

Biotypology, regionalism, and the construction of a plural Brazilian bodily identity, 1930s

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Abstract

This article investigates regional biotypological studies and the construction of biological deterministic discourses about the Brazilian identity in the 1930s. Biotypological research was undertaken to determine the normal body type of the Brazilian man, using its peculiar classificatory lexicon. Studies into the bodily profile of specific regions, like the northeast and São Paulo state, featured in this research. In the context of the contemporary debates about race, miscegenation, and national identity, these investigations were geared towards biological determinism and the influence of the environment and social and cultural aspects on the bodily development of Brazilians. It is shown how regional biotypological studies echoed racial, normalizing, exclusive viewpoints and contributed to the construction of a miscegenated Brazilian bodily identity.

Keywords: biotypology; national identity; regionalism.

Our anthropometric studies are incomplete, for we would have to isolate: black types, aborigine types, white types, and mestizo types. In each of these types, establish the average man, compare his variations, ascertain how the different influences have shaped his features, according to what we said previously, and in these conditions we could deduce how the Brazilian man will look in the future – the average Brazilian man.

(Letter from Juvenil Rocha Vaz to Minister Gustavo Capanema, September 14, 1937, cited in Lissovsky, Sá, 1996, p.228).

In 1937, Minister Gustavo Capanema consulted some Brazilian scientists about the “ideal figure we should be allowed to imagine as representing the future Brazilian man,” who should serve as an allegory and apparently also as a model for a statue of this hoped-for ideal Brazilian to adorn the entrance of the new Ministry of Education and Health building (Dávila, 2003 p.47). The scientists in question included Oliveira Vianna, a social scientist; Edgard Roquette-Pinto and Froes da Fonseca, both anthropologists with the National Museum (Museu Nacional); and Juvenil Rocha Vaz, a doctor and biotypologist. According to Rocha Vaz, the precepts of constitutional medicine, also known as biotypology, found that the average man – meaning the normal Brazilian – was: white, like the typical inhabitant of the central part of the country, between 1.66m and 1.70m in height, and weighed 60kg to 65kg, to mention just a few of the many morphological measurements provided of dozens of parts of the body. When it came to anthropological features, the ideal was “straight hair and a dark iris color, a tendency towards brachycephaly and normotype of the face” (letter from Juvenil Rocha Vaz to Minister Gustavo Capanema, September 14, 1937, cited in Lissovsky, Sá, 1996, p.228).

This position was in tune with the views of Roquette-Pinto and Oliveira Vianna, for instance, who also depicted a whitened future for Brazilian man in their dealings with the minister (Dávila, 2003, p.50). Juvenil Rocha Vaz was the head of clinical propedeutics at the Faculty of Medicine of Rio de Janeiro (Faculdade de Medicina do Rio de Janeiro), and was known by his peers as a “master” or pioneer of biotypology in Brazil. The practical and teaching activities of his discipline were given at Hospital São Francisco, at what was known as “Dr. Rocha Vaz’s Service,” where the many laboratories for clinical analysis and medical research included a biotypological research cabinet (the Biotypology Laboratory) (Vaz, 1931). It was through “Dr. Rocha Vaz’s Service” that biotypology was introduced to the Brazilian medical community in the mid-1920s, especially through the publication of books and manuals and in medical and scientific content for clinical practice in propedeutics and medical semiology. Rocha Vaz’s most prominent disciple, Waldemar Berardinelli – his son-in-law and also a professor of clinical practice at the Faculty of Medicine of Rio de Janeiro – was responsible for publishing the most influential manuals in this area geared towards the medical community. These included *Noções de Biotipologia* (Notions of biotypology), published in 1932 and reedited in 1933, and *Biotipologia* (Biotypology), published in 1936. At the service and in the community that revolved around it, a variety of scientific debates and studies

were conducted into medicine and the biotypology of the “Brazilian man” throughout the 1930s (Vimieiro-Gomes, 2016).

Biotypology was established in Brazilian medicine and science in the 1930s in the midst of wider discussions about the nation’s identity arising from a growing nationalistic and populist political culture, which intensified under Getúlio Vargas’s authoritarian, centralized government (Cunha, 2002; Vimieiro-Gomes, 2012). A similar movement came about in Argentina, inspired by a fascist-inspired “Italian hereditarian-typological conception,” constituting one of the many “scientific and social sources” for eugenics aiming the biopolitical control of the population (Stepan, 2005, p.125; Vallejo, Miranda, 2004). According to Nancy L. Stepan (2005, p.128-129), in Argentina, biotypology was part of the eugenic projects for racial improvement, the protection of families through birth control, and the promotion of the nation’s health. However, Stepan does not go in any great detail about where biotypology fitted into the debates about eugenics, race, and nation in Brazil at the same time. Mexico was another place that had similarities to Brazil insofar as biotypology was a key part of the medical practice of the post-revolutionary government and was involved in the scientific debates about race, medicine, and the determination of a national identity (Stern, 2003).¹

Essentially, biotypology gained currency in Brazil at a time when its ethnic, racial, and cultural features were being rethought, based on ideas of “Brazilianness,” national unity, and patriotism fuelled by the prevailing nationalist ideology (Cunha, 2002; Dávila, 2003; Pandolfi, 1999). This can be seen in the epigraph at the beginning of the article, which serves as a reference for the debates about the ideal body of the average Brazilian man. The desirable Brazilian man could be equally white or mestizo (mixed race). The idea of a future whitening of the Brazilian race continued to inhabit social thinking, still based on a perspective of racial hierarchy (Skidmore, 1976). This can be seen in the debates about the criteria for the eugenic selection of immigrants, which gave priority to Europeans, held to be the best anthropological types for the eugenic development of the nation (Souza, 2015; Seyferth, 1999). Meanwhile, the mestizo came to be a symbol of “Brazilianness” and the racial and ethnic plurality of the Brazilian population.

The collective imagination about the *sertanejo* – an anthropological type characteristically found in the inland parts of the country, believed to be biologically favored by his mestizo racial composition – is one example of this inflection in the conceptions about what the Brazilian man was (Santos, 1998). There was a rejection of the idea of biological determinism – that social phenomena could be explained by biological factors –, which had held sway since the 1800, and which had seen the mestizo as a biologically and culturally inferior and degenerate anthropological type (Souza, 2012). Indeed, as of the 1930s, cultural, political, and sociological explanations became central in the discussions about race and ethnicity and the positive view of miscegenation. Such was the case of the idea of the racial and cultural mixtures that defined what was later called the “myth of racial democracy” present in Gilberto Freyre’s 1934 work, *The masters and the slaves* (Casa-grande e senzala).² Ultimately, the agenda of Brazilian biotypological research was oriented by the interests of the scientific and, indeed, wider culture of this nationalistic context.

As this leaning towards a “national identity” was taking shape, new regional identities with their own particular features also started to spring up as constituent parts of – and

in tension with – the national whole (Albuquerque Jr., 2001, p.41). While the prevailing nationalistic discourse envisaged a homogeneous nation and an ideal of what constituted Brazilianness, ironing out the differences across the different realities, it ultimately laid bare the country's diversity and plurality, leading to an “explosion of regionalisms” and ultimately a series of separatist uprisings and revolts, including the Constitutionalist Revolution of 1932, which proved fundamental for shaping the São Paulo identity (Weinstein, 2003). This also triggered a plurality of symbolic elements inside the different regions, such as northeastern regionalism. While Bahia reinvented an identity for itself that revolved primarily around valuing its Afro-Brazilian culture (Romo, 2010), elsewhere there circulated an imaginary that associated the northeast with the *sertão*³ and its specific climatic, telluric, and anthropological conditions and historical and cultural features (Albuquerque Jr., 2001). In this quest for a national essence, some regional identities were suppressed and others were brought to the fore (p.49) or, indeed, elaborated in contrast to regional identities deemed to be essentially distinct, like the rivalry between São Paulo and Rio de Janeiro, whose discourse incorporated distinguishing their respective political, cultural, racial, and ethnic features (Peters, 2014). The regionalist movements ultimately sought to pin down specific differences and use them to build their own identities while also seeing themselves as representative of the national identity (Oliven, 1992, p.16).

Essentially, the regionalist discourses galvanized symbolic elements to configure images of the regions that were sometimes imposed as truths. Such was the case of the representations of the *sertão*, the *sertanejo* (*sertão* dweller), drought, extreme poverty, messianism, and *cangaço* (outlaws) in the northeast (or northeast); or the images of the *caboclos* and *bandeirantes*, or avant-garde movements, modernism, and economic progress in São Paulo. These ideas of each region – with all their internal discrepancies – were political and cultural expressions manifested in the discourses adopted in scientific, sociological, literary, and artistic works by the regions' elites to denote the ideals of their respective past, present, and future and their place in the broader national context – as was the case of the modernist movement in São Paulo in the 1920s (Albuquerque Jr., 2001; Sevcenko, 1992; Ferreira, 2001).

Underlying these images of regional identity, there remained a conception of difference with regard to the racial origins of the regions. This can be seen in the writings of Oliveira Vianna, who positioned the regional populations socially and historically according to the “molding forces of the environment” and the anthropological constitutions of the places. The “São Paulo identity,” for instance, came to be associated with an idea of superiority, not just because of the region's particular settlement process or putative modernity and progress, but also because of an idea of “whiteness,” European immigration, and the marginalization of the role of Afro-Brazilians in regional and national development (Weinstein, 2003, p.238).

In this historical context, we will investigate how discourses about regional identities interplayed with biotypological research into the “Brazilian man.” The argument presented here is that regional biotypological studies conducted in the period contributed to the development of discourses about the bodily identity of the Brazilian man. However, even as they did so, they adopted the conception that the nation's bodily identity was heterogeneous and multiple in view of the great anthropological and racial diversity encountered amongst the Brazilian people. It was understood that such heterogeneity was reflected in the people's

biotypes and was the result of their various physical features and miscegenation, as well as the widely varying environmental conditions in the different parts of the country, which, it was believed, did not just involve telluric and climatic features, but social, political, and cultural factors as well.

The analysis presented here will center around studies that set about defining the biotypological profile of populations from different parts of the country, especially the northeast and São Paulo, two of the main Brazilian regions whose regional identities were debated and elaborated in the 1930s.

Biotypology: a new lexicon for the normalization of Brazilian bodies

Biotypology was in fact the name given to the former constitutional medicine, which, in the interwar period, was synthesized, transformed, and legitimized as a new science with an enhanced scientific status. This *status* derived from the idea that biotypology represented a new stage for constitutional medicine, because it was closer to experimental medicine and anthropometry, geared towards the qualitative study of the human constitution (Vimieiro-Gomes, 2012). In American constitutional medicine, for instance, the efforts to produce anthropometric data in clinical practice based on its doctrine were seen as a more scientific way of correlating individual, measurable biological features with psychological and physical symptoms (Tracy, 1992). The word “biotypology” emerged in Italian constitutional medicine and was subsequently adopted by other “Latin” countries, including France, Mexico, Argentina, and Brazil. In Italy, biotypology was one of the facets of the eugenics program, proposing a focus for analyses and interventions in the health of individuals (Cassata, 2011). It therefore provided a new lexicon and novel methods for classifying people, constituting, together with orthogenics (correction of individuals’ bodily deviations), one of the measures for resolving the nation’s biopolitical problems (Turda, Gillete, 2014).

The Italian School, as it was known, was the main model for the theory and practice of biotypology adopted in Brazil. Italian doctors like Giacinto Viola, Mario Barbára, and Nicola Pende⁴ were constantly cited in the biotypology books published in Brazil (Vimieiro-Gomes, 2016). This school of biotypology was appreciated by and of interest to Brazilian medicine precisely because it provided constitutional medicine with the putative epistemological groundwork hailed as being the most scientific at the time, and was therefore “more precise and adapted to the clinical criterion,” meaning it was more readily used in clinical practice (Berardinelli, 1933, p.87). According to this school, the classification of people into biotypes involved a mixture of biological data produced relationally by drawing on multiple fields of knowledge in interaction, like anthropometry, statistics, physiology (neuroendocrinological features), biometrics, and medical practice, together – as the Brazilian scientific culture denoted – with the racial and anthropological theories in vogue in the country (Vimieiro-Gomes, 2012, p.707).

This interaction between theories and practices from different fields of science lent biotypology a different epistemological foundation that culminated in the development of a new lexicon for bodily classification.⁵ This lexicon did not only cover racial classifications or the population’s anthropological types, as was the case in the field of anthropology. What

was envisaged was a delimitation of scientific parameters of normality, which thus implied a hierarchy of human types by defining which bodies deviated from this putative ideal of normality. According to the Italian model, the different data on the body parts measured in biotypology evaluations were treated mathematically and informed the names of the biotypes, which constituted the language that oriented the classification parameters. These names were also represented pictorially in drawings of the bodily forms of the biotypes, therefore representing this lexicon, and were to be used as visual references for qualitative evaluations of bodies.⁶ It was this invention, reinvention, and multiplication of names, labels, and representations of normality and abnormality for people's bodies that lay at the core of the scientific practice of biotypology and which allows us to consider it a science with its own lexical constructs, not unlike some other sciences whose practice was geared towards naming as a form of classification, such as natural history and physical anthropology.

A case in point was the set of bodily types put forward by Giacinto Viola, which were widely used in Brazilian biotypology at that time to define types that deviated from the norm, which was itself understood qualitatively as being harmonious, balanced, and perfect. In this model, bodies were analyzed by scrutinizing the proportions of the trunk (abdomen and thorax) and limbs. Harmony, or a predominance or deficiency in the numerical proportion of these body parts (11 measurements of different parts), was what oriented Viola's definition of three biological types: *braquetipo* (short type), *longitipo* (long type), and *normotipo* (normal type) (Berardinelli, 1936, p.115). A person was classified as *normotipo* when the proportions of the trunk and limbs were "symmetrical" and "balanced." When they were *braquetipo*, the proportion of their trunk was greater than that of their limbs. Meanwhile, in *longitipo* people the proportion of their limbs was greater than that of their trunk. Deviant bodies were defined using (statistical) averages of the normotypical standard. Arguably, the lexicon of biotypology was also imbued with aesthetic, moralizing, and ideological values that guided the parameters for the archetypal normal person.

Interestingly, the parameters of normality the Brazilian biotypologists used in their studies of Brazilians were actually the body measurements held to be normal in studies of Italians. It was common in the introductions of quantitative results from Brazilian studies to compare the average bodily data of Brazilians with those of the "Venetian man" or the "Emilian man" (referring to studies of samples from these regions of Italy), which were taken as the ideal standards for bodies, based on the qualitative and quantitative definitions set in Italian biotypology. Another parameter often used for the comparisons was the bodily proportions of Greek statues like Apollo and Antinous (Brown, 1934, p.121-124; Ferraz, Lima Jr., 1939, p.270-276).

Nonetheless, this appropriation of the Italian model did not come about unquestioningly. In biotypological studies into the "Brazilian man," it became clear that the bodily reality of the local population did not equate to the one proposed in foreign models. One of the most significant studies into Brazilian biotypology, *O normotipo brasileiro* by Isaac Brown (1934) – "a study by the Prof. Rocha Vaz Service" –, stated that in view of the anthropological heterogeneity of the Brazilian population, the Italian model should be (re)adapted. This was because, unlike in Italy, "in Brazil there is no homogeneous population center" (Berardinelli, 1936, p.616). In order to ascertain the average values – i.e. the normal values for a Brazilian –

homogeneous population groups were created that took two criteria into account: race and environment. This latter criterion involved grouping people together according to their regions of origin in the country. In fact, it was ultimately found that there was no standard type for the Brazilian man, but that there were several body types (Vimieiro-Gomes, 2012).

For the purposes of racial categorization, the biotypologists drew on the classification of Brazilian anthropological types proposed by Roquette-Pinto, an anthropologist with the National Museum: *leucodermos* (white), *faiodermos* (white + black, or mulatto), *xantodermos* (white + indigenous, or *caboclo*), and *melanodermos* (black) (Souza, 2012). Relating biotypology with race was in tune with the Italian biotypologists' conception about the non-existence of an association between specific biotypes in certain races. Meanwhile, the Brazilian biotypologists argued that there was a predominance of certain biotypes in specific races. If the new lexicon of biotypology with its classification of normal and deviant bodies claimed to be an alternative to racial typology (Stern, 2003, p.200), the debates about the anthropological identity of Brazilians, guided by racial, ethnic, and climatic deterministic thinking, still served as a starting point for the conceptions and practices of biotypology in Brazil.

The grouping according to different regions of the country was inspired by Oliveira Vianna's conceptions about the shaping force of the environment – how climatic and telluric influences played a part in forming the anthropological features and social evolution of the Brazilian people. The idea was that there were clear differences between the bodily features and cultural manifestations in the different regions of the country. “Let us consider the northern man, for instance... Empirical observation leads us to describe the northern man as a certain morphological type with certain psychological features quite diverse from the southern man, for whom popular models have already been defined through observation,” stated Isaac Brown (1934, p.206) in justifying the groupings per region. It was often discussed that external environmental conditions, like climate, telluric conditions, diet, and social and historical conditions, influenced individual biological variations and consequently biological variations in the population, resulting in a predominance of biotypes that were not just racial – the differential psychology of races, as suggested by Oliveira Vianna (1934) in *Raça e assimilação* –, but also regional (Brown, 1934, p.105, 203-207). These discussions about race, environment, and the diversity of the morphological types that composed the Brazilian population served as the justification and basis for some biotypological studies into specific regions, like the northeast and São Paulo. As we will show later, while they shared the idea of bodily heterogeneity, race, and miscegenation, the uses and discussions of the results about the bodily profile of the populations of these regions were based on different socio-cultural questions.

The man from the northeast and the biotypology of the *sertanejo*

The broadest and most detailed study of “regional biotypology” conducted in Brazil at that time was published in a book, *A morfologia do homem do Nordeste: estudo biotipológico*. Its authors, Álvaro Ferraz and Andrade Lima Júnior were both doctors with the Military Brigade of Pernambuco (Brigada Militar de Pernambuco), where the study was carried out and its subjects (all soldiers) came from. The publication was part of the Brazilian Documents

collection (Coleção Documentos Brasileiros), directed by Gilberto Freyre, who Waldemar Berardinelli described in the foreword to the book as granting the work “the baptism of consecration.” Interestingly, Freyre was responsible for launching the “regionalist Manifesto” in Recife in 1926. This manifesto defended the region as an organizational unit of the nation, the conservation of regional and traditional values, especially of the northeast, and the importance of the coexistence of regional differences in the heart of national unity (Oliven, 1992, p.33-34). The two military doctors’ studies were designed to determine the biotypological profile of northeasterners as a whole, although they effectively only investigated the state of Pernambuco.⁷ With biotypology, the idea was to set a standard of bodily normality for the population of that region, the assumption being that there was some difference – i.e., that the “northeastern man” had a constitutional type that differed from that of men from other regions of the country. It had certain particularities and complexities that stemmed from the influence of biological aspects (i.e. miscegenation) and were also associated with the region’s cultural, historical, climatic, and geographical conditions (Blake, 2011, p.214-215). What we can see here is that the idea of the “northeastern man” upheld by Ferraz and Lima Júnior was attuned with the construction of a regional identity that reflected political debates in Pernambuco about the historical, cultural, social, and economic conditions that forged the specific features of the Brazilian northeast (Albuquerque Jr., 2001).

The study into the morphology of the northeastern man was based on the methodological orientations of the “Rocha Vaz School” of constitutional medicine at the Faculty of Medicine of Rio de Janeiro. That is why, in methodological terms, it adopted the same procedures as *O normotipo brasileiro*: anthropometry, statistical analyses to calculate the averages of the different body part measurements, determining the biotypes of each individual, and normalization. The study was also designed to group soldiers under Roquette-Pinto’s anthropological types and by region of origin. In this case, however, the regions of provenance were: coast, Zona da Mata, and *sertão* of the state of Pernambuco.

Alongside Viola’s classification of biotypes, there was also a classification put forward by Berardinelli, called Barbára-Berardinelli, which was a local adaptation of another Italian model, this time by Mario Barbára (a disciple of Viola’s). It included new terminology for the Bárbara biotypes – micro and macro, *cormos* (trunk), and *melos* (limbs) – and a new grouping of the biotypes (Berardinelli, 1936, p.130-135). With this new lexicon, researchers were able to encounter normal parameters within a deviant classification. According to Ferraz and Lima Júnior (1939, p.234-235; emphasis in the original), this classification model was attractive because it “was strictly satisfactory from an ‘anthropological viewpoint’ and far more straightforwardly,” while they judged Viola’s types to be “excessively demanding,” yielding many mixed types in the population under study, which “detracted from its value and grace.” Once more, we can see the lexical nature of the biotypological procedures, which also involved creating new denominations for bodies – in this case, according to a local bodily reality.

Concluding the investigations for *A morfologia do homem do Nordeste*, some of the soldiers judged to be representative of certain biotypes – that is, deemed to be typical of the different bodily forms in question – were also photographed. In Figure 1 we can see the different bodily measurements, the equations used to calculate the trunk/limbs

proportion, and the Barbára-Berardinelli biotypological classification. Next to it is the photograph of one of the soldiers: an example of the “brevilíneo normocórmico” biotype. In the book, there is a similar photographic representation for each of the biotypes, again according to the Barbára-Berardinelli classification. It was held that “in the studies of individual constitution, the photographic camera is almost as important as the compass,” because the “photograph fixes what we cannot describe or sometimes measure” (Ferraz, Lima Jr., 1939, p.321-322). These pictures, also a form of language, should therefore also serve as parameters for future studies and for the medical practice of bodily assessments guided by biotypology.

In *A morfologia do homem do Nordeste*, a central discussion was provided to interpret the results encountered in that regional biotypology study, which revolved around racial determinism and miscegenation. When it came to racial determinism, the authors drew,

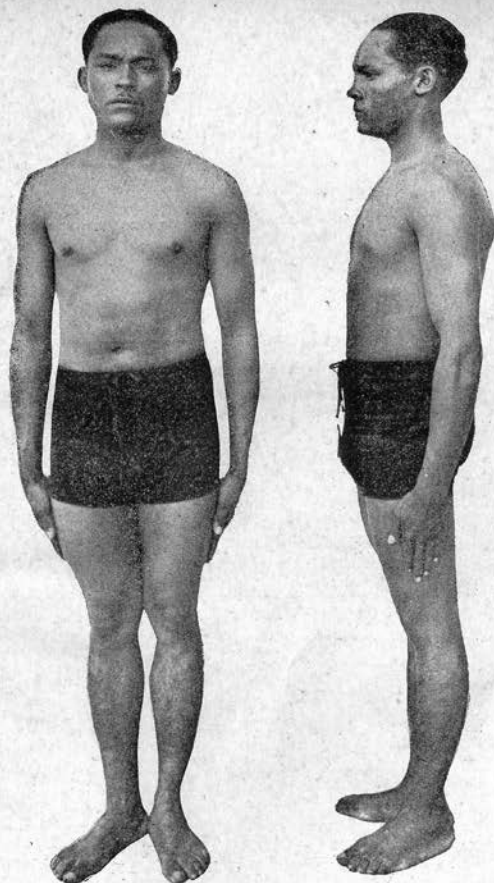
Nome: Quintiliano Pereira da Silva.
 Classificação étnica: Faiodermo.
 Data do nascimento: 1915.
 Logar do nascimento: Novo-Exú — Pernambuco.
 Data do fichamento: 9.VII-935.

MEDIDAS FUNDAMENTAIS DA CONSTITUIÇÃO

VERTICAIS	REAIS	GRAUS	
		Cents.	Sigms.
1 — Distancia jugulo-xifoidéa	153	0	0
2 — " xifo-epigástrica	147	- 7	- 0.75
3 — " epigastro-pública	154	- 15	- 1.50
3a — " jugulo-pública	454	- 8	- 1.75
4 — Membro superior	544	- 4	- 0.75
5 — " inferior	733	- 7	- 1.25
Estatura deitada	1548	- 7	- 2.0
DIAMETRAIS			
6 — Diametro transverso toraxico ..	300	0	0
7 — " antero-posterior toraxico	213	+ 8.5	+ 1.25
8 — " transverso hipocóndrico	278	+ 5	+ 0.75
9 — " antero-posterior hipocóndrico	212	+ 7.5	+ 1.25
10 — " transverso da bacia ..	222	- 6	- 1.0
VALORES			
a) — Abdomen superior (2 × 8 × 9)	8.7	+ 2	+ 0.25
b) — " inferior (3 × 9 × 10)	7.2	- 5	- 1.0
c) — " total (a + b)	15.9	- 2	- 0.25
d) — Torax (1 × 6 × 7)	9.8	+ 3	+ 0.50
e) — Tronco (c + d)	25.7	0	0
f) — Membros (4 + 5)	1277	- 6	- 1.25
Peso	53.6	- 8	- 0.75

Classificação Barbára-Berardinelli: Tronco 0 > membros - 6
 Brevilíneo normocórmico

Relações fundamentais	Índices sintéticos
I — Tronco/membros + 6	a) Tipo morfológico B ⁴
II — Tronco/jugulo-pública . + 8	b) Valor somático - 3
III — Diametral + 8,1	c) Erro específico + 7,4
IV — Abdomen/Torax - 5	d) Erro genérico 6,0



QUINTILIANO PEREIRA DA SILVA

Figure 1: Photograph of a northeastern faiodermo man, classified as “brevilíneo normocórmico” (Ferraz, Lima Jr., 1939, p.357-358).

as debated by the Brazilian biotypologists (Vimieiro-Gomes, 2012), on the idea of the predominance of certain biotypes amongst certain ethnic groups (Ferraz, Lima Jr., 1939, p.286). This was because in the case of the biotype of the “northeastern man,” there was found to be a morphological difference between white, mulatto, and black men, in other words between *leucodermos*, *faiodermos*, and *melanodermos*. The data on the “mulattos and negroes” revealed a “deficiency in the vertical measurements of the trunk” compared to the white men. However, the diameter of the black men’s trunk was larger. When it came to the proportions “of length of the limbs, both upper and lower, the negroes, on the contrary, had an advantage over the mulattoes, and those over the whites” (Ferraz, Lima Jr., 1939, p.289). The groups who were anthropologically defined as black and mulatto were classified as predominantly *longilíneos* (long type). It is important to stress that the explanation for this finding did not reside only in biological or even hereditary factors, held to shape individual bodies, but also in sociopolitical aspects, meaning the historical “conditions of life of the negroes, more suited to manual and hard labor” since slavery (p.289).

The *sertanejo* was another focus of discussion in this study into the northeastern man. The backdrop for this was the belief that there was a predominance of biotypes in certain regions of Pernambuco and also in some races. This was because the expected and actual results of the studies to identify the predominant biotype in the *sertão* had diverged. The authors stated that “the preponderance of *longilínea* types in the coastal zone and of *brevilíneos* in the Zona da Mata and *agreste* areas is perfectly reasonable and easily explained,” while there was a “disconcerting predominance of *longilínea* individuals in the *sertão*” (Ferraz, Lima Jr., 1939, p.307, 310). What these two military doctors did was to galvanize the debate amongst Brazilian social thinkers in the early 20th century, where the idea of the *sertão* was constructed in contrast with the coastal area (Souza, 1997). The biotypologists were keen to state that these differences were not just a matter of biological or climatic determinism, but were a problem of “biological politics” and “sociological biotypology.” And to explain and reaffirm the bodily identity of the “northeasterner” through the lens of biotypology, they took inspiration from discussions about the history of the colonization and settlement of the *sertão*, certain cultural features of the *sertanejo* like their customs and diet, and the social and economic dynamics that set that part of the northeast apart, drawing on the arguments of several authors, especially Capistrano de Abreu, Sérgio Buarque de Holanda, Euclides da Cunha, and Gilberto Freyre (Blake, 2011, p.214).

The *brevilíneo* in the Zona da Mata and *agreste* areas was the “Portuguese shopkeeper type” or the “rural worker type,” well suited to monoculture, “who only had eyes for sugarcane” or subsistence farming. Citing Gilberto Freyre and the idea of racial mixing in *The masters and the slaves*, they held that it was the *brevilíneo* “that most contributed to the miscegenation of the three races and resulting formation of the Brazilian people” and which made the Pernambuco sugar mills modern (Ferraz, Lima Jr., 1939, p.307-310). While the *brevilíneo* was sedentary and stayed in the *agreste* to work, “the *longilíneo*, adventurous and idealistic, ranged across the *sertão*.” The *sertanejo* was a cattle herder, a wanderer. Added to this, the droughts and food shortages, “the conditions of life of the cattle herder, given to the daily grind,” were taken to be social, cultural, and environmental factors that influenced the frequency of “long types”

amongst the *sertão* population. The image conjured up by Euclides da Cunha of the *sertanejo* as being of mixed race, shaped by his environment, with a backward lifestyle but not racially degenerate, was also used to explain the results. Adopting this rationale, they stated:

The blend of the three ethnic types – the Lusitanians, adventurous and strong from colonization; the native Americans, especially the non-Tupi-speaking indians (and amongst them the ‘normally tall, strong, and well built’), and the negroes, selected for penetration – gave way to the formation of the *sertanejo* of today, smelted in the special melting pot of the aggressive habitat, retempered and selected from time to time by climatic calamities (Ferraz, Lima Jr., 1939, p.316-317).

Here, we can see the centrality of a positive conception of miscegenation – or Nancy Stepan’s (2005) “constructive miscegenation” – in the explanations about the bodily heterogeneity of the “northeastern man.” An idea of miscegenation involving discussions that took environmental and cultural considerations into account while still clinging to biological and racial determinism, and which swung between an emphasis on the hierarchy between human groups and a denial of such a hierarchy (Skidmore, 1976, p.186; Santos, 2010). It was a miscegenation that was held to have led to the plurality of the bodily features of the “northeastern man” and the Brazilian, and which, as we will next see in another scientific document and regional sociopolitical setting, served as an argument for explaining the exceptionality of the São Paulo identity, whose biotypological profile also reflected the heterogeneous nature of its population.

The São Paulo biotype: whiteness, immigration, and assimilation of foreigners

Biotypology seems to have also been prolific in the state of São Paulo, where it was pursued in institutions in the areas of criminology, clinical medicine, and psychiatry. In the foreword to *A morfologia do homem do Nordeste* (Ferraz, Lima Jr., 1939, s.p.), Waldemar Berardinelli noted that in São Paulo, “as well as the anthropologist Machado de Souza and Lacaz Moraes, the subject is cultivated in the identification service by Godoy; at Juquery Hospital by Pacheco Silva and André Teixeira Lima; and even in a surgical clinic, headed by the great Ayres Netto.” In the identification service at the São Paulo police force’s criminal anthropology laboratory, primarily on the initiative of forensic doctor Oscar de Godoy, biotypology was adopted in the forensic examinations of delinquents because of its aim of normalizing bodies – even if it sometimes served little operational purpose and was of limited or unclear utility in criminal proceedings (Ferla, 2009, p.187-188).

In the 1930s, the biotypological research done in São Paulo set its sights on the bold eugenic goals of determining the “average men of the Brazilian population” (Ferla, 2009, p.191). It is worth noting that in the early 1920s, medicine in that state was related to the ideals of national development and, according to the concepts of “Paulistanism,” was represented as one of the instruments of civilization capable of leading not just São Paulo, but the whole nation towards economic, social, and racial progress. Hygienics, sanitation, and eugenics, for instance, were central in the defense of this plan (Mota, 2005, p.16). Indeed, one of the research projects in this respect was the biotypological study undertaken at the Faculty of Medicine of the University of São Paulo on the initiative of scientists inspired by the

approaches of doctor Odorico Machado de Souza, assistant of Alfonso Bovero, director of the Department of Anatomy – whose anatomic research revolved around the morphological diversity of racial groups (Faria, 1952, p.42). Nonetheless, Machado de Souza's investigations did not just address the Brazilian population.⁸ His main constitutional medicine work, undertaken at the University of Toulouse, was based on groups of people from Indochina and Madagascar. The aim, alongside comparing and contrasting the constitutional profiles of different ethnic groups, was to establish a mutual correlation between the “typological” classification parameters and methods developed by Manouvrier⁹ – who proposed three types: *macroskelic*, *mesoskelic*, and *brachyskelic* – and those of Viola, whose model was by then more widespread in Brazil. His conclusion was that “there is not always an agreement between the types classified by Manouvrier's method and by Viola's.” It seemed that they correlated at the extremes, when the biotypes were furthest from the median values (Souza, 1934, p.47). According to Odorico Machado de Souza (1934, p.47), their conclusions had practical value in that while Viola's method was seen as being “the most precise,” it nonetheless required the “preliminary effort” of determining the “average constitutional type for the ethnic group under consideration;” work that had yet to be concluded in Brazil. We can see here that one recurring question for Brazil's biotypologists was the effort to standardize the methods for bodily classification and find the one that best applied to and suited the bodily reality of the country's population. Despite these efforts, the classification into biotypes always had an element of imprecision, because human populations are physically diverse and thus any efforts to divide them into groups – in this case, constitutionally normal or abnormal – was ultimately arbitrary and open to question (Stepan, 2005, p.125).

Rafael de Paula Souza adopted Machado de Souza's methodological approach in research he conducted at the São Paulo Institute of Hygiene (Instituto de Higiene de São Paulo) into the morphology of children and university students from the state, the findings of which he published in two articles in 1935 and 1936, respectively: “Tipo morfológico e desenvolvimento estatural e ponderal de crianças da idade escolar em São Paulo” (The morphological type and height and weight development of school-age children in São Paulo) and “Biotipologia dos universitários paulistas” (The biotypology of São Paulo university students). Another result of this research effort in biotypology was a medical thesis by Joaquim Lacaz de Moraes entitled *Estudos de antropometria constitucional dos brancos nativos do estado de São Paulo* (Studies of the constitutional anthropometry of native whites from the state of São Paulo), presented in 1939, which reported on practical work undertaken at the Laboratory of Anatomy of the Medical Faculty at the University of São Paulo. Both the authors are of interest here precisely because they gave their investigations an explicitly regional and racial perspective.¹⁰ Paula Souza (1935, p.128) held that regional data would give “information on the diverse *melting pots*, multiple in a single state,” demonstrating his interest in relating his biotypology investigations to the ethnic and racial mixing that had historically taken place in São Paulo. Meanwhile, Lacaz de Moraes (1939, p.9) argued that the biotypology of “different ethnic groupings of the country” should be regionally oriented, since “environmental factors, most diverse in each region, cannot be lost from sight,” as they underpinned “the genesis of the constitutional types.”

Lacaz de Moraes did his biotypology study on 300 young, white men native to the state of São Paulo, all servicemen from the São Paulo Center of Military Instruction (Centro de

Instrução Militar da Força Pública de São Paulo). They were white, or rather, *leucodermos*, according to Roquette-Pinto's classification of Brazilian anthropological types. In his words, "we leave to others the same task for the other ethnic groups in the population of this state." They were native because their "parents and all four grandparents were also born in the same state" (Moraes, 1939, p.6, 15). At this point, we can see that the study already takes a racial perspective, prioritizing white men, and reiterates in its own methodology the criteria for being classified as Paulistan. These methodological definitions about the group under study reveal some evidence for what Barbara Weinstein (2015, p.32) calls the exceptionality of São Paulo: a state imagined as being whiter than and distinct from the other regions. This portrayal, one of whose pillars was racism – sometimes explicit, sometimes veiled – was the product of the Paulistan elite, who were keen to differentiate themselves and make the state out as being whiter and more prosperous and progressive than the rest of the country (p.29).

The aim of the study was to create classification tables – average statistical data – using Viola's anthropometric method to determine the morphological type of the white Paulistan male. Lacaz de Moraes (1939, p.9-10) recognized the pioneering nature of Isaac Brown's study into the "Brazilian normotype," which produced data on the "*leucodermos* from a central zone of the country, in which Paulistans were included," but which also took in people from other states. That is why he considered that his study was conceived from "more abundant and homogeneous material from our state," because it was delimited according to clearly defined racial and regional criteria. Aside from the predominant definition of the morphological type in São Paulo, Lacaz de Moraes was keen to associate (bio)types with other bodily features, especially the head, deemed to be the real indicators of racial characteristics, like the shape of the face, the cephalic index, the facial index, and types of head. Another index that served comparative purposes was the "somatic value" – a parameter that expressed the total size of the skeleton and was used as a means of evaluating the nutritional status of individuals. All the calculations, statistical analyses of averages, frequencies, deviations, and errors, and all the comparisons between different corporal classification methods ultimately resulted in a table of degrees of biotypological classification applicable to the group of white Paulistan men. Unlike Andrade and Lima Jr. (1939) and Paula Souza (1935, 1936), from São Paulo, Lacaz de Moraes did not go into any biological, sociological, cultural, or political discussions to explain the resulting biotypological profile of the Paulistan man: a higher percentage of mixed types than *normotipos*, *braquitipos* or *longitipos*. As in *A morfologia do homem do Nordeste*, the average data obtained in the study nonetheless prompted the preparation of an idealized, pictorial representation of the average white Paulistan man. Some soldiers whose biological types deviated from the norm were also photographed, providing pictorial images which, alongside the data from the tables, should serve as parameters for classifying normal and abnormal Paulistan bodies in medical practice.

Rafael de Paula Souza's two studies used an adaptation of Manouvrier's method made by Giuffrida-Ruggeri,¹¹ whose "skelic" (skeletal) index maintained the same nomenclature and simply "corrected and simplified" Manouvrier's formula (Souza, 1935, p.129). As in the other Brazilian biotypological studies, here an attempt was made to homogenize the groups along racial lines, while also observing the regional condition. At this point, however, we can see a criticism of this scholar in his use of color as a distinguishing criterion in his biotypology

studies. He even went so far as to oppose the classification of the Brazilian anthropological type proposed by Edgard Roquette Pinto, which he deemed inadequate precisely because it was based on skin color. He did so because “we do not fully understand its reason for being amongst us, outcomes as we are of the most varied of races, including the negro and the indian” (Souza, 1935, p.129). No homogeneity could be expected from skin color, because even the “Brazilian meloderm imported from African peoples” was “of the most varied origins and constitution,” while its distribution across Brazil was patchy and its mixture was “no less irregular” (p.130). The same thinking applied to “European whites,” also considered to be of “the most varied of origins,” producing mixed races that “constituted a homogeneous core only in coloring, and this itself in a vast range, given the different ethnic groups, each with a different constitutional type” (p.130-131). He added that “the white is no more than a mestizo disguising his coloring well or poorly” (Souza, 1936, p.29). All this discussion served to explain the “exceptionality of miscegenation” (Grin, 2013), that is, to explicate the anthropological heterogeneity of the Brazilian population and thereby the non-existence of a “set type” of body for the Brazilian and the Paulistan. And further: this was all designed to scientifically justify the choice of investigating, in the biotypology of Paulistan men, only the “separate results of the whites” (Souza, 1935, p.130-131).¹²

Unlike Lacaz Moraes, Paula Souza’s discussion of race was designed to shed light on the biotypological profile of the São Paulo population. In eugenic terms, the study into the Paulistan university students made their ancestry a criterion for the homogeneity of the group and thus an attempt to separate native “Paulistans from Brazilians, given the diversity of ethnic backgrounds of these two groups” (Souza, 1936, p.26). Four hundred and eighty-nine students of both sexes were assessed: 482 “white,” four “yellow,” two “brown,” and one “black.” Eleven were foreign. What Paula Souza was keen to find out was their Brazilian and foreign antecedents (parents and grandparents from Italy, Syria, Portugal, or elsewhere), and whether this ancestry was pure or itself mixed. Rather than adopting the single criterion of white skin color, ethnicity was defined using a conception of heredity that was typical of eugenicists, drawing on genealogical grounds, or “blood bonds.”

Sociopolitically speaking, for the debate about the presence of foreigners in the make-up of the São Paulo population, the Paulistan doctor drew on the conceptions of jurist and historian Alfredo Ellis Júnior¹³ about miscegenation and the formation of Paulistan populations, rather than the writings of Ellis Júnior about the “myth of the *bandeirante* adventurer” or the role of people of mixed indigenous and Portuguese parentage in contrast with the negligible role of black and mulatto people in the formation of the specific Paulistan nature. This ethnic and racial make-up, it was believed, would then form the basis for their political, economic, and cultural leadership of the country – as developed in *Raça de gigantes* (Race of giants) and *Primeiros troncos paulistas* (First Paulistan origins), for example (Monteiro, 1994). However, Ellis Júnior’s positions about eugenic immigration, especially of Europeans, and the possibility of the ethnic differentiation of the Paulistan population by the assimilation of foreigners were nonetheless introduced as an explanatory counterpoint: miscegenation and acclimatization, in biological and cultural terms. From this perspective, Ellis Júnior (1934), in *Populações paulistas*, is inspired by the core beliefs of eugenics and the prevailing ideal of whitening to trace an overview of the recomposition of the São Paulo population in

the republican period, considered to be increasingly whiter and influenced by the migratory influx of foreigners, especially Italians going to work on the coffee plantations as of the 1890s. Here there is a perceptible presence of one of the conceptions that, since the 1920s, reworked the epic discourse about the Paulistan identity, which came to include not just the mixing of indigenous and Portuguese blood, but also immigrant newcomers, the “new *mamelucos*” or “modern *bandeirantes*,” held to be the most capable of taking the reins of the country’s cultural modernization (Ferreira, 2001, p.319-323). Ellis Júnior (1934, p.147) went so far as to state that of all the foreigners he discussed, “the Italian is undoubtedly one of the best exotic elements amongst us,” both for his capacity to cross with Paulistans and adapt to the climatic and social environment, and for his physical and psychic attributes. While recognizing that “the Paulistan has a profoundly different physical type from that of Brazilians,” because of miscegenation, “it is very likely that a uniform physical type will never emerge from this test-tube that is S. Paulo” (p.262).

The data on the biotypological profile of the Paulistan university students corroborate the non-existence of any such uniformity. The study found that “in the current state of mixtures of the Paulistan people” there was a predominance of *mesoskelia* (average and normal) and a more accentuated *brachyskelia* than *macroskelia*. This trend, he explained, stemmed more “from Italian and other European blood than from the black man.” Again, what we can see here is a favoring of “whiteness” in marking the region out as exceptional. At a time when the rates of European immigration were slowing and the Vargas government’s immigration policies were under scrutiny, Rafael de Paula Souza biotypological study was also attuned with the idea of assimilation and the racial melting pot, especially for the flows of Italian, Portuguese, and Spanish immigrants, held up as suited to the nation’s socioeconomic interests and the tenacious ideal of whitening (Seyferth, 1999, p.212-216).

The findings about the bodily profile of the white Paulistan demonstrated precisely just how mixed they were, or indeed how successful the Paulistan melting pot was, drawing close to eugenic conceptions about racial and cultural fusions for the purposes of nation building (Stepan, 2005, p.174). In Paula Souza’s (1936, p.40) words, the relationship between constitutional type and ethnic and racial ancestry indicated the “great power of attraction of our environment, with the nationalization of the different foreign ethnic groups and conservation or even improvement of their racial features, indicating the good acclimatization they obtained” in São Paulo. Race, miscegenation, and the assimilation of foreign immigrants were the main issues of the doctors’ interpretations of the biotypological data encountered with regard to the bodily identity of people from São Paulo.

Final considerations

This study demonstrates how regional biotypological studies in the northeast of Brazil and São Paulo contributed to broader discussions about the identity of the “Brazilian man” in the 1930s, especially when it came to the bodily identity of such Brazilian. Imbued in and guided by different schools of thought about what ethnic, racial, and cultural features were desirable for an ideal “Brazilianness,” regional studies echoed the impossibility of establishing a single biotype for the “average” (i.e. normal) Brazilian man. The main argument was that in

Brazil, because of the “perhaps unique heterogeneity in the universe ... there is no Brazilian type, there are many Brazilian types” (Brown, 1934, p.90). Therein lay the need for studies to be organized along regional lines in conjunction with racial and ethnic criteria, as we have seen in the biotyping of the northeastern and Paulistan man. The biotypology debate in Brazil, both regional and national, faced one of the main dilemmas of Latin American eugenics in that nationalistic context: “How to create, starting out from their heterogeneous populations, a new, purified homogeneity upon which a true ‘nationality’ could be erected” (Stepan, 2005, p.23). The practices and the lexicon designed to determine what a normal (average) and abnormal (deviating from the average) body were constituted an attempt to resolve this dilemma.

However, another clear potential solution was to take on miscegenation as an identity. In this analysis, we have seen that biotypology was also part of the symbolic dynamic that Mônica Grin (2013, p.329) defines as an affirmation “of the state of exceptionality of miscegenated Brazil” that was so very present during the Vargas years. The “exceptionality of miscegenation” as a national myth and constituent element of a putative “Brazilianness” was a central political argument in the attempts to define a national identity, and a rhetoric device that permeated everything from discourses designed to raise the profile of Afro-Brazilian culture to the cultural assimilation of foreign immigrants, deemed desirable elements in the nation’s make-up.

We have also observed the different ways the idea of a “mestizo Brazilianness” was used in regional biotypological studies, whose underlying political ideas projected an ideal nation, but through specific regional identities. If the biotypology of the northeastern man raised up this type as a positive expression of miscegenation of the three formative races and the conformation of the *sertanejo* as representing the heterogeneity of the Brazilian body type, the biotypology of the Paulistan depicted miscegenation with foreign immigrants as indicative of the sought-after whitening, indicating, in the bodily constitution of the Paulistan, a capacity for assimilating foreign peoples that had historically made up the supposedly different – but no less heterogeneous – features of the population of São Paulo. The fact that black people were not included in the biotypological studies in São Paulo reveals an implicit perception of an exclusive Paulistan identity racially marked by “whiteness” (Weinstein, 2015), which, in sociopolitical terms, was held to manifest the most advanced and modern stage for that region. In view of this, it is found that the regional biotypological studies projected and reinforced normalizing, racially-oriented, excluding visions and also contributed to the consolidation of the prevailing conception of a miscegenated Brazilian bodily identity that was for this very reason plural.

NOTES

¹ For a succinct discussion about the relationship between biotypology and “Latin eugenics” in Latin America, see Turda and Gillete (2014).

² “Racial democracy” is a term adopted by Brazilian social thinking after the 1950s as a way to express and sum up a mythical, idealized – highly controversial and criticized – view about the supposed “harmonious” nature of race relations in Brazil, which can be seen in Gilberto Freyre’s writings in the 1930s, even if he did not express them in these terms (Guimarães, 2001).

³ Translator's note: Semi-arid inland region of the northeast.

⁴ Nicola Pende is regarded as the most prominent physician of Italian constitutional medicine during the Fascist period, with direct links to Mussolini's regime. He was a member of the National Fascist Party and even dedicated one of his books to Mussolini: *Bonifica umana razionale e biologia política* (1933). His association with the regime was instrumental in providing funding for the creation of a biotypology and orthogenesis institute in 1926 (Cassata, 2011; Turda, Gillete, 2014).

⁵ I understand "lexicon" here as a form of language in its pragmatic sense, as discussed by Thomas Kuhn (2003, p.98-101), in order to think about the way meanings are produced by sciences and the practices and theories they develop to find out about and make sense of the natural world.

⁶ One example was the posters made by Claude Charbol designed to provide guidelines for medical practitioners in selecting rubber workers for the Special Service for the Mobilization of Workers to the Amazon (Serviço Especial de Mobilização de Trabalhadores para Amazônia, Semta) (Miranda, 2013).

⁷ For more on the importance of this study to Brazilian biotypology and the debates about the nation's identity, see Vimieiro-Gomes (2016).

⁸ Machado de Souza received a Rockefeller Foundation grant and spent two years in Europe, where he studied in France and worked at the Viola Clinic in Bologna, Italy (Faria, 1952, p.58).

⁹ Léonce Manouvrier, French anthropologist and anatomist, was a disciple of Paul Broca's, undertaking studies into anthropometry and brain anatomy. Manouvrier worked as a professor of physiological anthropology at École d'Anthropologie de Paris as of 1887. He was secretary-general of Société d'Anthropologie de Paris in 1902 and was head of the laboratory at École Pratique des Hautes Études between 1887 and 1903. He coined the term "anthropotechnique" to refer to scientific and technical practices from fields like medicine, hygiene, education, and law that were geared towards the management of the social body; in other words, a technique of social engineering (Blanckaert, 2001, p.150).

¹⁰ Another disciple supporter/follower of constitutional medicine in São Paulo and also working at the São Paulo Laboratory of Criminal Anthropology was doctor P. Moncau Júnior, who engaged in biotypological studies of children, resulting in his 1934 medical thesis, *Contribuição para o estudo da avaliação do desenvolvimento físico na idade escolar* (Contribution to the study of the evaluation of physical development at school age).

¹¹ Vincenzo Giuffrida Ruggeri (1872-1921) was an Italian anthropologist and a member of the Italian Society of Genetics and Eugenics. He was involved in developing several eugenics policies in Italy in the 1910s and 1920s (Cassata, 2011, p.9).

¹² According to the author himself, the data on black children were not compared with the data on white children because there were so few of them (16.3%) (Souza, 1935, p.131).

¹³ Alfredo Ellis Júnior was a jurist who trained at the São Paulo Law Faculty (Faculdade de Direito de São Paulo) and worked as a public prosecutor in Limeira and São Carlos. Over the years he developed an interest in universal history and the past of the state of São Paulo. He produced several works on this topic, including *O bandeirismo paulista e o recuo do meridiano* (1924), *Raça de gigantes* (1926), *Pedras lascadas* (1928), *Os primeiros troncos paulistas* (1935), and *Populações paulistas* (1934). He was elected a congressman for the Paulistan Republican Party (Partido Republicano Paulista) and in 1926 put forward a bill about immigration to that state. He was involved in the founding of the São Paulo Defense League (Liga de Defesa Paulista) and was actively involved in the 1932 constitutionalist revolution (Monteiro, 1994). Ellis Júnior also wrote literary works in which he expressed his ideas on eugenics, miscegenation, whitening, and the Paulistan identity. Such is the case of his historical novel *Jaraguá*, a "historical, regional libel" about the *bandeirantes*, published after the defeat of the 1932 uprising (Ferreira, 2001, p.256, 334-345).

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