Hans Betzhold and the Chilean "superman:" a tale of disillusion, 1938-1943

Marcelo Sánchez-Delgado

Professor assistente, Facultad de Filosofía y Humanidades/ Universidad de Chile. Santiago – Santiago de Chile – Chile historia.mjsd@gmail.com

Nicolás Cárcamo-Gebhardt

Investigador independente. Grupo de Estudios de Historia de las Ciencias de Chile. Santiago – Santiago de Chile – Chile nico.carcamo@gmail.com

> Received on 3 May 2017. Approved on 1 Feb. 2018.

Translated by Derrick Guy Phillips.

http://dx.doi.org/10.1590/S0104-59702018000300004

SÁNCHEZ-DELGADO, Marcelo; CÁRCAMO-GEBHARDT, Nicolás. Hans Betzhold and the Chilean "superman:" a tale of disillusion, 1938-1943. *História, Ciências, Saúde – Manguinhos*, Rio de Janeiro, v.25, supl., ago. 2018.

Abstract

The Chilean physician Hans Betzhold published the book Eugenesia (Eugenics) in 1939, which was a work that received multiple awards and ran to a second edition in 1942. Both editions and the participation of Betzhold at the Second Peruvian Conference on Eugenics in 1943 attest to the fact that he was an important actor in the field of Chilean eugenics. This paper analyzes his transition from the publication of Eugenesia, in which he proposes a National Eugenics Department combining existing projects and laws to make the eugenic ideal a reality until its intervention, in the year 1943, when his optimism yields to disillusion regarding the task of creating a "Chilean superman."

Keywords: history of medicine; Hans Betzhold (1897-1951); eugenics; Chile; Second Peruvian Conference on Eugenics.



 ${f B}$ efore the final decades of the twentieth century the history of medicine in Chile was mainly a field dominated by physicians; in their narratives they presented stories of heroic progress where the figures of great faculty members such as philanthropists and humanists were in evidence. Within this space oriented to corporate propaganda, biography was one of the most recurrent genres since it made it possible to highlight the superior values of these physicians and enhance the achievements in this developing area (Campos Marin, 2005; Hernández Sandónica, 2005; Álvarez Peláez, 2005). In historiographical terms, since the advent of the Annales School, there has been a rejection of the biographical genre due to methodological conflicts with that story, based on major characters to forge a continuous narrative that served as an instrument of validation for different institutions (Carreras Panchón, 2005). Since the 1970s, medicine and the biomedical sciences have been an important topic of attention for researchers inspired by the social and cultural aspects of practices and knowledge, which have provided valuable information on professions, diseases, institutions and mentalities (Illanes, 1993; Zárate, 2008; Leyton, Palacios, Sánchez, 2015), giving preferential attention to the field and to diachronic approaches (Bourdieu, 2005). Until the late 1980s biography was largely ignored, before making a marked comeback and integrating critical and social processes, highlighting its functionality at the time of making readings, which for our case, deal with the circumstances in which medicalscientific knowledge is produced, using history as a problem in its favor (Campos Marin, 2005, p.152). This investigation inspired by a micro-historical and biographical approach, has the purpose of broadening, from an unexplored angle, the design of a eugenic project synthesized from the south of the American continent, centered on the thought of a character that provides an illustrative example about a singular political instance in the history of Chile and on the appreciation of the national body as an object of the State. We think that this approach ranging from particular to general aspects makes it possible to better understand relevant aspects of the cultural and political history of Chile and Latin America.

Hans Betzhold Hess is an oft-mentioned name in Chilean historiography on eugenics. The historian Gabriel Cid (2009, p.36) places him in a radicalized and sterilizing eugenic line of thought, which, according to Cid, was marginal with respect to a more moderate mainstream that was considered predominant in the country. Víctor Farías (2005, p.26) offers a different view on Betzhold. He presents him as "the greatest authority on eugenics in Chile," a "fervent supporter of Nazi euthanasia" who was the "most relevant scientific source" of Dr. Eduardo Brücher in the elaboration of a law on the sterilization of mentally ill people in 1939. Farías (p.88) describes Betzhold's text *Eugenesia* as a "compendium of quite incoherent statements with very few references to the status of research," which, however, for the same author operates as "a very important historical-scientific document to illustrate the infiltration of Chilean medicine and of the highest governmental spheres by active promoters of the most extreme Nazi racism." These references to Betzhold in Chilean eugenic thought was the motivation to conduct in-depth research into *Eugenesia* and its author as, until now, there has been no biographical approach or detailed analysis of his work.

María Eliana Labra (2004, p.209-210) contends that in relation to public health during the 1930s three ideological matrices can be identified in the Chilean medical-political scene,

namely the liberal conservative, the socio-democratic and the socialist matrices, which compete among themselves regarding the way of managing and organizing the health model, to configure a system that conducts health services at the national level. The first matrix only accommodated the economically active population, ensuring the quality of consumers of the workers and appealing to their capitalization capacity, in order to make each worker a small owner, safeguarding their economic stability and subsequently their biological integrity as an economic factor. The socio-democratic matrix acknowledged elements of European social security, oriented towards the English model, seeking the maintenance and multiplication of "human capital," offering a more integrated vision of the need for health for the development of modern social roles in the economy. The third matrix, appealed to the universalization of health as a right, contemplating the family nucleus within the logistics of salaried work.

Considering this approach, Berthold's proposal does not fit readily into any of these three matrices; from its eugenic impetus it simultaneously concentrates apparently antagonistic factors to these matrices. It proposes a centralized and universal institutional version, derived from the Nazi-fascist model, open to incorporate already existing legislations of a clearly liberal and socio-democratic tone. Berthold's initiative could be considered as a reflection of a local scene, which leads to specific political circumstances, seeking for a way to manage public health in Chile during the 1930s, based on the paradigm of eugenics; an adaptation that takes the totalitarian discourse characteristic of Europe and recreates it in the Chilean context, with a degree of flexibility that permits incorporating laws and institutions from different political standpoints (Sánchez, 2016). We contend that Hans Berthold's statements on public health issues represent the development of a Chilean historical experience, projected into the Latin American reality, in which there is an adaptation and some degree of integration between fascism, liberalism and social democracy. We believe that Berthold is a figure of interest for the history of eugenics, while his thought is presented as a remarkable case for the history of ideas in the region as the voice of a sector of physicians who saw a possible alternative for national development in fascism.

Although Betzhold did not attain the rank of a national political figure, such as Salvador Allende, Gosens and Eduardo Cruz-Coke, he was an important figure in the field of eugenics and in a consolidated network of German physicians in the cities of Valparaíso and Viña del Mar who controlled hospitals and regional clinics. Valparaiso, a city of immigrant communities (mainly English, Italians, Spaniards, French and Germans) thanks to world trade prior to the opening of the Panama Canal, was a city with a great mutualist, worker and trade union tradition that was in the 1930s in the center of a medical and social debate, which highlighted the so-called "medical vanguard," which in a congress held in Valparaiso in 1936 strongly and decisively raised the right to abortion and contraception policies. The Catholic sector of the medical profession responded to this congress at the end of the same year, with the Catholic Conference on Medical Studies. The figure of Betzhold features predominantly in this field of eugenics thanks to his text of 1939, relaunched in 1942; but it is also of importance in the national context, in the attempt to answer one of the most pressing questions of the political debate of this period: How to heal and regenerate a people?

This paper begins with a preliminary presentation of his biography and then proceeds to outline a chart of his thought. With the publication of *Eugenesia* in 1939 – a work with strong utopian overtones – Betzhold established the need to set up a "National Eugenics Department" to unify the entire Chilean health organization. Later, at the Second Peruvian Conference on Eugenics in 1943, his disillusion and frustration regarding the possibility of fully realizing a eugenic project at the national level was evident, according to him, due to the degrading influence of economic inflation and the vices of the political liberalism that led him to limit his initial grandiose program to the fulfillment of the slogan "bread, roof and shelter." We will also investigate the transformations of the *Eugenesia* text that, from 1939 to 1942, incorporated a monumental addition of content, causing a great deal of confusion. For practical purposes, the second edition serves as our main reference for his work.

Hans Betzhold Hess: biographical notes

Hans Betzhold Hess was born in Chile in 1897. Son of Francisco Betzhold and Ema Hess, he began his medical studies at the University of Chile and conducted his internship in the Obstetric Clinic of the San Borja Hospital from 1918 to 1920, the year in which he qualified as a surgeon. His degree dissertation *Estudio acerca de la eclampsia puerperal y su tratamiento con adrenalina* (Study about puerperal eclampsia and its treatment with adrenaline) (Betzhold, 1920), analyzes the treatment with hormones in convulsive symptoms after childbirth; showing an interest in avant-garde techniques in medicine, if we consider the incipient state of Chilean endocrinology in the 1920s (Sánchez, 2016). In 1925, Hans Betzhold married Maria Violeta Purcell, settling in Viña del Mar.

Betzhold established his career in the region of Valparaíso where he worked actively in the San Agustín Hospital - subsequently called the Enrique Deformes Hospital - in the Carlos Van Buren Hospital, in the Jean and Marie Thierry Children's Hospital (Uribe Concha, 1981, p.10) and in the German Hospital of Valparaíso, all hospitals located in the center of the city of Valparaíso, except for the last, sheltered among the hills of Cerro Alegre, a sector predominantly inhabited by well-to-do migrants. Following the initiative of the Buenos Aires German community, that in 1867 had founded a center with similar characteristics on April 10, 1875 motivated by members of the Germania Lodge and the Society of German Beneficence, the German Hospital Society was established and opened its doors officially on October 21, 1877 (Valenzuela, 1999). It was the second German hospital in the southern cone and became the first private medical center linked to the German colony in the country, followed by Concepción, Santiago and Valdivia (Dessauer, 2015; Valenzuela, 1999). Despite its early origins, this center was always at the forefront of thoracic, abdominal and gynecological surgery. In these facilities, in 1879, the first blood transfusions were performed from cattle to humans and it also housed "the first anesthesia device that enabled artificial respiration" (Estrada Turra, 2014, p.165).

It was in this location that he excelled as a surgeon participating in the first lung suture performed in Chile in 1925 on a patient wounded with a knife. At the time he was assisting Dr. Guillermo Münnich, who was prospering as director of the institution (Lemus Beytia,

1997, p.461). The relationship of Betzhold with Dr. Münnich was among a prominent circle of surgeons of German origin in Valparaiso – including Adolfo Reccius, who would succeed Münnich as director from 1948 onwards – Ricardo Fonck and Federico Ankelen (Cubillos Osorio, 2004). Since the late 1920s, Betzhold was also affiliated to the judicial system, as a physician linked to the Juvenile Court of Valparaíso and was acknowledged by Judge Luis Vicuña Suárez for his contributions in cases of a eugenic nature.

In 1930, as a member of the Medical Society of Valparaíso, he participated in the organization of the First National Congress of Popular Nutrition to take place in September of that year, along with renowned personalities such as Drs. Vicente Dagnino, Gustavo Fricke, Víctor Grossi de la Guarda and Carlos Schwarzenberg, who under the slogan that "the triumph of the World War, corresponded to the party that could best support its nutrition," saw in the precariousness of popular nutrition an "undeniable decline of the family budget and the robustness of our race," which motivated them to propose a "broad congress, whose conclusions would be the last word on such vital and debated issues as the supply of milk, the repression of alcoholism, the inspection of food and others" (Comisión Organizadora, 1930). This initiative accounts for a scene formalized both in professional terms, and the circulation of medical knowledge about the risk involved in maintaining a physiologically weak population to meet a developmental goal.

Eugenesia, the story of a book

The 1930s in Chile can be identified as a period with a large presence of eugenics in the public debate. Since the decade of 1910, eugenics was already part of a national debate around the "defense of race," but it was in the 1930s when it became the subject of "coffee table-talk" (Barahona, 1938, p.187); namely a relevant topic in professional, confessional and intellectual environments as well as in the domestic scenario. Milestones that account for this marked boom in the eugenics debate are the Catholic Conference of Medical Studies of ANEC (National Association of Catholic Students) of 1936, devoted in large part to debating eugenics (Sánchez, 2014) and the presence of a vast output on the subject in newspapers, university leagues, specialized journals and degree dissertations in medicine and law (Letelier, 2009); so the publication of Betzhold's *Eugenesia* is part of a very active field and of notable presence in the academic and political sphere. Cases like those of Manuel Martín, Waldemar Coutts and Juan Andueza have deserved special attention on the scope of eugenics in multiple spaces (Sánchez, 2014).

With respect to the national political scenario, the political situation that covers the first period of the Popular Front, during the government of Pedro Aguirre Cerda between 1938 and 1941, was characterized by a series of collaborations between the center-left and the parties of the right, where "the dominant bloc represented by the right-wing parties loses the presidential elections, but maintains a parliamentary power that allows it to regulate the political behavior of the ruling bloc, forcing it to policies of compromise" (Moulian, 2006, p.21). Within this logic of "counterbalancing policies" (p.47), the Radical Party and the government coalition see in the population policies a defense in demographic matters, linked to the occupation of the territory and production structures, projecting the social model

towards a time where the citizen's biological constitution would surpass the economy of self-subsistence and external dependence, fostering inward growth (p.14).

A decisive factor in the election of 1938, which finally enabled Pedro Aguirre Cerda to be voted in as president along with the backing of the Socialist Party (Moulian, 2006), was the support provided by the Chilean National Socialist Movement, founded by Jorge González von Marées in 1932. For the presidential elections of 1938, "the MNS endeavored for the Popular Front Forces to join the candidacy of Carlos Ibáñez, which he supported" (Corvalán, Oct. 2015, p.80), but these efforts were not fully achieved. Thus, after the "Seguro Obrero Massacre," which took place in September of that year, practically two months before the presidential elections, supporters of the movement, strategically, ended up positioning themselves in a fascism-like quest "against the national oligarchy which - in the long run - would lead to an unprecedented approach to the Chilean left" (p.77). This approach is made possible by the nationalist industrializing character of the "Popular Front" program in its first stage, making possible the emergence of organisms such as the "Institution for the Defense of the Race and Use of Free Hours." To illustrate those policies of compromise between the center-left and the nationalist right, this institution that depended directly on the Presidency of the Republic (Chile, 1940, p.13) had among its leaders the retired army general Francisco Javier Díaz Valderrama, who served as second vice president (p.11), whose career not only stands out for its extensive development in military engineering and diplomatic functions, but also in 1932 he configured a National Socialist organization in Chile parallel to the movement of von Marées, but more attached to Hitler's values. In this context, Betzhold was able to project an institution responsible for the integrated management of health administration at a national level, based on the idea of racial protection.

The preoccupations of Betzhold in the early 1930s were linked to the popular diet, motherhood, abnormal childhood and the poor sanitary status of the lower-class Chilean people; topics that were present in his text *Eugenesia*, in the introduction to which he declares that "It is urgent that the State assume the role of cultivator of its people," given that, as he thought, "the quality of the material in general terms leaves much to be desired." For Betzhold (1942, p.XXV), "people and space are the natural components of a political formation. The power and the future of every nation depends on its organization and nature." His motivation was the intention to generate possible solutions regarding the problem of the physical and moral degeneration of the "Chilean race." *Eugenesia* deals with the study of eugenic proposals worldwide as a basis for reforming Chilean health institutions and creating new connections between them. The purpose of the text is to channel and reorganize institutional efforts to overcome the problem of "defective material." Betzhold (p.XXVIII) assumed the task of "disclosing and presenting in all its many facets a major problem, a serious danger, which is already among us."

The text was written during the 1930s and he was awarded the Carlos van Buren prize in 1938, namely a contest organized by AMECH (Medical Association of Chile) (Molina Bustos, 2005), which was a prize that a year later was awarded to Salvador Allende with his book *La realidad médico-social chilena* (The medico-social Chilean reality). Betzhold's work received the award and the following year he received another acknowledgement

from the Valparaíso city council. The work was duly registered in the Literary Property Registry of the National Library under number 6747 and was published by its author in 1939 through the Universo Printing and Lithography Society of Santiago de Chile. The cover of the book presents the title, *Eugenesia*, in black gothic letters.

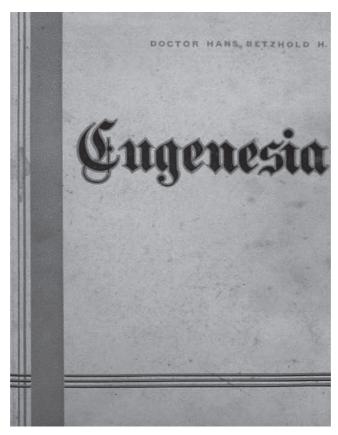


Figure 1: Cover of Eugenesia (Betzhold, 1939)

The 1939 edition of *Eugenesia* starts off with two prologues. The first is a brief letter of introduction by a leading character in the national medical scene of those years, namely the surgeon Guillermo Münnich; while the second – far longer and more detailed – was written by the Juvenile Court judge of Valparaiso, Luis Vicuña Suárez.

Guillermo Münnich's prologue is notable in relation to his importance as a "scientific patron" (Clark, 1973; Huertas, 2012, p.76) of an extensive medical network in the port of Valparaíso and an outstanding figure of the German community in the city. A graduate from the University of Chile, Münnich specialized in surgery in Germany between 1900 and 1905 with Ernst von Bergmann and Ferdinand Sauerbruch (Cubillos Osorio, 1998, p.675) and was posthumously acknowledged as a master of Chilean surgery. He was the founder of the main Chilean-German institutions that emerged at the beginning of the twentieth century in the country; an important health and political agent who became director of the German Hospital, mayor of Valparaíso in 1926, first president of the Center

for Progress of Valparaíso and member of the National Council of Agriculture (Cubillos Osorio, 1998, p.670). Münnich was undoubtedly a dominant figure in the public scene of Valparaiso and spearheaded a network of physicians of German descent to which Betzhold belonged. His prologue for *Eugenesia* stressed the need to study heredity, as an "axiom generally accepted today by science" (Münnich, 1939, p.IX), a factor that he considered central to any educational effort for the cultivation of the population, which was in line with the so-called "hard line" of eugenics (Kevles, 1986) for its emphasis on heredity as an irrefutable factor in the development of individuals.

The next prologue of the first edition was written by the civil court and juvenile judge Luis Vicuña Suárez, who knew Betzhold since the 1920s for his participation as an expert in the Juvenile Court of Valparaíso. Vicuña Suárez was an important figure in juvenile justice and in the academic context of national law. The prologue describes the "sad reality" that had to be faced due to the "dramatic clientele" of the court (Vicuña Suárez, 1939, p.XV), given the influx of "hysterical and deranged, almost naked, almost crawling figures appearing at Juvenile Court" (p.XVII). The judge fully backed the work of Betzhold and presented a marked pessimism regarding heredity for the environment of "sub-humans" (p.XIV) that, in his opinion, was due to the lack of interest of the State in governing the population (p.XIII).

Betzhold's book was of direct influence in other fields of knowledge concerned with eugenics, such as law. In 1941, Editorial Nascimento of Santiago de Chile published *Eugenesia y su legislación* (Eugenics and its legislation) in a large format book with hard cover the text written by lawyer Amanda Grossi Aninat; a text in which she cites sources like Francis Galton, Bertrand Russell and Gregorio Marañón, among a handful of authors, including the work of Betzhold (Grossi Aninat, 1941).

The second edition of *Eugenesia* was published in 1942, as part of a collection called "Biblioteca del Médico" ("Library of the Physician"), which was compiled by the Zig-Zag Publishing House of Santiago de Chile, a company that belonged to Agustín Edwards, a prominent Chilean business figure, close to the conservative sectors, and Gustavo Helfmann, founder of the Universo Printing and Lithography Society. In the early twentieth century, Zig-Zag had great success through its journals and it was from 1930 onwards that it concentrated on the book market (Arellano Moscoso, 2001). The "Biblioteca del Médico" continued to add titles to the collection until the end of the 1950s and accumulated a dozen publications in twenty years. The titles in this collection dealt in their entirety with childcare with strong eugenic influences; They include texts such as *El niño* (The child), written by Otto Schwarzenberg in 1941, *Manual de la enfermera, en el hogar, en la clínica y en el hospital* (The manual of the nurse in the home, in the clinic and in the hospital) of Francisco Antonio Rísquez in 1943, the *Tratado de psiquiatría infantil* (The treatise on child psychiatry), written by Leo Kanner in 1944, and the *Historia y desarrollo de la cirugía abdominal en Chile* (The history and development of abdominal surgery in Chile), written by Adolfo Reccius in 1948.

The publication of 1942 is a "revised and augmented" edition. The additions of content to the original text add up to more than a hundred pages and present a complete reorganization in their approaches, to the point that, when the two copies are compared, one gets the impression that they are two completely different books. The new version leaves the prologue of the 1939 as an annex and considerable fragments that appeared in

the body of the original text, such as the German law of 1933 "to prevent an offspring with hereditary defects" and the "German law of marital health "(Betzhold, 1942, p.376).

This edition opens with the prologue of a figure of international renown in the field of law and criminology, Luis Jiménez de Asúa. This prologue presents something seemingly contradictory with this volume, since Jiménez de Asúa had been a leading figure in Republican Spain (Albacete, 2006; Cabeza Sánchez-Albornoz, 1997) and appears here, in 1942, ready to provide a preface to a notorious text of a Nazi bent. Jiménez de Asúa had already been interested in the improvement of the population much earlier, mainly in his book Libertad de amar y derecho a morir: ensayos sobre eugenesia, eutanasia y endocrinología (Freedom to love and the right to die: essays on eugenics, euthanasia and endocrinology) in 1928, a text which would see numerous revisions throughout his life, remaining for decades as a thinker of importance in the Ibero-American field of eugenics. In 1941, when he was already in exile in Argentina, he visited Santiago de Chile as an honorary member of the Second Latin American Congress on Criminology. In his prologue he mentions that in 1942 he had gone back in Santiago to give "12 lectures on eugenics," for which he was named honorary member of the School of Legal and Social Sciences of Santiago de Chile. During this stay, Betzhold requested a prologue for the second edition, about which the Spaniard declared "I did not know how to decline the cordial request" (Jiménez de Asúa, 1942, p.XV). Throughout the preface, he exhibits his positions on eugenics: he is opposed to the regulation of prostitution, skeptical of the prenuptial medical certificate, contrary to eugenic sterilization and abortion, except in extreme cases. For the Chilean case, Jiménez de Asúa extends a detailed argument to establish venereal contagion as a punishable offense, even making recommendations to improve the legal project of Salvador Allende, acting Chilean minister of Health (Jiménez de Asúa, 1942, p.XVIII). Although Jiménez de Asúa's positions on eugenics date back to the 1920s and are consistent with his role as legal expert on criminal matters, it is striking that a leading Spanish Republican and socialist, agreed to preface, in the middle of the Nazi advance on the Soviet Union, a work that cites Hitler and his government as a moral, political and even scientific authority. His participation in the Latin American debate on eugenics raises some points of tension often discussed in Ibero-American historiography on eugenics (Campos Marin, 2013).

Eugenesia is situated in a context where the medical diagnosis of society was a fundamental input of Chilean politics. The intention shown by the Zig-Zag Publishing House to introduce a prologue by an author of international repute speaks for itself of the desire that the book should be a reference for Chilean and Latin American public health. It is noteworthy to mention that it is a book that can be found in bibliographic collections such as the National Library of Teachers of Buenos Aires, the Xalapa Institute of Anthropology and History in Veracruz or the Ibero-American Institute in Berlin.

A National Eugenics Department for the creation of a Chilean superman

After offering a panorama of the historical background of eugenics and its development in Europe and the US, Betzhold presents the practical bases to develop a national eugenics project led by the State. In that respect, our analysis places special emphasis on the

institutional aspect of his project, as we witness the intention to bring together several institutions, originating from different ideological positions and periods, in a supreme eugenic manifestation.

Betzhold proposed setting up "eugenics departments" to integrate institutions such as Mandatory Worker Insurance, created in 1924, and the Pension Funds created by the law of preventive medicine of 1938 (Cruz-Coke Madrid, 2001). These institutions could operate in a higher sphere that would be "in an ideal position to create the bio-typological record of the individual, namely the first step and the base of an archive for an organization on the lines of a eugenic department," all working towards "the formation of state eugenics" (Betzhold, 1942, p.185). Betzhold manifested a practical intention around the centralized state control of the eugenic strategy. According to Betzhold, after decades of eugenic speeches, Chile would place itself at the forefront of state eugenics through this institutional centralization. The physician intended that Chile would be: "the first American nation that, putting aside all the immense collection of promising writings, ideas and proposals on eugenics, would achieve something practical, something real, that would provoke enthusiasm and respect. All the eugenics of the splendid spirit and promise of a political program, would disappear and we would have true state eugenics" (Betzhold, 1942, p.185).

The eugenics departments were to be directed by a "National Eugenics Institute" that would be in charge of the control of the "hereditary medical record" of each individual (Betzhold, 1942, p.186), formed from the bio-typological record already established by the Workers Insurance Institute and would be complemented with the annotations arising from the law of preventive medicine; which shows to what extent he was willing to unite the technical and institutional procedures throughout the Chilean State. Other tasks of the National Eugenics Institute would be the control of immigrants, the granting of prenuptial certificates, eugenic propaganda and dissemination and, in a very special way, the formation of "the career of eugenics physicians, and the new eugenics instructors" (p.186). This health project was seen as part of a national effort to promote productivity, since a healthy record and capabilities reflected economic resources, a "veritable record of domestic assets" (p.150).

An important aspect of Betzhold's eugenics project was in the educational area. Since he had a poor impression of the capacity for change in the proletarian family, he hoped to reform it through the action of a medical elite and via the education provided by the State. Specifically, he proposed that the "eugenics physicians" be part of a state corporation with a national presence and with eugenics as part of the mandatory program of the sixth year of the human sciences. For this chair of eugenics in Chilean secondary education, Betzhold (1942, p.187) indicated the need to produce pedagogical material in accordance with the initiative, so it would be essential "to form a Eugenics Syllabus, which would be of great interest to the students and would give them a nucleus of profoundly useful knowledge for life," which would end up making each individual a eugenics agent endowed with a clear "procreational conscience." This new individual formed by the eugenics physicians and by the state education would promote, without any legal or repressive apparatus, lifelong eugenic action. Later, in the conclusions of his book, Betzhold (p.299) highlighted the fact that if some day it was possible to attain a physical type of "Chilean superman," as

the final product of this institutional chain of selection, it should be treated equally by mental hygiene to be a true eugenics subject.

Betzhold assigned a wide range of tasks to future eugenics departments, which included: premarital counseling; birth control in cases of endangered heredity risk; a school medical service; school nutrition; care of single mothers; management of the care houses for minors; decision on the admissibility of consanguineous marriages; investigation of sterility; the control of taxes for single persons; loan of money for marriages; stimulus to the growth of the population; tax cuts for large families; the application of contraceptive methods; and the dissemination of mental hygiene. The eugenics departments would oversee practically all the aspects related to the administration of the population. It was a comprehensive program that set out to put under medical and state control each of the individuals that made up the nation, from the cradle to the grave.

Betzhold (1942, p.219) incorporated into his eugenics vision elements of a tradition long developed by Chilean physicians, but of little practical application in the country, in relation to the protection of pregnant women, proposing the creation of "broad maternity insurance for all working women" as a measure of "positive eugenics" because, in his opinion, "to alleviate this physiological period as far as possible from the struggle for life, is the most recommendable eugenics principle" (p.220). For the author, a joint effort was needed between the State and the employers to "ensure their salary or wages during the rest period, otherwise the eugenics measure would not be effective if accompanied by hunger" (p.221). He considered motherhood eugenics as a bulwark of the race as well as an element of national demographic strength; "We have to worry about the health of mothers and new generations, which is the same as worrying about the life of the State" (p.229). In this respect, he again argued that in principle an effective eugenics policy could be achieved in the short term, by articulating legislation and institutions to carry out a "positive work of protection of the race" (p.224) in a country like Chile that the author considered "anemic and backward" (p.226).

Abortion was not omitted from his concerns. Betzhold (1942, p.239) was a detractor of voluntary abortion and presented the Soviet and Uruguayan initiatives as negative experiences, which by allowing abortion provoked what he called "a growing defeminization." His ideas were inspired by those of Carlos Mönckeberg, a Catholic Chilean obstetrician trained in France with Pinard and Fauré at the beginning of the twentieth century, a supporter of childcare and later of eugenics (Betzhold, 1942, p.190; Campo Peirano, 2008, p.136; Sánchez, 2014), Abortion and contraception seemed to him to favor a moral catastrophe, since they would transform "our women, our sisters, our daughters into simple objects of pleasure" (Betzhold, 1942, p.237). Eugenics, as a discipline at a general level, was concerned about sex for reproduction and remained silent on any relationship between sex and pleasure (Palma, 2008; Miranda, Vallejo, 2011). Following the example of the North American tradition, the Chilean physician considered that eugenics departments had "the obligation to reward, once a year, a given number of families in its jurisdiction that were distinguished by the number and the state of health of their children" (Betzhold, 1942, p.251).

The eugenics departments would also be responsible for the regulation of migration and demographic policies. His concern about the quality of immigration that could affect the

country is evident in his book, when he denounces the steady influx of black and Italian elements into France, such that he even proposed that the laws regulating immigration into Chile "should be the conclusions of a broad National Racial Congress" (Betzhold, 1942, p.258). Regarding the forced migration due to the Second World War, Betzhold (p.258-259) called for prudence and eugenics and civic responsibility, because:

the entry into the country of large influx of refugee has now been permitted (1939). Was eugenics considered when authorizing such an influx without any form of control? Would it not be advisable to halt that initiative for the time being? Are the winds of international brotherhood that are now blowing so strong that they do not allow voices calling for "care" to be heard? Where is the spirit of civic responsibility that characterized the previous generation?

On another topic, in relation to the physical education of the Chilean people, Betzhold (1942, p.264) had a bizarre and gloomy vision, asking:

Where will our race end up if we carry on like this? What society is this that fails to stop for a moment in its constant selfish struggle to consider once and for all the tremendous importance that these people in rags who prowl around clinics or polyclinics or that exhibit their physiological misery in the popular neighborhoods, among the garbage and total indifference, will have in the end, for all of us? Is this not a race that is on the road to a lifeless race, a frozen race?

Betzhold (1942, p.266) proposed that the eugenics departments supervise all the members of all sports organizations in the country and that sport should be removed from the "commercial spectacle, in order that it may have real significance as an agent of physical improvement of the race." In a similar way to what he explained in relation to the law on sterilization, whose immediate approval he espoused, he pointed out that a physical education law was under scrutiny at that time and that said law would include "the institute of bio-typical and medical control of sports" (p.268). On the eugenic use of free time, he enthusiastically supported the initiative promoted by Aguirre Cerda on the "Institution for the Defense of Race and Use of Free Hours." This institution was dedicated to promoting a space of worker sociability in which they would develop sports and cultural activities that aimed to get the worker and his family out of the physical and moral decay caused mainly by alcoholism (Sánchez, 2016).

Finally, he proposed that if the eugenics departments merely devoted their efforts to the fight against alcoholism, their existence would be completely justified. The utopian thrust of his thought, manifested in the desire to unify institutions in a large national eugenics department, is stressed again towards the end of the text confirming the responsibility of the State in eugenics problems, with strong emphasis on the vision of a totally redesigned and planned economy, setting aside dogmas and traditions. The author was even disposed to bring together liberal, socialist and social democratic ideas in a major united project of the State. Another aspect he stressed was the idea of the superiority of science against any type of opposition based on what many call "sentimentality" (Betzhold, 1942, p.296), encompassing all those positions based on religious and humanitarian precepts that promoted charitable and welfare solutions for social problems and disease (La Vergata, 2013).

Betzhold dismissed the idea of forging a purebred race in Chile and clearly established that "creole eugenics," as he called it, could not be anything other than the highest aspiration for a vigorous people. He called for respect for the healthy and hard-working, to "rid" future generations of the sick and degenerate; to establish selective rules in reproduction. A task in which he proposed to use the full force of scientific rationalism: "The State must place all the advances of science in pursuit of this policy" (Betzhold, 1942, p.296). Finally, he proposed the ideal of a "Chilean superman" formed by good heredity, health, vigor, and the constant presence of mental hygiene that would ensure such subjectification, where eugenic action would be natural for each individual and at the same time a program united around collective values. He finally presented eugenics as a great utopia that could be achieved in short order: "With the program indicated here, we strive towards and pray for a policy of union. We are close to a situation of collective happiness: it is constructive religion" (p.301).

Second Peruvian Conference on Eugenics: the disillusionment

In both editions of *Eugenesia* an upbeat tone prevails around the eugenic ideal, presented as a feasible project by simply synchronizing the action of the pre-existing institutions. This vision would undergo a drastic change in the interventions of Betzhold in the Second Peruvian Conference on Eugenics, staged in Lima between May 25 and 29, 1943. Despite the national title, the conferences were international meetings with delegates from Peru, Argentina, Chile, Brazil, Bolivia and Mexico. The conferences were the sequel to the Pan-American congresses on eugenics and homiculture, which by order of the United States were relegated to children's congresses (Miranda, Vallejo, 2012), due to the growing loss of prestige of eugenics. Since the physicians most committed to the discipline needed to have a platform to support their international networks, these conferences were heavily promoted. Representing Chile in the 1943 Conference were physicians Hans Betzhold Hess and Maximiliano Salas Marchan. The interventions of Betzhold (1943a, 1943b, 1943c) in the conference were "Eugenesia e instrucción" (Eugenics and education), "Eugenesia y alcoholismo" (Eugenics and alcoholism) and "Inflación, desnutrición y eugenesia" (Inflation, malnutrition and eugenics).

In line with the ideas of his text of 1942, in which an important role was assigned to education and mental hygiene, in "Eugenics and education" Betzhold proposed the formulation and socialization of a eugenics syllabus through which all individuals had "A minimum level of eugenic knowledge ... included in definitive form in their subconscious" (Betzhold, 1943c, p.90). However, since he had originally presented eugenics as an unstoppable movement, he did admit that eugenics actions in Chile were few, promoted by a few physicians and had no major impact in society or in politics. The same eugenics project that merely a year before had a totalitarian character, in this intervention he no longer considers institutions of control and selection of the population, as they only have the objective of educating so that each individual is an agent of eugenics. Between the utopia of 1942 and these interventions of 1943, Betzhold (1943c, p.91) seems to have become aware that although the political parties accepted eugenics: "only now has it come to the attention of the political parties. There is still a lack of strength that must promote

this intention, once and for all, with an initial thrust that must be sufficient to allow a vigorous energetic gubernatorial policy to be definitively implemented."

In "Alcoholism and eugenics," his next intervention in the Second Peruvian Conference on Eugenics, he gave an equally pessimistic diagnosis; despite a multiplicity of anti-alcohol initiatives, Betzhold (1943b, p.266) thought that "we cannot fail to recognize that the practical result, seen as a common solution, has not been received with great enthusiasm."

In "Inflation, malnutrition and eugenics," his third intervention, he made in-depth use of the organicist metaphor to criticize the State's policy in the face of a crisis situation. When comparing the economy with the energy flow of a human organism, he considered inflation as "pernicious anemia" (Betzhold, 1943a, p.345); the germ of a disease state that was degrading the citizen-cells until it triggered "metastasis" (p.347). His diagnosis was scornful with respect to fiscal economic policy, which he saw as more concerned with financing political expenses than with ensuring the health and vigor of the people. In the society-organism correlations that abound in the text, the idea that the political groups were the analogy of the connective tissue is stressed. Thus, political groups had to be governed by a strong Executive, capable of limiting the defects of both economic liberalism and democracy that favored mediocrity, adding to the multitudinous chorus of criticism of liberalism, economic laissez-faire and democracy in the West since the great depression of 1929. The paradox of this intervention is that its call for a strong leader willing to contain the vices of political-economic liberalism occurs at the exact moment when the military decline of European fascism was already inevitable. The reforms requested by Betzhold occurred in the Western political context not by popular will united around a leader, but by a reformist impulse encouraged by the democracies that triumphed in 1945. For Betzhold (1943a, p.356), the bad economic policy and the unjustified expenses of the State would lead Chile to an impending health crisis, asking: "What is the point of having an intricate and elaborate state organization if the people are sick? With a malnourished population and an undoubtedly degraded race, how will we achieve any success?"

Faced with the panorama of social decrepitude, eugenics seemed to be the only solution. In Peru, the Chilean physician expressed his willingness to reduce the great institutionality that he had proposed in his 1938 and 1942 works to a basic eugenics program of "bread, roof and shelter" (Betzhold, 1943a, p.357). The ineffectiveness of liberal party policies seems to have led him to reduce his program to a minimum that is explicable only by deep disillusionment. The utopia had been reduced to a pragmatic minimum, such that the possibility of developing a Chilean superman supervised by a complex network of perfectly coordinated state institutions had been reduced to a slogan that aimed to solve only the most urgent problem, namely maintaining the minimum conditions for human life thereby preserving the life of the State.

Final considerations

In the period after the Second World War, the figure of Hans Betzhold Hess appears to fade into the national medical panorama. At most, we can affirm that he continued practicing medicine and participating in the social life of his city, Valparaíso. On June 26, 1951 at 2

p.m., due to heart failure, Hans Betzhold Hess died at his home in Viña del Mar. He was buried on June 27 of the same year in Cemetery No. 1 of Valparaíso (Partida ..., June 29, 1951).

If the analysis of both editions of *Eugenesia*, together with his interventions of 1943, present the figure of a physician who was very active in the eugenics field of the late 1930s and early 1940s, it seems hardly justified to point out, as Victor Farías (2005, p.26) did, that he was "the greatest authority on eugenics in Chile." Hans Betzhold was in fact an author who belatedly, albeit emphatically, connected eugenics and European racial policies of the early twentieth century to the Chilean medical field. Indeed, his first work on the subject was published in 1939, when eugenics had already been present for at least two decades in the Chilean public environment, coming to be considered quite normal during the early years of the 1930s. It was also belatedly because his sympathy towards the Nazi project led him to defend Hitler and his government at a time when the defeat of the Axis was certain and just a matter of time.

Betzhold's proposal in *Eugenesia* is unique because it provides initiatives that by the mere fact of integrating laws, public institutions and existing legal codes, was intended to succeed in generating a national eugenics plan in the short term controlled by a medical elite, capable of monitoring all aspects of the vital, reproductive and economic cycle of the Chilean population. Betzhold's initiatives are presented as the highest duty of the Chilean State, where the ideological origin of the institutions matters far less than their final integration into eugenics. This reveals in Betzhold a characteristic of Latin American political ideological thinking in modern times, its great flexibility to shape local projects and define the social model, which, although they can be designed based on ideas that emerged in Europe, are always negotiated and adapted – quite often distorted – by the local political and cultural scene. In the name of eugenics, Betzhold (1942, p.78) shows himself to be ready to integrate ideas from the entire political spectrum; while his sympathies for Nazism are overt and declared. Rather than an anomaly, this form of integration can be understood as a central tendency of Latin American thinking of this period.

With respect to Gabriel Cid's proposals on the marginal nature of Betzhold's ideas in the Chilean context, it seems to us that this depends fundamentally on accepting or rejecting the idea of "Latin American eugenics" (Stepan, 2005) as operative and coherent in the Chilean context. It seems that Cid's text ascribes to the objective of criticizing the excesses of Foucauldian-inspired historiography, falling for its part into another excess, namely that of accepting uncritically the category of Latin American eugenics, without considering the profound innervation of the environmentalist and hereditary traditions, of positive and negative eugenics, which seem to speak, as far as Chile is concerned, of a eugenics project prepared for both pro-health action and to the most repressive forms of eugenics. As has been documented here, Betzhold presents a line of thinking in which the existing institutions of the Chilean State converge, as well as sterilizing postures and a broad health concern and "soft" coercion. We propose that thinking of Chile as a space inserted within Latin American eugenics seems to be a reassuring strategy of conscience and an ideological objective, rather than firmly established historical knowledge.

The trajectory established by Betzhold's interventions in the Second Peruvian Conference on Eugenics reveal a deep disillusion regarding the possibilities of eugenics in the local

context. Of the broad powers that Betzhold expected the National Office of Eugenics to have, there remained only a survival program, closer to proletarian demand than to the creation of a Chilean superman. Lastly, it should be noted that the social and professional networks with which Betzhold interacted are remarkable. His work and eugenic perspectives seem to synchronize very well with the leadership of Guillermo Münnich in the Chilean German community of Valparaíso, which is a topic that deserves future research.

Betzhold dreamed of the Chilean people, namely a dream where those "people in rags" who hang around physicians' offices could be transformed into Chilean supermen. The price of his dream had a serious downside, which was the nightmare of a state ruled by a strong leader (Betzhold, 1943a, p.350-351), in control of every aspect of the biological, moral and economic life of the whole population from the cradle to the grave. This relatively successful scenario in the Nazi period was masterfully portrayed by George Orwell in his novel 1984, written immediately after the end of the Second World War, between 1947 and 1948. Today, in times of outright neoliberalism, with its incitement to individualism and contempt for the social action of the State, another nightmare should be evaluated, namely that of total abandonment and the economic exploitation of families and individuals at the mercy of an absurd health care "market," which is nothing more than health care marked by class conditions.

REFERENCES

ALBACETE, Juan Enrique.

El Estado integral de la Segunda República española. [s.l.]: Nausícaä. 2006.

ÁLVAREZ PELÁEZ, Raquel.

Biografías. *Asclepio*, v. 57, n.1, p.67-74. (Dossier: Biografías médicas, una reflexión historiográfica). 2005.

ARELLANO MOSCOSO, Jorge.

Zig-Zag. Santiago: Editorial Zig-Zag. 2001.

BARAHONA, Roberto.

Los católicos ante el problema científico de la eugenesia. In: *La Jornada Católica de Estudios Médicos de 1936*: estudios médicos. Santiago: Jornada Católica de Estudios. p.185-221. 1938.

BETZHOLD, Hans.

Inflación, desnutrición y eugenesia. In: Segundas Jornadas Peruanas de Eugenesia, 2., 1943, Lima. *Actas...* Lima: Liga Nacional de Higiene y Profilaxia Social. p.345-358. 1943a.

BETZHOLD, Hans.

Eugenesia y alcoholismo. In: Segundas Jornadas Peruanas de Eugenesia, 2., 1943, Lima. *Actas...* Lima: Liga Nacional de Higiene y Profilaxia Social. p.266-273. 1943b.

BETZHOLD, Hans.

Eugenesia e instrucción. In: Segundas Jornadas Peruanas de Eugenesia, 2., 1943, Lima. *Actas...* Lima: Liga Nacional de Higiene y Profilaxia Social. p.90-93. 1943c.

BETZHOLD, Hans.

Eugenesia. Santiago: Editorial Zig-Zag. 1942.

BETZHOLD, Hans.

Eugenesia. Santiago: Sociedad Imprenta y Litografía Universo. 1939.

BETZHOLD, Hans.

Estudio acerca de la eclampsia puerperal y su tratamiento con adrenalina. Tesis (Médico cirujano) – Universidad de Chile, Santiago. 1920.

BOURDIEU, Pierre.

Intelectuales, política y poder. Buenos Aires: Eudeba. 2005.

CABEZA SÁNCHEZ-ALBORNOZ, Sonsoles. Historia política de la Segunda República en el exilio. Madrid: Fundación Universitaria Española. 1997.

CAMPO PEIRANO, Andrea del.

La nación en peligro: el debate médico sobre el aborto en Chile en la década de 1930. In: Zárate, María Soledad. *Por la salud del cuerpo*: historia y políticas sanitarias en Chile. Santiago: Alberto Hurtado. p.131-188. 2008.

CAMPOS MARIN, Ricardo.

La construcción de sujeto peligroso en España, 1880-1936: el papel de la psiquiatría y la criminología. *Asclepio*, v.65, n.2, p.1-17. 2013.

CAMPOS MARIN, Ricardo.

Algunas reflexiones sobre la biografía divulgativa: los casos de Monlau, Rubio y Giné. *Asclepio*, v.57, n.1, p.149-166. (Dossier: Biografías médicas, una reflexión historiográfica). 2005.

CARRERAS PANCHÓN, Antonio.

La biografía como objeto de investigación en el ámbito universitario: reflexiones sobre un retorno. *Asclepio*, v.57, n.1, p.125-134. (Dossier: Biografías médicas, una reflexión historiográfica). 2005.

CID, Gabriel.

Médicos, abogados y eugenesia negativa en Chile 1933-1941. *Anales de Historia de la Medicina*, v.19, n.1, p.35-46. 2009.

CHILE

Presidencia de la República. Secretaría General de la Defensa de la Raza. Defensa de la raza y aprovechamiento de las horas libres. Santiago: Editorial Zig-Zag. *Memoria chilena* (Biblioteca Nacional de Chile, Santiago). Disponible en: http://www.memoriachilena.cl/602/w3-article-8768.html. Acceso en: 1 nov. 2017. 1940.

CLARK, Terry.

Prophets and patrons: the French University and emergence of the social science. Cambridge: Harvard University Press. 1973.

COMISIÓN ORGANIZADORA.

Circular general. Congreso Nacional de Alimentación Popular. Valparaíso: Ministerio de Bienestar Social, v.461 (Archivo Nacional de la Administración, Santiago). mar. 1930.

CORVALÁN, Luis.

Identidad, ideología y política en el Movimiento Nacional Socialista de Chile, 1932-1938. *Revista Izquierdas*, n.25, p.76-119. oct. 2015.

CRUZ-COKE MADRID, Ricardo.

Historia de la obra científica de Eduardo Cruz-Coke Lassabe. *Revista Médica de Chile*, v.129, n.4, p.447-455. 2001.

CUBILLOS OSORIO, Lorenzo.

Visión histórica de la cirugía de la V Región en un amplio contexto cronológico. Santiago: Centro de Documentación e Investigaciones Históricas. 2004.

CUBILLOS OSORIO, Lorenzo.

Profesor doctor Guillermo Münnich Theile (1876-1948): maestro de la cirugía chilena: homenaje en el 50° aniversario de su muerte. *Revista Chilena de Cirugía*, v.50, n.6, p.674-679. 1998.

DESSAUER, Bettina von.

El hospital alemán de Valparaíso (HAV): un hospital público creado por privados. *Contacto Científico*, v.4, n.2. Disponible en: http://contactocientifico.alemana.cl/ojs/index.php/cc/article/view/174. Acceso en: 22 sep. 2017. 2015.

ESTRADA TURRA, Baldomero.

Instituciones étnicas alemanas en Valparaíso, 1850-1930: una forma de defensa de la identidad cultural. *Revista de Historia Social y de las Mentalidades*, v.18, n.1, p.139-179. 2014.

FARÍAS, Víctor.

Salvador Allende antisemitismo y eutanasia. Santiago de Chile: Maye. 2005.

GROSSI ANINAT, Amanda.

Eugenesia y su legislación. Santiago de Chile: Nascimiento. 1941.

HERNÁNDEZ SANDÓNICA, Elena.

La biografía, entre el valor ejemplar y la experiencia vivida. *Asclepio*, v.57, n.1, p.23-42. (Dossier: Biografías médicas, una reflexión historiográfica). 2005.

HUERTAS, Rafael.

Historia cultural de la psiquiatría. Madrid: Catarata. 2012.

ILLANES, María Angélica.

"En nombre del pueblo, del Estado y de la ciencia": historia de la salud pública: Chile, 1880-1973. Santiago: Colectivo de Atención Primaria. 1993.

JIMÉNEZ DE ASÚA, Luís.

Prólogo. In: Betzhold, Hans. *Eugenesia*. Santiago: Editorial Zig-Zag. 1942.

KEVLES. Daniel.

La eugenesia ¿ciencia o utopía? Una polémica que dura cien años. Barcelona: Planeta. 1986.

LABRA, María Eliana.

Medicina social en Chile: propuestas y debates, 1920-1950. *Cuadernos de Medicina Social*, v.44, n.4, p.207-219. 2004.

LA VERGATA, Antonello.

Eugenesia y utopía. In: Ruíz, Rosaura; Puig Samper, Miguel Ángel; Zamudio, Graciela (Ed.). *Darwinismo, biología y sociedad*. Madrid: Unam; Doce Calles. p.235-251. 2013.

LEMUS BEYTIA, Jorge.

Cirugía torácica general. *Revista Chilena de Cirugía*, v.49, n.4. p.458-461. 1997.

LETELIER, Javiera.

Gobernar es poblar... seleccionadamente. Santiago: Universidad Alberto Hurtado. 2009.

LEYTON, Cesar; PALACIOS, Cristian; SÁNCHEZ, Marcelo.

Bulevar de los pobres: racismo científico, higiene y eugenesia en Chile e Iberoamérica, siglos XIX y XX. Santiago: Ocho Libros. 2015.

MIRANDA, Marisa; VALLEJO, Gustavo. *Una historia de la eugenesia*: Argentina y las redes biopolíticas internacionales, 1912-1945. Buenos Aires: Biblos. 2012.

MIRANDA, Marisa; VALLEJO, Gustavo. Civilizar la libido: estrategias ambientales de la eugenesia en la Argentina. *Revista Iberoamericana*, v.11, n.41, p.57-75. 2011.

MOLINA BUSTOS, Carlos.

Orígenes de la Asociación Médica de Chile: una mirada crítica. Polis, n.12. Disponible en: http://journals.openedition.org/polis/5663. Acceso en: 17 ago. 2012. 2005.

MOULIAN, Tomás.

Fracturas: de Pedro Aguirre Cerda a Salvador Allende, 1938-1973. Santiago: LOM. 2006.

MÜNNICH, Guillermo.

Primer Prólogo. In: Betzhold, Hans. *Eugenesia*. Santiago: Sociedad Imprenta y Litografía Universo. 1939.

PALMA. Héctor.

Eugenesia y ética. In: Miranda, Marisa; Vallejo, Gustavo (Comp.). *Políticas del cuerpo*: estrategias modernas de normalización del individuo y la sociedad. Buenos Aires; Madrid: Siglo XXI Argentina/España. p.521-542. 2008.

PARTIDA...

Partida de defunción de Hans Betzhold Hess. Registro de Defunciones. Circunscripción n.3. Viña del Mar, Departamento de Valparaíso, inscripción n.532, p.136. (Dirección General de Registro Civil Nacional, Viña del Mar). 29 jun. 1951.

SÁNCHEZ, Marcelo.

El rejuvenecimiento y los inicios de la endocrinología chilena en la década de 1920. *Dynamis*, v.36, n.1, p.191-209. 2016.

SÁNCHEZ, Marcelo.

Eugenesia: ciencia y religión: una aproximación al caso chileno. *Revista de Historia Social y de las Mentalidades*, v.18, n.1, p.59-83. 2014.

STEPAN, Nancy Leys.

A hora da eugenia: raça, gênero e nação na América Latina. Rio de Janeiro: Editora Fiocruz. 2005.

URIBE CONCHA, Pedro.

Historia del Hospital de Niños Jean y Marie Thierry de Valparaíso. Valparaíso: Imprenta Victoria. 1981

VALENZUELA, Javier.

Historia del Hospital Alemán de Valparaíso. *Revista Chilena de Cirugía*, v.51, n.4, p.439-444. 1999.

VICUÑA SUÁREZ, Luís.

Segundo prólogo. In: Betzhold, Hans. *Eugenesia*. Santiago: Sociedad Imprenta y Litografía Universo. 1939.

ZÁRATE, María Soledad.

Por la salud del cuerpo: historia y políticas sanitarias en Chile. Santiago: Alberto Hurtado. 2008.

