



The scientific authorship of Doctor Chernoviz, from the popularization of medicine to professional training: the *Dicionário de medicina popular*, 1842-1890

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Abstract

This article reflects on the scientific authorship of Pedro Luiz Napoleão Chernoviz, based on his *Dicionário de medicina popular*, which was published in six editions between 1842 and 1890. The first part of the text discusses Chernoviz's position within the regimes of scientific authorship which were present in the medical community in Rio de Janeiro. Next, we analyze the author's arguments justifying a text that popularized medical science while this field strove for exclusivity in the practice of medicine. Finally, we suggest new meanings around Chernoviz's scientific authorship based on how the *Dicionário* was used and read by an initiated public.

Keywords: Chernoviz (1812-1882); scientific authorship; medical field; scientific dissemination; medical training.

Aline da Silva Medeiros

Research archivist, Service des Archives Diocésaines d'Aix-en-Provence.
Aix-en-Provence – França
linemedeiros@gmail.com

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“What is an author?” was the title of a famous lecture given by Michel Foucault in 1969 at the Société Française de Philosophie. In it, the French philosopher proposed an approach to the author and authorship as a discursive function, one which was present in certain discourses and absent in others. More precisely, he stated that in certain social settings, depending on the name to which authorship of a work was attributed, the statements within this work would enjoy a certain status and be endowed with a certain value. In the words of Foucault (2009, p.274), “the function of the author, therefore, is characteristic of the mode of existence, of movement and operation of certain discourses within a society.”¹

Foucault’s considerations paved the way for a series of studies in various disciplines (literature, history, semiotics, law etc.) revolving around historical and cultural variations of authorship (Pontille, 2006, p.3). In this respect, the contribution by Roger Chartier (2012) is notable for proposing a historical review, or even better, a genealogy of Foucault’s conclusions; he makes two corrections. The first concerns the chronology surrounding the emergence of intellectual property or copyright, which Foucault located between the late eighteenth and early nineteenth centuries and described as a symptom of a rising bourgeois society which valued individualism and private property. Chartier shows that copyright emerged earlier, in early eighteenth-century England, as a result of legal maneuvering by London booksellers to maintain their system of privileges, and therefore did not coincide with the bourgeois imperatives of the free market. The second correction regards the chiasmus Foucault suggested around the existence of proper names in two discursive modalities; he stated that until the eighteenth century, literary discourses relinquished the proper name, unlike scientific discourses, while this situation was reversed from the seventeenth century. Chartier, in turn (2012), pointed out difficulties differentiating scientific from literary discourses up until at least the eighteenth century, showing that between the seventeenth and nineteenth centuries both anonymous literary discourse and scientific discourse with attribution of proper names circulated, although according to different schemes of authorship.

Chartier’s historical research on the issue of authorship not only led to rectifications of Foucault’s text, but also propositions. In this sense, through attention not only to the order of the discourse but also to the order of the books, shedding light on cultural practices that involve writing, editing, and reading printed material, the historian believes that constitution of authorship also involves strategies that certain individuals may use in an attempt to gain recognition for their authorship within a social configuration. Chartier (2012, p.32-33) concludes: “The existential and phenomenological reality of the subject is then the condition of the very possibility of the literature, of the work, of the author.”

The problem of constituting authorship through practices on the part of individuals in the areas of writing, editing, and receiving a text became especially important for studies devoted to the history of science. According to Mario Biagioli and Peter Galison (2003), scientific authorship corresponds to a major issue in contemporary science, continually challenged by legal conflicts related to intellectual property and patents, by controversies around plagiarism, and particularly by the impasses which the publishing system has

generated within natural and biomedical science, where articles can have more than one hundred authors. These problems that characterize the present era have propelled several research fronts, notably the so-called science studies. Researchers in this area, who dedicate themselves to historical analyses of authorship in science from the so-called Scientific Revolution (sixteenth and seventeenth centuries) until the present, have emphasized scientific practices and the laws that govern them: places of production, working mechanisms, conceptions of proof, and conduct to validate and distribute credit (Pestre, 2006). For example, this approach brings along with it mutations of the science author, from the validation system typical of the court society, where authors linked themselves to the names of high-status aristocratic figures, to the individualization of the scientist's own name starting in the Enlightenment, up through the multiple-author system that reflects an intricate division of contemporary scientific work (Chartier, Faulhaber, Lopes, 2012; Biagioli, Galison, 2003).

The concept of the scientific field developed by the sociologist Pierre Bourdieu is also relevant in studies on the constitution of authorship in science. For Bourdieu, the monopoly on authority or scientific competence, from which the status of the scientific author clearly results, is the product of how this field is structured and functions, a field comprised of a system of relative positions between its agents which are crisscrossed by power relationships, struggles, and strategy. It is within this circumstantial arrangement, in which scientific capacity and social power overlap, that those who occupy prominent positions in the field grant other agents in the field the ability to speak legitimately, making them recognized authors, in other words, endowed with prestige, reputations, celebrity, and "scientific capital." "to accumulate [scientific] capital is to make a 'name,' one's own name, a name that is known and recognized, a mark that immediately distinguishes its bearer and visibly rips him away from an undifferentiated background, unnoticed, obscure, in which a common man is lost" (Bourdieu, 1983, p.132).

In the wake of these debates, this present article seeks to present some reflections on scientific authorship in a work which enjoyed significant editorial success in imperial Brazil: *Dicionário de medicina popular* (*Dictionary of popular medicine*), by the Polish physician Pedro Luiz Napoleão Chernoviz (1812-1882). This present study is based on analysis of the successive editions of this dictionary, particularly the covers, title pages, dedications, and excerpts, also takes a brief look at another medical dictionary of the same period (by the physician Theodoro Langgaard), and is divided into three sections. The first section reflects on Chernoviz's position within the regimes of authorship and attribution of his name in the science which prevailed in the medical field of Rio de Janeiro at that time. Next, we examine the Polish doctor's reasons for publishing a book popularizing medical science at a time when the medical field (which provided the recognition Chernoviz required as a scientific author) fought to make the exercise of medicine more exclusive. Finally, we suggest new meanings related to Chernoviz's scientific authorship from reports on the uses and readings of the *Dicionário de medicina popular* by an audience comprised of medical students and even medical professionals throughout the book's successive editions.

Chernoviz and the regimes of scientific authorship in imperial Rio de Janeiro

Between the mid-nineteenth century and the first decades of the twentieth century, the name Chernoviz appeared frequently in sources addressing medicine, from literature to memoirs, from the medical press to widely-circulating newspapers, from official papers on hygiene to work by folklorists.² According to Maria Regina Guimarães (2005), Pedro Luiz Napoleão Chernoviz (adapted from Piotr Ludwik Napoleon Czerniewicz) was born in Lukov, Poland, in 1812. He was a medical student at the University of Warsaw, and was forced to leave his country after participating in an uprising against the Russians in 1830. He fled to France, where he completed his studies at the Montpellier School of Medicine in 1837. He arrived in Rio de Janeiro in 1840, and later that decade he married Julie Bernard, a Brazilian of French descent, with whom he had six children. In 1855, he took his entire family to Paris, and died in Passy, France, in 1881.

Still according to Guimarães (2003), of all his activities in Brazil, Chernoviz became most famous for publishing the *Formulário ou guia médica (Prescription vade mecum or medical guide)* and the *Dicionário de medicina popular*, with the first editions of these works appearing in 1841 and 1842, respectively. The former was reprinted 19 times until the early twentieth century, while the latter was published in six editions, demonstrating the degree of success achieved by the text. It appears that publishing books on medicine was one of Chernoviz's goals ever since he arrived in Rio de Janeiro. In a letter to a Polish correspondent cited by Guimarães (2003, p.61), the doctor wrote: "When I arrived here, I realized that this work [the text does not specify whether this refers to the *Formulário* or the *Dicionário*], applied in Brazil, could be very useful, since it would fill this gap that exists on the subject in Portuguese." Therefore, while Chernoviz was establishing himself as a physician (with a clinic on Rua da Alfândega and later on Rua do Sabão), he also made efforts to penetrate the scientific networks in which medical authorities and the authorship of medical texts were developing.

One of his first actions was to participate in the imperial institutions of science, especially the Imperial Academy of Medicine (Academia Imperial de Medicina). Founded in 1829 as the Society of Medicine of Rio de Janeiro (Sociedade de Medicina do Rio de Janeiro), this institution became an imperial body in 1835, when its governance was assumed directly by the Ministry of Imperial Affairs. The Academy received grants from this ministry to conduct its activities, which principally involved promoting discussions and providing guidelines for public health policies, preparing annals and/or journals to publicize its activities, and controlling the practice of medicine and the sale of medications (SMRJ, s.d.).

The integration of this medical association into the state bureaucracy is an example of the imperial government's close ties to the sciences in general (beyond just medicine), especially under Dom Pedro II. Although this closeness between the State and science implied government support, especially financial aid to develop scientific fronts in Brazil, it also to some extent corroborated a sociability typical of the imperial court for the scientific fields that developed throughout the nineteenth century. In this sense, what Manoel Guimarães (1988, p.5) wrote for the Brazilian Historical and Geographic Institute (Instituto Histórico e Geográfico Brasileiro, IHGB), which was founded in 1838, could also

apply to the other institutions of knowledge within the so-called Second Reign, including the Imperial Academy of Medicine: it was an “academic space for those chosen and elected according to their social relationships, in the mold of the enlightened academies which reached their peak in Europe in the late seventeenth century and eighteenth century.”

Chernoviz understood how the imperial field of medicine worked, and wasted no time in cultivating personal relationships with prominent names in the Imperial Academy of Medicine such as José Francisco Xavier Sigaud (1796-1856), a Frenchman who was a founding member of the institution and physician in the Imperial Palace. Equally important for the Polish doctor was his closeness with J.M. Faivre (1795-1858), a French physician who published a short biography of Chernoviz in the *Revista Médica Fluminense (Rio de Janeiro Medical Journal)* in September 1840 when the *Formulário* was published, and supported Chernoviz's candidacy as a full member of the Imperial Academy of Medicine after presenting a text entitled “The use of silver nitrate in diseases of the urinary tract.” Chernoviz soon became known to the emperor himself, and dedicated the first edition of the *Formulário* (Chernoviz, 1841) to the monarch and to those who were decorated as Knights of the Order of Christ (Guimarães, 2003).

An important part of this network of relations which Chernoviz constructed within the scientific institutions of that time helped establish his authority, lending his works truth and respectability and making him a recognized author, which is reflected in both the title pages and dedications of the *Formulário* and the *Dicionário de medicina popular*. On the front pages of both books, Chernoviz's name is always accompanied by the decorations he received directly from Dom Pedro II. The 1841 and 1860 editions (Chernoviz, 1860) state “Pedro Luiz Napoleão Chernoviz. Doctor of Medicine, Knight of the Order of Christ;” in the following decade, the title of “Official of the Order of the Rose of Brazil” was added in 1870 and 1878. The dedication to the emperor in the first edition of the *Formulário* in 1841 is noteworthy (Guimarães, 2003). Another appeared in the second edition of the *Dicionário de medicina popular* in 1851:

To the Excellent Doctor
Joaquim Caetano da Silva
Rector of the Imperial College of Pedro II,
Journal of the Imperial Order of the Rose,
Knight of the Order of Christ,
Member of many scientific societies,
Both Brazilian and abroad etc. etc.,

Offered as proof of great esteem.
Your very appreciative friend
Pedro Luiz Napoleão Chernoviz (1851, s.p.).

It should be noted that Joaquim Caetano da Silva (1810-1873) was Chernoviz's contemporary at the Montpellier Medical School, where both graduated in 1837. When he returned to Brazil, Caetano attracted notice from the imperial institutions of knowledge, teaching classical languages at the Colégio Pedro II (where later became rector) and conducting historical research at the IHGB, where his work addressed Brazil's borders with

Guyana; he wrote a text on this topic which was read directly to the emperor in 1851, the same year that the second edition of Chernoviz's *Dicionário* was published and dedicated to Caetano. He was a major figure in science and politics at a crucial moment, when the nation's borders were being defined more accurately (Guimarães, 1988). The relationship between both doctors most likely dated back to their university days, and may have helped Chernoviz position himself within the scientific and political environment of the court and establish his scientific authorship.

The reference to prestigious names in politics, letters, and science (whether on the title pages or in the dedications of Chernoviz's books) seems to indicate characteristics of the court regime which was initially developed in seventeenth-century Europe. Historians such as Paula Findlen (1993), Mario Biagioli (1993), and Steven Shapin (1988), who study scientific practices of the sixteen-hundreds in Italy and in England, found a particular function of the proper name which labeled a text, a statement, or a scientific experiment. The highlight was not necessarily given to the man of science, but to the "name of that person who had sufficient authority to proclaim what is true in a society whose hierarchy of orders and power is simultaneously a hierarchy of social positions and of the credibility of the word" (Chartier, 2012, p.52). In this regime of authenticating the truth, the rhetoric of congratulations, distinctions and dedications, authorship was for the most part localized in the sovereign or high-ranking aristocrat to whom the scientific discourse was dedicated, and not in the person who effectively produced this discourse. Chernoviz was attentive to the importance of signs of aristocratic authorship in imperial scientific circles; "for reasons of credibility or social protection" (Chartier, Faulhaber, Lopes, 2012, p.108), emphasis was placed on certain names considered qualified to tell the truth.

However, everything indicates that during this same period, the medical field took important steps toward autonomy of the social and political hierarchies. Several doctors attempted to affirm imperial medicine as a structured and differentiated social sphere, devoted to a specific object, with its own operating rules and agents who held more or less defined positions (Bourdieu, Chartier, 2011, p.57-68). In the case of the Imperial Academy of Medicine, this would be:

A relatively autonomous space differentiating itself from other more contentious arenas in the socio-cultural environment of the Empire. Within this microcosm which was not devoid of power relationships, hierarchies and concentration of power, the triumph of an opinion was expected to correspond to the triumph of arguments, statements, and rebuttals which followed the epistemic rules of clinical anatomy and the medical topography, which in turn followed procedures for universal validation (Edler, 2001, p.117).

This understanding became fertile ground for discourse that was sensitive to a separate authorship regime not linked to the credibility of the aristocratic hierarchies, but rather to "compatibility with a body of previously constituted knowledge" (Chartier, Faulhaber, Lopes, 2012, p.53). In other words, proof, validation, and the truth are moved from the dynamics of court reverence to an independent and autonomous space, mobilizing their own criteria, instruments, and measures of objectivity. A path opened towards a system of authorship and discursive validation based on the individualization and authority of the

man of science, highlighted uniquely in a way that could not be separated from his own name, which also encompassed skills recognized by his peers (Licoppe, 1996).

It is possible that Chernoviz merged these two regimes of scientific authorship in his books. This allowed the names of eminent men in Brazilian imperial society to validate his discourse, and also utilized mechanisms which emphasized the doctor's own name in producing value and truth within his work, in agreement with the scientific assumptions of an autonomous field of medicine. In the latter case, the prefaces in Chernoviz's texts are eloquent, and he makes successive references to his professional competence, assured by his years dedicated to practicing medicine with attention to scientific advances in the modern field. In his preface to the fourth edition of the *Dicionário de medicina popular*, dated 1870, he writes:

Since 1842, the year in which the first edition of this work was born in Rio de Janeiro, medicine has made much progress; new medications have been introduced into medical practice, the treatment of many diseases has been modified, and I even acquired greater experience during this long period of time. ... I hope that this issue will be even more appreciated for being more complete. It is the fruit of my ongoing studies and 35 years of medical practice (Chernoviz, 1870, p.5).

Therefore, in Chernoviz's works the interplay between this dual system of scientific authorship which is found in the title pages, dedications, prefaces, and throughout the text itself, one moment aristocratic and then individualized, was attentive to how the medical field operated in imperial Rio de Janeiro. This operation that required reverence for the politically prestigious, then individual mechanisms of affirmation, in line with the eminently scientific principles authorized by the field.

Popularize medicine, but protect the exclusivity of the physician

There is one detail that makes the *Dicionário de medicina popular* unique among Chernoviz's works: this medical text was not directed at readers within the field. Rather, it was directed at a lay public outside the scientific field.³ In attempting to speak directly to the uninitiated reader, this book fits into the genre of scientific disclosure or popularization, a genre which incidentally was very common in Brazilian publishing starting in the nineteenth century, with representative texts often distinguished as "popular."⁴

The first edition of the *Dicionário*, "In which [the following] are described, in language adapted to the intelligence of people unfamiliar with the art of healing: The signs, causes, and treatment of diseases; first aid that should be given in serious and sudden accidents" (Chernoviz, 1851, s.p.),⁵ resembled several other works of scientific dissemination from this period in which the adjective "popular" seemed to point in two directions. On the one hand, it indicated the text's target audience, vaguely defined as "people unfamiliar with the art of healing;" on the other hand, it indicated the exclusion of this audience from full mastery of medical science, which could be accessed only partially through a strategy of translation and adaptation of language (Bensaude-Vincent, 2010; Fox, 2012; Raichvarg, Jacques, 1991). Following the reflections of Michel de Certeau (1995, p.56),

“popular” is the result of a negation. This gesture of separation and exclusion, first and foremost, says more about those who undertake it than about what is denied under the guise of “popular.” This generally addresses an operation that is “reserved for scholars,” distinguishing a body of practices that should be conquered, and necessarily disqualifying anything that can express this difference. Therefore, Chernoviz’s scientific dissemination of medicine assumed (based on the “popular” in the title of his dictionary) that there was a group of men of science who were in a position of superiority in relation to other men who did not participate in the field of medicine.

Starting out from the fundamental principle of differentiation, autonomization, and authority of the medical field, from which flowed the overarching rule that its agents had the exclusive right to practice medicine, Chernoviz’s dictionary paradoxically informed medical practices outside the community of physicians. This was somewhat threatening in the particular case of medicine in imperial Rio de Janeiro, which among its other platforms placed significant emphasis on controlling the practice of medicine. Growing efforts to hunt down quackery (broadly defined as the practice of medicine by unaccredited men and women) in order to defend the exclusive role of doctors in delivering healing and prevention created a complicated situation for texts by representatives of the medical field who were committed to spreading health advice among the uninitiated. By bringing his *Dicionário de medicina popular* to an uninitiated audience, Chernoviz could theoretically have faced negative consequences from the medical field in which he was attempting to position himself through his authorship.

What arguments did Chernoviz utilize to stay in line with the medical field in terms of the exclusive nature of medical practice, to avoid the threat to his scientific authorship which stemmed from targeting an uninitiated audience for his *Dicionário*?

The first argument was based on a cause embraced by men of letters and sciences (at least in Europe since the mid-eighteenth century), namely to instruct or civilize “the people” on the basics of various fields of knowledge. This instruction often came through books, among other means (Guimarães, 2005; Raichvarg, Jacques, 1991). Therefore, in the case of medicine, in the preface to the first edition of his *Dicionário de medicina popular* in 1842, he wrote:

Just as the full exercise of medicine requires profound study and delicate criteria, it is no less true that knowledge about many things related to the art of healing can easily be acquired by all men, and through very simple concepts can be made useful to society. ... It is correct, therefore, that there are things that should be known to all men, and that all work which is meant to popularize medicine will always be a true service to humanity. This is the reason that led me to undertake the work that today I am presenting to the public. The usefulness of similar works has always been recognized, and in lands which have many doctors men of distinction have published texts on medicine for ordinary readers, with widespread approval (Chernoviz, 1851, p.10-12).

Chernoviz revealed universal access to knowledge, one of the basic principles of the Enlightenment movements, as a cause for men of science. From this perspective, the dissemination of medicine was a duty of the medical field and not necessarily a threat. According to this reasoning, the authority of medical science was protected, and the regime

of scientific authorship was maintained along with the truth of their statements, even if these were adapted for and directed at the uninitiated. Furthermore, we should not neglect the Polish physician's commitment to the construction of Brazil at a time when this idea was strongly linked to demographic growth.⁶ The *Dicionário de medicina popular* was part of this effort by reducing mortality rates, preparing readers to assist in cases of "sudden and unexpected accidents that require the swiftest of aid" and to practice "guidance to maintain health and prevent diseases" (Chernoviz, 1851, p.9-10).

Chernoviz's second argument justifying his work was based on the scarcity of doctors in the Brazilian Empire. One of his goals for the *Dicionário* was to make up for this scarcity:

However, many villages and farms in the interior of Brazil are very far from where doctors live; many ships are entirely deprived of their ministrations: to me it seemed indispensable to develop this book further, indicating to people unfamiliar with the art of healing what they can find in these cases, the treatment of diseases, in language adapted to their intelligence, and providing them the clarifications which may be useful (Chernoviz, 1851, p.11).

In fact, until the end of the nineteenth century, physicians in Brazil were few and concentrated in Rio de Janeiro and Salvador, where the country's only two schools of medicine were located (Guimarães, 2008). For Chernoviz, the lack of doctors in other urban centers and rural regions reinforced the need for his dictionary, and also hinted at the possibility that once any reader handled the book, a doctor would no longer be necessary. Clearly aware that this idea could emerge, the Polish doctor clarified that his *Dicionário de medicina popular* did not threaten the exclusivity of professional representatives of the medical/scientific field since it presented controlled instruction, protecting the diagnosis and treatment which was exclusive to physicians from lay practice:

You need only learn to distinguish between what people unfamiliar with the art of healing should know and what is useless and even dangerous to want to teach them. I religiously observed these limits and believe that I have avoided the disadvantages that the reading of medical texts can expose, and I hope that the more rigorous doctors who might be startled by the title of this work will not find anything to haunt their conscience (Chernoviz, 1851, p.11).

Through these two major lines of argument, which are explained thoroughly in successive prefaces to the *Dicionário*, Chernoviz attempts to protect himself from potential criticism by the medical community in the imperial capital stemming from his editorial attempt to popularize medicine. The author ran the risk of earning the disdain of the medical-scientific community because of the book, risking his position in scientific authorship and the value of his statements as truth, but Chernoviz's dictionary gathered a series of attributes that acted to strengthen professionals and medical institutions in Brazil. By familiarizing the reader with the basic principles of medicine, the *Dicionário* allowed him to "combat errors which are harmful to health and prevail in different classes of society, and to safeguard the public against quackery" (Chernoviz, 1851, p.10), thereby strengthening the authority of physicians, who in the text would have more of an assistant than a competitor.⁷

A book popularizing medicine and a training manual for doctors

It was not long, however, before Chernoviz's arguments became the target of criticism. Some censure came from Theodoro Langgaard (1813-1883), a Danish doctor who arrived in Brazil in 1842 with the goal of studying tropical diseases. After some travels, he settled in Campinas in the state of São Paulo. When Chernoviz moved to Paris in 1855 and established his own publishing house there, leaving behind the editing company run by the Laemmert brothers, the Laemmerts asked Langgaard to write a similar text to compete with the Polish doctor's dictionary. Consequently, the *Dicionário de medicina doméstica e popular* (*Dictionary of domestic popular medicine*) appeared in 1865, with a second edition in 1873, and the *Novo formulário médico e farmacêutico ou vade mecum medico* (*New medical and pharmaceutical form or medical vade mecum*) appeared in 1868, followed by two more editions (Guimarães, 2003).

Although it had circulated in the imperial court networks of letters and sciences, collecting imperial decorations (as seen in the title pages) and solidifying personal relationships with important personalities within the institutions of medical knowledge (for example, the physician Cruz Jobim, founder of the Imperial Academy of Medicine and director of the Rio de Janeiro School of Medicine from 1842 to 1872), Langgaard did not express a desire to reconcile his text publicizing or profaning medicine with the regimes of scientific authorship, aristocratic or individualized, which prioritized the defense of the prerogatives considered exclusive to the medical field in Brazil. Even more, in his forewords to the *Dicionário de medicina doméstica e popular* he not only avoided endorsing privilege around the figure of the physician but also directed criticism at texts popularizing medicine which did not properly recognize the limits of medical practice in the Brazilian Empire:

I am aware of some works of merit on popular medicine in Portuguese, but I think that these works may not correspond in all respects with the goal we have in mind. Their authors, forgetting the absolute lack of doctors in vast regions of the interior, limit themselves to prescribing and dictating the most urgent advice, recommending the continuation of treatment in the presence of the physician, who is often impossible to find when in a region 20, 50, or more leagues [distant].

In order to fill this gap, my goal was to publish this present work which I presented as a dictionary, because it seems most suitable for the non-professional man to orient himself among the vast arsenal of medicine, and I am convinced that I have reached my goal (Langgaard, 1865, p.7-8).

According to Langgaard (1865), in addressing the Brazilian reality of the nineteenth century, the text disseminating science does not work in collaboration with the figure of the physician to provide uninitiated readers with advice and health recommendations, since in most circumstances this figure was non-existent. In this case, a book, more specifically the *Dicionário de medicina doméstica e popular*, played the role of the physician, and therefore should provide access for its readers to as many weapons from modern science's medical arsenal as possible.

The quoted passage raises the possibility that Langgaard's attacks may have directly targeted Chernoviz. The preface to the 1868 first edition was repeated to the letter in the

next edition in 1873, suggesting a broadening of his audience. Chernoviz's reply (1878, p.5) appears in the preface to the fifth edition of his *Dicionário de medicina popular*, in 1878:

The first edition of this work, which I published in Rio de Janeiro in 1843 [sic], when I was very young and only trained as a doctor of medicine, consisted of two volumes and a total of 948 pages. It was comprised of concepts of hygiene, the treatment of less severe diseases, and recommendations for first aid which should be applied in urgent cases before the doctor arrives.

The work was immediately well accepted, but many people complained that it was incomplete; and a distinguished physician published, saying that by limiting myself to the most urgent advice and recommending continuation of treatment in the presence of the doctor, I was neglecting to recall the impossibility of finding a candidate in the interior of Brazil in a region 10, 20, or more leagues [distant]; and that consequently my dictionary had gaps to be filled.

I was therefore obliged to further develop my initial work.

Among the reasons for Chernoviz's reply may be a certain hesitation to lose a significant share of readers to Langgaard's text, a portion of the population who were aware of how rare physicians were and would appreciate a text openly committed to instructing as completely as possible on the prevention and treatment of diseases.

It is important to remember that at that moment, Chernoviz was living in Paris, where he published his texts in his own publishing house. Having reached five editions of the *Dicionário de medicina popular* and nine editions of the *Formulário ou guia médica* in just over 35 years, he was far from vulnerable in the Brazilian book market and had also penetrated the Portuguese market. He also planned to expand his texts into other countries, creating the first Spanish editions in the following years: the *Dicionário* in 1879, and the *Formulário* in 1880. In order to ensure the value of his name, Chernoviz (who was already consecrated by the general public) seemed to do without updated validation by the medical community in Rio de Janeiro, which he had judged a good setting to begin his editorial ventures. This is also corroborated by the fact that he had dissociated himself from the Imperial Academy of Medicine as of 1848 (Guimarães, 2005). In this context, it would be reasonable to assume that because of a commercial interest then threatened by a competing project, the Polish doctor would be willing to forgo the rhetorical expedients which endorsed his authority and authorship linked to the medical-scientific field and openly take the position that the book could indeed dispense with the physician; his statement moved from a logic of complementarity to a logic of substitution.

Nevertheless, in the same preface to the 1878 edition of the *Dicionário de medicina popular*, Chernoviz writes in the passage following the text cited above (1878, p.7): "It is not my intention to persuade [readers] that the use of a book can dispense with the doctor: medicine is a science which is so extensive, and requires such lengthy practice, that we cannot replace the educated man who enshrines its practice." Although earlier he had acquiesced to Langgaard's critique by stating that the book could (or should) take precedence over the physician, he now took the opposite perspective. How can we understand this contradiction?

There is a naturally pertinent reading that alongside his commercial interests, Chernoviz cultivated the appreciation of his professional identity, which would explain the prerogatives he insisted on giving the figure of the physician. But it seems there is another explanation due to a new fact, or at least one that was only noticeable after the late 1860s: Chernoviz's *Dicionário de medicina popular* not only served lay readers, but became particularly interesting to initiated readers, who were mentioned in the prefaces of the text from that time onward. In the fourth edition of the work (Chernoviz, 1870, p.7), the Polish doctor writes: "Although this work is intended for use by families, it will also not be without use for doctors: it can serve them as a compendium of practical medicine." In the following edition, in 1878, he adds: "This work is intended to disseminate accurate notions about medical science among people unfamiliar with medical practice; but it will also be useful to doctors and particularly to new doctors; medical students will find elementary notions within it" (Chernoviz, 1878, p.7). The idea persists until the sixth and last edition of 1890, in which the prologue stated that the text could be "usefully consulted not only by all those who want to instruct themselves, and in cases of urgent need assist their peers, but also by men of science, by doctors" (Chernoviz, 1890, p.5).

With regard to imperial medical education, it is known that the medical schools founded in Rio de Janeiro and Salvador in 1808 were based on the anatomical/clinical paradigm of training which was rooted in the hospital experience (Kemp, Edler, 2004). But everything indicates that these colleges faced a number of difficulties because of the lack or unavailability of hospitals where doctors-in-training could closely follow patients and their diseases.⁸ As a result, the learning remained largely theoretical. In this sense, reading books on medicine written in Portuguese which provided the slightest notions of the medical reality within the country, or at least in Rio de Janeiro (reporting the most common diseases, treatments proven effective etc.), such as in the case of Chernoviz's *Dicionário de medicina popular*, seemed to be of great value for medical students as well as more experienced doctors.

With regard to the functionality of Chernoviz's dictionary as a scientific manual for the training and/or professional development of Brazilian physicians, Betânia Figueiredo (2005, p.72) states:

There is a conflicting relationship between the formal structures of medical knowledge and the practices of men like Dr. Chernoviz and the circulation of their manuals. Although the formal spaces of education and professional accreditation disqualified the movement to popularize medical knowledge from the circulation of manuals directed at the lay public, in an attempt to strengthen the field of doctors trained in the academies, a culture is still being forged in that area which allowed many doctors and pharmacists to utilize these texts, and to some extent these texts fulfilled the role of providing some desired information.

In this sense, the fact that the book responded to demand from an initiated reading public explains why the Polish doctor (unlike Langgaard) avoided any uncomfortable situations and maintained his position in line with the imperial medical community. Therefore, at this time it involved nothing more than receiving the approval of the scientific field, in a type of rite of passage or initial stage in order to penetrate the editorial scene with

the necessary attributes of a science author, even if he authored a text that popularized medicine. From this point he concerned himself with remaining on the editorial scene, maintaining his scientific authorship; once this was done, he was worthy of recognition not only by the laity, but among medical students and experienced doctors.

As we can see, this situation created by the formation of a (perhaps unexpected) reading public led to new motivations and new directions for the establishment of Chernoviz's scientific authorship throughout the editions of the *Dicionário de medicina popular*.

Final considerations

During the second half of the nineteenth century, the still-developing character of the Brazilian medical field seems to reflect difficulty differentiating two extremes: the political court sociability that prevailed in the imperial scientific institutions, and the practices all men could and should undertake in terms of health care. This contrast explains why one single text, the *Dicionário de medicina popular*, both profaned medicine and served as a manual for professional training and/or development.

Noting this configuration, Chernoviz attempted to use it thoroughly, simultaneously absorbing both uninitiated and initiated readers. By diversifying the audience of his text, the Polish physician also saw the need to make his authorship function in different ways. Initially, Chernoviz mobilized the courtly elements of scientific authorship to enter the editorial scene; this was more evident in the first editions of the work, which directly or indirectly used great names in the imperial hierarchy to confer esteem on the dictionary. At the same time, the author gradually assumed an individualized authorship focused on his own name, based on the criteria of proof which were derived from an objectivity established within the medical field, which wished to be autonomous and differentiated.

It is important to emphasize that all this activity was necessary, even for a text aimed at uninitiated readers; this incidentally allowed the text to avoid confrontation with the medical field, since it was making crucial efforts at that time, namely fighting for exclusivity in the exercise of medicine, while also providing minimal control by the scientific community over what was being profaned.

Next, in observing that initiated readers in the medical field (both professionals and students) were among his readers, Chernoviz sought to include them, extending his rhetoric praising the field, especially with regard to the exclusive practice of medicine. At the same time, he benefited from his status as a scientific author who formed and informed not only laymen but men of science.

In short, by starting with Chernoviz's *Dicionário de medicina popular*, analysis of the problem of constituting scientific authorship (which was indicated as a function of discourse by Michel Foucault (2009) and developed as historic production related to agents in a scientific field through studies by Roger Chartier (2012), Chartier, Faulhaber, Lopes (2012), and researchers identified in science studies, generally informed by the sociology of Pierre Bourdieu (1983) shows the relations forged between authors of medical texts and the agents that comprised the nascent medical/scientific field in imperial Brazil. These relationships were originally seen to be threaded through with tensions between the exclusive practice

of medicine and a plan to popularize science; they ended up demonstrating insufficient differentiation in the medical field, in which actors (whether in training or already with some experience) used Chernoviz's dictionary as a professional reference manual.

NOTES

¹ In this and other citations of texts from non-English languages, a free translation has been provided.

² In the area of literature, for example, his name appears most notably in the romance *Sinhazinha* by Afrânio Peixoto (1962), and in Monteiro Lobato's book of stories entitled *Urupês* (1978). He appears in memoirs in *Meu mundo é uma farmácia* (*My world is a pharmacy*) (1948) by Figueiredo Filho, which describes the 1920s, and *Recordações de um boticário* (*Memoirs of an apothecary*) (1980) by Antenor Gomes de Barros Leal, which depicts the 1930s and 1940s. The folklorist Eduardo Campos cites the work of the Polish doctor in *Medicina popular do Nordeste* (*Folk medicine of the Northeast*) (1967). In the state of Ceará, the journal *Ceará Médico* (which circulated from 1910 to at least 1960) contained texts citing Chernoviz's *Dicionário*. The dictionary in question is also mentioned in the Regulamento da Diretoria Geral de Higiene do Ceará (Regulations of the Ceará General Board of Health), which dates back to 1919 (Ceará, 1919).

³ Besides these texts, Chernoviz also wrote *História natural para meninos e meninas de 7 a 15 anos* (*Natural history for boys and girls aged 7 to 15*) in 1862, and *Modo de conhecer a idade do cavalo, do burro, das bestas muars, do boi, do carneiro, da cabra e do porco* (*How to tell the age of horses, donkeys, mules and hinnies, cattle, sheep, goats, and pigs*) in 1866 (Guimarães, 2003).

⁴ As Débora Macambira (2010, p.198) notes, "It is the library of the people and the schools, with more than two hundred books edited; the Popular Natural History, the People's Encyclopedia, the popular works of Jules Verne, in reprints which demonstrate the wide acceptance of these works over decades."

⁵ We did not have access to the first edition of the work, dated 1842, but its preface is republished in the next edition from 1851, along with the preface to the second edition.

⁶ Several studies about the history of childbirth, newborn care, and early childhood between the second half of the nineteenth and early twentieth centuries developed this issue of constructing the nation and reducing mortality rates, especially for mothers and children; for example, see Mott (1999).

⁷ Natalie Zemon Davis (1990, p.184), addressing the impact of the printed word in regions of France in the sixteenth century, states "But the printed word also permitted the establishment of new forms of control over the thoughts of the people. Again quoting the physician and translator Pierre Tolet: 'If you want an employee to follow your orders, you cannot give them in an unknown language.' The objective of Joubert and other profaners [of medicine] was not to eliminate the distinction between those who know and those who do not know, nor to weaken the medical profession. It was take the surgeons out of their 'routine unlettered practice' at the same time that they defined their field, keeping even the most skilled among them under the authority of the physician. It was to bring people to a better understanding of how to take care of themselves, at the same time they more effectively convinced them to follow medical orders."

⁸ The Bom Retiro reform (also known as the Couto Ferraz reform) instituted by Decree n.1387 of April 28, 1854, made changes in the two imperial medical colleges to follow the French Napoleonic model. "With the lack of teaching hospitals, the law ordered the boards of the colleges to create agreements with the Santas Casas da Misericórdia [charity hospitals] to use of their wards and other establishments to conduct their work in dissection and autopsies" (*Escola de Cirurgia...*, s.d., p.18). But up until 1860, at the Bahia Medical School "There were complaints by members of the Association related to the lack of resources to carry out the proposed practical studies" (p.20). The school in Rio de Janeiro during this same period considered that "Practical teaching, however, was still in its infancy, with only a small chamber for practical demonstrations, a room for dissections, and one or two microscopes" (*Escola Anatômica...*, s.d, p.9).

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