vision, an equally hybrid composite that incorporates arguments involving politics, economics, borders, nations and even epidemiology. The quasi-objects, the factishes are 'matters of fact', objects that appear with their own positivity, but they are also 'matters of concern', objects of interest or anxiety, pressured by controversy in the midst of an exercise involving putting things together (Latour, 2008b).

Population, economy and politics in this story, and the Indians as an irreducible residue, are woven together in a problem that is not merely an issue of measurements or headcounts. The census sought to address the problem of the strength of the nation, which originated in political economy. This discipline, which arose as an investigation into nations and governments from the seventeenth century on, treats depopulation as a verb, as something that happens to the nation and stalks it in the form of a process of decline and threat in pre-Malthusian times.

However, from the eighteenth century on, the possibility of depopulation underwent a reversal and it started to be conjugated as population, in other words it was tackled as a governmental policy whose job was to populate. In 1703, for example, confining the Indians – subduing them – was synonymous with population:

make a general population of all the Indians [in them] already subdued or who may be subdued in the most comfortable places and settings which according to the ordinances are foreseen and contained in the instructions to that effect which have been sent to you to ask your opinion on all [of this], on which topic it is my royal and pious will that these populations and subjections be achieved so that the Indians may be free to live a social and political life, and so that they can be better instructed in Christian doctrine (Jara, Pinto, 1983, p.11).

By the nineteenth century, population was a noun, something that concerned the government and the object of scientific research, a demographic and public health issue. Also, the politics of 'governmentality' are essential to understanding the new significance of the

population. Population arises – according to Foucault (2007) – from the disbanding of the police regimes widely debated in the seventeenth century and their breakdown into four elements: economic practice, population management, law and respect for freedoms, and police.

With population governments, we leave behind the 'pastoral' administration of the governed and the relationship mediated by the king's individual pact with each of his subjects, towards an interchange that has many elements of reciprocity. In exchange, we have the government of a series, made up of the aggregate of individuals, managed by collective rules: it is the period of the norm. "The population is pertinent as the objective, and individuals, the series of individuals, are no longer pertinent as the objective, but simply as the instrument, relay, or condition for obtaining something at the level of the population" (Foucault, 2007, p.63).6 In other words, population emerges as a political and administrative category when sovereignty gives way to political representation, and when legal theory is based on a political pact between citizens and the government, in which political arithmetics makes the population a fulcrum for a pact based on care for and protection of citizens' lives. On the part of the state, the need then arises to administer and protect those with whom it has negotiated through the law. Thus a set of concerns appeared ranging from hygiene to urbanism, from demography to police, which were to dominate public politics: the number of people, their needs, their health, their work activity and their circulation constitute from that moment on both an object of study and a subject to be governed, "as a new collective subject absolutely foreign to the juridical and political thought of previous centuries is appearing here in its complexity, with its caesuras ... The population covers the old notion of people, but in such a way that in comparison with that notion the phenomena are spread out" (Foucault, 2007, p.63).

In the field of public health, vaccination signaled the emergence of a new mechanism, a new relationship that gradually undermined the clear separation of the healthy from the sick:

What does the apparatus that appears with variolization-vaccination consist in? It is not the division between those who are sick and those who are not. It takes all who are sick and all who are not as a whole, that is to say, in short, the population, and it identifies the coefficient of probable morbidity, or probable mortality, in this population, that is to say the normal expectation in the population of being affected by the disease and of death linked to the disease (Foucault, 2007, p.82).

The full emergence of government population techniques led to the erosion of police governmentality, based on the creation of state utility from and through human activity.

Economy and politics, or rather, the rise of political economy, shows the eclipse of government thanks to police techniques and the development of a governmentality of populations:

In brief, the new governmentality, which in the seventeenth century thought it could be entirely invested in an exhaustive and unitary project of police, now finds itself in a situation in which it has to refer to the economy as a domain of naturalness: it has to manage populations; it also has to organize a legal system of respect for freedoms; and finally it has to provide itself with an instrument of direct, but negative, intervention, which is the police. Economic practice, population management, a public law constructed on the respect of freedom and freedoms, and a police with a repressive

function: you can see that the old police project, as it appeared in correlation with *raison d'État*, is dismantled, or rather broken up into four elements – economic practice, population management, law and respect for freedoms, police – which are added to the great diplomatic-military apparatus (*dispositif*) that has hardly changed since the eighteenth century (Foucault, 2007, p.405).

Despite the categorical nature of these words, they contain some questionable claims. Le Brass has pointed out that population, as the strength of a nation and the result of a headcount, had already appeared in 1662 in the *Natural and political observations* of J. Graunt, so that the temporal coordinates are off by almost a century. But more importantly, the origin of population is linked to the absolutist state, with the birth of science as 'modern' organization, and also with concepts relating to life and death shifting from being a private concern towards the state dimension of the strength and efficacy of government, and the importance of calculations in knowledge and administration (Le Bras, 2000).

What is clear is that the size of the population, its regularities, its dynamics as a problem of the strength of the state which thus led to a host of measurements – offices in charge of registries, processing, publications and numbers – evolved slowly, and only gave rise to an explosion of figures beginning in the nineteenth century, in France and Prussia, from 1820-1840, triggering the modeling and theorization of the populational regularities and the rise of a particular form of research entitled 'moral arithmetics' (from *moeurs*: customs, society) and its lesser used derivations, such as 'political arithmetics and social arithmetics'.

The 1907 census as a population force

The 1907 census responded optimistically to the political and economic questions of the time, since it stated, on the one hand, that the population of Chile was growing and on the other, that the Indian population had been stabilized and pacified. However, in order to reach these conclusions certain operations had occurred. Firstly, the Araucano Indians had been defined only by three categories: way of life, dress and language. Also, the only ones counted were those in the south of the Bío-Bío region as far as the Reloncaví Sound, excluding the Indians on the Chiloé Archipelago to the south (the 2002 census apparently groups them with the Mapuches, since they are not assigned their own category), the Chonos, the Kawashkar, the Yaganes and the Selknam, while to the east it did not include the Easter Island Indians. The Aymaras, the Quechua, the Collas and the Atacameños of the Andean highlands were not taken into account either.

Clearly, neither the Andes, nor the sea, nor the islands were territories to be considered as inhabited by indigenous people. Needless to say, the cities were not considered either, or the talks with the Lonkos or with religious organizations about how criteria should be defined. Population was a force and what was being measured was its strength.

The Indian question began to surface again in the middle of the twentieth century. At the height of developmentalist policy in the 1960s, the issue of population and in particular how to take the Indians into account was seen not as a force but as a resource or factor, an economic and industrial variable. The four-volume research study by the Corporation for the Promotion of Production (Corfo, which evaluated productivity factors, saw population as a human factor in the national economy and devoted one hundred pages to analyzing it

(Corfo, 1950). In the revised version of 1965, the causes of the defeat of the Mapuches were analyzed and the figures for the Indian population were revised, giving an estimated 173,000 Araucanos for 1964 (Corfo, 1965).

Once again, the vagueness of the figures is surprising. If we were to note in one column the various size estimates over three centuries, combining sources (Corfo, 1950, 1965; Lipschütz, 1956) and starting from an estimate of one and a half million natives at the time the Spanish arrived, we would get the figures presented in Table 1.

Table 1: Estimated indigenous population for 19th, 20th and 21st centuries

Year	Population
1541	1.500.000
1813	111.618
1890	40.000
1907	101.118
1920	105.000
1940	115.080
1952	130.547
1992	1.156.217
2002	604.349

Source: created by the authors using Corfo 1950, 1965 and Lipschütz, 1956

The Corfo text (1950, p.86) is not merely a descriptive document; it also offers a judgment on the condition of the Indians at the time of the Spanish conquest that makes it possible to argue 'natural' reasons for depopulation:

[These were] refractory peoples, characterized by great stability, based on a simple, uniform technique. Self-governing tribes, groups that lived off their own resources, with no sense of economic utility or interest; with no political unity, lacking any concept of the state and clinging to a superstitious religion that had no relationship to morality, they were collectively unable to resist the warlike onslaught of the conquistadors and missionaries.

The text claims there was an evolution towards *mestizaje* (racial mixing), which was later counteracted by a trend in the opposite direction: "From the sociological point of view, in the *mestizo* people over the first few centuries, atavistic aboriginal factors seem to have predominated; but later there was a separation of the races that permitted predominance of cultural and social elements of Hispanic origin (Corfo, 1950, p.106). As for the nation and race, it concludes:

In terms of national origins, Chile's population is approximately 97% of Chilean origin, in other words it was formed over centuries by the coexistence of Hispanic and aboriginal peoples in war and friendship; approximately 25% are pure Spanish; 66% are *mestizos* who are mostly white, and 5% are indigenous ... Culturally, the race could be classified as Neolatin (Corfo, 1950, p.106).

Social justice, hygiene or atavism?

Race was also one of the arguments in the population debate about public health at the end of the nineteenth century. As we mentioned earlier, the 1907 census sought to respond to the problem of population or, more precisely, to the problem of depopulation.

Augusto Orrego Luco (1961) had broached the issue of Chile's population in 1884, in the Valparaíso newspaper *La Patria*, in his article entitled "The social question in Chile". In response to another article in the same paper drawing attention to the depopulation of Chile, Orrego starts out by agreeing with the writer as to the country's high fertility rate (which he termed Asiatic) and the damaging effects of emigration, especially from the Chiloé Archipelago. Furthermore, he stressed the nomadism of the people and the problem of alcohol abuse. Without drawing such dramatic conclusions as the previous writer, he registers his concern that "a series of causes is hindering the development of our population in both the physical and the moral sense" (p.3). Resorting to modelling based on the laws of large numbers and political arithmetics, and citing Quételet, Orrego acknowledges a grave threat: "This monstrous fact – that is being formulated for the first time in the articles we are writing – cannot continue without causing an economic and moral revolution, a formidable development we must try to combat" (p.52).

Another notable creator of national health statistics and indefatigable seeker of exact figures, Adolfo Murillo (s.d., p.2), also contemplated "the abundant flow of death weakening our forces of growth and expansion". Arguing that the authorities were minimizing the gravity of the mortality statistics, his opinion is polemical from the outset: "I must hastily declare that I am not in agreement with Dr. Del Río in his assessment of what he calls the demographic movement of the city of Santiago" (p.2).

Murillo (s.d.) argues against Del Río that the mortality rate was very high in the city of Santiago. He demonstrates this by comparing Santiago's mortality rates with those of similar cities in America and Europe: "from this point of view, Santiago is one of the most deadly cities in the civilized world" (p.8). Another sign that alarms him is the high mortality rate for infants and young children.

Murillo's proposals (s.d., p.15) at the turn of the century build on his original hygienist proposals by adding the reforming effect of morality, education and state support:

I do not believe that a sewage system nor an abundant supply of good, cheap drinking water are adequate. The people must be taught and educated, to lift their spirits and make them understand the virtues of a healthy life and the fatal influence of vices on morbidity and premature death. But this requires that they be taught by example; [they must have] schools that reform [them], housing that makes people healthy, that provides a means of work, and asylums for restoring lost forces and curing the sufferings of the body and even those of the soul. The misery of the people is greater than imagined: it requires that defenseless mothers be saved, and sterilized milk be provided so they can raise their children.

If we return to the final lines of Orrego Luco's article (1961, p.49), we find contemporary-sounding words about the "unequal distribution of wealth and political and social power", moving from demographics to salaries, social inequalities and proposals for measures that will supposedly forestall a revolution:

We need to raise wages, and that can only be achieved by resolutely promoting this country's industrial development; boosting industry, protecting industry; [and by] openly and clearly renouncing the small advantages of foreign competition that destroy small national industries, and that we are paying for with the well-being and life of our compatriots (p.53).

The threat of depopulation lies at the heart of the concern for social justice that emerged in public health discourse at the end of the nineteenth century, both in Orrego Luco (1961) and Murillo (1896, s.d.). However, the arguments lead in two different directions. One the one hand, protectionism and development, and on the other, hygiene and education with invigorating doses of morality. At the bottom of all this lay, once again, the Indians.

The inter-war period: order or medico-social action

Barely two decades later, the population of Chile was discussed in a dissertation presented in the Faculty of Law and Political Science at the Universidad de Chile (University of Chile) by degree candidate Jorge González von Marées. It provides an interesting analysis of figures, populations, rates and hypotheses, written by the founder of the National Socialist Movement in Chile, the mastermind behind the 1938 occupation of the Casa Central of the Universidad de Chile (a failed putsch attempt by National Socialist members). It is strange to see the links between his analyses of mortality in his student thesis and those he would provide as minister in a government elected by a slim majority that same year of 1938, in the wake of the uproar over the execution of the rebels. This victory was due to the repercussions of the massacre of the rebels at the Seguro Obrero building at the end of Alessandri Palma's presidency, a massacre which led to the Popular Front's electoral victory and the appointment of Salvador Allende, in 1939, as minister for Public Health, Welfare and Social Assistance.

Order and the problem of the working class

In his dissertation, González von Marées (1923) calculates the number of births, the size of the population, the mortality rate per thousand inhabitants, the number of deaths of children under one year old and the proportion compared to the overall death rate. He was writing in the post-war state, which had offices for job statistics, and a network of inspectors, publications and official records. If only for this reason, the dissertation is worth examining. But it also reviews the state of the working-class family, their housing, economic situation (income and breakdown of expenditures), upbringing and education. In order to do this, González examined reports from the Central Office of Statistics and the Labor Office. In this document we find a plethora of data from official statistics, as well as a striking use of tables and results of published research on the consumption and expenses of working-class families. Official bulletins from the Labor Office on the state of factories helped González to present the situation of the working class as a controversy with quantities, proportions and numbers.

González von Marées' hypothesis (1923, p.60) involved the decadence of the population and the threat of depopulation as a sign of crisis:

were it not for our country's superb climate and the extraordinary vitality and strength of the race that inhabits it, we would already have reached such a degree of physical

decadence, that at this point our nation would be on the verge of collapse. ... But, while it is true that we have not yet reached such extremes, it is equally true that we are a long way down the path that leads to them.

The author bases his argument on the proportion of births to deaths, stratifying the figures by age, and eventually confirms the importance of the death rate in infants under one year: "an interesting and highly illustrative observation about the significance of the problem of mortality in terms of the future development of our country is that of the ages at which deaths occur in Chile" (González von Marées, 1923, p.61-62). Since González did not have access to life-expectancy figures that would allow him to evaluate survival by age group, he compared the proportion of deaths in people under thirty: "according to these numbers, over fifty per cent of the people who die in Chile are young children. One half of Chileans die before they reach the age of ten and one third before the age of one" (p.63).

For González von Marées (1923, p.64), the causes of the overwhelming mortality in this age range lay in "unhealthy living conditions, ignorance and uncleanliness".

One of the central elements running throughout the author's work is order: order in the family, given the number of illegitimate children, the low proportion of civil marriages and overcrowded living conditions: "good organization in the family undoubtedly constitutes the basis for the prosperity and happiness of a people" (González von Marées, 1923, p.87). Order in spending, since, according to González, the cause of poverty is not the size of wages, but the high proportion of working-class income devoted to food and the limited proportion devoted to clothing. Order in education, which he critics for wasting its efforts on the "exaltation of personality" (p.102) and seeking an "ever more practical education" (p.101), in which "books must be banished as far as possible" (p.101).

He makes a distinction between [working-class] man, whom he describes as:

lazy, ignorant, brutalized by the plagues that corrode his body and soul, and almost always devoid of any higher feelings to rein him in, he has completely abandoned himself to his brutal instincts and is reduced to the most deplorable state of perversity and corruption. His joys and passions only germinate in the midst of vices. His greatest pleasure lies in drunkenness, in other words, in that pathological state that makes man descend well below irrational beings. Barring some rare exceptions, none of the numerous delights provided by family life, sports and contact with nature in general are capable of striking a chord in him. Sad is the fate of a people whose only places of happiness and entertainment are gambling dens, brothels and bars! (González von Marées, 1923, p.56).

Woman is presented as man's exact opposite:

often worthy of admiration. Burdened with worries, weak and ill, she commonly faces with stoic endurance the rigors of a pitiful existence. Conscious of her duties as mother and, as such, self-sacrificing and brave, she is resigned to bearing the sufferings and privations to which poverty condemns her, and does not hesitate to sacrifice herself for the well-being of her children and a husband who is almost always brutal and selfish (González von Marées, 1923, p.57).

Even though the issue of the Indians is eclipsed here by that of work, the major problems we have outlined persist: population/depopulation, order, education, morality, and wages.

Against the background of instinctual behavior, corruption, lowness, sexuality and alcohol, we can discern an allusion to the Indians.

Final considerations

Thirteen years after this dissertation, Allende, by then minister for Public Health, Welfare and Social Assistance, published *La realidad médico-social chilena* (Medico-social reality in Chile), at a point when he describes Chile as being in the midst of a "struggle to rid itself of autocratic economic and free market practices, to channel its social life along the lines of cooperation and effective well-being that will apply to all the working classes and the middle class" (Allende, 1939, p.5).

In the first section, Allende (1939, p.15) concentrates on population, births and mortality. Once again, the conclusion is that "the growth of our population is very slow". He includes tables comparing Chile with Brazil, Argentina and Costa Rica, estimating the rate of growth using the years when the number of inhabitants doubled as a yardstick.

He then examines the figures for marriages, births and deaths. In a separate chapter he describes the figures corresponding to the mother-child binomial and the evolution of infant mortality from 1925-1936 for 26 countries, confirming Chile's deteriorating situation: "This elevated infant mortality is due primarily to economic and social causes, whose most striking expression is the low standard of living for the working masses" (Allende, 1939, p.83). Lastly, after examining abortion figures, he concludes:

there are hundreds of working-class mothers anguished by their scant wages who have abortions in order to avoid having another child who will be a drain on their already meager resources. Hundreds of working-class mothers lose their lives, driven by their grievous economic reality. Thousands of working-class mothers are left sterile as a result of infections acquired because of abortions (Allende, 1939, p.86).

For Allende, the solution to the problem lies not in order, nor a disciplined upbringing. However, like González, he says that the country must regain its heritage: "the race, the working people, [must be] given back their physical vitality, the qualities of virility and health that were their obvious characteristic in the past" (Allende, 1939, p.5).

Once again, population is the category on which these arguments are based. Its size and dynamics, and the threats to it, are shared as a diagnosis. The strategies and roles offered for institutions are different. There is an underlying common denominator: governmentality, territory, frontiers, the nation-state.

Statistical categories are based on these assumptions and they in turn feed the debates. Population is not marginal to government strategies and disputes. Seeing it as just one more piece of data is to take one of the sides in the debate. This sidesteps the depth of a political controversy that is fortunately not over yet, but very much ongoing.

NOTES

¹ The official figure for the population measured only included people over 14 years of age.

² Calculated using Wagner and Díaz (2008) and data from the National Institute of Statistics (INE).

- ³ In this and other citations of texts from non-English languages, a free translation has been provided, except for Foucault (2007).
- ⁴ "Ou bien, les réseaux son tels que nous les avons décrits et traversent les frontières des grandes féodaux de la critique ils ne sont ni objectifs, ni sociaux ni effets de discours tout en étant réels, et collectif, et discursif". In this and other literal citations from texts published in languages other than Spanish, the translation is a free one, with the exception of cites from Foucault.
- ⁵ "Chaque fois qu'il construit une unité, définit un groupe, prête une identité, une volonté, un projet, chaque fois qu'il explique ce qui se passe, le sociologue Souverain et Auteur au sens de Hobbes ajoute aux Léviathans en lutte de nouvelles identités, définitions et volontés qui permettent à d'autres de croître ou de diminuer, de se cacher ou de se révéler, de s'étendre ou de se réduire".
- ⁶ Citations in English from Foucault (2007) were sourced from Michel Foucault, *Security, territory, population: lectures at the Collège de France, 1977-1978*, London, Palgrave MacMillan, 2007.

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