



Science and miscegenation in the early twentieth century: Edgard Roquette-Pinto's debates and controversies with US physical anthropology

Vanderlei Sebastião de Souza

Professor, Department of History/
Universidade Estadual do Centro-Oeste.
Rua Padre Salvador, 875
85015-430 – Guarapuava – PR – Brazil
vanderleidesouza@yahoo.com.br

Received for publication in February 2014.
Approved for publication in December 2014.

Translated by Diane Grosklaus Whitty.

<http://dx.doi.org/10.1590/S0104-59702016005000014>

SOUZA, Vanderlei Sebastião de. Science and miscegenation in the early twentieth century: Edgard Roquette-Pinto's debates and controversies with US physical anthropology. *História, Ciências, Saúde – Manguinhos*, Rio de Janeiro. Available at: <http://www.scielo.br/hcsm>.

Abstract

The article analyzes Brazilian anthropologist Edgard Roquette-Pinto's participation in the international debate that involved the field of physical anthropology and discussions on miscegenation in the first decades of the twentieth century. Special focus is on his readings and interpretations of a group of US anthropologists and eugenicists and his controversies with them, including Charles Davenport, Madison Grant, and Franz Boas. The article explores the various ways in which Roquette-Pinto interpreted and incorporated their ideas and how his anthropological interpretations took on new meanings when they moved beyond Brazil's borders.

Keywords: miscegenation; Edgard Roquette-Pinto (1884-1954); US physical anthropology; scientific racism.

In the early decades of the twentieth century, the issue of miscegenation sparked much debate among Brazilian scientists and intellectuals and prompted the publication of many scientific and literary essays in the country. The topic also stirred much controversy on the international stage due to the circulation of eugenic theories, rampant racism in Europe and the United States dating to the nineteenth century, and the imperialist presence on the African, Asian, and American continents. Against this backdrop, physicians, anthropologists, eugenicists, and foreign travelers generally condemned “racial crossbreeding” and blamed it for the “degeneration” of non-European peoples. In Brazil, a variety of views were expressed in the debate over miscegenation, including the disqualification of mixed-race populations, opinions on miscegenation and the whitening of the population, and explanations of Brazil’s multiracial formation as a distinct feature of national identity and culture (Skidmore, 1976; Schwarcz, 1993; Maio, Santos, 1996; Stepan, 2005).

Ranked among the Brazilian intellectuals who were most focused on studies of miscegenation, the physician and anthropologist Edgard Roquette-Pinto (1884-1954) engaged in a dialogue with these different interpretations. A 1905 graduate of the Rio de Janeiro School of Medicine (Faculdade de Medicina do Rio de Janeiro), Roquette-Pinto spent a good part of his career doing research in physical anthropology and worked as an anthropologist and ethnographer at Brazil’s National Museum (Museu Nacional) from 1905 to 1935. He worked not only in the field of anthropology but also in education and communication. He was a member of the Brazilian Academy of Letters (Academia Brasileira de Letras), the Brazilian Historical and Geographical Institute (Instituto Histórico e Geográfico do Brasil), and the Brazilian Academy of Sciences (Academia Brasileira de Ciências) (Lima, Sá, 2008; Duarte, 2004; Souza, 2011). As a writer, he is known especially for his book *Rondônia: antropologia-etnografia* ([1917] 2005), which recounts his experiences on a scientific expedition to the interior of Brazil. Other works include *Seixos rolados: estudos brasileiros* (1927), *Ensaio de antropologia brasileira* (1933), and *Ensaio brasileiro* (1941), all of which were collections of texts that had previously been published in scientific and literary newspapers, magazines, and journals.

This article analyzes Roquette-Pinto’s role in the international debate that involved the field of physical anthropology and in discussions of miscegenation, with a special focus on his readings and interpretations of a group of anthropologists trained in the US tradition and his controversies with them. When he addressed the topic of miscegenation, Roquette-Pinto’s point of departure was his exploration of theories and interpretations developed by anthropologists such as Charles Davenport, Madison Grant, and Franz Boas. His readings of these authors were politically selective; he adopted the arguments that best served the purpose of valorizing “Brazil’s mixed race” and refuted those that contradicted the idea. Roquette-Pinto’s stance and the ideas that he adopted constituted “anti-colonial strategies,” a concept that Sérgio Carrara (2004) applied in analyzing Brazilian intellectuals’ negative reaction to the scientific theories that stigmatized multiracial peoples or cast them as inferior. While Europeans condemned intermingled racial origins and the alleged immorality of non-white peoples, Carrara (2004, p.430) showed that the Brazilian intelligentsia marshaled a series of arguments that rebuffed this stigmatization and devised strategies for building a “new, positive identity for itself and the nation” in the first decades of the twentieth century.

It is important to note that as soon as Roquette-Pinto joined the National Museum, he put his scientific studies to use contesting theses that blamed miscegenation for the emergence of physical, intellectual, and social disorders. He countered foreign travelers' and naturalists' disqualification of the Brazilian people, arguing that "Brazil's mixed races" could not be deemed "inferior" or degenerate types. As he saw it, the condemnation of "mixed-race peoples" was grounded in principles used to justify the imperialist drive of "Aryan peoples" (Roquette-Pinto, 1918, p.34-35). This affirmation followed from his own studies of the make-up of "racial types" in Brazil, whose findings led him to conclude that the process of miscegenation in Brazil had no prejudicial implications for the formation of the country's people.

Although Roquette-Pinto had taken up the reformist agenda advanced by a group of early twentieth-century sanitarians, social thinkers, and other Brazilian intellectuals, the ideas underpinning his research can only be understood if we analyze his dialogue with the field of physical anthropology in its international context. As I intend to show, despite his dialogue with anthropological theories from abroad, Roquette-Pinto was not a passive reader of the explanations developed in countries like the United States. To the contrary, his readings and incorporations of theory must be understood as reflecting a purposeful political stance. Roquette-Pinto's application of the ideas and scientific authority that foreign anthropologists employed to explain the effects of miscegenation expressed his engagement in a selective dialogue and in various clashes and controversies.

Charles Davenport, mixed-race populations, and anthropological "disharmony"

From the late nineteenth through early twentieth centuries, US intellectuals and authorities felt an urgent need to address the "problem of racial crossbreeding." The Civil War, the emancipation of the slaves, and the upsurge in immigrants spreading rapidly across the United States occasioned the publication of countless pamphlets, books, and magazines about the "racial question" and the impact that the "mixing of the races" would have on nation formation. Furthermore, substantial concern about contact between peoples of different racial origins, the European occupation of the African and Asian continents, and US interests on its own continent fueled a growing imperialist drive. For most Americans, closer contact between whites and blacks, or even between whites and yellows, should be seen as a threat to the alleged pure blood and civilizational values of Aryan peoples (Provine, 1973, p.790). Spurred by these fears, governments, colonizing companies, scientific institutions, and public and private associations funded research by physicians, anthropologists, eugenicists, and geneticists on the characteristics of non-white peoples and the effects of miscegenation on people of European descent and indigenes on other continents (Proctor, 1998; Steinmetz, 2007).

In addition to using anatomy, physiology, and racial psychology, contemporary anthropological studies began turning to genetics as a tool for understanding the make-up and behavior of human races and the principles of heredity. When Mendel's laws were revived in the early twentieth century, some anthropologists thought it would be feasible to conduct genetic experiments on human beings, thereby enabling the investigation of such questions as the effects of race crossing and the somatology of mixed-race populations. Consonant with

advances in research on the animal and plant kingdoms, anthropologists believed it would be possible to shed light on the inextricable tangle of human phenomena like dominant traits, sterility, reversion to ancestral characters, and the combination of genetic factors in the crossing of what were considered heterogeneous races (Provine, 1973, p.791).

Roquette-Pinto's anthropological scholarship was precisely the product of how he interpreted and addressed the key questions energizing the field of physical anthropology in countries like Germany and the United States. If his contact with German anthropology enriched his studies in different ways – especially his contact with Eugen Fischer and Felix von Luschan (Souza, 2011) – his exchanges with the US tradition in anthropology were no less valuable. The Brazilian anthropologist was quite familiar with the writings of internationally eminent authors like Charles Davenport, Madison Grant, Lothrop Stoddard, Raymond Pearl, Franz Boas, and Rüdiger Bilden. During the 1920s and 1930s, he corresponded frequently with some of these authors and with scientific institutions in the United States, thereby staying abreast of the ideas and controversies holding sway in the field there.

Among these scholars, Davenport was undoubtedly one of Roquette-Pinto's most important reference points, especially because the American anthropologist reasserted the role of Mendelian genetics in anthropological and eugenic studies. Davenport held a degree in biology from Harvard University and a doctorate in zoology from the University of Cambridge and was one of the most active and prominent of the new generation of US biologists who trained at the turn of the nineteenth to twentieth centuries. He earned prestige for his notable research in biometrics and animal genetics while professor of zoology at Harvard for nearly ten years and was one of the first to embrace Mendelian theories. In 1904, the Carnegie Institution of Washington appointed him to head the newly created Station for Experimental Evolution, in Cold Spring Harbor, New York (Rosenberg, 1997, p.89; Kevles, 1985, p.45).

Davenport put together a team of young biologists specializing in hybridization and natural selection at the Carnegie Institution laboratory, where he conducted genetic research on tame birds like canaries and played an important role in the first Mendelian analyses of the principles of heredity. Years later, moved by his belief that Mendel's laws could be applied to the study of human genetics, he began a series of experiments on the heritability of certain human characters, such as eye and skin color and shape of head, nose, and ears (Kevles, 1985, p.46). Davenport gathered a massive amount of data from family records to form the basis of his 1911 book *Heredity in Relation to Eugenics*. In its pages, he endeavored to show that mental illness, insanity, epilepsy, alcoholism, pauperism, and criminal behavior were inherited genetically, as were psychological temperament, intelligence, and talent in science, math, language and literature, and music (Davenport, 1911, p.IV-V).

Ignoring the impact of environment on racial formation, Davenport (1911, p.220-224) attributed disease transmission and a series of social problems to immigration and race crossing. Convinced that Mendelism offered an intelligible explanation of the effects of human race crossing, he published a lengthy article in the journal *Genetics* in 1917 on the inheritance of stature in humans. His studies sought to show that certain "segments" could be inherited independently, allowing him to argue that someone born of race crossing could inherit long legs from one parent and short arms from the other. He believed that

this same anthropological “disharmony” could apply to other parts of the body (Davenport, 1917a, p.346-348).

In an article published by the American Philosophical Society, also in 1917, Davenport (1917b, p.364) questioned the possible impact of “race intermingling” – citing the heterogeneous immigrant population of New York state as an example – since races display a variety of genetic traits. While Davenport recognized that no definitive conclusions could be drawn from the limited research available on human genetics and miscegenation, he argued that race crossing would produce “hybrids” with new traits, whose genetic combinations could engender anthropological “disharmony” in terms not only of physical but also of mental and temperamental qualities. He concluded that miscegenation produces “dissatisfied, restless, ineffective people” (Davenport, 1917b, p.366-367).

Davenport’s research fell on fertile ground in the debate on the effects of race crossing, since sectors of US society were increasingly concerned about the presence of blacks, those of intermingled race, and immigrants of various nationalities within their borders (Kevles, 1985; Provine, 1973). In tune with the ideas defended by Davenport and other anthropologists and geneticists, US authorities feared that miscegenation would not only affect the “fine” traits of “Aryan” races but also drastically escalate social problems and expand the number of sick, physically degenerate, and intellectually inferior people (Kevles, 1985, p.70-84). Although Davenport did not explicitly advocate a policy of racial segregation, he argued that the government should enforce a broad program of eugenic selection, encouraging reproduction among people whose genetics presented “good combinations” and averting the growth of “hybrids” (Provine, 1973, p.791).

Prompted by these concerns, Davenport made further efforts during the 1920s to understand the effects of “race crossings” and the differentiations between “pure breeds” and “race-hybrids” from both the physical and mental perspectives. In 1926, in collaboration with his assistant Morris Steggerda – a young anthropologist trained in zoology at the University of Illinois – Davenport conducted a thoroughgoing anthropological and genetic study on race crossing in Jamaica, a country with a highly mixed population of blacks, whites, and multiracials. This comparative study of the physical traits, mental capacities, and efficiency of the black and white populations and of those born from these two groups was based on a compilation of hundreds of body measurements and psychological tests performed on over 300 adults and school-aged children. The research was funded by the Carnegie Institution through a donation from the millionaire Wickliffe Preston Draper, an enthusiastic supporter of the US eugenics movement (Farber, 2011, p.37). The study came out in 1929 under the title *Race Crossing in Jamaica*, a lengthy book that presented the results of psychological testing, anthropometric data, and dozens of photographs of blacks and multiracials from the Caribbean island.

The data published by Davenport and Steggerda added further fire to concerns about the mixing of the races. Writing in *Scientific Monthly* in 1928 about the findings of their research in Jamaica, they argued that the traits of whites and blacks differed so much that the resultant mixed-race individuals displayed tremendous variability in relation to each of their lineages, thus accounting for their physical “disharmonies” and unstable behavior and mental capacities (Davenport, Steggerda, 1929, p.237). Echoing the findings from his 1917

articles, Davenport and his co-author reiterated the argument that crossings could produce physical degeneration; they cited as an example the members of mixed-race populations who displayed disharmonies in the length of their legs and arms in relation to their bodies, foot and hand size, distance between eyes, and nose shape. According to the authors, this disharmony could be traced to the combination of conflicting genetic factors, a conclusion derived from their Mendelian analysis (Davenport, Steggerda, 1929, p.237-239).

Davenport contended that the greatest disharmony among “hybrids” was found in mental traits. In the report where Davenport and his assistant released the preliminary findings from their Jamaica study, they took issue with the anthropologists who ignored the “satisfactory evidence” that the “main races of mankind” differed in their mental and moral capacities. While agreeing with these anthropologists that education and training might foster the “further development of primitive peoples,” they rejected the idea that all races have the same “native endowment,” based on their belief that each race displays innate mental differences (Davenport, Steggerda, 1929, p.67). While some of those of mixed race have notable musical talent, show skill in solving simple mathematical equations, or are more resistant to certain diseases, the authors emphasized that a good share of Jamaican multiracials belonged to a group of people who were intellectually incompetent and inferior as compared to the “white race” (Davenport, Steggerda, 1929, p.238). Referring to Agassiz’s *Journey to Brazil*, the authors pointed out that although “mulattoes” were often seen as more independent than blacks, the former were often times “unstable and unreliable.” From this perspective, Davenport and Steggerda (1929, p.238) concluded: “If only society had the force to eliminate the lower half of a hybrid population, then the remaining upper half of the hybrid population might be a clear advantage to the population as a whole.” But since this selection was not yet feasible, society could in no way benefit from miscegenation.

Roquette-Pinto was not only familiar with Davenport’s studies; he also corresponded with him and exchanged research information, institutional documents, and bibliographic material (Souza, 2011). The year that his book on Jamaica came out, Davenport turned to Roquette-Pinto for information on the process of miscegenation and the anthropological traits of the Brazilian population. In Davenport’s letter to Roquette-Pinto, the former advised – that the International Federation of Eugenics Organizations’ committee on race crossing – of which Davenport was chair – was “seeking to plot the lines, or areas, where race crossing between dissimilar, more or less pure, races is now occurring or has been occurring during the last two generations” (Davenport, 19 abr. 1929). For this reason, Davenport explained (19 abr. 1929):

The committee would appreciate very much your assistance in this study. We should be glad to have a statement from you as to (1) the location in your country or province of the principal regions where such race crossing is taking place; (2) the races involved (e.g., European and Negro, European and Amerind, Chinese and Malay; North European and Mediterranean) and (3) the number of generations during which hybridization has been going on upon a significant scale. We should like to have you refer us to any publications relating to race-crossing in your country, or to any person who can furnish photographs of races or race-hybrids.

Ten days after receiving the missive, Roquette-Pinto stated in a São Paulo press report that he would reply to the “well-known American biologist ... as soon as possible, sending him

the results of observations initiated over twenty years ago,” in a reference to the research he had been conducting at the National Museum since the 1910s (Roquette-Pinto, 2 abr. 1929, s.p.). While I could not locate Roquette-Pinto’s reply to Davenport, it may well be that the Brazilian anthropologist sent him a paper he had published a few months earlier in *Arquivos do Museu Nacional* (1929), entitled “Notas sobre os tipos antropológicos do Brasil” (Notes on anthropological types in Brazil). In this article, Roquette-Pinto defended an argument that contrasted sharply with the one published by Davenport, especially regarding the effects of miscegenation. Yet he cited his American colleague as an important reference in his anthropological research. It may even be that he mailed Davenport some photographs of the “anthropological types” of Brazil collected during his research.

In Roquette-Pinto’s eyes, Davenport was one of the leading authorities in the fields of genetics and anthropology. In an article published in 1929 about the report that Davenport had sent him on his scientific work, Roquette-Pinto (2 abr. 1929, s.p.) lauded his American colleague for the “interesting” research he had conducted on “human race crossings in Jamaica.” Roquette-Pinto highlighted the new methods Davenport had used to differentiate racial traits – like blood and psychological tests – and commented on some of the results published by the American and his assistant, especially regarding the comparison of whites, blacks, and multiracials. One of the “unexpected conclusions” that had captured his attention was Davenport’s demonstration that blacks are “better endowed” than whites in terms of “musical capacity,” “visual memory,” and drawing talent, which Davenport and Steggerda referred to as sensory skills (Roquette-Pinto, 2 abr. 1929, s.p.).

Roquette-Pinto pointed out that Davenport had ranked the intellectual capacities of mixed-race Jamaicans between those of whites and blacks. The Brazilian stated that “while some mulattoes equal the most well-endowed whites in terms of certain mental traits, a large percentage still seem less capable of achieving natural progress than blacks themselves.” In agreement with Davenport, Roquette-Pinto emphasized that his research conducted in Brazil in this same period allowed him “to say roughly the same thing.” However, he was “convinced” that this was “due much more to ‘social’ than to ‘biological’ causes” (Roquette-Pinto, 2 abr. 1929, s.p.).

Although this final caveat put a different twist on Davenport’s interpretation of his own studies, Roquette-Pinto wrote nothing about the American anthropologist’s radical criticisms of race crossing. The release of *Race Crossing in Jamaica* ignited a debate among US geneticists and anthropologists. Although the book was well received by a portion of influential scientists – like the geneticist Herbert Spencer Jennings – US and European science journals were filled with incisive objections and critiques about the findings. The controversy had Davenport’s critics and defenders exchanging barbs in scientific articles and correspondence. The British eugenicist Karl Pearson, a main leader of the international eugenics movement, is said to have opposed the experiments and conclusions posited in *Race Crossing in Jamaica*, especially regarding the lack of any evidence about the alleged physical and mental disharmonies found in “hybrids” (Provine, 1973, p.793-794).

While Roquette-Pinto made no mention of this debate in his writings, he was probably aware of the criticisms aimed at Davenport. Yet this apparently was not enough to keep the Brazilian anthropologist from holding Davenport up as a major authority in the fields of

genetics and anthropology. Just as Roquette-Pinto wrote nothing about his readings of the work of other anthropologists, he remained silent about the racist theories underpinning Davenport's work. All evidence suggests that Davenport's research played an important role in Roquette-Pinto's work less because of the former's ideas and more because he defended a model of anthropology more attune to modern biology and contrary to French anthropology, which emphasized craniometrical studies. This is suggested by Roquette-Pinto's numerous references to Davenport's methods and techniques and by his use of Mendelian genetics and his conciliation with biometric studies.

Interestingly, despite his positive references to his US colleague's work, Roquette-Pinto on more than one occasion strongly criticized the ideas of a group of authors basically aligned with Davenport. In an article published in 1931 in *Boletim de Ariel*, Roquette-Pinto manifested his disagreement with studies by the Norwegian anthropologist John Alfred Mjöen, whose lengthy article "Cruzamentos de raças" (Race crossings; Roquette-Pinto, out. 1931) had been published in *Boletim de Eugenia*, translated by the Brazilian eugenicist Renato Kehl. The paper summarized the ideas that Mjöen had presented at the Second International Eugenics Congress, held in New York in 1921 with Davenport as chair. In *Race Crossing in Jamaica*, when Davenport reaffirmed the concept that miscegenation produced genetic and glandular disharmony in those of mixed race – thereby increasing the number of diseases and social problems like crime and insanity – he made reference to Mjöen's suppositions (Davenport, Steggerda, 1929).

Roquette-Pinto, however, objected to Mjöen's claim that the frequency of diseases in "persons of half-blood" was a result of "gland disturbances" caused by "race crossings." In his remarks on Mjöen's article, Roquette-Pinto (out. 1931, p.4) questioned the veracity of his argument that the biological make-up of mulattoes engendered a greater number of diseased individuals. As Roquette-Pinto saw it, this was "in no way" what he himself had found among Brazilian physicians. A look at "the statistics on national deaths" was enough to refute the words of the Norwegian eugenicist. As Roquette-Pinto saw it, Mjöen belonged to the "school" of those who replaced scientific experiments with ideas, and his studies lacked the "*substratum* of science" on which anthropological arguments were grounded – that is, for example, the presentation of "evidence, documents, observations, experiments" (p.4).

Interpretations and critiques of US Aryan anthropology

Roquette-Pinto had steady contact with US anthropological thought from the turn of the 1920s to the 1930s. His interest was sparked not only by physical anthropology itself and the debate on miscegenation but also by controversies within US scholarship about eugenics and the selection of immigrants. The key works of renowned and controversial writers like Madison Grant (1865-1937), Lothrop Stoddart (1883-1950), and Alfred Paul Schultz (1878-1950) – authors who were quite close to Davenport's circle (Spiro, 2009) – are listed in Roquette-Pinto's references, and his writings contain summarizations and comments on these sources. Like Davenport, these scholars were members of the American Anthropological Association (AAA) and followers of the theories derived from scientific racism. In the words

of Roquette-Pinto (1925, s.p.), Grant, Stoddard, and Schultz formed “the troika opposed to the mixing of races.”

These authors became bestsellers not only for their apologetics of Nordic racial superiority and their condemnation of race crossing but also for their efforts to use biological-racial explanations to tell the history of Western civilization, following in the footsteps of Arthur de Gobineau and social Darwinism. In 1908, the anthropologist and eugenicist Alfred Schultz published *Race or Mongrel: A Brief History of the Rise and Fall of the Ancient Races of Earth*, in which he developed the theory that miscegenation with foreign races was to blame for the decline and fall of the great empires and nations. Conversely, his theory went, the preservation of racial purity accounted for the military might and political superiority of other nations, especially in northern Europe (Schultz, 1908). Schultz contended that “pure breeds” had built Western civilization but, as Roquette-Pinto (1925, s.p.) ironically observed, the existence of “pure breeds” was no more than a myth.

Based on these theories, Schultz predicted that the great American nation would likewise decline unless immigration and race crossing were rigorously controlled. As he saw it, an analysis of the negative impact of immigration and free miscegenation in Brazil was enough to demonstrate the woes that these could bring a nation. Echoing the words of Louis Agassiz and General Christopher C. Andrews, who both traveled around Brazil in the nineteenth century, Schultz stated that the miscegenation of the Brazilian population – especially among whites, blacks, and indigenous people – had produced a “lazy” racial type, a “troublesome class” that was “deficient in physical and mental energy.” Furthermore, Brazil’s mixed-race people were inferior to the “stock” of the original races, whether African or indigenous (Schultz, 1908, p.7, 8). In his notes, Roquette-Pinto underscored the fact that Schultz was even harsher in his condemnation of the population of Peru, where he alleged that racial degeneration had reached an even higher plateau. Peru not only had a large number of people with mixed African and indigenous origins, he argued; it had a contingent with Chinese blood as well, which Schultz considered highly prejudicial to the development of civilization and progress (Roquette-Pinto, 1925, s.p.).

The “mongrelization” of the Western world was also a big concern of the historian and anthropologist Lothrop Stoddard, considered one of the leading proponents of Aryanism in the United States. Author of more than ten books, Stoddard garnered fame with his 1920 publication of *The Rising Tide of Color against White World-Supremacy* (Guterl, 2002, p.52-55). In his lengthy forward to the book, Stoddard’s friend Madison Grant drove home the importance of Stoddard’s arguments, especially in the post-First World War context, when European nations were debating their racial, social, and political reorganization (Grant, 1920, p.XI-XXXII). Like Schultz, Stoddard said that the eradication and absorption of “white races” by “colored races” – the product of growing miscegenation – could result in the destruction of Western civilization. The racial picture painted by Stoddard (1920, p.299-310) split the world into “white” and “colored people” (yellow, black, Amerindian, and mixed). He stressed that the explosive growth of the latter, in conjunction with the damage wrought by First World War and the “collapse” of colonialism, was shrinking “white world-supremacy.”

Stoddard’s concern, as Roquette-Pinto (1925, s.p.) summed it up in his notebooks, stemmed from his belief that “the colored races surpassed whites by more than two to one.” Further,

they were growing so fast that while it would take white races eighty years to double, it would take yellow races sixty, and black races only forty, boosting the projected growth of mixed-race populations. In contrast with Stoddard, Roquette-Pinto did not view this as a cause for alarm, since miscegenation was becoming a reality worldwide, even in northern Europe. Roquette-Pinto held that the idea of “pure breeds” and the notion that miscegenation was a major menace to civilization were both major fallacies.

Although Roquette-Pinto (1924, p.23-27) agreed that the concept of race only made sense in the “most elementary, objective, simplest, and purely biological, anatomic, physiological, and psychological terms,” he believed that the history of peoples and nations should not be told solely from this perspective. Referring to the thinking of the French historian and philologist Joseph Ernest Renan (1823-1892), he pointed out that the history of nations and peoples could not fail to include an understanding of their ethnology, ethnography, and history of traditions. In this regard, he seemed to disapprove of how the history of populations was being written in Europe, as proposed by anthropologists like Stoddard, Schultz, and Grant. As these scholars saw it, the history of Western civilization should be told in racial terms, as a history of human biological evolution or even a history of struggles between the races. These authors believed that the conquests, progress, and setbacks of Western civilization could be explained by the formation of their main racial groups; their histories of occupation, isolation, and geographic distribution; and wars, invasions, immigration, and migration, especially in the case of European peoples (Schultz, 1908; Grant, 1916; Stoddard, 1920).

In an early 1920s text on the anthropology of European nations, Roquette-Pinto used the main works by these authors, especially *The Passing of the Great Race*, published by Grant in 1916. Although Roquette-Pinto’s suppositions differed from Grant’s, he made broad use of the information found in the American’s book. In Roquette-Pinto’s words, if the “author’s sectarian opinions” were ignored, one had to “recognize that his anthropological maps of Europe and the accompanying outline represent with clarity that which the annals of current science admit as the most probable facts” (Roquette-Pinto, 1924, p.25-27).

Considered one of the most influential scholars of scientific racism, Grant wrote a powerful defense of Nordic racial superiority in *The Passing of the Great Race*. As a leader of the eugenics movement in the United States – along with figures like Davenport, Harry Laughlin, and Henry Osborn, all with ties to the Eugenics Record Office (ERO) and the Galton Society – Grant used his book to warn of the danger that immigration and “mixed breeding” represented for the future of the United States.

Released during First World War, *The Passing of the Great Race* met with mixed reviews in the United States. Yet it was so popular that new editions soon came out and it turned into a bestseller in world science; it was translated in Germany, France, and Norway. The US press and anthropologists and eugenicists with ties to ERO and the AAA enthusiastically hailed the first editions (Spiro, 2009, p.143-166). According to Davenport – Grant’s friend and intellectual collaborator – the book was a peerless study in world science, a work fundamental to “destroy[ing] the idols” of racial egalitarianism (Spiro, 2009, p.343). The 1925 German edition was praised by none other than Adolf Hitler, who wrote Grant to thank him for

writing the book that had become his Bible. The German edition is said to have inspired passages of *Mein Kampf*, written by Hitler in 1925-1926. It is not by chance that when the Nazi party published an official list of recommended books in 1936, only two titles by non-German authors made the cut: *Inequality of Human Races* by Gobineau and *The Passing of the Great Race* by Grant (Spiro, 2009, p.357).

Grant's book was also the target of trenchant critiques, especially in the United States, coming from a group of antiracist anthropologists and activists, most of who were close to the German-born anthropologist Franz Boas. According to the historian Jonathan Spiro, the most incisive attacks were hurled by Boas himself, who not only rebuffed the idea of dividing humanity into hierarchical subspecies but also challenged Grant's argument that the Aryan race was superior. Boas also negated the idea that there was any relation between a population's physical traits and its mental or moral traits (Spiro, 2009, p.298). In response, Grant argued that the main reason for his opponent's attacks were Boas's Jewishness and his environmentalist suppositions (in his anthropological work, Boas sought to prove that the environment can alter the physical and mental traits of immigrants) (Spiro, 2009, p.299).

In the opinion of Spiro, the clash between Boas and Grant represented a struggle for anthropological power in the United States, especially when it came to defining which group would control the AAA, dominated by Grant and Davenport's group until the late 1910s. Boas and his former students strove to take the reins of the association and shift its intellectual and political direction. As Boas and his allies saw things, the AAA should be at the service of the eugenics movement and scientific racism rather than of the development of US anthropology (Spiro, 2009, p.298-310). In 1918, the group aligned with Grant, Davenport, Laughlin, and Osborn – known as “the big four of scientific racism in the United States” – responded by founding the Galton Society, with the goal of fostering eugenics research (Spiro, 2009, p.298).

Like Boas and his disciples, Roquette-Pinto (1924, p.41) thought *The Passing of the Great Race* was “thoroughly biased” and at the service of “Aryan theses.” While he felt that Grant's work contained “interesting” information on the formation of European peoples, his conclusion was that the idea of the “supremacy of the Aryan race” was nothing but the “pure invention” of the defenders of Lapouge's and Gobineau's anthroposociology. According to Roquette-Pinto, Grant was one of those who most zealously nourished the “Aryan question,” a debate that “for so many years fueled the enthusiasm of anthropologists, eugenicists, and philologists, giving rise to the sizable library where one can find comprehensive treatises written to defend or refute the invasion of Europe ... by an elected, cultured race coming from Asia or formed in southern Russia” (Roquette-Pinto, 1924, p.41). Although controversies over the existence of an Aryan race had already fallen by the wayside, as Roquette-Pinto wrote, there were still “important traces of the doctrine of the supremacy of the alleged Aryan type, dolichocephalic, the superior race that was born to be the master” (p.42). These “traces” were nurtured by authors who, like Grant, Schultz, and Stoddard, embraced “the synthesis of the anthroposociological school of Gobineau, Chambelain, Lapouge, and Desmolins” (p.42), authors who had laid the foundations of modern scientific racism in the latter half of the nineteenth century.

The debate with the anthropology of Franz Boas

By different paths, Franz Boas and Roquette-Pinto applied their anthropological scholarship to the refutation of scientific racism. The Brazilian anthropologist became familiar with Boas's studies as early as 1911, when he attended the First Universal Races Congress in London. Although Boas did not go, he sent a paper on the results of his research on immigrants in the United States, which participants read. Roquette-Pinto and Boas met personally at a later date, during the 21st International Congress of Americanists, held in 1924 in two cities, Gothenburg and The Hague. There he also met one of Boas's top disciples, the young anthropologist Melville Herskovits, who would make a name for himself with his research on blacks and African culture in the United States (Roquette-Pinto, 14 jan. 1925). Before returning to Brazil, Roquette-Pinto traveled to the United States at the invitation of Boas himself. There, he visited Columbia University and other American teaching and research institutes. From then on, according to personal accounts left by Roquette-Pinto, the two were friends and intellectual peers. Boas in fact sent "many letters" to Roquette-Pinto to introduce him to "young disciples who [went] to study in Brazil" (Roquette-Pinto, 27 jun. 1954).

According to Nísia Trindade Lima (2010, p.268), despite their intellectual similarities and the fact that both scholars rejected theses positing the racial inferiority of mixed-race populations, they "displayed marked differences in how they perceived anthropology and the professional role of the anthropologist." While Boasian anthropology moved from physical toward cultural anthropology, countering the evolutionist concepts that sought to explain the development of human societies, Roquette-Pinto had always been a proponent of biological anthropology and the evolutionist perspective, both from a positivist slant and as linked to studies of eugenics and human genetics. In this regard, even though Roquette-Pinto's anthropology was always open to cultural and political explanations (Lima, 2010, p.269), it differed from the anthropology defended by Boas, at least as far as his use of the concept of race and his interpretation of the role of biological inheritance.

As apparent in his writings and personal correspondence, during the 1920s Roquette-Pinto became familiar with some of Boas's main work, especially *Changes in bodily form of descendants of immigrants*, which had earned him worldwide fame in anthropology. Published in 1911, the book was a thoroughgoing study that questioned the constancy of bodily traits, which were considered the most stable and permanent characteristics of "human races." Boas's goal was to show that the environment, and not just race crossing, was responsible for producing a series of variations in physical traits, including head shape, whose constancy was a main paradigm of contemporary physical anthropology (Stocking, 1968, p.178). In 1921, at a conference held at the National Library in Rio de Janeiro, Roquette-Pinto (1921, s.p.) underscored how Boas's studies had demonstrated that body shapes undergo change when in contact with a new environment:

In North America, professor Boas ascertained that the height of the children of Austrian immigrants increased and that of Italian immigrants decreased, while their children were born with long skulls. A Jew in Europe has a long skull while in America he has a round skull. To put it in sophisticated terms: the Jews of Europe are brachiocephalic and those of America, dolichocephalic, while the opposite is true of Italians. The

physical environment causes the skulls of Italians, which are long in Sicily, to become rounded in America.

Roquette-Pinto (Roquette-Pinto, 1925, s.p.) would sometimes jot down a sentence here and there in his notebooks: “many think that immigrants are assimilated only through crossings” and, shortly thereafter, “Boas showed that race is not something fixed and that the environment changes it.” He also cited one of the strongest statements found in Boas’s 1911 book, which has the latter affirming that none of the features of the human types who come to America remain stable. In the same notebook, Roquette-Pinto pointed out that Boas eschewed the idea that race crossing causes degeneration of type, through miscegenation either between whites and blacks or between whites and indigenes (Roquette-Pinto, 1925, s.p.).

As a Mendelian, Roquette-Pinto had his doubts about how much the environment influenced people’s hereditary make-up. Like Davenport, Roquette believed that human heredity could only be changed through miscegenation. Commenting on Davenport’s genetic experiments at the Carnegie Institution, Roquette-Pinto (2 abr. 1929) emphasized: “all educated people know that the acclaimed ‘influence of the environment’ has now been reduced to much narrower limits. The majority of biologists do not believe that the environment is capable of affecting hereditary characters, all of which depend on germ plasma.”

In his reading, Roquette-Pinto (15 out. 1929) believed that Boas had not only rejected Mendelian explanations of human heredity but had also identified with Lamarckian genetics. It is worth noting that, in the words of historian George Stocking (1968, p.184), although Boas was not a “committed Lamarckian,” “there is much in Boas’ work to tie him to the tradition of neo-Lamarckian direct environmentalism which was so widespread in the late nineteenth century. Several of his intellectual antecedents, including Rudolf Virchow, clearly entertained the possibility that acquired characteristics were inherited. Boas himself constantly emphasized the functional and environmental modification of physical type.”

In terms of a given generation’s physical health, longevity, and even moral formation, Roquette-Pinto agreed with Boas that environmental conditions were important to anthropological analysis. The Brazilian scientist said his own research had left no doubt that blacks and mulattoes did not, for example, have the “same conditions of longevity” since they did not “enjoy the same easiness in life, the same ‘social support’, as whites” (Roquette-Pinto, 1929, p.139-140; emphasis in the original). Still, consonant with the Mendelian postulates that informed his work, Roquette-Pinto believed that this did not interfere with the shaping of future generations, because the action of neither the physical nor the social environment changed the structure of the gene, which was the cell responsible for defining hereditary characteristics.

Roquette-Pinto’s staunch support of Mendelian genetics seems to have been one of the barriers to greater dialogue between him and Boas. The validity of Mendelian genetics was a topic of discussion in the Brazilian anthropologist’s correspondence with his colleague Rüdiger Bilden, a German historian who lived in the United States and was a personal friend of Boas. In commenting on *Notas sobre os tipos antropológicos do Brasil* – a text that Roquette-Pinto sent Bilden in 1929 – the latter wrote: “In your article, you said: ‘Mendelian inheritance is

real.' I spoke to Boas about this last winter. He is ever more convinced that Mendel's Laws do not apply to humans, or they apply less than has been assumed" (Bilden, 13 set. 1929).

In this same letter, Bilden (13 set. 1929) asked if Roquette-Pinto had received the copy of *Anthropology and modern life* that he had mailed some weeks earlier, and whether his Brazilian colleague was familiar with *Art of primitive people*, both published by Boas in the 1920s. In reply, Roquette-Pinto (15 out. 1929) thanked him for sending "Professor Boas's interesting book" and stated in regard to his own support of Mendel's theses: "based on my observations of more than twenty years, I cannot deny Mendel's Laws regarding humankind. I am convinced that they are entirely real."

Final considerations

Despite Roquette-Pinto's familiarity with Franz Boas's studies and of any intellectual affinity, the Brazilian scientist was not influenced by Boasian anthropology. In his contact with foreigners, Roquette-Pinto's dialogue with the US anthropologist Charles Davenport and even his dialogue with German anthropology played a much greater role in the construction of Roquetian anthropology than his contact with Boas. Although Roquette-Pinto recognized Boas as a "master" of anthropology – as he stated in a letter to Rüdiger Bilden (Roquette-Pinto, 15 out. 1929) – he did not use Boas's work as a scientific reference. Referring to the "two streams" that tried to account for the hereditary make-up of the human species, in "Notas sobre os tipos antropológicos do Brasil," he declared that his own research had led him to prefer Davenport's Mendelian observations rather than those defending environmental influence, like Boas's (Roquette-Pinto, 1929, p.139).

Contrary to what some authors have suggested (Ribas, 1990; Stepan, 2005; Keuller, 2008), Roquette-Pinto's anthropological conceptions and even his antiracism cannot be traced to the work of Boas. Unlike his friend Gilberto Freyre, whose manner of viewing culture was decisively influenced by Boas and neo-Lamarckism (Araújo, 1994), Roquette-Pinto neither worked with the concept of culture nor ever abandoned the Mendelian definition of race. Furthermore, it is important to note – as pointed out by Ricardo Ventura Santos (2012, p.30) – that Roquette-Pinto's conversion to the idea that Brazilian backwardness was due more to sociopolitical than to racial factors predated his contact with the work of Boas. In this regard, explanations about an identification between Roquette-Pinto's and Boas's antiracial ideas cannot be found in any dialogue between the Brazilian anthropologist and his colleague from Columbia University but rather lay in the former's political convictions and his sense of nationalism committed to the "Brazilian people," which prompted him to assert the viability of Brazil's mixed-race formation. In this context, attention must also be paid to Roquette-Pinto's ties to the anthropological tradition forged at the National Museum, which in general looked favorably on miscegenation and the formation of the Brazilian nation (Souza, 2011; Santos, 2012).

Although this article begins with the understanding that the result of scientific production is always linked to the social, political, and cultural logic determined by local or regional context, we can only understand physical anthropology during this period if we analyze the international links between scientists, intellectuals, institutions, and the objects of their

research. As we have seen, the racial question was an important topic on the international stage in the first decades of the twentieth century and it had a heavy bearing on discussions about the future of nations, national identities, political might, and the ability to wield power over other nations. Characterized by imperialism, human migration, and intense contact between societies and cultures, this scenario spurred growing interest in physical anthropology studies and fostered research on populations around the world, especially where miscegenation was strong (Stocking, 1968; Lindee, Santos, 2012; Souza, Santos, 2012).

From this perspective, Roquette-Pinto's anthropological thinking expressed not only different moments in Brazilian society and Brazilian anthropology but also the events that animated the field of physical anthropology and political life worldwide, particularly in Europe, the United States, and colonial realms. The various ways in which Roquette-Pinto adopted anthropological ideas and his role in international scientific discussions should be seen as products of his political efforts to defend Brazil's racial identity and also of his debate with other authors, texts, and contexts. As far as his exchange with other authors, we cannot accept the assertion that Brazilians usually read foreign writers "uncritically" (Skidmore, 1976, p.13). Rather than speaking of "feeble copies" or even of intellectual influence, as if Brazilian scholars were passive readers of theories from abroad, we should highlight the creative aspects of how Roquette-Pinto adopted certain readings and engaged in dialogue. We must explore how scientific ideas were incorporated and used in terms of the proposals, concerns, and motivations that energized his generation of intellectuals, while likewise bearing in mind the era's political and scientific agenda and social ideologies.

REFERENCES

- ARAÚJO, Ricardo Benzaquen de.
Guerra e paz: "Casa-grande e senzala" e a obra de Gilberto Freyre nos anos 30. Rio de Janeiro: Editora 34. 1994.
- BILDEN, Rüdiger.
Carta a Roquette-Pinto. Arquivo Pessoal Roquette-Pinto. Documento avulso (Centro de Memória da Academia Brasileira de Letras, Rio de Janeiro). 13 set. 1929.
- CARRARA, Sérgio.
Estratégias anticoloniais: sífilis, raça e identidade nacional no Brasil do entreguerras. In: Hochman, Gilberto; Armus, Diego (Org.). *Cuidar, controlar, curar: ensaios históricos sobre saúde e doença na América Latina e Caribe*. Rio de Janeiro: Editora Fiocruz. p.427-453. 2004.
- DAVENPORT, Charles.
Carta a Edgard Roquette-Pinto. Série 2: Antropologia Física, A.F.T.1.002 (Arquivo de Antropologia Física do Museu Nacional, Rio de Janeiro). 19 abr. 1929.
- DAVENPORT, Charles.
Inheritance of stature. *Genetics*, v.2, n.4, p.313-389. 1917a.
- DAVENPORT, Charles.
The effects of race intermingling. *Proceedings of the American Philosophical Society*, v.56, n.4, p.364-368. 1917b.
- DAVENPORT, Charles.
Heredity in relation to eugenics. New York: Henry Holt. 1911.
- DAVENPORT, Charles; STEGGERDA, Morris.
Race crossing in Jamaica. New York: Carnegie Institution of Washington. 1929.
- DUARTE, Regina Horta.
Em todos os lares, o conforto da ciência e da arte: a Revista Nacional de Educação e a divulgação científica no Brasil, 1923-1934. *História, Ciência, Saúde – Manguinhos*, v.11, n.1, p.33-56. 2004.
- FARBER, Paul Lawrence.
Mixing races: from scientific racism to modern evolutionary ideas. Baltimore: The Johns Hopkins University Press. 2011.
- GRANT, Madison.
Introduction. In: Stoddard, Lothrop. *The rising tide of color against white world-supremacy*. New York: Charles Scribner's Sons. p.XI-XXXII. 1920.

GRANT, Madison.

The passing of the great race; or, The racial basis of European history. New York: Charles Scribner's Sons. 1916.

GUTERL, Matthew Pratt.

The color of race in America, 1900-1940. Cambridge: Harvard University Press. 2002.

KEULLER, Adriana.

Estudos físicos de antropologia no Museu Nacional do Rio de Janeiro: cientistas, objetos, ideias e instrumentos, 1876-1939. Tese (Doutorado em História Social) – Universidade de São Paulo, São Paulo. 2008.

KEVLES, Daniel.

In the name of eugenics: genetics and the uses of human heredity. Los Angeles: University of California Press. 1985.

LIMA, Nísia Trindade.

Antropologia, raça e questão nacional: notas sobre as contribuições de Edgard Roquette-Pinto e um possível diálogo com Franz Boas. In: Heizer, Alda; Videira, Antonio A.P. (Org.). *Ciência, civilização e república nos trópicos.* Rio de Janeiro: Mauad X; Faperj. p.255-276. 2010.

LIMA, Nísia Trindade; SÁ, Dominichi Miranda de (Org.).

Antropologia brasileira: ciência e educação na obra de Edgard Roquette-Pinto. Belo Horizonte: Editora UFMG; Rio de Janeiro: Editora Fiocruz. p.57-86. 2008.

LINDEE, M. Susan; SANTOS, Ricardo Ventura. The biological anthropology of living human populations: world histories, national styles, and international networks. *Current Anthropology*, v.53, n.55, p.S3-S16. 2012.

MAIO, Marcos Chor; SANTOS, Ricardo Ventura (Org.).

Raça, ciência e sociedade. Rio de Janeiro: Editora Fiocruz. 1996.

PROCTOR, Robert.

From Anthropologie to Rassenkunde in the German anthropological tradition. In: Stocking, George (Ed.). *Bones, bodies, behavior: essays on biological anthropology.* Wisconsin: The University of Wisconsin Press. p.138-179. 1998.

PROVINE, William B.

Geneticists and the biology of race crossing. *Science*, v.182, n.4114, p.790-796. 1973.

RIBAS, João B.C.

O Brasil é dos brasileiros: medicina, antropologia e educação na figura de Roquette-Pinto. Dissertação (Mestrado em Antropologia Social) – Universidade de Campinas, Campinas. 1990.

ROQUETTE-PINTO, Edgard.

Rondônia: antropologia-etnographia. Rio de Janeiro: Editora Fiocruz. 2005.

ROQUETTE-PINTO, Edgard.

Notas e opiniões. *Jornal do Brasil.* 27 jun. 1954.

ROQUETTE-PINTO, Edgard.

Ensaio brasileiro. São Paulo: Companhia Editora Nacional. 1941.

ROQUETTE-PINTO, Edgard.

Ensaio de antropologia brasileira. São Paulo: Companhia Editora Nacional. 1933.

ROQUETTE-PINTO, Edgard.

Prometheus or biology and the advancement of man. *Boletim de Ariel*, n.1. out. 1931.

ROQUETTE-PINTO, Edgard.

Carta a Rüdiger Bilden. Arquivo Pessoal Roquette-Pinto. Documento avulso (Centro de Memória da Academia Brasileira de Letras, Rio de Janeiro). 15 out. 1929.

ROQUETTE-PINTO, Edgard.

Os fatores da raça. *Diário Nacional.* 2 abr. 1929.

ROQUETTE-PINTO, Edgard.

Notas sobre os tipos antropológicos do Brasil. In: Primeiro Congresso Brasileiro de Eugenia, 1., Rio de Janeiro. *Atas...* Rio de Janeiro: [s.n.]. p.119-147. 1929.

ROQUETTE-PINTO, Edgard.

Seixos rolados: estudos brasileiros. Rio de Janeiro: Mendonça, Machado e Cia. 1927.

ROQUETTE-PINTO, Edgard.

Relatório do Congresso Internacional dos Americanistas apresentado ao Diretor do Museu Nacional. Caixa 17, documento 25 (Arquivo do Museu Nacional do Rio de Janeiro, Rio de Janeiro). 14 jan. 1925.

ROQUETTE-PINTO, Edgard.

Caderno de anotações. Arquivo Pessoal Roquette-Pinto. Documento avulso (Centro de Memória da Academia Brasileira de Letras, Rio de Janeiro). 1925.

ROQUETTE-PINTO, Edgard.

Antropologia das novas nações antropológicas. Arquivo Pessoal Roquette-Pinto. Documento avulso, 48p. (Centro de Memória da Academia Brasileira de Letras, Rio de Janeiro). 1924.

ROQUETTE-PINTO, Edgard.

Nossa gente. Arquivo Pessoal Roquette-Pinto. Documento avulso (Centro de Memória da Academia Brasileira de Letras, Rio de Janeiro). 1921.

ROQUETTE-PINTO, Edgard.

Euclides da Cunha, naturalista. *Revista do Brasil*, v.8, n.29, p.20-38. 1918.

- ROSENBERG, Charles E.
No other gods: on science and American social thought. Baltimore: The Johns Hopkins University Press. 1997.
- SANTOS, Ricardo Ventura.
Guardian angel on a nation's path: contexts and trajectories of physical anthropology in Brazil in the late nineteenth and early twentieth centuries. *Current Anthropology*, v.53, suppl.5, p.S17-S32. 2012.
- SCHULTZ, Alfred.
Race or mongrol: a brief history of the rise and fall of the ancient races of earth. Boston: L.C. Page. 1908.
- SCHWARCZ, Lilia M.
O espetáculo das raças: cientistas, instituições e questão racial no Brasil, 1870-1930. São Paulo: Companhia das Letras. 1993.
- SKIDMORE, Thomas.
Preto no branco: raça e nacionalidade no pensamento brasileiro. Trad. Raul de Sá Barbosa. Rio de Janeiro: Paz e Terra. 1976.
- SOUZA, Vanderlei Sebastião de.
Em busca do Brasil: Edgard Roquette-Pinto e o retrato antropológico brasileiro, 1905-1935. Tese (Doutorado em História das Ciências e da Saúde) – Casa de Oswaldo Cruz, Fiocruz, Rio de Janeiro. 2011.
- SOUZA, Vanderlei Sebastião de; SANTOS, Ricardo Ventura (Org.).
Dossiê: corpos, medidas e nação. *Boletim do Museu Paraense Emílio Goeldi, Ciências Humanas*, v.7, n.3. 2012.
- SPIRO, Jonathan Peter.
Defending the master race: conservation, eugenics, and the legacy of Madison Grant. New England: University Press of New England. 2009.
- STEINMETZ, George.
The devil's handwriting: precoloniality and the German colonial state in Quindao, Samoa, and Southwest Africa. Chicago: The University of Chicago Press. 2007.
- STEPAN, Nancy.
A hora da eugenia: raça, gênero e nação na América Latina. Rio de Janeiro: Editora Fiocruz. 2005.
- STOCKING, George.
Race, culture, and evolution: essays in the history of anthropology. Chicago: University Of Chicago Press. 1968.
- STODDARD, Lothrop.
The rising tide of color against white world-supremacy. New York: Charles Scribner's. 1920.

