



**“The demon that
turned into worms”:
the translation of
public health in the
British Caribbean,
1914-1920**

Steven Palmer
History, University of Windsor
401 Sunset Ave. – Windsor
Canada N9B 3P4
steven-palmer@uiowa.edu

PALMER, S.: “The demon that turned into worms”: the translation of public health in the British Caribbean, 1914-1920. *História, Ciências, Saúde – Manguinhos*, v. 13, n. 3, p. 15-32, July-Sept. 2006.

The earliest programs of the Rockefeller Foundation’s International Health Commission – IHC were pilot projects for the treatment of hookworm disease in the British colonies of British Guiana and Trinidad. These pioneering ventures into international health have often been portrayed as governed by rigid biomedical principles. In contrast to this view, the article emphasizes the degree to which the exigencies of a public health project that sought to make biomedicine intelligible within the medical systems of subject populations combined with the knowledge of local IHC staff members of Indo-Caribbean descent to generate some fascinating experiments in ethno-medical translation. One text in particular, “The Demon that Turned into Worms” is focused on to show how these efforts at medical translation may have legitimized and promoted medical pluralism.

KEYWORDS: hookworm disease; Caribbean British colonies; Rockefeller Foundation; medical pluralism.

Benjamin Washburn was an astute country doctor who had signed on to the Rockefeller public health project in 1913 when its Sanitary Commission was waging a campaign against hookworm disease in his home state of North Carolina. Within two years Washburn would find himself in Trinidad, then a British colony, directing an anti-hookworm mission that was part of the first wave of international public health work undertaken by the recently created Rockefeller Foundation.¹ In his memoirs, Washburn painted a vivid picture of the difficulties of making the Rockefeller public health machinery operate in a multi-ethnic milieu, recalling how complex it was even to hold a large public lecture (Washburn, 1960, p. 69-70):

Before beginning, the people were assembled in groups, those speaking Hindi being seated in one part of the hall, the patois-speaking people in another, and if there were some who spoke only Spanish, they were put in still another group. The interpreter for each group was supplied with a small handbell, while our chief clerk was on the platform with a larger bell. A slide would be thrown on the screen and explained in English by the lecturer. When the explanation was finished, the clerk tapped his bell and each interpreter then explained to his group what the doctor had said. When an interpreter finished, he in turn tapped his bell; and when all the groups had been reached in this way, the larger bell on the platform was again sounded. Then another slide was thrown on the screen and explained, the same routine being followed. One such lecture, I recall, lasted until near midnight.

The campaign against hookworm of the Rockefeller Foundation's International Health Commission, begun in 1914 in Central America and the British Caribbean and soon expanded to dozens of states and colonial territories around the world, established the first international public health regime of modern type.² For the first time, teams under the command of a centralized, non-governmental agency, working according to a uniform plan, simultaneously carried out preventive public health work and medical treatment in a wide variety of polities. One of the great international public health conundrums – a puzzle that the Rockefeller Foundation ambitiously tackled from the outset – was not so much how to cure disease and set up sanitary regimes, but how to make the new culture of hygiene and the germ theory of disease hegemonic. Issues of language and culture were central here. As some of the mission directors soon discovered, however, in cross-cultural hermeneutics, certainly progress and victory are not so easily established or measured as they are in the public health laboratory.

A wide variety of experiments in translation were attempted in the dozens of jurisdictions where International Health set up operations after 1914, most in some way attempting to present a

¹ A fine overview of the multiple campaigns in the British Caribbean is Pemberton (2003).

² The International Health Commission had its name changed in 1916 to International Health Board, and then in 1927 to the International Health Division. I have chosen to avoid cumbersome and changing acronyms by simply referring to the institution as International Health.

modern conception of disease etiology in terms that might be intelligible or appealing within the logic of distinct ethno-medical cultures. This article will focus on one such project involving some unusual methods and materials adopted to engage the large populations of East Indian descent in British Guiana and Trinidad. In their great majority these were Hindi speakers, and Hindu in faith, with roots in the central Gangetic plains area of north-central India, who had come (or whose ancestors had come) to the Caribbean as indentured workers, part of a great labor migration system set up within the British Empire after 1840 in the wake of the abolition of slavery. In trying to "shape the idea for the East Indian mind," as one report put it, the Rockefeller Foundation's public health agents found themselves propelled down roads that took them from the identification of microorganisms to the study and adaptation of ancient parable, from measuring dosages of thymol to engagement in philosophical debate about the meaning of life and health (at least on one occasion under the influence of ganja).³

³ W.C. Hausheer, "Work in Trinidad and Tobago, 1914-1924," Record Group (hereafter RG) 5, Series (hereafter S) 2, bound volumes, 2 vols., nos. 36-37, Section J, n.p., Rockefeller Foundation Archives (hereafter RF), Rockefeller Archive Center, Sleepy Hollow, New York (hereafter designated RAC).

In his recent history of the International Health Division, John Farley writes that directors had a "totally biomedical view of public health," and had an "overriding concept from which they rarely diverged: disease was the determining factor of ill health, and health could be attained only by the control or elimination of communicable diseases" (Farley, 2004, p. 5). The story of International Health in Trinidad and British Guiana shows that we need to modify this view. Though they may have been convinced that the totally biomedical view of public health was the best one, the directors were compelled by circumstance to diverge from this orthodox message as a matter of course during the early years of their global public health project. This was more than a sideshow. In the end, rather than achieve mass conversion to the scientific truth and purely biomedical understanding of hygiene, this early public health apparatus made deep concessions to the cultural differences and medical practices of the East Indian target population, and ultimately legitimized and promoted medical pluralism. And this takes us to the heart of an important truth about international public health: its will to uniformity and biopolitical processing does not easily mesh with its need for active consent on the part of subjects. So, in order to understand its historical impact, we must combine our analysis of the institutional, where ideologies and methods can seem very uniform indeed, with a careful study of local manifestations where enormously varied and fundamentally distinct outcomes are the norm.

The American Method

Scholars have debated the objectives of the Rockefeller Foundation's international hookworm campaigns and Rockefeller medical philanthropy more generally. The heroic and celebratory assessments that prevailed in the 1950s and 60s, driven by modernization theory and a new global health apparatus that was still optimistic about the prospects of disease eradication, were challenged in the 1970s and 80s by more critical scholars who saw the Foundation as the advance guard of US imperialism. They proposed that Rockefeller philanthropy was designed to improve the health of the Third World labor force in the interests of an increase in First World profits, and in the process make these countries and populations dependent on a Western biomedicine headquartered in the United States.⁴ The 1980s and 90s saw treatments that began to draw out the complexities of the encounters between an evolving institution and a variety of political and cultural configurations, whether in the South of the United States or in a medical college built in a Chinese architectural style beside the Forbidden City.⁵ Historians are also now more willing to treat International Health officers from the United States sympathetically, and take the stated motivations of the Foundation at face value. This does not mean that critical historians no longer see the International Health project as part of an imperial venture – most do. The emphasis of current scholarship, however, is on the role of the Rockefeller Foundation in creating an institutional model of international biopolitical power, in developing and reproducing the racist suppositions of tropical medicine that played a critical role in justifying Western domination of colonial and post-colonial societies, and in displacing popular medicine with biomedical models of health care.⁶

Recently John Farley has argued that, at the outset of the global project, the hookworm missions were simply a means to the real end: bootstrapping local public health departments. For Farley, this was rapidly overtaken by International Health's turn to the goal of disease eradication, one that was soon understood could not be achieved with hookworm disease, hence the "retreat from hookworm" starting in 1920, and the increasing focus on yellow fever and malaria.⁷ My own take on the subject assigns a rather more dramatic and central role to these early hookworm projects in the development of international health. Treatment of hookworm disease was to be a vehicle for marrying two ambitious goals: to educate the global masses about hygiene and germ theory and simultaneously to achieve disease eradication. The method developed in Central America and the Caribbean by International Health agents to achieve these twin goals was dubbed "the American Method" (later known as "the Intensive Method"). It was unprecedented

⁴ A good example is Brown (1976).

⁵ High-quality examples of this tendency are Ettlting (1981) and Bullock (1979).

⁶ Crucial to this recent wave are Hewa (1995), Anderson (2002; 2003), Birn (2003), and Farley (1991; 2004).

⁷ Farley (2004, p.75-83); see also Steven Palmer (2003, p. 155-81), Hewa (1995), and Marcos Cueto (1994).

because it involved systematically testing every individual in the areas designated for campaigning (which eventually included every populated square inch of the countries and colonial territories involved), and treating all who were positive regardless of the degree of infection. The American Method laid down a Foucauldian grid that enabled total biological surveillance, registry, examination, and treatment of a population in order to eradicate disease and maximize vitality. In this sense the International Health programs were early embodiments of the 'biopolitics' that many scholars see as characteristic of international health regimes (Palmer, forthcoming).

The American Method was a double public health Utopia: on the one hand, it aimed at Disease Eradication; on the other hand, it tried to achieve Total Biopolitical Processing – the subjection of every individual to biological registry, biomedical examination and treatment, and indoctrination in the tenets of hygiene and germ theory by public health agents. Indeed, though a parasite and not bacteria, hookworm disease had a "biological character" that was given to demonstrating the logic and promise of microbiology and the germ theory of disease.⁸ The worm was microscopic (though large ones were just visible to the naked eye), and yet looked monstrous when magnified. People commonly identified larger worms – tapeworms, for example – as a source of illness in animals and humans. The hookworm also left an itching sensation at the point where, at the larval stage, it passed through the soft tissue between the toes, and so its mode of entering the body left a tangible footprint. The hookworm as source of illness thus did not require the same level of abstraction as bacteria – it did not require the same leap of faith (Palmer, 2003, p. 158).

The hookworm and hookworm disease could be used then to contest a basic logic of much popular medicine with a basic notion of germ theory: the *identity* of a disease was not the ensemble of symptoms experienced by the sufferer as a particular illness (so '*cansancio*,' or weariness, the name given to the condition in many parts of Latin America); rather the identity of a disease was the invisible organism that entered the body and provoked such symptoms (hookworm disease).⁹ There was also a "cure" for hookworm disease – that is, an effective method of purging the worms from the host body through the ingestion of a powerful, but simple and cheap, vermifuge, followed by a strong purgative. So hookworm treatment could also promote the idea that scientific medicine proffered specific cures. Expulsion of the worms from the body relieved in short order the anemic exhaustion that was the disease's most common symptom. The patient felt noticeably better within 24 to 48 hours – he or she felt "cured" – and so the entire procedure was an effective dramatization of the basic ideas and promise of modern medicine. Meanwhile, the recurrence of hookworm disease

⁸ The term and concept are from Charles Rosenberg (1992), p. xx.

⁹ This is one of the main points of Cunningham (1992).

could be easily prevented through the adoption of a number of technically elementary sanitary habits like using a privy and wearing shoes (though in practice this was often out of the financial reach of poor families), and this made it ideal for promoting the tenets of public health. This was why Wickliffe Rose, the first head of International Health, pronounced hookworm disease the perfect “entering wedge” in the Rockefeller public health philanthropy’s global ambitions (Ettling, 1981, p. 187-91).

As Anne Emanuelle Birn has shown, even in Mexico where hookworm disease could hardly be considered a major public health priority, International Health mission directors still found treating it an attractive way to establish the presence of the institution in the country (even as late as the early 1920s when the larger organizational interest in hookworm disease was starting to wane) (Birn, 2003). Waging scientific and public health battle with malaria and yellow fever may have been, scientifically speaking, more glamorous than treating hookworm disease, but it did not entail the degree of mass bodily intrusion, sampling, and processing, or biomedical elimination of the pathogenic agent, that hookworm work did. And this was important because the other goal of International Health was biomedical hegemony. That is, by its very design, the International Health hookworm program was not about imposing models from outside and coercively treating people, but rather about educating host states, and host populations, to consent to new forms of biomedical regulation, organization, and conduct. This educator model was encapsulated in the so-called Demonstration Effect. According to this tenet of the organization, the host state would gradually assume the burden of financing the work (the International Health operation having served as a “demonstration” of the benefits of treating hookworm). Meanwhile, the citizen or subject of the popular classes would incorporate truths of microbiology, public health, and modern medicine from the microscope demonstrations of the field staff, and from the “demonstration” provided by their cure or that of their family members or neighbors, and thereafter conduct themselves accordingly.¹⁰ As Lion Murard and Patrick Zylberman have characterized this process, such corporate philanthropy was pursuing “much more ambitious goals than eradicating hookworm or reducing soil pollution.” With the aim of “accomplishing a full transfer of technology” (which the authors see as a process involving “values above all”), it intended “no less than to remake civilization along American lines” (Murard & Zylberman, 2000, p. 463, 465).

So the ultimate objective of a Rockefeller anti-hookworm mission director was to test and, if necessary, treat systematically every resident of the country for hookworm disease, while convincing them of the existence of microorganisms whose pathogenic powers could be

¹⁰ The importance of the Demonstration Effect is nicely explained in Abel (1995).

overcome by modern medical treatment and by governing daily practices according to the science of hygiene. Meanwhile he was to lay an institutional foundation that could be readily adopted by the host country. How to accomplish this in a multi-ethnic zone like the Caribbean was indeed a quandary, considering that mission directors were sent from the United States with no particular cultural training. Essentially, Rockefeller directors had to be astute coalition-builders. They could assemble an effective public health program only by gaining the support of local government and health officials, private (and religious) institutions, and authority figures. Benjamin Washburn described the coalition built for the Trinidad campaign in his recollection of the official opening of the project in Tunapuna in May 1915. The event, at a "government schoolhouse" and with over 800 people in attendance, including sugar estate owners and managers, and teachers, was graced with the presence on the platform of "His Excellency, the Governor of Trinidad; the Surgeon-General; Dr. Campbell Bennett Reid, the District Medical Officer; the Right Reverend Abbott DeCaigny and Dom Ambrose Vinckier, O.S.B., from St. Benedict's Monastery; Canon Allen and Reverend Springer and Reverend Bourne of the Church of England; Reverend Henry Morton of the Canadian Presbyterian Mission to Indians; and bishops of the Hindu and Mohammedan faith" (Washburn, 1960, p. 83).

Certainly as important, if not more crucial, International Health directors needed to hire quality local staff who could communicate effectively with the mass constituency. With the exception of his wife, who often provided fundamental support to the public health work, the Rockefeller mission director was the sole direct representative of the Foundation, and had to put together the project team locally.¹¹ The model, the budget, the equipment, the techniques, and the basic objectives came from the head office in New York; the rest had to be fashioned on the ground, and adapted to the enormous complexities of local populations and cultures, agricultural cycles, geographical and climate conditions, and politics. So in British Guiana and Trinidad the anti-hookworm teams were multi-ethnic, with microscopists and male "nurses" (as the home visitors were called) split roughly down the middle between Afro-Antilleans and East Indians, though in British Guiana also with staff members of Portuguese background, and in Trinidad with personnel conversant in Spanish and French (the composition of the teams would be reformulated as needed depending on the ethnic makeup of the area being worked).¹² Displaying a clear Orientalism, the International Health directors developed a particular fascination with the East Indian populations of the two colonies, and directed their most intense and elaborate efforts at translating the message of public health to them. Especially as International Health directors began to encounter resistance to treatment among the East Indian communities, which

¹¹ On the important role of mission directors' wives, see Palmer (2004, p. 14-9).

¹² F.E. Field, "Preliminary Report on the Amelioration and Control of Ankylostomiasis in the Peter's Hall District of British Guiana by the Supervising Medical Officer (May 1915), RG 5, S 3, B 170, F 2093, p. 11, RF, RAC; for Trinidad, Washburn (1960, p. 72, 82).

¹³ For examples of resistance, Frederick Dershimer, "Report on Work for the Relief and Control of Hookworm Disease in British Guiana, from Mar. 1914 to Dec. 31, 1917," RG 5, S 3, B 170, F 2095, p. 7, RF, RAC.

could become quite trenchant and even violent depending on work cycles and political issues such as fear of conscription, they increasingly explored cultural and religious modes of explaining their scientific message.¹³ The best example of this, and in many ways the culmination of the process, was the development, circulation, and use in both colonial settings of a modern adaptation of an ancient Indian tale, a project undertaken by Frederick Dershimer after he was appointed to direct the International Health Commission's anti-hookworm campaign in British Guiana in 1916.

The Demon that Turned into Worms

Indentured East Indian workers had begun to arrive in British Guiana and Trinidad in the late 1830s, in the wake of the emancipation of slaves of African descent, to fill labor quotas on sugar estates owned mostly by British planters. The migrations continued until the program was terminated by the Indian Legislative Council in 1916, and the traffic ended soon after the war. British Guiana was the destination for over half of the 430,000 Indian immigrants to the Caribbean between 1838 and 1920, while about 150,000 Indians came to Trinidad during this period. Increasingly, a majority of East Indians remained in the Caribbean colonies after their indenture was up, often with land grants made available by the colonial state. By 1920 they and their descendants made up a third of the population of Trinidad, and Indo-Trinidadians became the popular heart of the rural sector, more active in peasant and commercial agricultural work than the Afro-Antillean population, though in the twentieth century establishing an important presence in the towns and cities as well. In British Guiana by the census of 1911, Indian ethnicity was ascribed to just over 40% of the population of the colony and there, too, the East Indians continued in agricultural labor and farming enterprises to a greater degree than Portuguese or Chinese indentured laborers once their terms were done. They became the mainstays of sugar estate contract labor and share-cropping, but also of the rice-growing and the subsistence agriculture sectors. Between 80 and 90 percent of the immigrants to both colonies were from the north-central United Provinces area of the Gangetic Plain, and Hindi became the predominant language of those of East Indian descent. The proportions of Hindu to Moslem was about 4 to 1 (among the Hindu population an orthodox sect was predominant), and the caste derivation roughly mirrored that of India itself (Laurence, 1994; Ramesar, 1994; Barros, 2002, p. 21-2, 32; Brereton, 1974, p. 26).

Hector Howard came to British Guiana from Mississippi to test the intensive method in early 1914, and brought with him some deep prejudices against people of African descent. He immediately

expressed a preference for working with the East Indian, finding them culturally more attractive and easier to get along with than the Afro-Guianese technicians (Farley, 2004, p. 63). On his first drive into the interior of Trinidad, Washburn, too, became fascinated by the East Indians along the route: the jewelry shops, the white-washed houses with flags flying above them on bamboo poles signaling the birth of a son, the men with turbans and "voluminous breechcloths fastened about the waist," the women with brightly colored bodices "which left the midriff bare," gaily colored skirts, and loaded down with bracelets and anklets of gold and silver. He marveled at the mosques and temples "through the open archways of which could be caught glimpses of images of Rama and Seta." For a Southerner, this Oriental exotic was overwhelming – "so impressive to a newcomer that the Negro homes and Christian churches, although about equal in number, were hardly noticed" (Washburn, 1960, p. 69-70).

But it was Frederick Dershimer who dove most deeply into the study of East Indian culture and society. Dershimer was a typical young medical doctor of the Progressive era, a product of post-Flexner Report medical school training who in 1916 left his job in the Philadelphia public health department to make his mark in the new medical universe being invented by the Rockefeller Foundation.¹⁴ British Guiana disappointed him. His wife was miserable and soon returned to the US to recover from what might have been malaria as well as tropical malaise. The pay was not as good as he had imagined (a sensation that deepened as he began to compare his lot with that of the colonial elites around him). He also rather suspected the posting had marginalized him professionally. Although the colony had served as the first laboratory for the International Health hookworm work, and had been the birthplace of the American Method, it had lost its primacy soon after. Still, British Guiana was the place that had inspired his boss, Wickliffe Rose, to press on with his early program, and Dershimer knew he could still catch the attention of the head office in the right circumstances.¹⁵

In the midst of his professional and personal loneliness, Dershimer met the Reverend Henry Morton of the Canadian Presbyterian Indian Mission.¹⁶ By the 1910s the Canadian Mission, established by Morton's father in the 1860s in Trinidad to evangelize the indentured laborers from India, operated more than sixty primary schools in Trinidad and British Guiana, as well as separate colleges for boys and girls, a teacher-training school, night school for adults, and a training center for catechists and East Indian clergy. While the Canadian Indian Mission's success in formally converting Indians to Christianity was rather slight (only 10% of Indo-Trinidadians were Christian, according to the 1921 census), its influence was much wider because of its quasi-official stature, its role in education, and

¹⁴ "Biographies," RF, RAC.

¹⁵ Frederick Dershimer, "Report on Work for the Relief and Control of Uncinariasis in British Guiana, from July 1st 1916 to September 30th 1916," RG 5, S 3, B 170, F 2094, n. p., RF, RAC.

¹⁶ Hausheer, "Work in Trinidad and Tobago, 1914-1924," Section J, n.p.

its training of a bilingual cadre, both East Indians and Canadians, who worked with the Mission, or who had been through the Mission schools. East Indian parents understood that the education involved Christian evangelizing, and that children would learn nothing of the Hindu or Moslem faiths, but the mission schools stressed education over evangelization, and conversion was not a requirement for students. The most influential leaders of the emerging Indo-Trinidadian political elite of the early twentieth century, for example those in the East Indian National Association and the East Indian National Congress, were Presbyterians (though other religions were represented) (Singh, 1974, p. 62). There was clearly an overlap between Indo-Trinidadians with an interest in social, professional, and commercial advancement, and conversion to Presbyterianism or close association with the Canadian Mission. The Mission, then, produced and attracted a cadre who could mediate between the western colonial culture and the Indian community (Brereton, 1974, p. 35; Mount, 1983, p. 118; Singh, 1974, p. 51, 72; Campbell, 1996).

This is exactly what Rockefeller Foundation directors like Dershimer needed. In 1917 the eager young doctor began some bold innovations with the printed educational material that the hookworm campaigns had been using. He also began to appreciate the power of the Hindu holy men. In one instance in the Victoria area of British Guiana, Dershimer was facing such intense resistance to the hookworm program from the East Indian community that he felt it was threatening the entire campaign. He decided to appeal to the local Hindu priests for assistance, and met with them at the shop of an East Indian merchant. They agreed to send out a messenger to gather the people. Dershimer recalled that "during this wait, the priests, the shopkeeper and a few others of high caste sat in a room with the doctor, and smoked in turn a pipe containing a mixture of 'Gange' (Cannabis India or Indian Hemp) and strong black tobacco. One of the priests remarked that if one smoked it too long he would make 'too much big talk', so the doctor told them, when it was offered to him, that he could not smoke that kind of pipe." Within half an hour there was a huge turnout of residents who, following the lead of their holy men, seemed happy to reconsider the merits of the hookworm work. Dershimer was impressed.¹⁷

In a report soon after, he compared the educational methods he had been using up to that point to the "shot-gun" prescriptions of the "old doctors" – "we prepared literature for no one in particular but for everyone in general and sent it out." Dershimer had become acutely aware that his project involved the education of "four different races, each having different interests, and desires and manners of living and thinking from all the others." He had little doubt that much of the literature had been wasted:

¹⁷ Frederick Dershimer, "Report on Relief and Control of Uncinariasis in BG, Oct. 1 to Dec. 31 1916," RG 5, S 3, B 170, F 2094, p. 17-18, RF, RAC.

¹⁸ Frederick Dershimer, "Report on Work for the Relief and Control of Uncinariasis in British Guiana, from October 1st to December 31st 1917," RG 5, S 3, B 170, F 2095, n.p., RF, RAC.

We have recently been making some study of this matter in an effort to adapt our methods of education to the two principle races with which we have to deal ... We have even hoped that we might be able to write the story of the hookworm in some form for each that would be of sufficient interest to them that they would keep it for the story's sake with the result that we would thus be able to leave a more or less permanent force working to teach the need of the measures of preventing the recurrence of the disease.¹⁸

He had already started developing special materials for the Afro-Guianese, but the East Indians had proved more perplexing. "Their way of thinking is so vastly different from our own, that even after quite a bit of study of translations of some of their books, study of articles and books written about them and their philosophy ... the project was approached with fear and trembling. We had, however, developed certain stories" (ibid.).

The "we" used by Dershimer is intriguing. It might refer to a collaboration with Morton, though it more likely refers to the development of the stories in conjunction with his chief microscopist, Wajidalli, who had been with the anti-hookworm team from the very first pilot program in 1914. Wajidalli was well respected and heavily relied upon by the successive directors, including Dershimer. He was given an author's credit for one of the shorter stories directed at East Indians, "Bird Vines and Bread Fruit." But the great success story was to be "The Demons That Turned Into Worms," and Dershimer would take sole authorship. It was based on one of the most popular collections of stories in the Hindi language, the "Baital Pachisi" or "Twenty-five stories of a Demon." Dershimer originally billed it "The Twenty-sixth Tale" – that is, it was actually put forward as an extension of this classic text cycle even as its individual authorship was insisted upon! "The Demon that Turned into Worms" was translated into Hindi (or, if my theory about Wajidalli is right, it was composed bilingually), and thousands of pamphlet versions were printed and distributed.¹⁹ On the advice of Henry Morton of the Canadian Mission, in early 1918 the Trinidad director, George Payne, adopted it for use there (though its title was changed to "The King's Curse," and the bored wife of the Trinidad director, Florence King Payne, who was herself a physician, decided to illustrate the pamphlet with a series of colored drawings whose style was based "on the work of Hindu artists and also on pictures of the Hindu gods which are found in the East Indian homes").²⁰

¹⁹ Ibid.; and Dershimer, "Report on Relief and Control of Uncinariasis in BG, Oct. 1 to Dec. 31 1916," RG 5, S 3, B 170, F 2094, p. 17-18, RF, RAC.

²⁰ Hausheer, "Work in Trinidad and Tobago, 1914-1924," Section J, n.p.

The Baital Pachisi are narrated by a demonic being – a goblin, or vampire – to a questing king; they go back to an even earlier Sanskrit version that is also the source of other classic story cycles, including the Arabian Nights (Emeneau, 1934, p. ix-xxii). Dershimer's "Demon," whose English version ran to about 1,500 words,

explained hookworm disease as the result of a mythical curse visited upon a would-be parricide prince by his father, the King:

May hundreds of demons transform themselves into small worms, and may they arm their mouths with hooks, and may they enter your bowels and attach themselves to the inside of your bowels by means of the hooks in their mouths, and may they suck your lifeblood by day and by night ... and may they be so strong that they can bore through the skin of any person who puts hand or foot on the place where they are; and may they be so small at that time that none can see them to avoid them.

The story follows the prince as he becomes ill and then encounters a cure and a healthy life through the intervention of a wise healer, or Devotee, who prepares a special vermifuge. The Devotee then tells him he must build a latrine, wear shoes, and listen to the agents of the rich American man who has come with so much money to treat them. By following his advice, the Prince is happily reunited with his father and becomes a worthy and respected leader.²¹

²¹ F.W. Dershimer, "The Demon that Turned into Worms," RG 5, S 2, B 42, F 253, RF, RAC.

Needless to say, "The Demon that Turned into Worms" lacks the power and subtlety of the twenty-five tales of the Baital Pachisi, and its didacticism is rather more instrumental. Nevertheless, it was soon added as a fundamental part of the public health arsenal of the anti-hookworm missionaries. In one Trinidad district with a large population of East Indians, "a man who had good training in educational methods and in the Hindi language was taken from the nursing force and assigned the task of teaching people in homes." He was given special instruction in microscopic work, and then provided with microscope and the illustrated Hindi edition of "The King's Curse" as the basis for his home demonstrations. George Payne commented that "it was unfortunate that these arguments usually took a philosophical rather than a practical turn and the impression made by the practical points of the story was much less deep than was desired."²²

²² Hausheer, "Work in Trinidad and Tobago, 1914-1924," Section J, n.p.

Yet Payne carried on with this program after reading a widely distributed book about 'Hindu mind training'. He put an East Indian priest, Ramcharita Maraj, a fairly well-known Brahman, on the Rockefeller payroll, instructed him in the entire laboratory technique of the work, and then sent him out in advance of the actual campaign, armed with a copy of "King's Curse" and microscope, to do home demonstrations of the hookworm program in the guise of the characteristic method of Hindu education. Payne described the method in the following manner:

a spiritual adviser visits each family at intervals to instruct children and adults how their lives should be conducted in accord with Hindu traditions; instruction done through story telling, with two or more meanings, and the teacher is to bring about by

adroit questioning such discussion of the story that his point will be effectively driven home.

With the cooperation of Morton and the Canadian Indian Mission, the "King's Curse" was also introduced for use in the Presbyterian schools (*ibid.*).

Unfortunately at this point the trail runs dry. Payne was eventually forced to dismiss the priest after complaints by the staff, though on what grounds he did not say. A copy of "The King's Curse" was sent to Ceylon for the consideration of the directors of the elaborate hookworm program there, but I found no evidence that it was ever adopted. The hookworm campaign in British Guiana was brought to a close in 1919 when the Rockefeller Foundation could not come to terms with a testy colonial government over an extension of the mandate. International Health departed Trinidad and Tobago in 1924, though the core local staff stayed on to form the nucleus of a hookworm control unit within the revamped colonial public health service. Meanwhile, at least two of its cadre – the talented polyglot chief clerk, R. G. Marín, and the esteemed chief microscopist, Balbirsingh – were able to study medicine in Canada and subsequently returned to practice in the island. Washburn went back to North Carolina for a few years, and then spent a long tenure in Jamaica as head of the International Health hookworm commission there in the 1920's and 30's. The International Health Board (after 1927, Division) gradually dismantled its global belt of hookworm treatment programs and shifted its focus to other approaches to disease control and eradication, especially yellow fever and malaria, that were highly verticalized and technoscientific. Part of this "retreat from hookworm" may well be explicable as a reaction to the drift into cultural translation that hookworm disease treatment seemed to demand, due to its intensive, house-to-house negotiation with people of distinct ethno-medical beliefs. It is possible that yellow fever and malaria work, with their greater emphasis on attacking the parasitic vector, appeared to the public health men to be freer of this prickly dimension of cultural transaction.

Bugs in translation

Still, the story of the demon that turned into worms forces us to ask, what has become of biomedicine when its messages of microscopic pathogens and preventive hygiene are imparted by a goblin inhabiting a corpse? Historians and anthropologists of medicine are fascinated by conflict between medical systems – for good reason – and they tend to emphasize the resistance of subordinate ethnicities to Western biomedical intrusions, especially when it is expressed in terms of distinct ethnomedical logic. The biopolitical power of Western medicine, and its use as an arm of imperial power, is often at the



Multi-ethnic International Health field force in British Guiana in 1916, probably with Wajidalli seated in first row, second from the left, microscope in hand. From British Guiana - 423, Photographic Collection, Rockefeller Foundation, RAC.



(From left to right) Rampergass Maraj, Sirdial Sahddu, and Paterhat Maraj, priests and healers who assisted International Health in convincing Indo-Guyanese to undergo treatment for hookworm disease. December, 1916. From British Guiana - 423, Photographic Collection, Rockefeller Foundation, RAC.

By F.W. Dersheimer

British Guiana

The demons that became worms.
by F.W. Dersheimer

बैताल बोला किसी शहर में एक समय राजा राज्य किया। और उस राजा को एक पुत्र था, वह राजा अपना मुलक को अत्यन्त निःसन्देह खूब बढ़ाया था, और सारे पृथिवी उस के बस में था। और उसका राज्य ऐसा था कि हर एक आदमी खुशी से उसके राज दरबार में काम करना चाहते थे क्योंकि उसके राज्य में बहूत सलतनत था और वह राजा धर्म के साथ न्याय करता था, तथापि उसका बेटा अपने बाप को आदर न करता था, और जब वह अपने जवानी पर आया तब वह अपने बाप को मार डालने का कस्ट किया जिस में उसका राज्य पा जावे इस लिये उसका बेटा बोला किन्तु वह सारे जमीन का अनुशासक है और वह मेरे मन के लायक औरत न लेने देगा क्योंकि मैं उसके मंत्री का औरत लेने चाहता हूँ, परन्तु वह न लेने देगा, और राजा का आदत किसी मन्दिर में प्रतिदिन जाने का था, और वह मन्दिर किसी जंगल के बीच में था जिस में वह राजा देवी पुजने को प्रतिदिन जाया करता था, राजकुमार ऐसा समझ कर अपने बाप को मारने के लिये रासते में तलवार लेके घाट में जा बैठा, और जब वह अपने बाप को आते देखा तब वह अपने बाप का सिर छिप के पीछे से काटने चाहा। लेकिन जब अपने बेटा को देखा तब वह अपना तलवार खींचकर अपने बेटा को

forefront of historical and anthropological research, and the popularization of germ theory seen as the deployment of new forms of social control. We also know that, especially in Latin America and the Caribbean, medical culture is notoriously pluralist, and scholars often celebrate that medical pluralism as a way for subaltern sufferers to choose what they want from different medical systems. Medical pluralism tends also to be presented as the result of the failure of biomedicine to achieve domination – either because of successful resistance from alternative medical systems, or because Westernized elites have ultimately withheld the fruits of biomedicine from the popular classes, using it only to the degree needed to maximize its social control potential.

On the basis of the preceding historical account, however, we can propose a different hypothesis: the region's medical pluralism *is* the form of biomedical hegemony in many parts of Latin America and the Caribbean, and it emerged and was shaped in important ways through exchanges across medical cultures like the ones I have discussed here. The medical anthropologist Arthur Kleinman identifies the distinctiveness of Western biomedicine by its belief that disease is a material thing that can be laid bare in morbid pathology – by its insistence, as he puts it, that there is “disease without suffering” (Kleinman, 1993, v. I, p. 18). The encounter of the Rockefeller Foundation, unquestionably the first mass proselytizers of biomedicine on a global scale, with other world medical systems forced its agents to consider a related question: is there disease without story-telling?

These cases from the British Caribbean suggest that when the will to biopolitical control – the American, or intensive method – concedes that it needs the consent of sufferers in order to be fully effective – in order to realize the demonstration effect – then biomedical purity must break down, must commingle with other medical beliefs and medical narratives in order to solicit understanding and consent. The long-term historical outcome of this engagement is, of course, not something that can be established here. Given the extraordinary, heterodox form in which biomedicine was served up to the Indo-Guyanese and Indo-Trinidadian populations, and given the religious and missionary nature of the structures of public health indoctrination, it would not be surprising to find that the Hindus among them, at least, accommodated some idea of biomedicine as part of an enriched pantheistic cultural practice. Notably, two anthropologists working in the Indian communities of Trinidad in 1954 found that, though the rural Hindu population relied principally on Afro-Antillean-based herbal medicine and Obeah, if people suspected hookworm disease, “the western-trained doctor was called for” (Niehoff & Niehoff, 1960, p. 75, 171-80).

REFERENCES

- Abel, Christopher
1995 External philanthropy and domestic change in Colombian health care: the role of the Rockefeller Foundation, ca. 1920-1950. *Hispanic american historical review*, v. 75, n. 3.
- Anderson, Warwick
2003 *The cultivation of whiteness: science, health, and racial diversity in Australia*. New York: Basic Books, p. 141-58.
- Anderson, Warwick
2002 Going through the motions: American public health and colonial 'mimicry'. *American literary history*, v.14, n.4, p. 686-719.
- Barros, Juanita de
Order and place in a colonial city: patterns of struggle and resistance in Georgetown, British Guiana, 1889-1924. McGill-Queens.
- Birn, Anne Emanuelle
2003 Revolution, the scatological way: the Rockefeller Foundation's hookworm campaigns in 1920s Mexico. In: Amus, Diego (ed.) *From malaria to Aids: disease in the history of modern Latin America*. Durham (NC): Duke University Press.
- Brereton, Bridget
1974 The experience of indentureship, 1845-1917. In: La Guerre, John Garrar (ed.) *Calcutta to Caroni: the East Indians of Trinidad*. Trinidad and Jamaica: Longman Caribbean.
- Brown, E. Richard
1976 Public health and imperialism: early Rockefeller Programs at home and abroad. *American journal of public health*, v. 66, n. 9, p. 897-905.
- Bullock, Mary Brown
1979 *An american transplant: the Rockefeller Foundation and Peking Union Medical College*. Berkeley: University of California Press.
- Campbell, Carl
1996 *The young colonials: a social history of education in Trinidad and Tobago, 1834-1939*. Barbados: University of the West Indies Press.
- Cueto, Marcos (ed.)
1994 *Missionaries of science: the Rockefeller Foundation in Latin America*. Bloomington: Indiana University Press.
- Cunningham, Andrew
1992 Transforming plague: the laboratory and the identity of infectious diseases. In: Cunningham, Andrew; Williams, Perry (ed.) *The laboratory revolution in medicine*. Cambridge: Cambridge University Press.
- Emeneau, M. B.
1934 Introduction. *Jambhaladatta's Version of the Vetalapancavinsati*. New Haven (CT): American Oriental Society. p. ix-xxii.
- Ettling, John
1981 *The germ of laziness: Rockefeller Philanthropy and public health in the New South*. Cambridge: Harvard University Press.
- Farley, John
2004 *To cast out disease: a history of the International Health Division of the Rockefeller Foundation (1913-1951)*. Oxford: Oxford University Press.
- Farley, John
1991 *Bilharzia: A history of imperial tropical medicine*. London: Cambridge University Press.
- Hausheer, W. C.
Work in Trinidad and Tobago, 1914-1924. Record Group (a partir daqui RG) 5, Série (a partir daqui S) 2, encadernado, 2 v., n. 36-37, Seção J, n.p., Rockefeller Foundation Archives (a partir daqui RF), Rockefeller Archive Center, Sleepy Hollow, New York (a partir daqui designado RAC).
- Hewa, Soma
1995 *Colonialism, tropical disease, and imperial medicine: Rockefeller Philanthropy in Sri Lanka*. New York: University Press of America.
- Kleinman, Arthur
1993 What is specific to Western Medicine? In: Bynum, W. F.; Rorter, Roy (ed.) *Companion Encyclopedia of the History of Medicine*. 2 v. London: Routledge. v. I.
- Laurence, K. O.
1994 *A question of labor: indentured immigration into Trinidad and British Guiana, 1875-1917*. New York: St. Martin's Press.

STEVEN PALMER

- Mount, Graeme S.
1983 *Presbyterian Missions to Trinidad and Puerto Rico.*
Hantsport (Nova Scotia): Lancelot Press.
- Murard, Lion;
Zylberman, Patrick
2000 Seeds for French health care: did the Rockefeller Foundation plant the seeds between the Two World Wars? *Studies in the history and philosophy of biology and biomedical sciences*, v. 31, n. 3.
- Niehoff, Arthur;
Niehoff, Juanita
1960 *East Indians in the West Indies.*
Milwaukee: Milwaukee Public Museum.
- Palmer, Steven
2004 Unknown women administrators of the International Health Commission's hookworm eradication program. *Rockefeller archive newsletter*, Spring, p. 14-9.
- Palmer, Steven
2003 *From popular medicine to medical populism: doctors, healers, and public power in Costa Rica, 1800-1940.* Durham: Duke University Press, p. 155-81.
- Palmer, Steven
The 'American method' of international health: imperial worm turns, 1890-1930.
Ann Arbor: University of Michigan Press. (no prelo)
- Pemberton, Rita
2003 A different intervention: the International Commission/Board, Health, Sanitation in the British Caribbean, 1914-1930. *Caribbean Quarterly*, v. 49, n. 4, p. 87-103.
- Ramesar, Marianne D.
1994 *Survivors of another crossing: a history of East Indians in Trinidad, 1880-1946.* St. Augustine, Trinidad and Tobago: University of the West Indies School of Continuing Studies.
- Rosenberg, Charles
1992 Framing disease: illness, society, and history. In: Rosenberg, Charles; Golden, Janet (ed.) *Framing disease: studies in cultural history.* New Brunswick (NJ): Rutgers University Press.
- Singh, Kelvin
1974 East Indians and the larger society. In: La Guerra, John Garrar (ed.) *Calcutta to Caroni: the East Indians of Trinidad.* Trinidad and Jamaica: Longman Caribbean.
- Washburn, Benjamin
1960 *As i recall: the hookworm campaigns initiated by the Rockefeller Sanitary Commission and the Rockefeller Foundation in the Southern United States and Tropical America.* New York: The Rockefeller Foundation Office of Publications. p. 69-70.

Submitted on September 2005.

Approved on March 2006.