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Karl M. Lorenz  
*Sacred Heart University*

Ariclê Vechia  
*Universidade Tuiuti do Paraná*

António G. Ferreira  
*Universidade de Coimbra*

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# Schooling and the “Hygienization” of Less-Privileged Children in Brazil, 1870-1900

Karl M. Lorenz  
Sacred Heart University  
U.S.A.

Aricle Vechia  
Universidade de Tuiuti do Paraná  
Brazil

Antônio Gomes Ferreira  
Universidade de Coimbra  
Portugal

## Introduction

During a significant period of the Empire in Brazil (1822-1889) education was reserved for children of the elite. Yet, with the liberal educational reform of Minister Leôncio de Carvalho in 1878, the abolishment of slavery in 1888 and the creation of the Republic in 1889, government authorities increasingly focused their attention on extending basic education. Expanding educational opportunities for all, a topic discussed during the Empire, became a priority with the founding of the Republic since it was perceived to legitimize the new political regime, provide the literate electorate required by the Brazilian constitution and create a national identity.

The movement to broaden educational opportunities for urban and rural children was supported by an influential group of statesmen, doctors, writers, anthropologists and educators. These intellectuals searched for theories of education that would guide administrative and instructional decisions, especially as they related to the less-privileged segments of the population. Among various ideas circulating were precepts associated with School Hygiene.

Interest in School Hygiene was a ubiquitous phenomenon in Europe and the Americas in the nineteenth century. Hundreds of books on the subject were published in Switzerland, England, and particularly France in the decades of 1870 and 1880. Many of the works advocated measures

for promoting the total well-being of the student through “hygienization” of the school environment. Influential works available and familiar to Brazilians included *L’Education physique des garçons* (1870) by Fossagrives; *Hygiène des écoles; conditions architecturales et économiques*. (1874) by Guillaume; *Conférence sur le mobilier de classe, le matériel d’enseignement et les musées scolaire* (1878) by Bagnaux; *A treatise on hygiene and public health* (1879) by Buck; *Éclairage diurne dès écoles* (1880) by Javal and *Hygiène scolaire; influence de l’école sur la santé des enfants* (1882) by Riant.

The ideas promoted by these and other authors characterized School Hygiene as a science that dealt with the physical, intellectual and moral well-being of students. Many of its principles addressed care of the body, sanitation and healthy environments, schoolhouse architecture, school furniture, materials and artifacts; student learning practices, the teacher-student relationship and morality enhancing literature.

The thesis of this paper is that several phenomena interacted towards the end of the nineteenth century to influence Brazilians’ receptivity to and perceptions of School Hygiene. Among these: the prevalence of disease and pestilence, the unhealthy conditions of urban centers, inadequate public and private schools, and a growing tendency to entertain racist themes contributed to a view of School Hygiene in the nineteenth century that reached its full articulation in the first decades of the twentieth century.

### General and Urban Health

The concept of School Hygiene as a means of addressing cultural, social and physical debilities evidenced in the school-going populace was consistent with the Brazilian experience of the late 1800s. During the Empire, and especially in the years between 1850 and 1889, the

Central Government struggled with preserving the general health of the populace. Large segments of the population easily contracted infectious, parasitic and tropical diseases. Entrenched maladies such as dysentery, malaria, tuberculosis, elephantiasis, intestinal parasites, leprosy and buboes, and virulent epidemics of influenza, cholera, yellow fever and small pox ravaged the population in both the coastal and interior regions of the country. In Rio de Janeiro, for example, successive waves of epidemics of yellow fever swept over the city between 1860 and 1876; and small pox between 1844 and 1887. The flu attacked most of the provinces between 1844 and 1859. Epidemics of cholera broke out in the northeastern provinces of Pará, Bahia, Alagoas, Ceara, Pernambuco and Rio Grande do Norte between 1855 and 1863; in the southern province of Rio Grande do Sul, and in Rio de Janeiro, in 1867, and in the western province of Mato Grosso in 1884 (Santos Filho, 1991).

The causes for these pestilences count, among the most important, the insalubrious conditions of urban centers, especially Rio de Janeiro. In 1871, at a session of the Imperial Academy of Medicine, Dr. Luiz Correa de Azevedo, offered some critical and vivid observations on the conditions in the city. He noted that Rio de Janeiro sits in a “tortuous trench in whose bottom lay dwellings, in neglect of all of the new conditions of architecture and ventilation that current hygienic practices have sanctioned and accepted...” Furthermore, the city is populated with “filthy and ignorant immigrants”, together with some rich and powerful inhabitants. High temperatures, constant humidity, emanations from centers of agglomerated men, make Rio de Janeiro “a swamp, a source of perennial miasmas, whose effects... renders its nosological chart capricious and complex” (Azevedo, 1872, 529). Other urban centers fared little better, and many, worse.

The sanitation and health needs of the Brazilian population prompted the authorities to seek the assistance of the medical and educational communities. Brazilian historians like Jose Gondra and Freire Costa observed that in the second half of the nineteenth century, the central government and the medical community forged a pact to “hygienize” the cities and the populace (Zucoloto, 2007, p. 4). In 1851 the Imperial Government created the Central Commission of Public Hygiene to implement sanitation measures and coordinate public health campaigns, and in 1876 and 1882 the Commission’s responsibilities were increased and its periphery of influence extended. Affiliated commissions were also created in the provinces. In the early 1870s Minister Epitácio Pessoa expanded federal sanitary services. The Ministers of the Empire, Leôncio de Carvalho, Dantas and Veloso modernized the studies of private and public health in the Faculties of Medicine in Rio de Janeiro and Bahia in 1879, 1881 and 1882. In 1884, the government created a Public Hygiene laboratory where students of the Faculty of Medicine attended practical lessons on foodstuffs, potable water, minerals and the conditions indispensable to hygiene in colleges, asylums, military barracks and hospitals. In 1892 the Vaccine Institute of São Paulo was founded, and in 1893, the Bacteriological Institute of São Paulo. And the creation of the Institute of Serum Therapy in Rio de Janeiro in 1900 and its transformation between 1903 and 1906 into the renowned Oswaldo Cruz Institute along the lines of the Pasteur Institute was a culminating event at the turn of the century.

### School Health

Correa de Azevedo’s description of Rio de Janeiro as a fetid and poorly ventilated city, suffering in a hot and humid climate, replete with shabby and often perilous constructions explains the demand for hygienic intervention to reorganize urban space and edifices, and in

particular, schools. While there was a general lack of concern about the environmental effects of the schools on the well-being of students, most agreed that the school was a vector for illnesses common to children, and in more dire times, for pestilences common to the general populace. Some critics pointed out that poorly constructed schools, inadequate lit and ventilated classrooms, badly designed desks and improperly formatted reading materials induced or aggravated childhood afflictions.

The negative physical effects of the schools were evidenced in sickly students and the negative effects on student learning were observed in deficiencies in the general academic environment. School commonly suffered with scant recourses, a dearth of didactic materials, the predominance of rote and verbal methods of instruction, unprepared teachers and an absence of administrative oversight (Almeida, 1989, p. 179). As Azevedo observed, “the majority of schools was without the capacity to accommodate the number of students attended, and without the capability to provide instruction that was neither vacuous nor misguided” (Azevedo, 1872, 530).

The general indifference to the effects of the school on the well-being of the student was due, in part, to logistical and fiscal constraints imposed by an increase in the school-going populace. From 1870 to 1900, the population of Brazil increased from 10, 112, 000 inhabitants to 17,319,000. Part of this increase was due to the influx of over 1,800,000 immigrants (Skidmore, 1974, p. 140). In 1867, 74,000 students, male and female, were schooled, and by 1875 this number rose to 125,000, and by 1890 to 263,000 students. By 1890 there were approximately 8000 primary schools registered in all of Brazil, a number which increased as the century closed. As for the Municipality of Rio de Janeiro, some 250 primary schools, of all types, attended segments of the population, and this number increased as the century closed. The increase in population and the rise in the number of schools and students stunned or overwhelmed under-

financed local governments. The result was that public and private schools went unregulated (Almeida, 1989).

### School Hygiene

The deleterious trifecta of effects – pestilence and disease, urban decrepitude and the environmental deficiencies of schools – moved the authorities to act. Members of the medical and educational communities sought to establish health standards and procedures designed specifically for the school. The intent was to ground the schools’ mission and curriculum in scientific principles of School Hygiene. In commenting on the significance of this intent, Correa de Azevedo, in an awkward metaphor, likened what he called “Hygiene Education” to “gastric juice, the only powerful means for contributing to digestion and, all things being perfect, for guaranteeing health and vitality” (Azevedo, 1972, 418).

In the second half of the nineteenth century Hygiene was understood to be the art of conserving health, and hygienic practices were perceived to contribute to the physical well-being of the individual and the populace in general. Some hygienists extended this understanding to the school. Lima and Hochman write that the interest in the “hygienization” of the school dates to the 1850s when public health campaigns in Rio de Janeiro considered the school as “one more place where people congregated, that required monitoring, the same as other places where this occurred...” (Lima & Hochman, 1996). The school was perceived to be a player in preventing tropical and contagious diseases.

In 1878, Minister Leoncio de Carvalho took the first step to “hygienize” educational institutions when he legislated the inclusion of the study of Hygiene in elementary schools. Also, in the early 1880s the statutes of the new teacher normal of Rio de Janeiro were reformulated to

include the study of the principles of personal and public hygiene (Primitivo, 1936, p. 316). Later, in 1889, a hygiene textbook, promoted by the Imperial Academy of Medicine of Rio de Janeiro as part of the school hygiene movement, was written for pre-service and in-service elementary school teachers. The text, *Elementos de história natural e higiene*, published by professor of the normal, Felisberto de Carvalho (1850-1898), presented content recommended by the French physician Alfred Becquerel (1814-1862) in his *Traité élémentaire d'hygiène privée et Publique*. Additional legislation, in 1881, also included the study of hygiene in the secondary curriculum of the Imperial College Pedro II of Rio de Janeiro, the model secondary school for all of Brazil, and indicated as the textbook the *Précis d'hygiène privée et sociale* (1876) of Jean Alexandre Lacassagne (1843-1924), professor of the faculty of Medicine of Montpellier.

The reforms enacted in the late 1870s and early 1880s, however, failed to address the unsatisfactory conditions of many of the schools of Rio de Janeiro. The perception of School Hygiene as an academic discipline eschewed efforts to induce broader measures that addressed the total “health” of the student. As a response to this situation, the erudite lawyer, journalist and statesman from the northeastern state of Bahia, Rui Barbosa, articulated a more comprehensive view of school hygiene in an 1882-1883 report presented to the Brazilian parliament. The comprehensive and detailed document described Brazilian primary and secondary education in the Municipality of Rio de Janeiro and compared it to educational systems in Europe and the United States. It also proposed an educational reform that he believed would more effectively modernize the current system of education. Part of the reform specifically delineated principles of School Hygiene as advocated by Javal, Bagnaux, Fossagrives, Riant, Guillaume, Buck and others (Barbosa, 1982).



Central to the science of School Hygiene was the notion that the school attends to a “sickly” population and that it often contributes to its demoralization and physical decrepitude (Lima & Hochman, 1996). Moysés, in examining the phenomenon of children who fail to learn, asserts that interest in school health in the latter part of the nineteenth century was founded on a widely-held a priori belief that “the children of the working classes are more debilitated, poorly nourished, ill, etc, and as a result, present problems in their schooling, unless medical action is taken” (Moysés, 1998, p. 299). In the final decades of the century, a number of doctoral theses on general and school hygiene in Brazilian faculties of medicine clearly adhered to this view of the less-favored school-going populace (Zucoloto, 2007).

The school, it was argued, produces or aggravates certain afflictions common in childhood, such as near-sightedness, nosebleeds, headaches, curvature of the spine and rickets. The school needed to be “hygienized” to eliminate the causes that create or worsen these conditions. School hygienists argued that improperly constructed buildings failed to provide the proper ventilation or the lighting necessary for reading, writing and drawing. Some went as far as to suggest that windows in the classroom be located to the left of the students so that light shined on the papers of right handed writers. Others suggested that compendiums and manuals be carefully formatted to facilitate reading and reduce ocular problems. Hygienists calculated the best distribution of the student’s personal workspace and designed classroom furniture that would not force student into unnatural, contorted positions.

Many hygienists agreed with the general principle that a healthy and vigorous body makes for a healthy mind and spirit. Hence, they advocated making personal hygiene a topic of study in the curriculum and including health-promoting activities through gymnastics and physical exercises. Summarizing this view, “to educate means to develop the physical and

intellectual and moral capabilities of the student, in order to constitute a strong, robust, pure and wise individual (Gondra, 2000, p. 535).

School hygiene, in the final quarter-century, was also concerned with the moralization of the student. Morality could be achieved through the reading of “hygienic” literature, in contrast to demeaning literature. Works such as the fables of La Fontaine were considered elevating and enlightening since they addressed issues of morality and good choice. Other forms of literature, like undisciplined romantic excursions, were perceived to incite passions and practices detrimental to moral development, and were thus to be avoided. The student’s moral sensibilities, it was believed, could be heightened by silent and public readings of decorous literature, exercised in an environment suffused with proper illumination, and recited with adequate respiration that coordinated the respiratory organs with the correct use of the vocal chords. Finally, school hygienists urged the authorities to scrupulously adopt prophylactic measures in the school to guard against the transmission of diseases and to counteract acquired and constitutional illnesses and unhealthy habits.

The science of School Hygiene successfully exercised its logic on receptive Brazilians. Faced with the realities of an expanding school population of non-elite, less-favored students, School Hygiene provided a justification for and an explanation of how the physical, mental and moral development of children could be induced, maintained and enhanced. The lure of this science in nineteenth-century Brazil was its appeal to a growing concern of the authorities that the biological weaknesses and physical and moral degradations suffered by the country’s poor could be redressed through education. Hygienic schools, it was believed, would regenerate the young “sleeping generation” by adopting measures to strengthen its physical, intellectual and moral forces. As Barbosa artfully concludes in his discussion of this topic: “the entire regimen

of school hygiene, is subordinated to scientific laws, whose infraction victimizes new generations, and which would be the first interest of a country: the vitality of the race that populates it” (Barbosa, 1982, p. 50-51).

### Changing Concept of School Hygiene

During the First Republic (1889-1930), different segments of Brazilian society engaged in defining the meaning of a “Brazilian race.” This movement originated from a larger concern about the most efficacious ways to politically and socially modernize the country and create a new model of society. Increasing urbanization, industrialization, abolition, an expanding population and school-going populace became important factors that shaped the discussions on the economic and social development successes and failures in the waning years of the Empire and the first years of the Republic.

By the end of the nineteenth century principles of School Hygiene began to incorporate racial terminology and themes when referring to the causes and prophylaxis of health problems. The identification of race as an important factor in this discussion was suggested in writings available to Brazilians since the mid 1800s. These writings advocated racist theories prominent in Europe, particularly in France, and particularly about Brazil. Questions about the origin and nature of the Brazilian race were explored in European literature, in tomes suffused with racist themes and terminology.

Racist ideas freely circulated in Brazil and fixed the notion, for many Brazilian intellectuals, that the great challenge of nationhood resided in its people. Social and scientific texts by Buckle, Kidd, Agassiz, le Bon, Gabineau, Lapouge, and social Darwinists shaped their view about concepts of “racial superiority” and “inferiority”. They were aware that Brazil was

held up as an example of the “degenerative” effects that “promiscuous racial miscegenation” could produce. As Nancy Stepan notes, “themes of tropical and racial degeneration run through Brazilian medical, bacteriological and racial writings from the early nineteenth century until well into the ‘revisionist’ period of Freyre in the 1930s and 1940s” (Stepan, 1990, p. 114)

Popular Brazilian writers such as Romero and Cunha, for example, expressed racist views in their works. Sílvio Romero (1851-1914) in his 1888 masterpiece *Historia da Literatura Brasileira* discussed the mixing of the white, Indian and negro peoples in Brazil and estimated a timeframe for the general whitening of the Brazilian people, while also conceding that the *mestiço* – an individual of mixed blood -- would most likely be a constant presence in the future (Skidmore, 1974, p. 69). Euclides da Cunha in his novel *Os Sertões*, tells of the 1896 rebellion in Canudos, in the backlands of the state of Bahia. He reflects on its causes and identifies the prejudicial effects of racial mixing on the behavior of the rebellious *mestiço sertanejos* (*mestiços* of the backlands) as one of a constellation of causes (Skidmore, 1974, p. 107).

Most revealing are the works of the Bahian physician and ethnographer, Nina Rodrigues (1860-1906). Rodrigue’s studies of African influence on Bahian culture lead him to defend the idea of the inferiority of the African race and suggest that different penal codes be developed for different races. The racist views expressed by Rodrigues were echoed in various forms in statements by public officials like those of Joaquin Murтинho, the Minister of Industry, transportation and Public Works who in an 1897 report rejected the American model of industrialization because Brazilians did not possess the aptitudes of that superior race. He believed that miscegenation, especially the Luso-African type, deprived Brazil of the human capital necessary to achieve the civilizations founded by the white race (Skidmore, 1974, p. 62).

During the final decades of the Republic, then, themes about race and miscegenation were openly discussed, debated and incorporated into social, political and literary venues. These also found their way into notions about School Hygiene, which was re-perceived towards the end of the century as a means to improve the less-favored classes in Brazil. As Zucoloto correctly observes, “The idea of regenerating the Brazilian people through education in a hygienized school reflects the influence of racial ‘theories’” in medical thinking beginning in 1870.” An example of this “newthink” appears in an 1898 doctoral thesis of the School of Medicine of Bahia. Patury, the author, defined the objectives of school hygiene as “regenerating character, combating vices, nullifying individual interests and transforming them into collective interests, inculcating a commitment to duty and love of work, creating a national sentiment and perfecting the race”. In this and other similarly doctrinaire treatises Patricia Zucoloto points out the influence of racist theories and the intent to perfect the Brazilian race (Zucoloto, 2007, p. 90).

Zucoloto observes that, over time, increasingly negative characterizations of less-favored school-going populace began to appear. These originated from a belief that the poor and non-white were, in general, incapable of schooling. This perception was manifest more forcefully in the early decades of the twentieth century with the use of pejorative terms in official documents, the press and national literature. A plethora of disagreeable terms were applied to this segment of the population, such “degenerates, abnormal ignorant, uncivilized, ugly, lazy, anarchists, brutes, irresponsible, drunks, decadent, noxious, marginal, dirty, libertine, parasites, vice-ridden, thieves and criminals”. These terms, by extension, applied to children of the less-favored. (Zucoloto, 2007, p. 9).

At the beginning of the twentieth century this variation of the science of School Hygiene was articulated by Clemente Ferreira. At the 1909 Latin American Congress he presented a

profile of health conditions in Brazilian schools and a view of the school prevalent, in Brazil, at the turn of the century. According to Ferreira, the physical deterioration and “bastardization” of the Brazilian race was a fact, as pointed out in European literature. School-age children suffer from hereditary and acquired defects, attitudinal and physical debilities that must be combated, attenuated and prevented. He notes, “the school environment frequently exercises a reinforcing influence on the defects and deficiencies, especially at the pre-school level, because of poor hygiene of the buildings, of the insane conditions of the classrooms and the anti-physiological way that school work is conducted, both from the mental and physical point of view” (Moncarvo Filho, 1926, p. 192).

### Final Comments

Discussions about School Hygiene revolved around various perceptions of its purpose: hygiene as an academic subject, hygiene for total well-being, and hygiene for improving the race. These themes, at different moments, influenced decisions by civil and educational authorities about the way to address issues of student health. This was particularly the case in private schools founded in Rio de Janeiro by conscientious men and women of means. The “hygienicized” school, as articulated by Rui Barbosa, was increasingly in evidence during the end of the nineteenth century, even though a multitude of schools were still plagued by deficiencies.

As for the first decades of twentieth-century, Brazilians engaged in more vigorous discourse about physical and social miseries of racially mixed segments of the Brazilian population. Notions of School Hygiene were subsequently applied to the education of *mestiços*, *mulatos* and *caboclos*. Ideas about educating, sanitizing and promoting healthy students through

physical education were explored in the 1920s and 1930s, some of were suggestions on how to reverse the unhealthy conditions observed in the less-favored students of Brazil.

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