RESEARCH REPORTS AND NOTES

HYGIENE AND "THE INDIAN PROBLEM": Ethnicity and Medicine in Bolivia, 1910–1920

Ann Zulawski Smith College

Abstract: In the first decades of the twentieth century, Bolivian intellectuals and politicians debated how the country's Indian population should be incorporated into social and political life as the nation became increasingly integrated internally and forged stronger links to the world market. Public health was central to this discussion because of elite fears of contagion due to greater contact between Indians and non-Indians and the realization that if Indians were to be productive members of society, then their physical well-being had to be considered. This study examines the proposals of two Bolivian doctors, Jaime Mendoza and Nestor Morales, for improving the health of the native population in the context of the larger national debate about ethnicity and citizenship.

This study examines the projects of two medical doctors for reforming the health and hygiene of Bolivia's native population in the first decades of the twentieth century. In discussing the health conditions of the country's Indians, Jaime Mendoza and Nestor Morales were actually participating in a larger debate among members of the country's elite about the problems of consolidating a modern nation in a society characterized by ethnic and class divisions and a history of caudillo rule and regional conflict. All participants in this dialogue agreed that resolving what they termed "the Indian problem" was central to Bolivia's future and that the native peoples' integration into the nation, in one way or another, was essential. A primary focus was economic. The state builders heralded Bolivia's greater role in the international capitalist system and debated how

Latin American Research Review volume 35 number 2 © 2000

the still relatively autonomous Andean communities would fit into a modernized export-dominated country.

What roles would Indians play in this new society, and what type of education was most appropriate for their new functions? Most members of the Bolivian elite envisioned them as primarily integrated into the nation as agriculturalists, workers, or soldiers and questioned whether Indians should receive the same education as other Bolivians and whether education necessarily guaranteed full rights of citizenship.¹ Public health also became a central element in the debate, which reflected both the elite's fear of contagion as the Indian population was brought into closer contact with non-Indians and the recognition that an economically productive workforce had to have at least minimal levels of physical well-being. Here doctors entered the fray with their own professional, humanitarian, and corporate agendas. They also brought to the discussion an ambivalence about ethnicity that was more widely shared by other members of the creole elite and that reflected the difficulty of defining their own identity.

The Early Twentieth Century in Bolivia

In the first two decades of the twentieth century, Bolivia enjoyed something of an economic boom based on mining tin, which had replaced silver as the country's most important export around the turn of the century. Related to the economic ascendancy of the tin producers was the rise to power of the Liberal Party, which seized control of the country from the Conservatives in a military revolt in 1899. Bolivia's major tin mining centers were located closer to the city of La Paz than to the capital in Sucre, the center of silver mining interests and the Conservative Party. Thus 1900 witnessed a shift in the political as well as economic center of gravity when the Liberals decided to move almost all important government offices and functions to La Paz.

In 1900 Bolivia had a population of 1,633,600 inhabitants, about half of whom were Indian according to that year's census. Seventy-three percent of the population lived in the countryside, and only 16 percent of those over seven years old had received any schooling.² Because literacy was technically a qualification for voting and holding office entailed financial

1. See for example Alcides Arguedas, *Pueblo enfermo* (Barcelona: Casa Editorial de vda. de Luis Tasso, 1910), 147, and chap. 11 in general. For a general discussion of the educational projects of early-twentieth-century intellectuals such as Arguedas, Rigoberto Paredes, Franz Tamayo, Felipe Segundo Guzmán, and Daniel Sánchez Bustamante, see Brooke Larson, "Race, Democracy, and the Politics of Indian Education in Bolivia: Crafting Neocolonial Modernity, 1900–1920," paper presented to the Latin American Studies Association, Chicago, 24–26 Sept. 1998.

2. Herbert S. Klein, *Bolivia: The Evolution of a Multi-Ethnic Society* (New York: Oxford University Press, 1992), 319, 153.

requirements, political participation was limited to a small group of urban educated men. Political bosses were nevertheless beginning to mobilize their semiliterate clients to vote for chosen candidates.

During the two presidencies of Liberal Ismael Montes (1904–1909 and 1913–1917), the government embarked on ambitious programs to improve Bolivia's infrastructure, particularly by constructing railroads to facilitate the transport of tin, thus furthering the Liberals' export-oriented plan for development. Also part of the Liberal agenda were encouraging scientific progress and improving public hygiene. After 1900 a number of initiatives were undertaken: urban electrification projects began, smallpox vaccinations were made mandatory in 1902, piped drinking water became available for part of the city of La Paz in 1903, and a modern general hospital was completed there in 1920.

The Liberals had come to power by mobilizing Indian communities in the department of La Paz to fight for them against the Conservatives. Once in office, however, the Liberals turned on their allies, even killing the more militant leaders.³ Andean community leaders had hoped that in return for their support, the Liberals would back their efforts to hold onto lands that had been under attack since at least the 1860s, when a series of statutes outlawed native communities and proposed various means of privatizing Indian lands.⁴ These goals conflicted directly with many Liberals' class interests, especially those in the La Paz area, where creole landowners favored incorporating Indians into the haciendas as *colonos* instead of a more classically liberal project of small landownership.⁵ After this serious

3. Ramiro Condarco Morales, Zárate, el "temible" willka: Historia de la rebelión indígena de 1899 en la república de Bolivia, 2d ed. (La Paz: Imprenta y Librería Renovación, 1982); and Marie Danielle Demelas, "Darwinismo a la criolla: El darwinismo social en Bolivia, 1880–1910," Historia Boliviana 1, no. 2 (1981):55–82.

4. On indigenous motivations for joining the Liberals, see Tristan Platt, "The Andean Experience of Bolivian Liberalism, 1825–1900: Roots of Rebellion in 19th-Century Chayanta (Potosí)," in *Resistance, Rebellion, and Consciousness in the Andean Peasant World, 18th to 20th Centuries*, edited by Steve Stern (Madison: University of Wisconsin Press, 1987), 280–323.

5. Erick Langer has shown that in different regions of Bolivia, liberals took varying approaches to "the land question." In contrast to La Paz, in areas of the country where mining was the backbone of the economy (like Chuquisaca and Potosí) or where land was already divided in small parcels (Cochabamba), the political elite tended to favor a more classically liberal solution: dividing communally held lands among the *comunarios* themselves so that they might become small private farmers. See Erick D. Langer, "El liberalismo y la abolición de la comunidad indígena en el siglo XIX," *Historia y Cultura* 14 (1988):5–95. Much recent work on liberalism in Latin America has demonstrated that despite the rhetoric of assimilation, liberals were actually ambivalent about eliminating caste and racial distinctions. See Charles Hale, *The Transformation of Liberalism in Late-Nineteenth-Century Mexico* (Princeton, N.J.: Princeton University Press, 1989); Joseph Love and Nils Jacobsen, *Guiding the Invisible Hand: Economic Liberalism and the State in Latin American History* (New York: Praeger, 1988); and Tristan Platt, "Liberalism and Ethnocide in the Southern Andes," *History Workshop* 17 (1984):3–18.

blow, indigenous communities eventually responded to Liberal betrayal after the civil war by organizing to reclaim usurped lands and to demand the rights that liberalism theoretically promised all Bolivian citizens: political representation, education, and personal freedom.⁶

In this atmosphere of struggle, elite intellectuals were revising their assumptions about the roles that native Andeans could play in the new liberal nation. Social Darwinism had been the dominant philosophical approach to understanding "the Indian problem" in the last decades of the nineteenth century. But after the turn of the century, particularly after 1910, new theoretical constructs were developed that combined biological explanations with environmental ones. Lamarckian understandings of genetics that emphasized the possibility of inheriting acquired characteristics now blended with a new ethnographic approach to culture to produce racial ideologies that explained how the Indian population had become congenitally degenerate as a result of colonial exploitation and also offered a little hope that under favorable circumstances, Indians might be changed enough to take on some role in a modern country.⁷

A related aspect of the intellectual and political climate in the early twentieth century was the emergence of a Bolivian version of *indigenismo*. Understood as an interest by non-Indians in native culture and traditions, indigenismo was somewhat important as a literary current in Bolivia.⁸ Definite interest in the Andean past also appeared among early-twentieth-

6. Silvia Rivera, Oprimidos pero no vencidos: Luchas del campesinado aymara y qhechwa, 1900–1980 (La Paz: Hisbol, 1986); and Elizardo Pérez, Warisata: La Escuela-Ayllu, 2d ed. (La Paz: Hisbol, 1992).

7. On Lamarckism in Latin America, see Nancy Leys Stepan, The Hour of Eugenics: Race, Gender, and Nation in Latin America (Ithaca, N.Y.: Cornell University Press, 1992), esp. 63–76. A Lamarckian approach can be found in the work of Bautista Saavedra on the causes of Indian inferiority: it was inherited as the result of years of exploitation. See Marta Irurozqui, La armonía de las desigualdes: Elites y conflictos de poder en Bolivia, 1880-1920 (Madrid and Cuzco: Consejo Superior de Investigaciones Científicas and the Centro de Estudios Regionales Andinos Bartolomé de las Casas, 1994), 151. Gabriel René-Moreno was the best-known of the Bolivian Social Darwinists. See his 1901 work Nicomedes Antelo (Santa Cruz, Bol.: Universidad Gabriel René-Moreno, 1960). Alcides Arguedas was more likely to find environmental causes for ethnic differences than were strict Social Darwinists. See Arguedas, Pueblo enfermo, 2d ed. (Barcelona: Casa Editorial de vda. de Luis Tasso, 1910); Raza de bronce (La Paz: Los Tiempos y Los Amigos del Libro, n.d. [1919]). Examples of the more prevalent cultural environmental approach include Luis Isaac L. Landa, Problemas políticas (Antofagasta, Chile: Imprenta Moderna, 1929); Jaime Mendoza, En las tierras del Potosí (La Paz: Los Tiempos y Los Amigos del Libro, 1988 [1911]); Jaime Mendoza, Apuntes de un médico: Ensayos y semblanzas (Sucre: Escuela Tipográfica Salesiana, 1936); Ernesto Navarre, La tuberculosis en el departamento de La Paz (La Paz: Imprenta Artística, 1925); Franz Tamayo, La creación de una pedagogía nacional, 3d ed. (La Paz: Biblioteca del Sesquicentenario de la República, 1975 [1910]); and Demelas, "Darwinismo a la criolla."

8. The best-known Bolivian *indigenista* novels are probably *Wuata Wuara* (Barcelona: Imprenta Luis Tasso, 1904) and *Raza de bronce* by Alcides Arguedas; *Utama* by Alfredo Guillén Pinto (La Paz: Casa Arno, 1945); and *Yanakuna* by Jesús Lara (Cochabamba: Los Amigos del

ETHNICITY AND MEDICINE IN BOLIVIA

century sociological and political thinkers, who often attempted to explain what they considered the abject condition of the Indians. For instance, Bautista Saavedra's *El ayllu* (1904) glorified ancient Andean civilizations while attempting to account for the present degradation of Indians as resulting from Inca and Spanish conquests that led to race mixture, natural selection of the fittest, and the decline of the indigenous races. Rigoberto Paredes's indigenista work *Provincia de Inquisive* (1906) was an ethnographic description of rural Bolivian life that explained the degeneracy of the Indians as resulting from exploitation by provincial authorities and the Catholic clergy.⁹ By the 1920s and 1930s, the more radical indigenista Tristan Marof condemned the exploitation of the Indians by the Bolivian ruling class and found the seeds of the socialist Bolivia of the future in the accomplishments of the Inca Empire.¹⁰

Two salient characteristics of Bolivian indigenismo distinguish it from the Mexican and Peruvian variants. First of all, indigenismo never became the ideological basis for a major political movement in Bolivia. Although the government began to promote Indian education in the 1920s and actually declared a "Día del Indio" in the 1930s, no party ever emerged in Bolivia like APRA in Peru nor was there any leader like Haya de la Torre, whose populism included a notion of "Indoamerica." Second, indigenismo in general has been most powerfully articulated as part of an ideology of mestizaje, which has been used to create a sense of nationhood through legitimization of the indigenous element in mestizo societies.¹¹ But this element of theoretical glorification of racial mixture was missing from Bolivian discourse on the Indians. Despite miscegenation, virtually no Bolivians in the early twentieth century explicitly promoted mestizaje as a nationalizing project.¹² Alcides Arguedas, one of Bolivia's first indigenista novelists, published Pueblo enfermo in 1909. In this widely read exegesis of the problems facing the Bolivian nation, he actually became more vituper-

Libro, 1952). Many other Bolivian novels have indigenista elements. Also see Evelio Echevarría, "Panorama y bibliografía de la novela social boliviana," *Inter-American Review of Bibliography* 27, no. 2 (1977):143–52.

^{9.} Larson, "Race, Democracy and the Politics of Indian Education," 7-9.

^{10.} Tristan Marof, La justicia del Inca (Brussels: Falk Fils, 1926).

^{11.} Angel Rama, "El área cultural andino: Hispanismo, mesticismo, indigenismo," *Cuadernos Americanos*, no. 196 (1974):136–73; Gonzalo Aguirre Beltrán, "Indigenismo y mestizaje: Una polaridad biocultural," *Cahiers d'Histoire Mondiale* 6, no. 1 (1960):158–71; Alan Knight, "Racism, Revolution, and Indigenismo: Mexico, 1910–1940," in *The Idea of Race in Latin America*, 1870–1940, edited by Richard Graham (Austin: University of Texas Press, 1990), 71–113.

^{12.} The possible exception was Franz Tamayo, who saw the Indian as the source of national energy and believed that the mestizo might be the essence of Bolivian identity if appropriately educated. Yet his commentaries on the parasitism, laziness, and intellectual dilletantism of cholos indicates that he believed they were far from being "the cosmic race." See Tamayo, *Creación* esp. 71–73, 68–69, 109–10, 113–15, 117–22.

Latin American Research Review

ative in his attacks on mestizos in later editions of the book. In the 1910 edition, Arguedas's discussion of mestizos was somewhat critical but rather brief, focusing on mestizos' willingness to follow demagogic politicians.¹³ In 1910 Arguedas concentrated on the Aymara in his ethnic analysis, describing their degeneracy as the result of heredity, geographical and climatic influences, conquest by the Spaniards, and particularly the exploitation by landowners, priests, corregidores, and other local officials (whom he did not identify as mestizos).¹⁴ In the 1936 edition of Pueblo enfermo, in contrast, Arguedas devoted more space to discussing mestizos in the most unfavorable light, portraying them as having all the defects of both Spaniards and Indians. Perhaps his greater disdain for cholos in 1936 reflected the increased participation of mestizos in national life by the mid-1930s. For instance, one section added to that edition states, "The cholo politician, military officer, diplomat, legislator, lawyer or priest, never and on no occasion troubles his conscience by asking if an act is moral or not . . . because he thinks only of himself and only to satisfy his cravings for glory, riches, and honors at the expense of any principles."15 Rather than embrace mestizos as "the cosmic race," à la Vasconcelos, Arguedas could only conceive of them as vulgar rabble who were challenging the creole elite's position of political and economic privilege. In my view, in part because of the nature of Bolivian indigenismo-which theoretically valued a pristine "pre-Fall Indian" and reviled the debased, conniving cholo-the issue of ethnic and national identity was particularly ambiguous and difficult for the Bolivian elite, including doctors. I will return to this argument later.

Doctors and the Nation's Health

Bolivian physicians were painfully aware of their country's health problems, and medical journals poured out abundant statistics confirming the country's hygienic deficiencies. Today many of the health hazards they pointed to would be classified as the results of underdevelopment. The doctors themselves concluded that these problems placed Bolivia far behind Europe and even many Latin American countries on the road to modernity and civilization. For instance, *Revista Médica* stated in 1902 that out of 3,337 babies born in the city of La Paz in 1900, 1,298 (39 percent) died before reaching their third birthdays, with 19 percent dead in the first year of life. Most of these deaths were traced by the author of the article to intestinal infections

13. This emphasis on mestizos' lack of political principles was in keeping with the elite's opposition to the clientelism of both Liberal and Conservative party bosses in the first decades of the twentieth century.

14. See Arguedas, Pueblo enfermo (1910), especially chap. 2.

15. Arguedas, *Pueblo enfermo*, 3d ed. (La Paz: Juventud, 1991; first published in 1936), citation on 74. Discussion of mestizos primarily in chap. 3, entitled "Psicología de la raza mestiza," 73–83.

112

that were attributed to impure food and water.¹⁶ The poor quality of the city's drinking water and lack of filtration were blamed for a quarter or more of all identifiable deaths in the city in 1911. A doctor writing in another medical journal in 1912 estimated that an equal number of undiagnosed deaths were attributable to gastrointestinal illness. On the basis of chemical and bacteriological tests conducted on La Paz's drinking water, this doctor ranked it as worse than water in any other city for which statistics were available and comparable to water commonly used only for industrial purposes.¹⁷

Epidemic diseases were major killers in both urban and rural areas. A vaccine for smallpox was developed in 1796 in Europe, and Bolivia first attempted to make vaccine available after independence in 1826. In 1902 a new law made vaccination mandatory, but it had to be repromulgated in 1909 in the face of serious epidemics. Even then vaccination was limited, and most Bolivians remained vulnerable to the disease.¹⁸ Typhoid was endemic in the country, and the early 1900s witnessed waves of epidemics that caused many deaths.¹⁹

Medical institutions such as laboratories, hospitals, and medical schools were considered by those who used them to be at best underfunded but diligently run and at worst national disgraces. The library of the medical school in La Paz listed only 758 volumes in 1914, 49 of them acquired in the previous two years. The head of the school in that year pointed with pride to the fact that the school would soon have its first pathology laboratory.²⁰ Twelve years later, a report on medical education in Bolivia by a representative of the Rockefeller Foundation produced a more somber assessment: "Teaching laboratories, strictly speaking, cannot be said to exist. In a rented building I saw a room 12 feet square with one ordinary table, a small cabinet, and scattered about on each some miscellaneous pieces of dust-covered glassware. This was called the chemical laboratory. In another somewhat larger room containing low public-school desks were a few anatomical models. These were referred to in the *'regimento interno'* as the anatomical museum."²¹

In 1918, before the new Hospital General was completed, a doctor

16. Revista Médica (La Paz) 3, nos. 21–22 (Mar.–Apr 1902):426.

17. Revista de Bacteriología e Higiene (hereafter RBH) (La Paz) 1, no. 2 (15 May 1912):61-63.

18. Juan Manuel Balcazar, *La historia de la medicina en Bolivia* (La Paz: Juventud, 1956), 252, 545; and Sociedad Boliviana de Salud Pública, *Historia y perspectivas de la salud pública en Bolivia* (La Paz: UNICEF, Organización Panamericana de la Salud, and the Organización Mundial de la Salud, 1989), 57. According to the latter source, until the 1950s, vaccination campaigns were launched only after epidemics had already broken out. The disease remained endemic in the country until 1958, when the Servicio Cooperativo Interamericano de Salud Pública began a consistent campaign.

19. RBH 1, no. 1 (15 Apr. 1912):34.

20. RBH 2, nos. 21-22 (Dec. 1913-Jan. 1914):125-27, 121.

21. "Report on Medical Education in Bolivia," Rockefeller Archive Center, Tarrytown, N.Y., Record Group 1.1, Series 303, Bolivia.

Latin American Research Review

described the city's two main hospitals as good reasons why Bolivians preferred to die at home. He also pointed out that the infectious disease sections of the men's hospital were so unhygienic and the wards so crowded that a patient could easily come in with one illness and go home and die of another that he had contracted in the hospital.²² As grim as these assessments of the situation in La Paz are, Western health facilities of any type were entirely lacking in rural areas.

The ways in which doctors understood these problems and how they connected them to ethnicity and social issues varied considerably, but a few key realities generally informed their thinking. First of all, medicine in this era in Bolivia was not accorded the same respect as other liberal professions. University-trained doctors were few in number and not completely differentiated from other medical practitioners, whom the doctors sometimes called "empiricists" or more frequently charlatans.²³ Second, in these years, major gaps remained in biomedical knowledge in all countries, and in Bolivia, Kallawaya healers or other Andean curers were often more effective than academically trained physicians.²⁴ Consequently, a special urgency characterized doctors' writings about social problems and the importance of hygiene because improving the country's abysmal public health was ultimately linked to their own professional credibility and status.

Ethnicity was an especially loaded subject for doctors. The Indian population, as the doctors perceived this group, was not only holding back national progress but also competing with them in the medical field. Indians also posed a problem of identity. Most recent scholarship on medicine and ethnicity or race has focused on European colonialism in the nineteenth and twentieth centuries, particularly the British in Africa and India.²⁵ While the situation of Bolivian medical professionals was in some ways comparable with that of British colonial doctors, it was also more problematic. The fact that Bolivian doctors were practicing in their own country and most were mestizos themselves meant that they could not

22. RBH 3, no. 36 (July 1918):1236-37.

23. The 1900 census lists a total of 142 medical doctors in the cities of Oruro, Sucre, Cochabamba, and the department of La Paz, with a total of 818 lawyers in the same places. See *Boletín de la Oficina Nacional de Inmigración, Estadística y Propaganda Geográfica* (La Paz) 2, nos. 6, 7, 8 (30 June 1901):728, 792, 821, 851.

24. Antonio Alvarez Mamani, *El camino perdido: Biografía del dirigente campesino kallawaya* (La Paz: Servicios Múltiples de Tecnologías Apropriadas, 1987).

25. See David Arnold, Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India (Berkeley and Los Angeles: University of California Press, 1993); and Imperial Medicine in Indigenous Societies, edited by David Arnold (Manchester, Engl.: Manchester University Press, 1988); also Disease, Medicine, and Empire: Perspectives on Western Medicine and the Experience of European Expansion, edited by Roy MacLeod and Milton Lewis (London: Routledge, 1988); Epidemics and Ideas, edited by T. O. Ranger and P. Slack (Cambridge: Cambridge University Press, 1991); and Megan Vaughan, Curing Their Ills: Colonial Power and African Illness (Stanford, Calif.: Stanford University Press, 1991).

114

achieve the distance of white colonial doctors and view the natives as purely "other." At the same time, Bolivian doctors did not embrace a philosophy that might have allowed them to formulate an idealized common heritage with the native population. Their situation was highly ambivalent. In attempting to deal with "the Indian problem," whatever assessment they made reflected on themselves to some degree: they were Bolivians and had to confront the backwardness of their country no matter what cultural or biological theories they employed to explain it.²⁶

Medical journals in Bolivia in this period created and maintained a corporate spirit at a time when the profession was still in formation. Occasionally, journals were used by researchers to publish the results of original research. More frequently, journal articles were summaries of secondary work published in other countries that might be of interest to Bolivian physicians. These pieces allowed Bolivian doctors to keep in touch with scientific research in major European centers. The most common articles, however, focused on Bolivian public health issues and exhorted the government to take steps to remedy some problem. In this type of article, doctors could provide innovative medical solutions to health problems and enter into national debate with other members of the intellectual elite. Many exhibited an apparently boundless confidence in their ability to influence social policy. The first example here of the ways in which doctors viewed ethnicity is based on articles in one of these journals.

Indians and the Typhoid Vaccine

In 1912 Dr. Nestor Morales Villazón, director of the Instituto Nacional de Bacteriología in La Paz, began publishing the *Revista de Bacteriología e Higiene*. The journal listed several persons on its editorial board and always featured a number of contributors. But the *Revista* definitely bore Morales's stamp, and its articles always seemed to promote his agenda, which combined self-advancement with improving national hygiene. A pediatrician, Morales had also served as dean of the medical school in La Paz, but it was as head of the Instituto de Bacteriología that he wanted to make his mark, especially for his research on typhoid fever and his campaign against it.

In April 1912, the *Revista de Bacteriología e Higiene* announced that since mid-1911, typhoid had reached epidemic proportions in the depart-

26. A somewhat similar situation was faced by the Tropicalista school of physicians in nineteenth-century Bahia. While not explicitly addressing the race issue (the Brazilian equivalent of the Indian problem), their approach to medicine tended to favor improving social conditions and a neo-Lamarckianism that allowed for the possibility of effecting biological change through environmental improvement. See Julyan G. Peard, "Tropical Disorders and the Forging of a Brazilian Medical Identity, 1860–1890," *Hispanic American Historical Review* 77, no. 1 (1997):1–44.

ment of La Paz and had invaded the city itself. The epidemic was also severe in rural estates and communities near the shores of Lake Titicaca, where some *hacendados* reported that as many as a quarter of the indigenous workers had died.

The objective of the April article was to mobilize government support for a campaign against typhoid. The author (Morales himself) pointed out that the epidemic should be of concern to the government for two main reasons. First, it raised the possibility of food shortages and hunger in the city of La Paz because those most affected were young members of the "clase indígena" who "thanks to their work, maintain the dietary health of the population."²⁷ Second, the epidemic directly endangered residents of the city because of the constant traffic between the provinces and the urban center. The article mentioned the unhygienic conditions of some sectors of the city, "the defective manner in which the lower social classes live," and the horrendous quality of La Paz's drinking water as favoring the rapid spread of typhoid. Morales went on to spell out the dire consequences of the epidemic: "after the epidemic, there will be hunger and the inseparable companion of hunger, poverty, due to the complete paralysis of commerce, the base of economic health."²⁸

At this time, however, typhoid was not the primary infectious disease causing deaths in the city of La Paz. In the first half of 1913, at the peak of the typhoid epidemic, 48 persons in the city died from typhoid but 257 others died of whooping cough (pertussis), the top killer. During the last trimester of 1914 and the first of 1915, 753 died from measles, 145 from whooping cough, and only 41 from typhoid.²⁹ Perhaps because measles and whooping cough were primarily diseases of childhood, they did not represent the economic threat that typhoid did for Morales. Furthermore, there were no vaccines for measles or whooping cough, making a campaign against them less realistic than one against typhoid. Finally, Morales may have been so emphatic about the need to attack typhoid because it was rampant in the countryside but was not yet seen as a primary health problem in the city.

To gain support for his efforts, Morales conjured up images of members of the urban upper class being contaminated by disease spread by the lower classes and the Indians. Several historians and anthropologists have shown how elite anxieties about contamination can be understood as metaphors for fear of loss of control of society's lower orders.³⁰ Preventing

27. RBH 1, no. 1 (15 Apr. 1912):34.

28. Ibid., 35.

29. Boletín de Estadística y Demografía (La Paz) 1, no. 1 (Jan.–Feb.–Mar. 1913):15; vol. 1, no. 2 (Apr.–May–June 1913):13; vol. 2, no. 8 (Oct.–Nov.–Dec. 1914):8; and vol. 3, no. 9 (Jan.–Feb.–Mar. 1915):17.

30. Sandra Lauderdale Graham, House and Street: The Domestic World of Servants and Masters in Nineteenth-Century Rio de Janeiro (Austin: University of Texas Press, 1992); Mary Douglas, Purity and Danger: An Analysis of Concepts of Pollution and Taboo (London: Routledge, the spread of disease from a dangerous contaminated sector of the population to other groups is a ritual (and sometimes real) means of preventing social disorder. Thus under certain circumstances, hygiene becomes a means of maintaining the existing social hierarchy.³¹

Morales apparently thought that policy makers still might not be moved to fight a disease that was primarily attacking Indians because he took great pains to explain that high mortality was serious even if it affected only society's lower orders. Here one can perceive some consciousness that aside from the possibility of contagion and economic decline, other realities bound the creole elite to Bolivia's Indian population. Morales went on to present a corporatist and organicist argument, but it reflected a connection with the Indians that would probably never be articulated by a doctor in an African colony: "Every person, no matter how humble the sphere of his development, represents a factor in the progressive advancement of a society, which will be that much more prosperous and flourishing when the number of its component elements is greater, more intelligent and more active."32 Finally, Morales got down to his proposal for rectifying the situation, asserting that there were two ways to address the problem of epidemics: improving the conditions of existence for "the indigenous race" or preventing the disease by means of a vaccine similar to that available for smallpox. Although he was aware of the social causes of the typhoid epidemic, as he was with infant mortality, Morales ultimately rejected the possibility of improving the situation of the Indian population: "it would require, besides too much time-the element par excellence for this type of social transformations-money in abundance, which, unfortunately, Bolivia lacks for even more urgent necessities."33

Morales therefore concluded that it was essential to vaccinate the indigenous population and proposed that the government send doctors abroad to learn how to produce a vaccine domestically. He ultimately opted for a limited medical procedure instead of more infrastructural public health measures, such as providing potable water or rural health care. Moreover, when Morales talked about vaccination, he did not mean universal inoculation. Rather, he foresaw using the vaccine in epidemic areas to prevent typhoid from spreading. Morales's emphasis on a purely medical approach to typhoid reflected an important trend in medicine that began in the last decades of the nineteenth century. Following dramatic ad-

^{1992);} Teresa Meade, "Civilizing Rio de Janeiro: The Public Health Campaign and the Riot of 1904," *Journal of Social History* 20, no. 2 (1986):301–22; and Vaughan, *Curing Their Ills*.

^{31.} An unforgettable materialization of Morales's anxieties is depicted at the end of José María Arguedas's novel *Deep Rivers* (Austin: University of Texas Press, 1978), when plague-infected Indians from haciendas stream into the Peruvian town of Abancay demanding the bishop's blessing.

^{32.} *RBH 1*, no. 1 (15 Apr. 1912):36. 33. Ibid., 37.

vances in bacteriology and parasitology, it appeared feasible to deal even with major problems of public health through vaccines and vector eradication instead of the amelioration of unhealthy social conditions.³⁴

By 1913 typhoid had spread over wider areas of Bolivia, and Nestor Morales had developed his vaccine. He then maintained that the vaccine also could be used to cure typhoid, a discovery he claimed to have made several days before the same procedure was proclaimed effective in Paris. Actually, a number of physicians in different countries had begun using the vaccine as a therapy about this time, and it continued to be administered occasionally as a treatment until 1948, when the antibiotic chloramphenicol was proved effective against the disease.³⁵

Significantly, the articles in the Revista de Bacteriología e Higiene in 1913 by Morales and others involved in combating the epidemic stressed that use of the vaccine as therapy was particularly suited to the Indian population.³⁶ Typhoid was said to be severe and rapidly fatal for native Andeans, to "have its own exceptional physiognomy due to the particular conditions in which [the Indian] lived, his customs, etc."37 This argument is based not on presumed biological differences inherent to the Andean population that made typhoid particularly virulent but on the contention that it had unique clinical characteristics for the Indians due to their culture. While the doctors pointed to cultural differences, they did not presume to relativism. An ethnographic explanation was more acceptable intellectually (and perhaps psychologically) in 1913 than a physiological one, but culture was portrayed as something ponderous and only slowly responsive to change. Yet the doctors stopped short of an explicitly Lamarckian explanation positing that environmental factors had actually changed that Indians' genetic makeup. Here are two samples of medical opinion on the subject:

Typhoid is especially malignant among the indigenous because of the extraordinary filth in which they live, because they do not bathe, do not clean their mouths, do not clean their houses, which are miserable hovels . . . without light, where the rays of the sun have never penetrated, without ventilation, full of smoke. These dark and cramped quarters serve every purpose; in them five, six, or more people

34. Michael Worboys, "The Emergence and Early Development of Parasitology," in *Parasitology: A Global Perspective*, edited by Kenneth S. Warren and John Z. Bowers (New York: Springer-Verlag, 1983); and Peard, "Tropical Disorders," 25.

35. R. L. Huckstep, *Typhoid Fever and Other Salmonella Infections* (Edinburgh and London: E & S Livingstone, 1962); Charles W. Le Baron and David W. Taylor, "Typhoid Fever," in *The Cambridge World History of Human Disease*, edited by F. Kiple, 1071–77 (Cambridge: Cambridge University Press, 1993).

36. It may be significant that as late as the 1940s, the vaccine was also said to be particularly effective as a cure for the African population of Kenya. See Huckstep, *Typhoid Fever* and Other Salmonella Infections.

37. RBH 2, no. 18 (15 Sept. 1913):715.

of both sexes cook, eat, and sleep in frightful crowding without any care for those who are sick with fever. Sick and well alike chew coca day and night.³⁸

In Bolivia more than anywhere else it was essential to look for methods to prevent typhoid given . . . the special conditions of the Indian, his unique psychology, his horror of any hygienic measures that oblige him to change his habitual mode of existence. . . .³⁹

The cultural explanation may have been particularly satisfying to the doctors because it might have allowed them to accept the sharing of certain phenotypic characteristics with the Andean population without admitting to the same defects. If culture made the indigenous population backward, the doctors' own culture made them civilized and more able to fight disease. Finally, it was culture that made them white. As Alcides Arguedas concluded, "the ethnic quality of an individual is the result of his social position."⁴⁰ Arguedas's attempt to explain the dark skin tone of many Bolivian "whites" led him to accept at least partially a culturally determined definition of color and ethnicity.⁴¹

Thus the cure with the vaccine was a kind of shock treatment for patients who, because of their habits, could not be counted on to follow more conventional and less extreme regimens. It involved a series of injections with the vaccine (twice a day or on succeeding days) until the fever was reduced and the patient showed distinct signs of recovery. One problem with this treatment was that it initially made the patient's temperature rise and often provoked an extremely painful local reaction. After one injection, the sick person and his family often begged not to be subjected to any more.⁴² Initial testing was done on indigent patients in the charity hospital and the lazaretto (hospital for contagious diseases), who were not given the option of refusing treatment.⁴³

Vaccination and "vacuno-therapy" (as curing with the vaccine was called) were administered by doctors or more frequently by their assistants, who went to epidemic rural areas when requested to do so by local authorities or the federal government. Venturing into "uncivilized territory" endowed their efforts with something of the romance of colonial doctors or missionaries bringing enlightenment to previously unexplored territory. They were strangers in their own country. The *Revista de Bacteriología e Higiene* reported regarding one of the institute's assistants, "Sr. Orijuela

38. Dr. Hermógenes Sejas, ibid., 713.

39. Nestor Morales, ibid., 706.

40. Arguedas, Pueblo enfermo (1910), 40.

41. Arguedas adhered to a cultural explanation, but he also believed that skin color was the result of climate and that Bolivian "whites" from the highlands had darker complexions than those from valley zones, who were more likely to be fair. See *Pueblo enfermo* (1910 ed.), 40.

42. RBH 2, no. 20 (15 Nov. 1913):792.

43. RBH 2, no. 18 (15 Sept. 1913):689.

has had to travel immense expanses of the arid altiplano that are lacking in any resources, searching in the solitary and immense extension of the pampa for the gray stain or the weak puff of smoke that indicates to the traveler the presence of a human being."⁴⁴

Although some persons in epidemic zones refused to accept the vaccine even prophylactically,⁴⁵ the *Revista* waxed eloquent about the great service that medical science was providing the indigenous population: "The miserable indigenes, accustomed to carrying only the most difficult part of social obligations, without anyone ever having thought of improving their sad condition nor alleviating their pain, must have felt happy to see that the Supreme Government has seen fit to make such an effort to improve their humble condition. Perhaps for the first time in the existence of the Republic, the Indians of Curaguara [in the department of Oruro] have benefited from the attention of the government and the advances of science."⁴⁶

Most discourse at the time of the typhoid epidemics tended to emphasize "culture" as making the Indians suspicious and resistant to change, "sunk in a state of lethargy" as one writer put it. While the Indians' culture made them oppose change, the urban creoles' culture made them welcome it. Today it may sound like some of the cruder formulations of modernization theory. But one also finds a few reports of greater flexibility on the part of the Andean population, which cast the campaign against the disease in a better light. Morales, who wanted government recognition for his efforts, could not have found consistent resistance on the part of his patients to be the best advertisement. Consequently, a report in the newspaper El Norte by Enrique Renjel, an assistant at the Instituto de Bacteriología, was probably edifying to Morales and his colleagues. The report also showed that some health workers, based on their experience, held less static views of the Andean population and in this case even recognized that the indigenous population had its own medical tradition. Renjel had been sent to the area of Lake Titicaca to treat the victims of typhoid and to vaccinate those who were not yet ill. He wrote:

At first I encountered a certain resistance on the part of the Indians, but the rapid action of the vaccine on two of the ill who were practically in death's agony immediately attracted all the Indians, who arrived in groups asking for the vaccine.

They even brought me nursing infants, and with the naturally sensible criteria of primitive man, who judges the facts by the results, they said to me, "Vaccinate my children too because it's not just that we should be free from the contagion, and they should still be exposed to the danger."

From what I have been able to observe, the idea that the Indian is opposed to all progress is false. Here are various photographs of numerous groups of Indians who came to the hacienda house asking for vaccine, accepting without any resistance a curative system completely unknown to them.⁴⁷

44. RBH 2, no. 19 (15 Oct. 1913):760.

- 45. RBH 2, no. 18 (15 Sept. 1913):691.
- 46. RBH 2, no. 19 (15 Oct. 1913):760.

47. El Norte, 15 Oct. 1913. The photos were not published with the article.

Although Morales and his colleagues widely proclaimed the miraculous results achieved with the vaccine, questions about its efficacy gradually surfaced. A few years later, Jaime Mendoza, a respected physician and author, called into question how well the inoculations worked even preventively. A clinical study done by a supporter of the vacuno-therapy comparing the vaccine with more conventional cures (cold-water therapy, washing the mouth frequently, enemas) failed to produce conclusive evidence that the vaccine was better.⁴⁸ A long polemic ensued among Morales and other doctors about the efficacy of the vaccine and whether it actually represented an innovation for which Morales should be honored by Congress.⁴⁹ In any case, one thing is certain about the whole episode: vacunotherapy was a medical treatment prescribed and used based on doctors' assumptions about cultural and ethnic difference.

Indians or Proletarians?

Nestor Morales attempted to influence government policy through scientific research and active self-promotion in the press and medical journals. Meanwhile, Jaime Mendoza, one of Morales's critics, sought to advance his own medical and social agenda through a different means—by writing fiction. In 1911 Mendoza completed *En las tierras del Potosí*, which became one of the best-known Bolivian novels. This first novel about the mines is still read today for its combination of brutal realism and almost poetically beautiful description. The novel remains popular as a classic tale of a young man leaving home to seek his fortune and discovering the Other in his own society.

Born in Sucre in 1874, Mendoza graduated from medical school there in 1901. He undertook advanced studies in medicine in Chile, England, and France, where *En las tierras del Potosí* was completed. Mendoza held many prominent positions in the Facultad de Medicina in Sucre, directed the national mental hospital, worked as a company doctor in several mining centers, and practiced as an army surgeon in the Chaco and Acre wars. He is probably better remembered today, however, as a writer than as a physician.⁵⁰ Rubén Darío reportedly called him "el Gorky boliviano." Mendoza was a socialist and a pacifist who eventually constructed an en-

48. *RBH* 4, no. 38 (Sept. 1918):1331–33, 1341. By the mid-nineteenth century, careful studies of persons with typhoid fever in France and England had shown that these conventional treatments did not actually alleviate or shorten the course of the disease. See Leonard G. Wilson, "Fevers," in *Companion Encyclopedia of the History of Medicine*, edited by W. F. Bynum and Roy Porter (London and New York: Routledge, 1993), 401–6.

49. Balcazar, La historia de la medicina en Bolivia.

50. In addition to fiction and poetry, Mendoza also wrote extensively on medical issues, publishing articles frequently in the *Revista del Instituto Médico "Sucre."* Many of these articles were republished in *Apuntes de un médico*.

vironmental determinist theory about Bolivia and its development. He died in Sucre in 1939.

The protagonist of *En las tierras del Potosí*, Martín Martínez, is a third-year law student in Sucre who leaves school to find employment in the mines. But another central figure in the novel is the unnamed company doctor, and much of the book dwells on hygiene and disease. The novel discusses the numerous health problems common to mining centers: alcoholism, silicosis, high rates of infant mortality, deaths and injuries due to mine accidents, and various infectious diseases related to poor hygiene.

While Nestor Morales and his colleagues viewed the Indians' problem as one of culture, Mendoza the socialist brought a new analytic category to bear on the issue—the category of social class. In fact, his emphasis on class led him to ignore ethnic differences when stressing the workers' shared exploitation by the mining companies. He apparently was not blaming indigenous culture for health problems but rather the unjust situations in which the miners found themselves. Yet a closer reading discloses that Mendoza too could not get away from the idea that "Indianness" created many of Bolivia's social and health problems, thus making the native population somehow complicit in its own suffering.

On the one hand, Mendoza made it clear that mining accidents resulted from poor maintenance of the mines by the companies, poor training of workers, and lack of rigorous government inspection and regulation. On the other hand, Mendoza was more inclined to blame infant mortality on Indian mothers. When the protagonist, Martín, asks if there is an epidemic because he has seen so many children's funerals, Miguel, an experienced former miner, tells him that an epidemic is not necessary because the mothers' negligence kills the children. They get drunk and carry the children on their backs in their revels. The mothers feed them meat, fruit, chicha, and chili at an early age. They take them out in the elements and hit them cruelly. When the mothers get drunk, they eventually lie down on top of the children and accidentally suffocate them.⁵¹ Another example of laying the blame for the workers' situation on themselves is Miguel's explanation for why they tolerate the miserable living conditions: "Here people are very docile, very submissive, very stupid. We are just poor Indians."⁵²

Mendoza performed some interesting ethnic sleight of hand here. In his novel, because the miners are working-class, they are by definition not Indians and therefore not to blame for accidents and diseases that befall them. But the women, being women and Indians, have customs that lead to the spread of disease and death (like the customs of Morales's typhoid victims). Miguel's last statement is revealing: the workers ultimately are too docile and submissive to engage in class struggle because they are In-

^{51.} Mendoza, En las tierras del Potosí, 61.

^{52.} Ibid., 72.

dians. But here Mendoza had the speaker include himself as an Indian, as if to say that a fatal flaw in Bolivian workers—their Indianness—keeps them from being militant proletarians. This notion was later amply disproved in these same mining camps.

The character of the nameless doctor in the book, who is always referred to as "el médico" or "el doctor," has several functions. First, like the doctors of the Instituto de Bacteriología, he is portrayed as having ventured into a miserably cold and godforsaken environment in order to alleviate human suffering.

Second, through the character of the doctor, Mendoza criticized popular Andean curing methods and home remedies and established the efficacy of "scientific" ones. The fictitious doctor often visits the homes of the injured or infirm only to find that the family has attempted some useless "indigenous cure." Mendoza took pains to describe these in the most unpleasant manner possible. For instance, a man who has typhoid and is very thirsty is offered a blackish liquid from a dirty bottle that is said to be "an infusion of indigenous herbs."⁵³ Again, when another character develops typhus, the Indian family does not send for the doctor until it is too late to save his life; even then, it is a creole friend who finally brings him to the house. When the doctor arrives, he finds the man's female companion "rubbing his stomach with chicken fat and forcing him to drink disgusting potions."⁵⁴ In referring to the bad treatment children receive from their mothers, Mendoza reported that if the children get sick, their mothers rub them with "unimaginable" concoctions, "the least repulsive of which is excrement."⁵⁵

The doctor in the novel is usually shown to be effective where others have failed. When he goes to the home of an injured miner, the doctor is quickly able to stop the blood flowing from the man's arm after someone else had applied a tourniquet that didn't work. In another instance, although everyone else believes a man sick with typhoid is going to die, the doctor prescribes a treatment that saves his life—daily enemas.

When the doctor goes to a patient's home, he usually finds a scene of unrelenting squalor: the sick person lying in rags covered with his own sputum, the children at his side eating and being exposed to the disease, people in various stages of drunkenness looking on. Indeed, some of the descriptions in the novel could have appeared in the *Revista de Bacteriología e Hygiene*. In one vivid scene, when the doctor asks for water to wash his hands before examining an injured man, a woman rinses out a chamber pot and fills it with some dirty water. The doctor finally decides to wash his hands with liquor from a bottle being waved around by a drunk.⁵⁶

53. Ibid., 120. 54. Ibid., 197. 55. Ibid., 61. 56. Ibid., 127.

Latin American Research Review

More than being the representative of Western medicine, the fictional doctor is the modern rational man. Thus Mendoza set up an equation in which biomedicine equals progress and civilization. Mendoza was an unusual person in his era, however, and some of his ideas were certainly more progressive than those of his fellow doctors or other members of his class. In one scene in the novel, for instance, the doctor confronts the mining company's accountant, who accuses the workers of stealing ore from the company. The doctor agrees that they are stealing but points outs that most of them live in caves, are undernourished and poorly dressed, and are forced to steal in order to rise above total misery.

The accountant responds, "Savages! I don't accept any of that. Even if you treat the worker well, he will keep on stealing because the instinct to rob is in his veins, they rob because of, of, what is it?" Another person present responds, "atavism."⁵⁷ So here is the doctor explaining that the workers steal because they are exploited, that is, giving an environmental explanation, while the accountant says the stealing is hereditary—because they are Indian. Mendoza cast the accountant as Chilean, a foreigner from a country with a smaller indigenous population, who probably considers himself superior to Bolivians in general. He can talk about atavism because he does not consider himself in any way biologically linked to the Indians. Furthermore, Bolivia had been defeated by Chile, losing its sea coast in 1879 in the War of the Pacific. Here, Mendoza, by making the Social Darwinist a Chilean is appealing to patriotism and nationalism to advance his argument.

Nonetheless, Mendoza's ambivalence regarding "the Indian question" is revealed in the same discussion with the accountant when the doctor asserts, "The situation of the worker is and will continue to be abominable. Which is really not so surprising when you take into account that this is a country of Indians."58 Once again the idea emerges that Indians are intrinsically or culturally submissive. Nor did Mendoza apparently consider that this submissiveness might be a tactic, a weapon of the weak, as it would now be called. Moreover, Mendoza talked about Indian submissiveness at a time when native peoples were actually showing themselves to be combative in reclaiming their lands. Perhaps Mendoza unconsciously hoped that they would remain docile, but it seems more likely that he could imagine resistance only in the form of class organization. The struggles of Aymara and Quechua speakers to retain the communally held property could have seemed backward to Mendoza. Like his peers, he was a modernizer but with a difference: if liberals wanted Indian lands expropriated and privatized for capitalist development, Mendoza believed that it was only when the Indians became fully proletarian that they could defeat capitalism.

57. Ibid., 157. 58. Ibid., 161. Finally, the fictional doctor is shown, in the best liberal tradition, as rejecting not only Indian healing beliefs but all types of superstition, including those related to Catholic dogma. In the novel, the local priest tells the companion of a dying man that she cannot be in the same room with him because it would be a grave sin since they were not married (and the priest cannot marry them because the sick man is unconscious). The doctor tells the young woman and her father not to pay attention to the priest, that the real sin would be not to help the dying man. He then comments to no one in particular: "Always insipid formulas, threats, prohibitions.... Marriage, sin, instead of love and charity. How many imbecilities are committed in the name of religion."⁵⁹

Conclusion

Both Jaime Mendoza and Nestor Morales represented the doctor as venturing out into the wilderness to bring modernity to the uncivilized. The doctor, they suggested, is the person best equipped to inform and guide the nation. Morales expressed the anxiety that if men of science did not go out into the rural areas, disease and social disorder would engulf the civilized city. Mendoza's emphasis was different. *En las tierras del Potosí* contains no danger of disease or agitated miners invading patrician Sucre. Rather, in keeping with Mendoza's emphasis on the environment, the doctor in the novel highlights the brutalizing exploitation of the mines that causes even well-brought-up individuals from the city to lose their culture and become degenerate.

Morales and Mendoza were grappling in different ways with the issue of integration of the native population into a new kind of nation-state. Morales was skeptical of the possibilities for transformative social change. Although he recognized the connection between economic conditions and the country's level of health, he rejected the possibility of improving the Indians' living conditions as too expensive and too time-consuming. Impressed by the scientific and medical advances of the day, Morales proposed instead that through prophylaxis and therapeutics the spread of disease could be halted and Bolivia's economy developed without the dislocations caused by epidemics. He saw this approach as being helpful to the Indians and something for which they should be grateful, but his interest in their well-being was definitely secondary.

Mendoza, in contrast, was passionately committed to eliminating the grinding poverty in which so many Bolivians lived. Yet he could not imagine a progressive and socially just nation developing out of a society in which the indigenous groups retained distinct (and for him, inferior) cultural practices. He considered the "Westernization" and more complete

59. Ibid., 203.

proletarianization of Bolivian workers essential for forming strong labor and political movements that would become the real modernizing forces in the country. He also brought gender into his analysis and linked it to being Indian. The women who worked in the mining industry somehow retained more negative traits that Mendoza associated with being Indian: they used home cures or Andean medicine, and their child-raising practices were backward and negligent. While Morales viewed Andean culture as creating public health problems, Mendoza perceived women as being the main bearers of that culture and less likely to develop a proletarian consciousness.⁶⁰

These two doctors' inability to find many redeeming qualities in contemporary Andean society and the lack of an indigenismo that extolled the virtues of mestizaje gave them (and the Bolivian educated elite) little room to maneuver in defining their own identity. Even in countries where indigenismo was politically significant and was linked to some kind of project of mestizo national identity, it was possible to glorify the ancient achievements of native Americans while rejecting their contemporary descendants and wanting them to acculturate as quickly as possible. Yet in Peru and Mexico, indigenismo provided the elite with a means of selfjustification even if it offered little to the Indians themselves. For educated Bolivians, the only alternative was making oneself "white." Education, wealth, and social position made a person a creole and allowed him or her to escape the degradation of "cholaje," the taint of Indian blood.

Although mestizaje as a national ethos was promoted more in the 1930s and 1940s, even after the Bolivian revolution of 1952, no indigenista cultural movement developed in Bolivia that was comparable with that in Mexico after 1910. In the post-revolutionary era, Bolivian approaches to ethnicity were actually similar to Mendoza's earlier formulations. The term *Indian*, now considered pejorative, was replaced by the more neutral *peasant*, and the class-based militancy of organized workers overshadowed questions of cultural identity.

Finally, arguments stressing cultural impediments to progress (medical progress, in this case) developed just at a time when Andean groups were starting to demand the rights to which they were entitled as Bolivian citizens. As they petitioned for many of the things that liberals claimed would make the country more modern and progressive—education, fair treatment in the judicial system, even private property rights in some cases—they were told that their habits and customs did not suit them to these changes. Seen in this light, culture became an impediment to creating a more modern nation but an impediment that liberals themselves insisted must exist.

60. For a current discussion of women and ethnicity in a Peruvian village, see Marisol de la Cadena, "'Las mujeres son más indias': Etnicidad y género en una comunidad del Cusco," *Revista Andina 9*, no. 1 (1991):7–47.

REFERENCES

AGUIRRE BELTRAN, GONZALO

1960 "Indigenismo y mestizaje: Una polaridad biocultural." Cahiers d'Histoire Mondiale 6, no. 1:158–71.

ALVAREZ MAMANI, ANTONIO

1987 El camino perdido: Biografía del dirigente campesino kallawaya. La Paz: Servicios Múltiples de Tecnologías Apropriadas.

ARGUEDAS, ALCIDES

- 1910 Pueblo enfermo. Second edition. Barcelona: Casa Editorial de vda. de Luis Tasso.
- 1991 Pueblo enfermo. Third edition. La Paz: Juventud (originally published in 1936).
- n.d. Raza de bronce. La Paz: Los Tiempos y Los Amigos del Libro (first published in 1919). ARNOLD, DAVID
 - 1988 Imperial Medicine in Indigenous Societies. Manchester, Engl.: Manchester University Press.
 - 1993 Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India. Berkeley and Los Angeles: University of California Press.

BALCAZAR, JUAN MANUEL

1956 La historia de la medicina en Bolivia. La Paz: Juventud.

CONDARCO MORALES, RAMIRO

1982 Zárate, el "temible" willka: Historia de la rebelión indígena de 1899 en la república de Bolivia. 2d ed. La Paz: Imprenta y Librería Renovación.

DEMELAS, MARIE DANIELLE

1981 "Darwinismo a la criolla: El darwinismo social en Bolivia, 1880–1910." *Historia Boliviana* 1, no. 2:55–82.

DE LA CADENA, MARISOL

1991 "'Las mujeres son más indias': Etnicidad y género en una comunidad del Cusco." *Revista Andina* 9, no. 1:7–47.

DOUGLAS, MARY

1992 Purity and Danger: An Analysis of Concepts of Pollution and Taboo. London: Routledge.

ECHEVARRIA, EVELIO

1977 "Panorama y bibliografía de la novela social boliviana." Inter-American Review of Bibliography 27, no. 2:143–52.

GRAHAM, SANDRA LAUDERDALE

1992 House and Street: The Domestic World of Servants and Masters in Nineteenth-Century Rio de Janeiro. Austin: University of Texas Press.

HALE, CHARLES

1989 The Transformation of Liberalism in Late-Nineteenth-Century Mexico. Princeton, N.J.: Princeton University Press.

HUCKSTEP, R. L.

1962 Typhoid Fever and Other Salmonella Infections. Edinburgh and London: E & S Livingstone.

IRUROZQUI, MARTA

1994 *La armonía de las desigualdades: Elites y conflictos de poder en Bolivia, 1880–1920.* Madrid and Cuzco: Consejo Superior de Investigaciones Científicas and the Centro de Estudios Regionales Andinos Bartolomé de las Casas.

KLEIN, HERBERT S.

- 1992 Bolivia: The Evolution of a Multi-Ethnic Society. New York: Oxford University Press. KNIGHT, ALAN
 - 1990 "Racism, Revolution, and Indigenismo: Mexico, 1910–1940." In *The Idea of Race in Latin America*, 1870–1940, edited by Richard Graham, 71–113. Austin: University of Texas Press.

LANDA, LUIS ISAAC L.

1929 Problemas políticas. Antofagasta, Chile: Imprenta Moderna.

LANGER, ERICK D.

1988 "El liberalimso y la abolición de la comunidad indígena en el siglo XIX." *Historia y Cultura* 14:5–95.

LARSON, BROOKE

1998 "Race, Democracy, and the Politics of Indian Education in Bolivia: Crafting Neocolonial Modernity, 1900–1920." Paper presented to the Latin American Studies Association, Chicago, 24–26 September.

LE BARON, CHARLES W., AND DAVID W. TAYLOR

1993 "Typhoid Fever." In *The Cambridge World History of Human Disease*, edited by F. Kiple, 1071–77. Cambridge: Cambridge University Press.

LOVE, JOSEPH, AND NILS JACOBSEN

1988 Guiding the Invisible Hand: Economic Liberalism and the State in Latin American History. New York: Praeger.

MACLEOD, ROY, AND MILTON LEWIS, EDS.

1988 Disease, Medicine, and Empire: Perspectives on Western Medicine and the Experience of European Expansion. London: Routledge.

MAROF, TRISTAN

1926 La justicia del Inca. Brussels: Falk Fils.

MEADE, TERESA

1986 "Civilizing Rio de Janeiro: The Public Health Campaign and the Riot of 1904." Journal of Social History 20, no. 2:301–22.

MENDOZA, JAIME

- 1936 Apuntes de un médico: Ensayos y semblanzas. Sucre: Escuela Tipográfica Salesiana.
- 1988 En las tierras del Potosí. La Paz: Los Tiempos y Los Amigos del Libro (originally published in 1911).

NAVARRE, ERNESTO

1925 La tuberculosis en el departamento de La Paz. La Paz: Imprenta Artística.

PEARD, JULYAN G.

1997 "Tropical Disorders and the Forging of a Brazilian Medical Identity, 1860–1890." Hispanic American Historical Review 77, no. 1:1–44.

PEREZ, ELIZARDO

1992 Warisata: La Escuela-Ayllu. 2d ed. La Paz: Hisbol.

PLATT, TRISTAN

- 1984 "Liberalism and Ethnocide in the Southern Andes." History Workshop 17:3–18.
- 1987 "The Andean Experience of Bolivian Liberalism, 1825–1900: Roots of Rebellion in 19th-Century Chayanta (Potosí)." In *Resistance, Rebellion, and Consciousness in the* Andean Peasant World, 18th to 20th Centuries, edited by Steve Stern, 280–323. Madison: University of Wisconsin Press.

RAMA, ANGEL

1974 "El area cultural andino: Hispanismo, mesticismo, indigenismo." Cuadernos Americanos, no. 196:136–73.

RANGER, T. O., AND P. SLACK, EDS.

1991 Epidemics and Ideas. Cambridge: Cambridge University Press.

RENE-MORENO, GABRIEL

1960 Nicomedes Antelo. Santa Cruz, Bol.: Universidad Gabriel René-Moreno (originally published in 1901).

RIVERA, SILVIA

1986 Oprimidos pero no vencidos: Luchas del campesinado aymara y qhechwa, 1900–1980. La Paz: Hisbol.

SOCIEDAD BOLIVIANA DE SALUD PUBLICA

1989 Historia y perspectivas de la salud pública en Bolivia. La Paz: UNICEF, Organización Panamericana de la Salud, and the Organización Mundial de la Salud.

STEPAN, NANCY LEYS

1992 The Hour of Eugenics: Race, Gender, and Nation in Latin America. Ithaca, N.Y.: Cornell University Press.

TAMAYO, FRANZ

1975 *La creación de una pedagogía nacional* 3d ed. La Paz: Biblioteca del Sesquicentenario de la República (originally published in 1910).

VAUGHAN, MEGAN

1991 Curing Their Ills: Colonial Power and African Illness. Stanford, Calif.: Stanford University Press.

WILSON, LEONARD G.

1993 "Fevers." In Companion Encyclopedia of the History of Medicine, edited by W. F. Bynum and Roy Porter, 401–6. London and New York: Routledge.

WORBOYS, MICHAEL

1983 "The Emergence and Early Development of Parasitology." In Parasitology: A Global Perspective, edited by Kenneth S. Warren and John Z. Bowers, 1–18. New York: Springer-Verlag.