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Biotypology, Endocrinology, and Sterilization: The Practice of Eugenics in the Treatment of Argentinian Women during the 1930s

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SUMMARY

This article looks at medical approaches to women's fertility in Argentina in the 1930s and explores the ways in which eugenics encouraged the reproduction of the fit and attempted to avoid the reproduction of the unfit. The analysis concentrates on three main aspects: biotypology (the scientific classification of bodies), endocrine therapy, and sterilization. The article concludes by suggesting that a eugenically oriented obstetrical and gynecological practice encouraged both endocrine treatments (to achieve the ideal fertile woman) and sterilization, which, in spite of being legally banned, found a subtle application.

Keywords

Argentinian eugenics; constitutional medicine; biotypology; female types; endocrinology; hormonotherapy; sterilization

During the 1930s, the prolonged decline of birthrates in Argentina, along with other factors such as high infant mortality rates and the existence of "weakening" diseases such as tuberculosis, alcoholism, and syphilis, meant that the "demographic question" became a matter not only of the quantity, but also of the quality of the population. "One Argentinian in three grows up to be an inferior man," a Socialist deputy noted with alarm, later concluding: "The energies of the nation are in danger."¹

The immediate effect of such opinions was the creation of the National Direction of Maternity and Infancy (NDMI) in 1936, which reflected the perceived relationship between woman and nation, together with the political possibility of intervention to transform bodies based on a belief in eugenics. This intellectual framework had many points of reference in other countries such as France, Italy, and Germany, where the state intervened in the private sphere to regulate the family, sexuality, reproduction, and particularly maternity, in order to promote biological and social change.

In Argentina, following the French model of puericulture (the scientific method of child-rearing), the mother and, by extension, child care became the principal object of eugenics, and maternity and infancy institutes its main center of action. Explaining this relationship, a prominent obstetrician, Dr. José Beruti, stated in the Second Pan-American Conference of Eugenics held in Buenos Aires in 1934 that

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maternity, considered in its broadest sense, encompasses most of the eugenic problems requiring urgent solution, both in our country and in the majority of American nations. Women are overwhelmingly those primarily responsible for the bodily and spiritual health of the people. . . . We must understand, then, the enormous significance that maternity has in relation to eugenics.²

Some results of this thinking were expressed on a sociopolitical level in legislation for the protection of working mothers. Eugenic ideas formed an inextricable part of the creation of the Argentinian welfare state through the establishment of maternity leave (1934), maternity insurance (1936), and the National Direction of Maternity and Infancy.

In medical terms, eugenics in the 1930s became linked with a new tendency in medicine: constitutional medicine, which was developed by focusing on the individual as a morphological, physiological, and psychological unit, within a relational and holistic interpretation. Constitutional medicine was born in and around the 1920s as a reaction to the medical mainstream, as represented by Pastorian analytical medicine and its focus on germs, which had led to specialization, loss of clinical direction, and a rather dehumanized approach. In attempting to focus on the “individual behind the disease,” constitutionalists sought to understand individual responses to illness by analyzing body-mind relationships along with environmental conditions. To demonstrate the individual’s unique reaction to disease, they used complex body-typing schemes, encompassing all the variables they considered to be determinative. In this context, biotypology became a discipline devoted to providing instruments with which to gauge this integral approach to patients, with the aim of enabling physicians to diagnose and treat more effectively.

Different schools of biotypology were created in Italy, France, and Germany in the early twentieth century, informed by distinctive ways of scientific thought shaped by particular national, political, and cultural circumstances. In Argentina, the most influential school was the one first developed by Nicola Pende in Italy in the 1920s and 1930s. Pende had established a typology of the individual based on the study of heredity as well as on the combination of physical constitution (weight, height, muscular mass, cranial and hand proportions, etc.), temperament (neuroendocrine system), and character (psychology). He called this combination “biotype,” which he considered to include “all the individual differences of vital manifestation.”³ Types thus became the result of the combination of continuing variables, for which the English Biometric School, cofounded by Francis Galton and his disciple Karl Pearson, largely contributed the statistical methods.⁴ A plethora of taxonomies resulted from the combination of metabolic, endocrinologic, psychological, and physical studies, whereby, it was thought, predisposition to disease could be anticipated and, above all, the possibility of individual intervention could be achieved.

Central to the growth of constitutional medicine was endocrinology and its interrelated approach to the body’s internal systems, which fostered the perception of the individual as an integrated psychological and physical entity. The study of endocrinology would become essential to dealing with the problems raised by fertility in this decade. Endocrinology’s identification of the “hormonal body,” sexual hormones, and their influence on women’s genital and reproductive development proved to be paradigmatic. Unprecedented procedures of intervention on the female body were tested: for example, the manipulating of secondary characteristics to render women fertile when “constitutionally” they were not.

In the combination of constitutional and endocrine studies it is possible to see, first, an unusual taxonomic will that aimed to establish a prototype of the fertile woman—a task undertaken by biotypology—and second, a tendency to correct detected physical anomalies in order to meet ideal types. I shall argue that both procedures were informed by, and contributed to shaping, a distinctive medical practice of eugenics in Argentina. Thus, the

desire for ideal fertile bodies reveals in the 1930s a particular concern for the quantity but especially for the *quality* of the population. In addition, the developments in endocrine studies also led to eugenic practices such as “temporary” or “biological” sterilization. By drawing attention to sterilization practices, I shall argue that negative measures of eugenics, although legally banned, still found a subtle application.

As Dr. Beruti rightly stated, it was in maternity wards that the obstetrician, the gynecologist, and the puericultor could develop “the most correct and prudent application of eugenic principles.”⁵ However, it seems that in maternal assistance centers a wide range of practices were performed, many of which would fall outside the classification of “positive eugenics,” the term that eugenicists and historians have customarily assigned to Argentina’s relatively moderate eugenic measures. Positive eugenics refers to welfare legislation and health measures that aimed to improve social and environmental conditions in order to encourage the reproduction of the fit—as opposed to “negative eugenics,” which attempted to proscribe the reproduction of the unfit through the use of radical surgical methods. The 1930s witnessed a change, as Nancy Stepan has noted, when a more negative and racist eugenics began to circulate.⁶ Indeed, in Argentina it was at a time of conservatism and intensified nationalism that concern about racial consolidation and the “fitness of the nation” became a prominent theme. But in spite of the negative legislation then in force in some European countries and in the United States, which sanctioned involuntary sterilization or legalized abortion, Argentina stood within the Latin American mainstream, which had the goal of “preventing” rather than “proscribing” hereditary risks of reproduction. To illustrate this turn to the right, Stepan describes a distinctive form of negative reproductive eugenics that took place in Latin America: “matrimonial eugenics,” which was enforced in the majority of countries through premarital medical examination (in Argentina this became law in 1936).⁷

Although Stepan pioneered the study of eugenics in Argentina, her focus, “primarily through the prism of the movement itself,”⁸ prevented her from demonstrating the influence of eugenics on medical practices—an important topic, and the primary focus of this article. Other historians have analyzed the presence of eugenic ideas among intellectuals and social reformers (Eduardo Zimmerman), in immigration legislation (Susana Ramella), matrimonial law (Marisa Miranda), welfare policies (Marcela Nari), or ideological groups such as anarchists and socialists (Dora Barrancos).⁹ However, these studies concentrate on only one side of the picture: they raise the question of how eugenics encouraged reproduction of the fit, and proscribed reproduction of the unfit. To evaluate how eugenics actually operated during this period, beyond the legislation and the ideological debates it generated, it is necessary to examine medical knowledge and practices.

In this article I will first explore the political and eugenic assumptions that informed the establishment of constitutional medicine and biotypology with its foundational science, endocrinology, within the scientific-medical scenario. I will then highlight the construction of the biotype of the fertile woman, which promoted a new corporal representation of motherhood conforming to desirable social values (sacrifice, physical strength, and prolificity), and the obstetric and gynecological treatments that this prompted. Finally, I will examine obstetricians’ sterilization practices and debates at a time when the quality of the population was a primary concern.

I will be focusing here on medical texts and practices that relate mainly to the city of Córdoba, in the interior, and to the capital, Buenos Aires. In doing so I seek to illustrate not so much their peculiarities, as the broad extent of these ideas in Argentina. While my conclusions have a specifically maternal context, I would argue that the broad thrust of this article might act as a starting point for wider discussion of the nature and meaning of eugenics in other medical specialties.

A Scientific Discipline for Argentinian Anxieties

The reception of biotypology in the Argentina of the 1930s stemmed from a long tradition of Latin American scientific thought marked by an early scientific adherence to Lamarckian principles. Lamarckism was based on the inheritance of acquired characteristics, and its adherents argued that many of the diseases acquired in the social milieu—such as tuberculosis, syphilis, or alcoholism—could be transmitted to offspring, causing irremediable traits or racial degeneration. The belief that it was possible to intervene in the milieu where these diseases were produced resulted in political support for social-medical action, which was expected to benefit the racial patrimony of the nation. This neo-Lamarckism, as Nancy Stepan has stated, was the outcome of an early identification with French medicine, the influence of Catholicism, and an initial pessimism toward the heredity theories of Gregor Mendel and August Weismann.¹⁰ The latter had a strong presence in Anglo-Saxon countries, and upheld the idea that the germinal plasma was transmitted from generation to generation independently of human and environmental action.

As the decade progressed, it became less possible in genetic terms to support the neo-Lamarckian doctrine, yet Latin American science continued to be reluctant to reorient itself toward biological determinism. In its place, loyal to the Latin tradition of France and Italy, the theory of constitution or biotypology was embraced, offering a compromise between the two doctrines by recognizing both the inheritance of constant characteristics and the influence of the environment in the individual's final adaptation. Indeed, constitutionalists attributed a central role to the environment in shaping the biotype, which ultimately determined individual reaction to disease. One of the greatest influences in Argentina was the American endocrinologist Charles Stockard, who believed that basic characteristics were inherited and remained constant as Mendel had suggested, although he considered that the "type could only be expressed to the degree allowed by the individual's environment."¹¹

Biotypology's wide uptake was also linked with the need to channel the interpretive and classificatory anxieties of many Latin American states whose populations' racial mix constituted a risk to national cohesion and identity. In Argentina, the census of 1914 found that nearly one third of the population was foreign (mainly Italians and Spaniards)—and in Buenos Aires, the home of intellectuals and social reformers, this percentage astonishingly rose to one half.¹² Although the majority of this migration came from Europe, the immigrants were far from the ideal cultured and civilized Europeans whom Argentinian statesmen had longed to attract to populate the nation: most were poor, illiterate workers fleeing from distressed economic conditions in their homeland. Moreover, their reluctance to integrate into the mores and values of the new society threatened a national unit that soon was interpreted in biological terms. National identity was further challenged by the arrival of new migratory waves from the East (Russians, Syrians, Chinese) in the 1930s, unleashing discussions about the advisability of a racial mix in the population: the debates tended toward its condemnation, particularly because many in the 1930s thought that the eastern immigration would not enrich the national biotype.

However, biotypology was also welcomed because its distinctive perspective on human beings was not based on racial types.¹³ Medical constitutionalists insisted that simple observation should indicate the body's anomalies, which then were structured by the physician's vision. As one of the Argentinian constitutionalists put it,

these anomalies of mass and form are imposed by all the evidence of geometric facts, because to weigh, to measure, and to appreciate the balance of lines and the external characteristics of an individual requires nothing but the knowledge of the normal geometrical fact, that is, the knowledge of the "constitutional types in their normal variation."¹⁴

These ideas facilitated the acceptance of the new medical postulates, although the language on which the types were based internalized hierarchies and segregation among groups of individuals.

In a context of political and economic crisis, of social unrest and shifting gender relations, the idea of an “integral” or “holistic” interpretation of individuals represented a functional perspective for a state wishing to redirect the impulses of modernity. Thus Argentinian supporters of eugenics found in biotypology an instrument not only for the identification and definition of a national type, but also, as I shall argue here, for its improvement. Knowing, recording, and treating the different biotypes that populated the nation would contribute to a better reproduction of the fittest, which would result in a stronger, more powerful nation. In this framework, studies of the morphological profile of the population may be seen as responding to the need to calibrate the existing human potential in order to make it predictable in terms of fertility, health, labor forces, economy, education, and identity.

Biotypological Studies, Institutions, and Maternity Centers

Within this context of national redesign, it is not surprising that physicians exhibited a nationalistic fervor to justify their intention to classify the population. One of them stated:

It is necessary to devote all our efforts and sacrifices to achieving the formation of the ideal type that has to perpetuate the species throughout the centuries. When we achieve the formation of superior types, giving aims to nations, orientation to people, and ideals to races, only then will we have accomplished our duties.¹⁵

We know that this desire was not only rhetorical. The utility of the biotypes had conspicuous social and political implications. The League of Mental Health and the Board of School Physicians undertook several studies and collected demographic records. In the case of mental health, Argentinian psychiatrists promoted evaluative tests of individuals in the labor force with the aim of specifying workers' biological and physiological suitability for particular jobs. Some of these tests were carried out by the Institute of Psycho-technical and Professional Orientation and by the Department of Scientific Organization of Work and Psycho-technique within the League of Mental Health.¹⁶

The studies of childhood also revealed many biotypological concerns and endeavors. The Board of School Physicians was the institution in charge of all the tests on schoolchildren, the implications of which for the educational system have not yet been analyzed. When the Board was organized in 1920 in Córdoba, Dr. Benito Soria, a prominent figure in local pediatrics, proposed that “it is the school physician who should meticulously evaluate each child, taking all sorts of measurements and weights, with the aim of promoting a selection and distribution of students according to their constitution, predisposition, hereditary antecedents, diseases, etc.”¹⁷ The aim of these periodic checks was to determine the organic disability of each schoolchild and to pursue an early treatment. Children found to be in need of assistance were admitted to special schools such as the School for “Weak” Children or psychiatric or judicial institutions. A so-called health card for each child was later implemented by the provincial Education Councils in Buenos Aires (1933) and Córdoba (1934).

More importantly, in the 1930s these studies and procedures had their focal point in the Argentine Association of Biotypology, Eugenics, and Social Medicine created in Buenos Aires in 1932, probably the most active eugenic institution in South America. The Association created the Institute of Biotypology, inspired by a similar institution in Genoa led by Nicola Pende, who personally participated in and directed many of the projects in Buenos Aires. Pende, who by the 1930s was providing the scientific rationale for the

doctrines of Mussolini, came to Buenos Aires at a time of cultural and ideological expansion of Fascist ideas, as academic interchanges became part of the attempt to unify “Latin science” all over the world.¹⁸ The Association also created a Polytechnic School of Biotypology and Allied Matters where students were trained in “biological eugenics and puericulture” and in “legal and social eugenics.”¹⁹

One of the Association’s projects was the study and specification of the Argentinian biotype. We know nothing about its results, but we do know that the Institute supported this project through an individual biotypological record, consisting of fifteen pages of meticulously collected data, showing the use of three different classifications of the cephalic index, which was scathingly criticized by a Mexican biotypologist for its exaggerated complexity.²⁰

More importantly, women’s potential fertility became central to biotypologists because it was through sexual reproduction that the improvement of future generations occurred. Within the Association, the Department of Eugenics, Maternity, and Infancy, headed by Dr. Beruti, set up a center devoted to medical research, maternal treatments, and educational campaigns. This center, along with the Buenos Aires Institute of Maternity directed by Dr. Alberto Peralta Ramos, provided the social and scientific rationale for maternal welfare across the country. It is instructive to consider that Peralta Ramos asserted that the Institute of Maternity “constitutes the most valuable technical instrument in favor of the ends promoted by the Argentine Association of Biotypology, Eugenics, and Social Medicine in relation to health and the social protection of maternity.”²¹

In 1933 Peralta Ramos and Beruti, along with other members of the Association of Biotypology, presented a “Plan for the organization of the welfare of mothers and newborns in Argentina” inspired by the Opera Nazionale Maternità e Infanzia founded in Italy in 1925. The plan, with some modifications, was approved by the National Congress in 1936 (law 12,341), which created the National Direction of Maternity and Infancy (NDMI) under the Ministry of the Interior. Its aim was “to pursue the perfection of future generations,” “combating infant mortality and morbidity” and “protecting woman in her condition as mother or future mother.”²²

The welfare policy of the NDMI—a highly centralized institution with oversight across the country—was not only designed, but also supervised from Buenos Aires, by prominent members of the Association. Dr. Peralta Ramos, for example, was a member of the NDMI’s Advisory Committee.²³ The eugenic goals of the NDMI were reflected in the creation of a specific department, Eugenics and Maternity, which was responsible for (a) prenuptial, preconception, and prenatal eugenic treatment; (b) measures that assured the medical, obstetric, economic, moral, and social conditions of pregnancy, delivery, and postpartum care; (c) the shaping of social awareness or eugenic sympathies; and (d) the creation and technical direction of the following services: prenuptial and preconception consulting rooms; gynecological and obstetric prenatal assistance; and Centers of Maternal and Infant Hygiene.²⁴ In the prenuptial and preconception consulting rooms of the centers, and in the country’s main maternity hospitals, it is interesting to observe where eugenic endeavors were concentrated: a voluntary prenuptial certificate (for women); the diagnosis of sexual and maternal capacity; and the treatment of sterility and syphilis, and of diseases that might affect maternal-fetal compatibility (mental, urinary, venereal, and tubercular diseases). The centers were assisted by the departments of endocrinology and biotypology, and were connected to the dispensaries for syphilis and tuberculosis patients.²⁵

By 1938, the distribution of maternal centers across the country was still uneven. While the capital, Buenos Aires, had nineteen centers, the rest of the country had only twenty-three—all located in provincial capitals, and many of them only partially equipped. By 1940 the

NDMI had attempted to improve the provision of services by creating twenty-eight Centers of Maternal and Infant Hygiene and four maternity hospitals in the interior of the republic; although the doctors who gathered at the Fourth National Congress of Obstetrics and Gynecology deemed the improvements insufficient, demanding from the state “funding to ensure the efficient accomplishment of the work of the NDMI.”²⁶ Despite the disparities between services in the capital and the interior, the eugenically oriented prenuptial and preconception consulting rooms were successfully established in the main maternity hospitals and centers of the country after the creation of the NDMI. Even earlier, some hospitals, such as the one in Córdoba designed by Dr. José Lascano in 1932, were organized along the lines of the Buenos Aires Institute of Maternity. The Córdoba hospital represented, in Lascano’s words, “the greatest conception of Peralta Ramos, constituting a model institution for maternal and fetal assistance before, during, and after pregnancy.”²⁷

Female Types

All that pediatrics and social welfare could do for the girl in her many stages of life in order to obtain a perfect woman, supervising her nutrition, games, gym, education, etc., would be the first step in the defense of the future mother and her offspring.²⁸

In spite of these idealistic intentions, only failures were counted: girls who died before becoming mothers, and others who accumulated diseases and misfortunes that, it was feared, would one day be not only theirs. By 1935, Argentina had a high infant mortality rate of 102 deaths per 1,000 births. Around 60 percent of these deaths were attributed to congenital and obstetrical causes. Syphilis and other diseases were considered to be the main cause for dead fetuses, premature babies, and congenitally weak children who were considered a “human waste with permanent traits.”²⁹

To make matters worse, the reproductive pattern of the population had changed drastically in a demographic transition: from an average of seven children per woman in 1895 to around three at the end of the 1930s, indicating a clear tendency toward family planning,³⁰ which worried doctors engaged in demographic work. At the same time, between 1930 and 1940 a perceived change in the sexual composition of the urban population took place, with an increase in the number of women, so that Buenos Aires was no longer “a city of lonely men.”³¹ In this context, women were deemed to be primarily responsible for declining birthrates—whether due to their lack of maternal spirit, or their biological weakness. Certainly the majority of medical studies were directed toward women, with a significant gender bias.

Along with the problem of “degenerative diseases” such as alcoholism, syphilis, and tuberculosis, one topic that increasingly worried physicians in the 1930s was the anomalies of the female body, and in particular, the emaciated woman: both the “provoked thinness” in the case of working women, due to poverty and labor exploitation, and the “voluntary thinness” observable in affluent women, as a consequence of fashion and the imitation of the silhouettes represented in magazines. This figure of the slim woman gave rise, in the medical view, to a series of drastic problems that included compromised fertility, low birthrate, total or partial dysfunction of the reproductive organs, miscarriages, difficult childbirths, lack of lactation, and an array of physical deficiencies that, it was feared, could be transmitted to offspring.³²

Constitutional medicine merely added new representations to a female body already designated by the medical literature as an inferior and sickly subject. Considering the constitutional anomalies of the genital apparatus, Pende asserted in his most influential book, *Constitutional Inadequacies*,

we may say that variants of a slight degree are rather frequent, especially partial variants in the field of function; they are considerably more frequent in the female than in the male, since the former is, as Mathes says, almost physiologically predisposed to conditions of general infantilism, of which sexual hypoevolutionism [retarded development] is the most characteristic side.³³

It was believed that women's constitution played an overriding role in their fertility and sterility, which explains why constitutional studies were widened to include the diagnosis and treatment of almost all gynecological ailments. Following the classification of Achille De Giovanni, who had described three constitutional human types according to the structure of the torso—brevilineal (short and fat), normotype, and longuilineal (tall and slim)—Pende defined ten different somatic morphological groups, informed by analysis of the endocrine system, which he believed bestowed an "individual endocrine formula" that had to be decoded for diagnosis and treatment purposes. The three basic body types marked different fertility types: brevilineal was cast as the most fertile woman at the top of the scale, longuilineal at the bottom, with the normal types in the middle. These three types were also linked to different psychological characteristics, which doctors deemed it necessary to determine for a more effective treatment: "The influence of the woman's constitutional type on gynecological pathologies is so significant that it could be said that in the majority of cases there is a constitutional predisposition for such disorders."³⁴

The classification of female types with their intricate relationships of variables, as utilized by biotypologists in Buenos Aires, provides one perspective on the sociopolitical aims that the female biotype came to fulfill. Biological taxonomy was combined with a classification of behavior that sought to make women into identifiable and codifiable beings beyond the medical context. Within a classification system sensitive to harmonies and proportions, deficiencies and excesses were easily pathologized. Thus, two groups were identified: the deficient, or "hypotonic," and the excessive, or "hypertonic."³⁵

A. The *hypotonic type* was subdivided into three categories:

1. The *asthenic* present with flaccidity in the tissues, a lack of vital energy, and pronounced slowness in growth. Within this group, the most frequent type in Argentinian women was the *microsplanchnic*, which Pende described as having a long thorax, a narrow pelvis, small breasts, uterine and sexual hypoplasia (underdevelopment of the organs), a masculine distribution of hair, and limited fertility. Subjective phenomena: general weakness, melancholy, nervousness, frigidity, and vaginismus. "It corresponds to the type of modern girl who wants to be slim at all costs."
2. The *infantile* present with physical and psychological characteristics of childhood, severe genital hypoplasia, and secondary sexual characteristics incomplete. Emotionally apathetic and unstable, they also present frigidity and vaginismus. Hereditary cause: syphilis or alcoholism in the parents or, more likely, hypophysis exhaustion of the mother during pregnancy. In general they are sterile, undergo many miscarriages, and produce an insufficient lactation.
3. The *intersexual* present with the characteristics of the infantile type but, in addition, masculine features observable in the distribution of hair, frigidity, and voice. The ovarian function is diminished, causing sterility, genital hypoplasia, and general asthenia. "Her life is full of moral and material conflicts." They have also been classified as schizophrenics.

B. The *hypertonic type* refers to "physiological gigantism," in which the "feminine features are exaggeratedly developed" as in the case of obese women, but skinny women also form

part of this group. Both types present with several glandular disorders (caused by the hypophysis or suprarenal glands).

In an endocrinological-constitutional study of sterile women carried out by the Department of Biotypology of the Institute of Maternity (Buenos Aires), 87 percent were classified as microsplanchnic.³⁶ Furthermore, half of these women showed a certain degree of hypoplasia, the other half infantilism, and a quarter presented with intersexualism.

Argentinian biotypologists did not seek merely to offer statistical biotype analysis of female sterility conditions: once women's biotypes were determined, the analysis was continued in the Department of Endocrinology, with both departments (Biotypology and Endocrinology) working together in the prenuptial and preconception consulting rooms of the country's main maternity hospitals. The endocrine study involved a laboratory analysis of the different glands, with the aim of providing correlations between body types and specific glandular disorders. Only then was the diagnosis completed and treatment proposed. This provides an insight into the way in which biotypologists combined their interpretation of eugenic ideas. For example, when the biotype indicated a predisposition to sterility, which was sometimes attributed to inherited conditions, endocrine studies provided the possibility of intervention, and thus improvement of the biotype.

As these studies progressed, some doctors proposed that a semiological analysis of the features of the face was sufficient for detecting ill women. For Dr. Antonio Navarro of Córdoba, the most numerous group was represented by the visceral-endocrine-vegetative disorders that corresponded to a number of facial types. The diseases were hypophyseal (with facial types including acromegalic, infantile, ephebic, and facies characteristic of Frölich syndrome), thyroid (with Basedowian, myxedemic, and cretinized facial types); or gonadic (with ovarian, virile, gerodermic, eunuchized, and matronly facial types).³⁷

The unreadable classification of female facial types that Dr. Navarro embraced meaningfully illustrates a quest for external signs that could be used to convert female diversity into a universal and understandable code. It is revealing that when medical language abandoned such undecipherable technical terms in order to make its meaning clearer, the biotype became reduced to only two terms: maternal and nonmaternal.

Not surprisingly, an ideal type of fertile woman was soon described, characterized as a strong, muscular woman with a vigorous and active personality, a long reproductive life, abundant menstruations, and a late menopause.³⁸ However, such extreme classification in the search for human types must be seen as ultimately political. Despite the number of classifications, constitutionalists asserted that the ideal type did not exist. This impossibility demonstrates the fictional function of the biotype in medical thought and, by extension, in the national culture. It was of no importance whether existing women could effectively fulfill the imaginary type. Rather, it was enough to know, as a principle, that a universal female subject was possible and always desirable. This classification continued to be used in medical language to describe female bodies, and it was considered to be a distinctive mark in need of no other attribute.

Beyond these stigmas, by the 1930s it was clear that Argentina had shifted its fertility pattern from natural to voluntary fertility. If we disaggregate this process by social class, we find that the upper classes were the sector that started earliest, followed by the urban middle classes and, far later, by the unskilled urban and rural workers. By 1936 women from the most affluent neighborhoods in Buenos Aires had an average of 1.9 children, while the average in marginal social areas was 3.9 children.³⁹

We shall now explore the questions of how Argentinians dealt with women's biological flaws and constitutional inadequacies, to what extent the field of intervention was restricted, what therapeutic methods were involved, and whether these were informed by positive or negative eugenics.

Endocrine Research and Treatments: The Improvement of Types

Medical responses to female sexual reproduction seem to have oscillated between discouraging advice and therapeutic optimism. To start with, the director of the Association of Biotypology, Eugenics, and Social Medicine, Dr. Arturo Rossi, proposed an addition to the existing causes of "matrimonial impediment" in the Civil Code (leprosy and venereal disease): namely, "defects in stature, in corporal mass, in weight, and some severe problems of endocrine characteristics."⁴⁰ Although his request was ignored by legislators, it is very likely that in the prenuptial and preconception consulting rooms these and other types of dysgenic women were discouraged from marrying or becoming mothers. Explaining the eugenic importance of those consulting rooms, Dr. Peralta Ramos spoke of the resultant advantage: "we not only avoid the worsening [due to pregnancy] of mothers' preexisting diseases, but principally we avoid the birth of idiot, deformed, or ill creatures, destined for an early death or to endure a life full of torture and misfortune."⁴¹

Second, biotypology was also "orthogenesis," the then-current term used to indicate the possibility of correcting individuals who deviated from the type. Gynecologists believed that with the development of endocrinological studies and with the administration of hormones, they could affect and regulate many of those women who did not meet the ideal normal type: "From our results we deduce that in 80 percent of cases constitutional sterility is accompanied by alterations in fat metabolism, the hypophysis being the main factor determining obesity or slimness."⁴² This central role attributed to the hypophysis led to a wide range of therapeutic interventions, and gynecologists enthusiastically attributed to "hormonotherapy with the hypophysis the genital correction of such syndromes as infantilism."⁴³

From the end of the nineteenth century to the 1940s, endocrinology was one of the most dynamic areas of biomedical research and, with bacteriology, was among the first to reestablish its direct utilization in the medical clinic, after thyroid gland extract proved its efficiency in the treatment of myxedema.⁴⁴ Strong optimism resulted from endocrine studies (since the discovery of internal secretions in 1905, later called hormones, and especially with the study of sexual hormones in the 1930s), and, as Nelly Oudshoorn has noted, this broadened the possibilities for medical intervention in an unprecedented way.⁴⁵ In relation to our wider enquiry, not only did endocrinology assure sexual difference through the hormonal body, but hormonal therapy also opened up a field of medical intervention hitherto unattainable, granting this reproductive body a way of correcting any constitutional deviation or insufficiency, from menstrual dysfunction to infantilism (from which Argentinian women allegedly suffered greatly).

Significantly, it was during the 1930s that Argentina witnessed the rapid development and growing worldwide reputation of its physiological institutes. These institutes formed a network including the cities of Córdoba, Rosario, and Buenos Aires, and were headed by the first Argentinian Nobel Prize winner, Bernardo Houssay. Crucial to this development was substantial economic support from the Rockefeller Foundation, which was interested in financing studies on endocrine hormones "that could illuminate issues of growth, body activities, behavior, old age and sexuality."⁴⁶ Under the patronage of the Rockefeller Foundation, and in close connection with American endocrine constitutionalists, Argentinian physiology expanded studies on the female sexual cycle, hormones, and hormonotherapy.

Houssay received worldwide recognition for his findings, notably for his research on the influence of the pituitary gland (hypophysis) in the regulation of carbohydrate metabolism and diabetes, which placed the hypophysis, in his words, at “the center of the endocrine constellation.”⁴⁷ Although he embraced a holistic interpretation in physiology, there is no evidence that his physiological approach was connected with the biotypological perspective. The Rockefeller Foundation funded eugenically oriented programs on the genetics of mental traits in the 1930s; as Diane Paul has stated, “in the Anglo-American world, eugenicists had always emphasized the importance of mental, rather than physical, characteristics.”⁴⁸ On the other hand, gynecologists working with biotypes and endocrine studies were undoubtedly influenced by Houssay’s discoveries, unmistakably in the central role attributed to the hypophysis, which produced both reproductive and nonreproductive hormones. However, Houssay’s name never appears in the gynecologists’ articles that I have consulted; while personal sensitivities may have played a part in this lack of recognition, Houssay and the constitutionalists were tied to different scientific influences: the American, in the case of the physiological institutes, and the Italian, in the case of the Institute of Biotypology.

In any case, gynecologists’ optimism was such that tests did not stop even in the absence of evidence. Commenting on results obtained from the use of follicular hormone in the treatment of infantilism and other ovarian deficiencies, a gynecologist wrote that “hormonal therapy can modify abnormal conditions of this organic function, even though the inner mechanism of this action still escapes our knowledge.”⁴⁹

It is also revealing that the extension of hormonal experiments soon came in for criticism from gynecologists themselves. Seeking to explain the growing number of extrauterine pregnancies in 1940, a gynecologist from Córdoba asserted that “we believe that the hasty use of follicular hormone constitutes an etiologic factor in endometriosis and, therefore, in extrauterine pregnancy.”⁵⁰

The National Congress of Medicine in 1934 was another place to observe this “hasty” enthusiasm, as witnessed by not only the significant number of papers presented there but, more particularly, by the scale that hormonal manipulation and experiments had attained. A good example is the claim, by Dr. Pedro Pla of Rosario, that an injection of a pregnant woman’s urine—which he tested in both sexes—exercised a “specific influence on the development of the genital organs,”⁵¹ and in the cure of other gynecological disorders. Against the backdrop of the general desire for population growth, any sort of experiment seems to have been validated as an effort to convert infertile bodies into fertile ones.

Hormonotherapy was also used to correct abnormal weight in pregnant women because this was thought to cause toxemia of pregnancy (hypertensive states, superimposed on chronic hypertensive vascular or renal disease), which caused a significant number of infant deaths as well as premature and weak babies. It was estimated that pregnancy should add no more than 20 percent to a woman’s normal weight. Concerned by those who exceeded that norm, and acting according to the classification of female body types, Dr. Víctor Caro of Córdoba treated his patients with a nutritional plan combined with the administration of thyroid extract, which he considered of “great utility . . . to obtain the ideal weight of the woman which is the goal of the treatment.”⁵²

In the Fifth Argentine Congress of Obstetrics and Gynecology (1940), two of the four main topics were devoted to endocrine matters. One of these focused on the constitutional problem of “genital hypoplasia.” In a paper entitled “Social Factors of Genital Hypoplasia,” a female gynecologist signaled the influence of heredity and poor working conditions on the malformation of bodies, bone lesions, abortions, premature fetuses, and congenital weaknesses. She advised that a eugenically oriented endocrine treatment, by “tending to the

harmony and perfection of bodies through the milieu in which they were developed,” was the best way to deal with those tenuous female bodies.⁵³

Endocrinology was instrumental for biotypologists in more than one way: as well as providing much of the scientific rationale for knowledge of the fertile potential of the population (female biotypes), and contributing therapy for the “correction” of that potential, it also provided a biological means of sterilizing women temporarily. Further examination of sterilization methods will allow us to assess whether these methods were also used for eugenic purposes.

Temporary and Definitive Sterilization

The conservation of the species is due to endocrine glandular balance; for this reason deliberate biological sterilization results from the disruption of that physiological harmony.⁵⁴

As may be expected, biological methods of temporary sterilization disrupted more than “physiological harmony.” The addition of a new means of sterilization widened the controversial topic of the artificial prevention of pregnancy.

Before the advent of hormonal temporary sterilization, many procedures were performed to find ways of ensuring sterility for a variable period, avoiding the more complicated temporary surgical methods. Grafts of ovaries or placenta, injections of corpus luteum and of the anterior lobe of the hypophysis, were widely tested in laboratories and in women’s bodies. By the mid-1930s, the most prevalent procedure was the injection of sheep spermatozooids, both because of the method’s accessibility and because it was considered less apt to spread tuberculosis, syphilis, and gonococci.⁵⁵ The resultant immunization lasted about one year, and it could be extended by reinoculation.

The legal context in which sterilization took place in Argentina was anything but straightforward. On the one hand, definitive sterilization was banned by the Penal Code, which in its article 91 sanctioned “imprisonment for three to ten years, if the lesion produces . . . the loss . . . of the capacity to conceive.”⁵⁶ However, in practice, jurisprudence authorized doctors to practice sterilization on the same grounds that legally authorized them to perform a “therapeutic abortion” (article 86, sect. 2), “to avoid a danger to the mother’s life or health.”⁵⁷

In the case of sterilization, jurisprudence trusted to the knowledge, discretion, and prudence of the specialist, and only in 1967 would “a clear therapeutic indication” be demanded by law.⁵⁸ The medical literature that I have reviewed for the period indicates that this legal framework seems to have neither restrained nor worried doctors in their practice; they were acting in a fairly permissive field, which aimed to safeguard the mother’s life or health in cases where pregnancy was thought to complicate a preexisting disease. Chronic or temporary tuberculosis, cardiovascular illnesses, diabetes, hemophilia, and a wide range of urinary, renal, endocrine, obstetric, and mental diseases fell into this category.

For a Catholic country with a powerful, influential church, however, there was a moral restraint that resolutely opposed the practice of sterilization and abortions, regardless of the medical circumstances. The dogmatic principles of *Casti Connubii*—the encyclical of Pius XI (1930) that, among other things, condemned both temporary and definitive sterilization—were to be fiercely defended by the international and national Consortiums of Catholic Physicians (CCP), which the pope himself urged be set up across the Catholic world. Undoubtedly, the moral condemnation raised by the encyclical and by the doctors gathered at the CCP was reflected in the caution with which obstetricians expressed in public their

opinions and experiences of sterilization. In practice, however, medical or therapeutic indications proved to be more important than religious ones, as we shall see.

In a decade of eugenic debate, proposals, and institutions, and in light of the enactment of involuntary sterilization laws in the United States and Germany,⁵⁹ sterilization in Argentina became entwined with other, more questionable, aims: those destined to prevent the birth of undesirable beings. The absence of a sterilization law, which has contributed to the notion of “positive eugenics,” should not dissuade us from analyzing this topic and its potential eugenic uses in subtle “negative” practices. It is instructive to note that, for the Latin American eugenicists gathered at the Pan-American Conference of 1934, the main objection to a sterilization law was a lack of certainty regarding the laws of heredity. Yet not all doctors agreed: in Argentina there were many voices that recommended and sympathized with a eugenic sterilization law (lawyers, legal physicians, hygienists, psychiatrists), proposals on which I am not going to dwell. Instead, I will discuss obstetricians’ and gynecologists’ opinions and clinical experiences.

The most influential obstetrician of the period, Dr. Peralta Ramos, defined eugenics as the “science of healthy generation,” with the aim of “combining generators in order to obtain the physical and intellectual improvement of the human species, and in particular, with the aim of combating the effects of the fatal inheritance arising from toxic and infectious diseases, such as alcoholism, syphilis, tuberculosis, and so forth.”⁶⁰ Such statements raise the question of whether sterilization methods formed part of the therapeutics used for that aim, particularly for those who thought that the laws of heredity did apply in certain cases.

Biological methods for obtaining temporary sterilization were generally well accepted—particularly by those obstetricians who considered temporary sterilization by surgical methods to be a façade, since women later transformed it into a definitive procedure: “it is very rare that someone comes to the clinic to ask for the reinstatement of the suppressed function,” as one of them complained.⁶¹ This positive perception can also be detected in medical records. Unlike the care evidenced in the protocols for “definitive sterilization,” temporary biological procedures had far fewer data and specifications. This suggests that biological sterilization was a field in which experiments and practices developed more freely—or, in other words, a space where the problem of moral conscience may have been less restrictive, or control over reproduction more effectively achieved.

In one protocol presented by Drs. Peralta Ramos (father and son) and Dr. Mario Schteingart, involving more than 141 women at the Institute of Maternity, they described satisfactory results with the use of sheep spermatozooids. They omitted to specify, however, which women they had decided to sterilize, referring to them only vaguely as “ill women.” Not a single reference is made to the kind of pathologies in which sterilization was practiced: that is, whether it was to save the mother’s life or to avoid the birth of weak children—an omission not found in recorded cases of definitive sterilization.⁶²

A group of doctors from the city of La Plata (province of Buenos Aires) used this same biological method in 1937, with the difference that they explicitly commented on the indications that had preceded the sterilization. First were cases of disease that put the mother’s life in “imminent danger,” and second, a different category that they called “a series of sociological indications”—namely, alcoholism, syphilis, and mental alienation.⁶³ The latter were clearly eugenic justifications.

This social, eugenic perspective was also to be found in cases of definitive sterilization. In 1928, Dr. Peralta Ramos performed a therapeutic abortion followed by sterilization on a woman with leprosy, which he justified by alluding to “medical, eugenic, and social reasons”; regarding the eugenic reason, he explained: “The possibility of a hereditary

transmission, the risk of contagion during delivery, the birth of a weak and sick child.”⁶⁴ This case also illustrates that “therapeutic abortion,” like sterilization, was performed to preserve the mother’s health and life, and like sterilization, too, its widely extended practice probably formed part of the same shadowy, ambiguous zone of eugenic use.

The relevance that the practice of sterilization was acquiring during the 1930s can be traced through the increasing number of articles published in both non-Catholic and Catholic medical journals.⁶⁵ A good “state of the question” is found in the Fourth Argentine Congress of Obstetrics and Gynecology (1940), at which sterilization was one of the two main themes. The main commentator of the Congress, Dr. Manuel Pérez, director of the maternity center at the Hospital Alvear in Buenos Aires, presented a detailed analysis of the history, methods, and indications of sterilization. He devoted extensive commentaries to the eugenic indications, and reviewed each of the diseases covered by the German law (1933).⁶⁶ He concluded that sterilization due to eugenic causes should be “performed exceptionally,” and only in cases of indisputably hereditary disorders.⁶⁷ He explicitly commented: “we adhere to the practice of sterilization in women with congenital feeble-mindedness [idiocy, imbecility], manic-depressive psychosis, and alcoholism with psychopathic crises.”⁶⁸ He also added epilepsy, blindness, and deafness—as long as these were also confirmed in other family members. This shows that, despite frequent allegations about the shortcomings of theories of heredity, when heredity was thought to be proven, then sterilization was accepted.

The second commentator, Dr. Arturo J. Risolía, presented a paper on the techniques involved in different sterilization methods, which provide an insight into the growing development of these procedures. Some doctors successfully practiced temporary sterilization through vaccinations of human and animal sperm (biological methods); others used X rays to obtain both temporary and definitive results—a technique practiced in the Institute of Radiology and Physiotherapy in Buenos Aires; and finally, some doctors considered surgical methods (tubal ligation) the most effective means of achieving either temporary or definitive sterilization.⁶⁹

Dr. Risolía also presented the results of a survey that he had sent to fifty obstetric and gynecological services throughout the country, asking for details of the methods of temporary and definitive sterilization used in the service; opinions on the surgical, radiological, and biological methods; numbers of cases treated; and their success and failure rate. Only eleven heads of service responded—a number that raises some speculation. The responses give us some idea of the practice of sterilization, but not of specific cases in which it was performed. Overwhelmingly, doctors provided limited information. For example, Dr. José Lascano from Córdoba reported only nine cases of “definitive sterilization” for the period 1918–39.⁷⁰ However, Lascano did not refer to “temporary sterilization,” which he had supported in an early study of tuberculosis and pregnancy. In that study, he recommended temporary sterilization for young and working-class women (in the latter case, because he considered their access to other contraceptive methods to be nearly impossible), and the “definitive method” for multiparous women.⁷¹ Although he referred to the practice of sterilization to avoid the deterioration of a tuberculous patient, he preferred not to discuss whether moral, social, religious, or economic reasons should also be considered, leaving the decision to physicians’ consciences. It is quite likely that obstetricians encountered this situation more than once, since tuberculosis was the main cause of death between 1900 and 1946, and its hereditary transmission, in both bacilliform and “ultravirus” cases, was considered possible.

Overall, physicians made scant reference to their moral conscience in medical congresses. Obstetricians always tried to avoid confrontation with other colleagues, from the dogmatic

Catholics to the more controversial scientific objections of those for whom the existence of recessive characteristics could “annul, deviate, or modify hereditary determinism.”⁷² It is revealing that Dr. Peralta Ramos celebrated the special treatment of sterilization as a main topic in this Congress, given “its medical importance, as much as its vast social and eugenics implications”—but in his paper he deliberately decided to “remain in the medical domain. . . . therefore, we will avoid all eugenic, social, professional, moral, and even religious considerations of this issue.”⁷³ He detailed eighty-six cases of definitive sterilization (1928-39), sixteen of them performed jointly with abortion. Revealingly, the omission of the above mentioned case of the woman with leprosy confirms that he was referring only to cases that were medically, not eugenically, indicated. Of these, 43 percent were driven by the concern with biotype—that is, with women suffering from narrow pelvis and intersexualism. It is striking that in Dr. Peralta Ramos’s data narrow pelvis constituted the majority of cases (twenty-nine women with one previous cesarean, and seven with two previous ones),⁷⁴ for this condition was rarely a cause of sterilization. Analyzing the international tendency, Dr. Pérez concluded: “today [sterilization] is abandoned thanks to the cesarean operation.”⁷⁵ He also stated that unless there were other concomitant factors, he performed sterilization on patients with narrow pelvis only after the third cesarean section. Commenting on the sterilizations carried out by a psychiatrist in Brazil who had justified them on the basis of the “perversity syndrome” of his patients, Stepan wrote a footnote with a legitimate suspicion, which I would extend to the obstetric field: “This makes one think that eugenic sterilizations, perhaps disguised as purely medical procedures, were more common in mental and correctional institutions than is realized.”⁷⁶

Other speakers’ contributions in the Congress of 1940 were sympathetic toward sterilization, such as that of Dr. Benjamín Galíndez, who considered temporary sterilization “a completely acceptable intervention,” although he had never performed it.⁷⁷ In Dr. Roberto Herrera’s opinion, “sterilization, whether for medical or social-eugenic indications, is largely a way of helping nature in the selection of the fittest.”⁷⁸ The only negative response came from Dr. Carlos A. Castaño, president of the Argentinian Consortium of Catholic Physicians, whose condemnatory speech was likely to have moderated the enthusiasm of some of his colleagues.

The rather restrained commentaries of some Argentinian obstetricians contrasted with those of the delegates from Uruguay, who related their cases and opinions with a great deal of determination and confidence. “I have always performed it without any scruples of conscience,” stated one⁷⁹—an attitude probably reflecting the authorizing legal framework provided by the Uruguayan Commission of Hygiene, something that did not exist in Argentina at that time.

But contrary to what an initial view might suggest, the frugal, unrecorded, implicit, and therefore suspicious framework in which all sterilization was performed in Argentina seems to have created a permeable space for its practice. Following the comments of the American eugenicist Paul Popenoe, who stated that many U.S. official institutions carried out an increasing number of sterilizations with the agreement of the patient but without the authorization of the law, Dr. Ariosto Licurzi, a Córdoban supporter of the eugenic sterilization of degenerates and criminals, concluded: “This also happens in other countries, even in ours, although less frequently, without making them public, so the statistics do not appear to increase.”⁸⁰

It seems that by the end of the decade, obstetricians and gynecologists, although acting without the framework of a sterilization law, had managed to place this practice in a secular, more flexible, and more permissive domain. Those from a militant Catholic position—a

minority—who would have liked to question the doctors who performed sterilizations during this period would have had to be satisfied with the following assertion:

When a competent and worthy physician recommends sterilization for medical reasons, we believe him liberated of all immorality. These are problems of professional conscience ruled by deontology and medical ethics.⁸¹

Conclusions

I have sought here to analyze eugenic ideas in Argentina in one privileged area of medical intervention, maternity. In drawing attention to the medical practices in maternal centers, rather than to maternal welfare legislation or debates on matrimonial law, I have attempted to shed new light on the techniques and methods used by eugenicists to improve the reproduction of the fittest and to prevent the reproduction of the unfit.

Argentinian eugenicists' subscription to constitutional medicine, with its elaborate body-typing schemes influenced by the Italian school of Pende, provided them with a new scientific language to describe the biological composition of the population. The resultant female typology became inextricably linked with the search for a solution to the perceived decline in birthrates, especially among the biologically fittest, the upper classes. To confront the threat presented by the changing composition of the family and, in particular, by an increasingly elusive female identity, a catalogue of biotypes was established, and attempts were made to codify fixed identities. But in an insistence on universal typification, any taxonomy fails. The ideal type of the fertile woman, physiologically specified and sociologically described in her gender role, seems to have been as far from reality as the search for an "Argentinian biotype" within a racially and ethnically mixed population. However, the impact of the biotype endured, pervading much of women's social representation and influencing a great deal of medical treatment.

Endocrinological methods seemed promising for the treatment and improvement of the constitutional inadequacies of female bodies, the treatment of infertility, and the corrections of genital and hormonal dysfunctions. More importantly, the broad area of gynecological problems and their potential hormonal treatments allowed eugenicists a more active participation in the improvement of types, beyond the more general measures aimed at improving environmental conditions. The combination of biotypology and endocrinology services in the preconception and prenuptial consulting rooms organized by the National Direction of Maternity and Infancy in 1936 gave this approach, already practiced in Buenos Aires, an enlarged territory.

In addition, I would suggest that the eugenic purpose of the consulting rooms may have contributed increasingly to dissuading dysgenic women from marrying or becoming pregnant: no law would have prevented them from doing so, since the prenuptial certificate introduced in 1936 was compulsory only for men and restricted only those infected with venereal disease.⁸² It was not that the advice offered to women in the consulting rooms was illegal, since the consultations took place and the advice was formulated within the organization of the NDMI. Rather, I argue that to concentrate on the prenuptial certificate law as the only eugenic impediment to marriage is to ignore an important part of eugenic practice. The work of the consulting rooms in preventing the reproduction of dysgenic women was not the only negative practice observable in Argentinian eugenics: sterilization was another. This, too, took place outside, or in spite of, the legal framework.

Although sterilization was completely banned in the Penal Code, this legal impediment did not preclude doctors from practicing sterilizations to save a mother's life—as demonstrated by the development of surgical techniques (for definitive and temporary sterilization), about

which Dr. Eduardo Baldi eloquently commented: “few are the gynecologists who have not created a personal variant, seeking with each to obtain the most secure way of preventing the possibility of a future pregnancy.”⁸³ With the exception of the doctors gathered in the Consortium of Catholic Physicians, who bluntly rejected sterilization and abortion even when the mother’s life was seriously at risk, the rest of the medical profession, with greater or lesser emphasis, supported both practices.

Within this framework, the practice of sterilization for eugenic purposes had the capacity to generate further practice, favorable opinions, and few clear condemnations. In any case, its presence deserves scholarly reinterpretation. While Stepan has concluded that, “on the whole, the eugenists operated in a political, cultural, and religious climate in which birth control, abortion for any but the most strictly defined medical reasons, and sterilization, whether for eugenic or feminist purposes, were unacceptable,”⁸⁴ I argue that the legal framework was insufficient to define medical practice.

The medical literature I have discussed for the decade of the 1930s shows that some doctors carried out sterilizations to prevent the transmission of certain traits, although we do not know exactly how widespread this practice was. Others preferred not to comment publicly or to discuss whether eugenic justifications should be considered, leading to the suspicion that their viewpoint was nearer agreement than rejection—after all, if the legal, cultural, and religious climate opposed sterilization, it would have been much the easier course for doctors to openly declare themselves against it rather than to go against the grain. Further analysis of the medical practices carried out in maternal, psychiatric, or criminal institutions in Argentina and other Latin American countries may contribute to a better understanding of the complex and pervasive influence of eugenics.

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 31. Between 1930 and 1940 the male:female ratio in Argentina declined from 1.12 to 1.075, in Lobato, Mirta; Suriano, Juan. *Nueva historia argentina: Atlas histórico de la Argentina*. Buenos Aires: Sudamericana; 2000. p. 369
 32. Beruti, José. La desnutrición voluntaria en la mujer moderna; IV Congreso Nacional de Medicina; Buenos Aires: Spinelli; 1932. p. 339-61. on pp. 340-58.
 33. Pende, Nicola. *Constitutional Inadequacies: An Introduction to the Study of Abnormal Constitutions*. Philadelphia: Lea and Febiger; 1928. p. 199
 34. Peralta Ramos, Alberto; Schteingart, Mario. Los factores endocrino-constitucionales en la obstetricia y ginecología; V Congreso Nacional de Medicina. *Actas y Trabajos*; Rosario: Pomponio; 1935. p. 686-94. on p. 687 (hereafter *V CNM*).
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 36. Peralta Ramos, Alberto G.; Schteingart, Mario; Chasín, Ida. Constitución y esterilidad; V Congreso Nacional de Medicina. *Actas y Trabajos*; Rosario: Pomponio; 1935. p. 432-40. on p. 433.
 37. Navarro, Antonio. Semiología de las facies. *Revista del Círculo Médico de Córdoba*. 1941:273–81. on pp. 280-81.
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 39. Torrado, Susana. Transición de la familia en la Argentina, 1870-1995. *Desarrollo económico*. 1999; 39(154):235–60. on p.255.
 40. Rossi, Arturo. *Tratado teórico-práctico de biotipología y ortogénesis*. Vol. 1. Buenos Aires: Ideas; 1944. p. 157
 41. Peralta Ramos, Alberto. La obstetricia en sus relaciones con la eugenesia. In: Peralta Ramos, editor. *Obstetricia, ginecología y puericultura*. Vol. 3. Buenos Aires: Imprenta Mercatali; 1939. p. 385-89. on p. 386.
 42. Peralta Ramos, Alberto G.; Schteingart, Mario; Chasín, Ida. Constitución y esterilidad; V Congreso Nacional de Medicina. *Actas y Trabajos*; Rosario: Pomponio; 1935. p. 432-40. on p. 438.
 43. Peralta Ramos, Alberto G.; Schteingart, Mario; Chasín, Ida. Constitución y esterilidad; V Congreso Nacional de Medicina. *Actas y Trabajos*; Rosario: Pomponio; 1935. p. 432-40. on p. 439.
 44. Lawrence, Christopher. A Tale of Two Sciences: Bedside and Bench in Twentieth-Century Britain. *Med. Hist*. 1999; 43:421–49. on p. 443. [PubMed: 10885143]

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46. Cueto, Marcos. Laboratory Styles in Argentine Physiology. *Isis*. 1994; 85:228–46. on p. 234. [PubMed: 8071055]
47. Houssay, Bernardo. The Role of the Hypophysis in Carbohydrate Metabolism and in Diabetes. Nobel Lecture; Dec 12. 1947 at <http://nobelprize.org/medicine/laureates/1947/houssay-lecture.html>
48. Paul, Diane. The Rockefeller Foundation and the Origins of Behaviour Genetics. In: Benson, Keith; Maienschein, Jane; Rainger, Ronald, editors. *The Expansion of American Biology*. London: Rutgers University Press; 1991. p. 262-83. on p. 270.
49. Chasín, Ida; Schteingart, Mario. Las inyecciones endovenosas de foliculina en las menorragias; V Congreso Nacional de Medicina. *Actas y Trabajos*; Rosario: Pomponio; 1935. p. 441-44. on p. 441.
50. Dionisi, Humberto. Embarazo ectópico. *Revista médica de Córdoba*. 1940:2313–29. on p. 2316.
51. Pla, Pedro. El tratamiento de la insuficiencia genital en ambos sexos con inyecciones de orina de embarazada; V Congreso Nacional de Medicina. *Actas y Trabajos*; Rosario: Pomponio; 1935. p. 445-50. on p. 447. In addition to the above mentioned treatments with the urine of pregnant women and follicular hormone, other papers presented at the Congress reported the use of hypophysin (pituitrin) and ovarian grafts to treat different types of gynecological diseases. Thus, with a total of seven papers, hormone therapy became the main topic of the meeting. See Dionisi, Humberto. Embarazo ectópico. *Revista médica de Córdoba*. 1940:899–902.
52. Caro, Víctor. El régimen alimenticio de la embarazada obesa. *Revista del Círculo Médico de Córdoba*. 1935:327–49. on p. 346. It is also important to signal that the professorship of nutrition was among the titles awarded by the School of Biotypology since 1932.
53. Rodríguez, Mercedes. Los factores sociales en la hipoplasia genital; V Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: n.p.; 1943. p. 806-11. on p. 806.
54. Risolía, Arturo J. Esterilización en la mujer; IV Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Buffarini; 1940. p. 122-299. on p. 126.
55. Norman Haire is reputed to have been the first to apply biological sterilization to women, in 1928.
56. Código Penal de la República Argentina. Buenos Aires: Zavallía; 1989. p. 31
57. Código Penal de la República Argentina. Buenos Aires: Zavallía; 1989. p. 30
58. In 1967, the National Law on Medical Practice, Dentistry, and Auxiliary Practices, Law 17.132, in its article 20 (18) forbade doctors “to practice interventions that result in sterilization without any clear therapeutic indication and without having depleted all the conservative resources of the reproductive organs” (Notivida. accessed July 2007 at <http://www.notivida.com.ar>). Previously, the Medical Ethical Code (1955) approved by the Medical Confederation of Argentina in its article 19 stated that “the doctor could not sterilize a man or a woman without a perfectly determined therapeutic indication” (Confederación Médica de la República Argentina. accessed 6 February 2006 at http://www.comra.health.org.ar/codigo_etica.htm).
59. By 1930 a total of thirty-three states had enacted such laws.
60. Peralta Ramos, Alberto. La obstetricia en sus relaciones con la eugenesia. In: Peralta Ramos, editor. *Obstetricia, ginecología y puericultura*. Vol. 3. Buenos Aires: Imprenta Mercatali; 1939. p. 385-89. on p. 386.
61. Risolía, Arturo J. Esterilización en la mujer; IV Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Buffarini; 1940. p. 122-299. on p. 281.
62. Peralta Ramos, Alberto G.; Schteingart, Mario. Esterilización temporaria por método biológico; V Congreso Nacional de Medicina. *Actas y Trabajos*; Rosario: Pomponio; 1935. p. 656-58.
63. Gordillo A, Romero R, Bisso A, Pinto J. Esterilización biológica temporaria de la mujer. *Revista de la Asociación Médica Argentina*. 1937; 50:291–96. on p. 292.
64. Peralta Ramos quoted in Pérez, Manuel L. Esterilización: Definición, historia, indicaciones; IV Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Buffarini; 1940. p. 47-121. on p. 86.
65. From the years 1930-40, I was able to find twenty-four articles and seven monographs devoted solely to the testing of sterilization methods. In the case of Catholic literature, there were seven such articles in the medical journal *Iatría*, and three in *Criterio*.

66. German law included the following diseases: congenital feeble-mindedness, manic-depressive psychosis, schizophrenia, epilepsy, Huntington's chorea, blindness, deafness, severe alcoholism, and severe physical deformities.
67. Pérez, Manuel L. Esterilización: Definición, historia, indicaciones; IV Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Buffarini; 1940. p. 47-121.on p. 109.
68. Pérez, Manuel L. Esterilización: Definición, historia, indicaciones; IV Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Buffarini; 1940. p. 47-121.on p. 121.
69. Derived from the addresses at the Congress of 1940 and from other articles consulted, the following list of physicians, although incomplete, is representative of the use of sterilization methods during the period: Biological methods: Alberto and Guillermo Peralta Ramos, Mario Schteingart, Nicanor Palacios Costa, Ricardo Pastorini, Pedro A. Tapella, Carlos A. De Pierris, and Rafael Araya (Buenos Aires); Alberto Gordillo, Rodolfo Romero, Aderbal Bisso, and Juan Pinto (La Plata); Manuel Vázquez Amenábar, Pablo Arata, and Rodolfo Calaberry (Córdoba); Hugo Magistris (Rosario). Surgical methods: Juan M. Sánchez, Arturo Risolía, Alberto Peralta Ramos, Daniel Rojas, Eduardo Baldi, Roberto Herrera, Manuel Pérez, Juan Gabastou, Juan C. Ahumada, Juan C. Llanes Massini, Tomás A. Chamorro, José Beruti, Orestes Palazzo, Antonio Molfino, Raúl Boero, Juan Viacava, and Enrique S. Garré (Buenos Aires); José Lascano (Córdoba); Ricardo Schwarcz (Santa Fe). X-ray methods: Eduardo Lanari, José Molinari, and Federico Vierheller (Buenos Aires).
70. Risolía, Arturo J. Esterilización en la mujer; IV Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Buffarini; 1940. p. 122-299.on p. 286.
71. Lascano, José C.; Sayago, Gumersindo. Tuberculosis y embarazo; II Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Caporaletti; 1934. p. 38-75.on p. 57.
72. Belbey, José. La esterilización humana por el estado; V Congreso Nacional de Medicina. Actas y Trabajos; Rosario: Pomponio; 1935. p. 325-29.on p. 327.
73. Peralta Ramos, Alberto; Peralta Ramos, Alberto G. Indicaciones y técnica de la esterilización artificial definitiva de la mujer; IV Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Buffarini; 1940. p. 309-25.on p. 309.
74. Peralta Ramos, Alberto; Peralta Ramos, Alberto G. Indicaciones y técnica de la esterilización artificial definitiva de la mujer; IV Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Buffarini; 1940. p. 309-25.on p. 323.
75. Pérez, Manuel L. Esterilización: Definición, historia, indicaciones; IV Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Buffarini; 1940. p. 47-121.on pp. 100-101.
76. Stepan, Nancy. "The Hour of Eugenics": Race, Gender, and Nation in Latin America. Ithaca: Cornell University Press; 1991. p. 113
77. Risolía, Arturo J. Esterilización en la mujer; IV Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Buffarini; 1940. p. 122-299.on p. 288.
78. Herrera, Roberto. Consideraciones acerca de la esterilización; IV Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Buffarini; 1940. p. 304-5.on p. 304.
79. Escuder, Carlos. Discusión; IV Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Buffarini; 1940. p. 325-31.on p. 328.
80. Licurzi, Ariosto. La esterilización eugénica de degenerados y criminales. Revista médica de Córdoba. 1937:207-25. on p. 209.
81. Peralta Ramos, Alberto; Peralta Ramos, Alberto G. Indicaciones y técnica de la esterilización artificial definitiva de la mujer; IV Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Buffarini; 1940. p. 309-25.on p. 326.
82. Law of Prophylaxis of Venereal Diseases, Law 12.331, article 13, in Díaz de Guijarro, Enrique. El impedimento matrimonial de enfermedad: Matrimonio y eugenesia. Buenos Aires: Kraft; 1944. p. 147-50. The prenuptial certificate became compulsory for women in 1965.
83. Baldi, Eduardo. Sobre algunas observaciones de fracasos de la esterilización quirúrgica; IV Congreso Argentino de Obstetricia y Ginecología; Buenos Aires: Buffarini; 1940. p. 305-9.on p. 307.
84. Stepan, Nancy. "The Hour of Eugenics": Race, Gender, and Nation in Latin America. Ithaca: Cornell University Press; 1991. p. 201