Androphobia, Demasculinization, and Professional Conflicts
The Herstories of the Physical Therapy Profession Deconstructed

Anders Ottosson

Research on the beginning of the physical therapy profession in different countries often identifies it as a traditional female occupation. Its original semiprofessional character is also pointed out. It lacked professional attributes with masculine connotations, such as a high degree of autonomy and a unique scientific body of knowledge. But on all accounts this understanding is wrong. Originally the profession was an occupation for men only, who were very professionally independent and in charge of a state-sanctioned science of their own. Yet no modern physical therapists know about this, and neither do scholars studying the profession's origin. Why is that? The aim of this article is to highlight the gender mechanisms shaping a discourse strong enough to change our historical consciousness, in this case preventing us from seeing the masculine context out of which the physical therapy profession grew. The analysis explaining the phenomenon centers on two gender-altering and conflict-laden processes, one that was homosocial (men against men) and one that was heterosocial (women against men). Common to both was that they were ultimately powered by a fear of masculinity, here conceptualized as androphobia. Simplified the physical therapy profession came to be perceived as too masculine, and due to this its excess of masculinity was actively eliminated from the profession even in physical form (read: males). The profession was demasculinized and the same happened to its old history, which made the latter unwanted and finally obscured behind new herstories.

Introduction

A common concept is that the physical therapy profession (PT profession) came into being around 1900. In this respect, England is usually understood as its cradle because the Chartered Society of Physiotherapy (CSP) was founded there in 1894. Historical and sociological research on the origins of the profession in different countries often also assumes that it was coded feminine at first, and not only in the sense that its first practitioners were women. It has also been described as a typical semiprofession, meaning that the occupation did not meet the criteria for a full profession as defined by sociological literature (Larsen 2005; Linker 2011; Nicholls and Cheek 2006; Rogers 2014). A semiprofession lacks what gender scholars have identified as professional attributes with masculine connotations, such as a high degree of autonomy and a unique scientific body of knowledge. The characteristic femininity of a semiprofession is often contrasted with the masculinity of the medical profession. The medical profession is described as an archetype of a full profession where there is no doubt

Social Science History 40, Fall 2016, pp. 433–461

doi:10.1017/ssh.2016.13

about its free hegemonic position in the labor market and its scientific status (Davies 1996; Gilbert 2001; Witz 1990).

It has been pointed out in studies of the first physical therapists (PTs) that they were dependent on the medical profession and that the quality of their knowledge was sanctioned by it, however not as a science but as a craft essential for the successful rehabilitation of patients. Regarding the latter, not least World War I is considered a milestone for the PT profession. When all the wounded soldiers returned, the demand for PTs became huge, which doctors in particular understood. The US PT corps, for instance, came into being as a direct consequence of the war and the army's need of so-called reconstruction aides, a need that physicians identified and tried to meet (Heap 1995; Linker 2005a, 2005b).

However, the estimated age of the PT profession is not correct, a fact that has started to attract attention. The profession is nearly 200 years old and its earliest history has shown that the first PTs were actually men, not women. Not until the last decades of the 1800s did female PTs begin to appear. But the profession was not masculine only in terms of its practitioners' gender. Judged by the gendered professional criteria mentioned in the preceding text, the occupation was also originally coded masculine. The first PTs were seen as autonomous professionals managing a state-sanctioned science of their own. In the nineteenth century, there were even PTs with the title of professor, and some successful clinics run by PTs even had qualified physicians as employees[1] (Ottosson 2010a, 2011).

Nowadays, however, these historical circumstances are usually quite unknown, even among PTs. PTs have also been described as unusually uninterested in their professional history and as suffering from "collective amnesia," in itself something of a sociological anomaly (Ottosson 2010b; Terlouw 2000). PTs seem less inclined to cultivate their history than other health care professionals. They rarely use references back in time to justify and maintain their present professional status or to strengthen their professional identity. Compared to chiropractors, the professional group closest to PTs regarding scope of practice, this becomes evident. Chiropractors even have an association with its own journal intended to "promote the scholarly recording of the profession's history."[2] And physicians are better still. It was actually they who began to frame the history of medicine as a scholarly field of research in the late 1800s.

PTs, however, as stated previously, are less interested. Why this is the case and why they do not know about their masculine past will be the empirical and theoretical focus of this article. How did this forgetfulness come about? Why is the nineteenth century not a part of PTs' historical consciousness, even though it can be described as something of a heyday for the profession? Or phrased in another way: What is it

1. On an international level there is an extensive bulk of literature on the origins and professional histories of nursing, medicine, midwifery, chiropractic, and osteopathy. Larger studies on the history of the PT profession exist but are meager in comparison, especially regarding the timeframe dealt with in this article. The most well-researched geographical areas in that respect are Holland and Sweden. See especially, Terlouw (1991); Ottosson (2005). For examples of research on PT history not paying attention to the professional tension in the nineteenth century between PTs and physicians dealt with in this article, see Guenther (2014); Schiöler (2005).

2. See www.historyofchiropractic.org/home-page-2 (accessed September 2, 2014).

that can turn a *his*tory into a *herstory* informing "us" only about the PT profession's semiprofessional features and origin thus silencing masculinity so totally that it can no longer be heard?

Extensive studies have been written about how herstory has been rendered invisible by *his*tory, that is, showing that the patriarchally organized society does not see or value what women have accomplished through the course of time (e.g., Bergquist 1992; Bradford 1996).[3] Accordingly, the intention behind this article is rather the opposite. The aim is to highlight the gender mechanisms shaping a discourse strong enough to change our historical consciousness, in this case preventing us from seeing the masculine context out of which the PT profession grew. This study also proposes that this discourse did not affect PTs only. It became so powerful that even scholars studying the profession's history have had an indisputable herstory before their eyes, making the older *his*tory almost impossible to see. Why is that?

Regarding "changed historical consciousness," the reasoning put forward here will tie in with and build upon new research claiming that PTs' disinterest in their history is a relatively new phenomenon, and that, earlier on, in the nineteenth century, they extensively and successfully used history to claim professional turf, a professional identity, and a unique scientific body of knowledge. They even claimed to have a "patriarch" of their own, from whose great genius their profession had sprung. In other words, and exaggerated for clarity, nineteenth-century PTs, regardless of nationality, sought professional security through the past. They did this by means of a historical narrative about a "founder," in the same way that nurses today anchor themselves in the present with the help of Florence Nightingale, chiropractors with David. D Palmer, physicians with Hippocrates, and osteopaths with Andrew Taylor Still.

This now silent history formerly linking PTs in different countries together into one single professional project has been identified in a Swedish and an English context, as have the gendered mechanisms that have silenced the professional project. The older masculine history has been torn up by its roots and fragmented, to be replanted with new, younger, insular herstories. Expressed differently, one history for both countries was turned into two herstories, one for each country (Ottosson 2016a). In this article, the ambition is to further substantiate these findings by expanding the geographical horizon. According to current research, the PT profession in the United States emerged after, and was shaped by, the circumstances during and just after World War I (Linker 2011). The aim of this study is to test whether or not the PT profession in the United States can be linked to the now silent masculine history of a unifying professional project with its origins in the early nineteenth century. Have US PTs suffered amnesia on similar grounds to those experienced by PTs in Sweden and England? Is there a herstory obscuring a *his*tory in the United States as well?

The answer to these questions will be a cautious "yes" that hopefully will generate interest for research that can substantiate better or challenge the suggested results

3. This article isn't the right place to elaborate on silencing in "history writing." A classic power analysis on the topic is Trouillot (1995). For an interesting methodological discussion on textual silence and on how to find what has deliberately been omitted in written text, see Hackin (2002).

and theses put forward. Among other things, it will be argued that our memory loss regarding the PT profession can ultimately be explained by studying the long conflict between PTs and physicians that started in the late 1830s. The apple of discord was consistently constituted by the different levels of discussion concerning who should be in charge of whom and who had the scientific right of interpretation. Here the conflict analysis centers on two gender-altering processes, one that was *homosocial* (men against men) and one that was *heterosocial* (women against men). Common to both was that they were ultimately powered by a fear of masculinity, in this article conceptualized as *androphobia*. For reasons that will be elaborated, the PT profession came to be perceived as too masculine, which is why its excess of masculinity was finally and actively eliminated from the profession even in physical form (read: males). The profession was *demasculinized* and the same happened to its *his*tory, which made the past troublesome and even intimidating for modern PTs to relate to (Ottosson 2011, 2016a).

Though clearly observable in both Sweden and England, it was in the former country that the androphobic processes resulted in the most extreme outcomes and measures. In the terminal stages of the professional conflict, an official Swedish governmental investigation carried out by physicians in 1930 even recommended the ruling parties to prohibit men from becoming PTs. They wanted male PTs, and the professional masculinity that they represented, to disappear from the profession. In that sense men as such had become professional factors in need of physical removal (Ottosson 2005). This androphobic dimension can therefore also be understood as something that "did gender," and the ongoing efforts at demasculinization occurring throughout the conflict were more than just performative. However, are there any indications that the preceding also came into effect in the United States? Could it be worthwhile looking for a silent masculine PT history with its provenance in the early 1800s?

In order to deconstruct the current understanding of the origin of the US PT profession, this article has been structured so as to consist of four sections. The first provides a background describing the aforementioned silent history of the PT profession, which, it should be noted, is not touched upon in existing studies on the origin of the US PT profession. The second section elaborates on the theoretical framework regarding the fear of masculinity that silenced the history of the first PTs' professional project as outlined in the first section. The analytical concepts of androphobia and demasculinization are motivated in more detail, also empirically. A fuller presentation of the current state of research regarding the advent of the PT profession in the United States constitutes the third section. The fourth and final section attempts to deepen our understanding by extending the analytical horizon in both time and space, thus uncovering in the United States the traces of the silent PT history already revealed in Sweden and England.

The Silent Masculine History of the Nineteenth Century

Working as a PT, using movements and manual techniques to treat various ailments and illnesses, was not new for the 1800s. Such practices have probably been around

since the dawn of man (Calvert 2002). However, PTs' development of a professional identity occurred for the first time during the first half of that century. It was then that their knowledge and skills became systematized and based on what was then seen as science, including anatomy, physiology, and pathology.[4]

To simplify the story, the process started in 1813 when the Royal Central Institute of Gymnastics (RCIG) was founded in Stockholm, Sweden. The institute has been well appreciated in international studies on the history of physical education and sports (e.g., Fletcher 1984; McIntosh 1957; Verbrugge 1988). It was the first state-run school for physical education teachers (PEs) who were responsible for an entire country's physical upbringing. Less known today, however, is that the RCIG was also responsible for the world's first PTs and that it legitimized their ambitious therapeutic and scientific claims. The RCIG ended up having an enormous impact on health care, also on a global scale. Up until at least 1900, the institute functioned very much as the major professional power source for all practicing PTs. The RCIG also became a scientific authority for the many physicians who relied at that time on physical therapy techniques (Ottosson 2005, 2011).

Why the medical profession showed such an interest in physical therapy was partly due to the fact that physical therapy was reckoned to be a significantly more potent remedy than it is considered to be today. Physical therapy nowadays is closely associated with rehabilitation in connection with injuries and diseases. During the 1800s, it was somewhat different. In terms of praxis, physical therapy was quite similar to today's practice—many movements and manual techniques are still in use—but it was formerly also regarded as a powerful cure against all contemporary chronic and internal diseases, including orthopedic ailments like scoliosis and clubfoot (Ottosson 2016a).

The original epistemology behind the healing powers of the RCIG's physical therapy is found in the "doctrine of harmony" that PTs based their treatments on.[5] This doctrine established that the health of the human body depended on three primary forms or so-called agents: chemistry (food, diet, and drugs), dynamics (the spiritual and intellectual environment), and mechanics (body movements, postures, and muscle work). All three were viewed as equally important as was the fact that no single agent should be dominant. If one had too much or too little of any one of them, an imbalance arose that negatively affected the "force of life." Substantial imbalance gave rise to serious illness. In short, this meant that "mechanics" could be used as effectively as "chemistry" to cure illnesses, if the balance disorder was considered to be on the mechanical side of the health equation (Bjurwill 1996; Ottosson 2013b).

Hardly surprisingly, the RCIG had its greatest impact on the Swedish medical profession. The Karolinska Institute, which today awards the Nobel Prize in medicine or physiology, was so convinced of the excellence of the RCIG's physical therapy

4. It is, of course, a simplification to say that the RCIG was the only professional root of the PT profession, but in a sociological sense it was the major one. For other contributors to the PT profession, see Terlouw (2007) and Ottosson (2011: 107–13).

5. This doctrine was a blend of the classical humoral theory still very present in orthodox medicine at the time and iatromechanics/iatrophysics. On iatromechanics see Brown (1970: 12–30).

that it lobbied on several occasions during the second half of the nineteenth century for the introduction of the science as a compulsory part of the training program for physicians. A devoted Ling physician, Dr. Gustaf Zander, was even nominated for the Nobel Prize in 1916 for his ingenious gymnastic machines that duplicated many of the manual movements and techniques used in the RCIG's physical therapy (Hansson and Ottosson 2015; Ottosson 2016c). Though not part of a faculty of medicine, the RCIG was even formally sanctioned by the government to educate "doctors of gymnastics," an orthodox "chemical" physician trained in the same mechanical manner as a PT. The physicians most influenced by the RCIG's physical therapy were orthopedists. Swedish orthopedists did not begin to abandon their therapeutic and scientific dependence on the RCIG's physical therapy until they became specialized surgeons after the turn of the century[6] (Holme 1996; Ottosson 2011).

The RCIG could attain its high status in the field of physical therapy and medicine because within its walls two historical trends were unified in a unique way, enabling them to reinforce each other. One trend was the great contemporary interest in physical upbringing, and the other what is sometimes labeled the "crisis of medicine." The latter trend refers to the harsh internal as well as external criticism that orthodox medicine was subjected to during the first half of the 1800s. Both trends were embodied in the RCIG's founder, the poet and fencing master Pehr Henrik Ling (1776–1839), a fact that also determined the institute's activities.

Regarding the first trend—the importance of physical education—Ling is still known as the "father of Swedish gymnastics." He has attracted great attention in the previously mentioned historical research on the development of physical upbringing and education. The reason for this is not only that he founded the first governmentally sanctioned school in charge of an entire country's physical education. More important still, the gymnastic system that he "invented" counts, along with German gymnastics (Turnen) and English sport as the most prolific form of physical education worldwide (Lindroth 1974; Park 2008; Pfister 2003). This is also true for the United States, which will be elaborated on in the final stage of the article.

Ling's passion for gymnastics and physical upbringing was by no means unusual. It was typical of the times. Around the turn of the century in 1800, there were a number of so-called gymnasiarchs (Gr. archeis: to rule) acting as representatives for various gymnastic systems, all of which claimed to strengthen the human body in the best possible way. The Napoleonic Wars made many nations aware of their shortcomings on the battlefield, and explanations for the crippling results were demanded. One theory that met with significant support was that the population had deteriorated, and that the men especially had become weak, both in body and soul. The means to overcome the poor standards were found in ancient Greece, where the greatest of all civilizations had arisen. The Greeks had understood the intrinsic link between

6. Orthopedists not devoted to Ling also worked heavily with PT, probably best illustrated by the German orthopedist Moritz Schreber. See Schreber (1852). A conflict between "Ling physicians" and Schreber in Germany is described in Schiöler (2005: 112–15). For an overview on how orthopedics in general shifted from conservative treatments to surgical ones, see Cooter (1993).

physical and intellectual culture as well as moral revitalization, also now much in demand (Ljunggren 1999).

Although Sweden had not directly been involved in the Napoleonic Wars, the country had nonetheless experienced perhaps its most humiliating military defeat ever. In 1809, it had lost its "eastern half," Finland, to its archenemy Russia. The nation's ego had consequently suffered deep humiliation and the need for revenge was overpowering. One can therefore understand that Ling caught the government's attention when he began to make propaganda for the necessity of starting an institution responsible for training military and civil PEs. Their assignment would be to help revitalize the decaying Swedish population and to make the nation strong enough to take back what it had lost. The RCIG's student material came to be characterized by the spirit of 1809. Soon nearly all the students were officers who had been ordered to attend the institute. The Ling gymnastic system's potential for national empowerment and martial improvement became a matter of deep-seated conviction among political decision makers and military men alike (Lindroth 1974; Ljunggren 1999).

That the RCIG became a state-supported school also for the first PTs had, however, less to do with the ardent urge for revenge, even though it indirectly helped the PT profession to get on its feet. To understand the profession's establishment and capacity to fan out over the western world in nineteenth century, two peculiarities about Ling's gymnastic system should be noted. One feature was that Ling's system, more than any other gymnastic system "on the market," managed to achieve recognition as being based on science. The other was that his system was indispensable for medicine. Ling was adamant that a rational system of gymnastics must take account of the needs of the sick body as much as of the healthy one. What was sick and what was healthy could thus not be separated from each other (Lindroth 2004: 77–121; Ottosson 2005: 78–98). They were linked organically.

Ideally, a sick patient was first treated with physical therapy and then, following improvements, gradually steered toward exercises suitable for a healthy individual. Disease was cured when a body was ready to handle different degrees of pedagogical gymnastics (physical education). Accordingly, the symbiosis between pathology and physical health meant that Ling's system also emphasized medical/remedial gymnastics or "sjukgymnastik" (the Swedish word for physical therapy), much more than other systems (Ottosson 2013b). This in its turn led to the RCIG students receiving a triple qualification. After graduation they were eligible for employment in the army, in education, and in health care. The PE and the PT were fused into one person. If he treated the sick he was a PT, and if he trained schoolchildren and military recruits he was a PE.

When women were admitted to the RCIG in 1864 they were trained in the same skills, excluding the military skills. Women's competence also had another gendered limit. They were not allowed to teach male youth in secondary schools. Their physical therapy activities, however, had no formal restrictions based on gender. In 1887 it was decided that RCIG's alumni could also apply for a governmental license to practice physical therapy (Lundqvist-Wannerberg 2004; Ottosson 2011).

However, historical research on the RCIG, Ling and his system, and, consequently, the PT profession rarely takes into account that it was the physical therapy part of the system that gave Ling's system—and the RCIG!—its scientific luster. The distinguished scientific reputation boasted by Ling's physical therapy in the 1800s, also in the eyes of many doctors, is generally passed over in historical research. Even when it's touched upon in the history of medicine it's only recognized as a kind of massage (e.g., Calvert 2002; Walkley 2004; Whorton 2002: 144) or an "illustration of a 19th century paramedical developments and sectarian trends" (Schiller 1971: 261) and not identified as something giving professional and scientific backbone to PTs acting independent in the field of medicine (Guenther 2014; Shiöler 2005). Physical therapy was, however, the scientific root of the system, to speak in Ling's terms. A closer look at Ling's many followers also reinforces this impression. Military and educational needs were, of course, always present in the rhetoric of Ling's followers, but nevertheless it is very clear that those who spread his system to other countries, Swedes and foreigners alike, relied heavily on physical therapy and its scientific aura (Hansson and Ottosson 2015; Ottosson 2011, 2013a). It was in fact only in the closing decades of the century that the RCIG began to primarily emphasize the scientific character of Ling's pedagogical gymnastics even more than that of physical therapy (Lindroth 2004).

To really understand historically the international dispersion of Ling's system the real question is, then, what was it that made physical therapy so central that it developed into a scientific professional path leading away from Sweden? Without being able to elaborate fully we need to see this phenomenon against a series of converging factors. These in their turn must be related to the aforementioned "crisis" undergone by orthodox medicine at the time when the RCIG was at its prime. Ling was only one of many who felt that medicine had to undergo changes, also revolutionary ones. His main criticism was often directed against pharmacology. This is easily recognizable in the PTs' core doctrine of harmony, previously mentioned, that is, that man's chemical and mechanical primary forms must be evenly balanced or illness would occur. Although Ling did claim that "chemistry" was as important as "mechanics," he considered the former to be harmfully dominant in actual fact, leading to a completely one-sided medical discipline. It was overdosing with chemistry while missing mechanical cures entirely (Ottosson 2011, 2013b).

As previously mentioned, Ling's (and the RCIG's) critical edge against orthodox medicine was in no way unique. During the first half of the nineteenth century, a wide range of skepticism was aimed at what conventional medicine had to offer. Doctors and laymen alike demanded reforms. In Ling's case, the main objective of the PTs' professional project was the scientific reformation of medicine toward mechanics, in grand style. An important aspect is that Ling and his followers believed that their mission was close to sacred. The PTs felt almost like crusaders destined to convert medical science into a more mechanical way of understanding and curing disease. "Chemistry" was not harmfully dominant in Sweden only, and many PTs emigrated following the call from abroad. In their international publications, there is a recurring historical narrative in which Ling is hailed as the best influence on medicine since

Hippocrates and Galen[7] (Ottosson 2010a, 2016a). In effect, the RCIG became a state-sanctioned institution with two grandiose but inseparable missions for which physical therapy functioned as a lodestar.

The ideological and epistemological beliefs highlighted here were certainly significant factors in making physical therapy, not physical education, the scientific springboard of choice for the "crusaders." However, more material factors played a part too. The creation and successful diffusion of the PT profession were probably chiefly dependent on two other factors: class and economy. The latter was, of course, extremely important. An independent income was essential for individuals propagating for more Ling gymnastics on a large scale. But, because decently paid teaching positions in physical education were a rarity until the closing decades of the century, the mission had to be funded in other ways, and patient fees were the solution. Such revenues could be substantial, and their pursuit was an incentive to travel abroad. Thus the PT clinic and the science practiced therein became the professional project's financial engine (Ottosson 2005, 2011). Only when a living had been secured treating the sick was it possible to work with the upbringing of the healthy body.

Though not considered in the previously mentioned international research on Ling, what emerged was a massive professional project centered on both the sick and the healthy body, developing and gathering economic and scientific momentum in the field of medicine. To gain even further insights into this professional project emanating from the RCIG, the PTs' class backgrounds must be accounted for. All were upper class or nobility. In that respect they often stood a notch or two above doctors on the sociocultural ladder, especially around the mid-1800s. Thanks to the state-sanctioned training that they always waved as a banner, PTs were extremely well equipped to make their voices heard. In addition, PTs had a military advantage that indirectly helped them in the hunt for wealthier patients, who were also naturally targeted for their political and social power. Ambassadors at the Swedish foreign legations were regularly military men, and they were happy to offer their services to their PT colleagues. They helped PTs gain valuable introductions to the cream of society of whose resourceful networks PTs hoped to take advantage in order to "help the cause" (Ottosson 2011). Consequently, the mantra of Ling's greatness as a scientific revolutionary in medicine resonated on many levels, thus reinforcing the message. With all this in mind, it becomes evident that the Ling system's great international impact would probably have been impossible without the PTs. This also includes the female PTs that started to follow in the men's footsteps, working abroad from the 1870s an onward, thereby becoming role models for a new line of work for women in the closing decades of the nineteenth century (Ottosson 2016a, 2016b).

7. Early international examples of this "history writing" are the works of lieutenants J. G. In de Betou and Carl C. Erenhoff and Lieutenant and Professor Carl A. Georgii. Also "Ling physicians" like Michael Moritz Eulenburg and Albert Neumann did the same. See In de Betou (1842); Erenhoff (1845); Georgii (1847, 1857); Eulenburg (1853); Neumann (1852).

During the better part of the nineteenth century, the RCIG and Ling were central to what has been called a "prominent discourse on Mechanical Medicine" (Ottosson 2011: 85). In the growing plethora of literature on physical medicine (electricity, hydropathy, massage, etc.) in the late 1800s, the RCIG and Ling with his physical therapy are frequently mentioned. Many of the PT schools established after 1900 had the RCIG as their role model, even abroad, and the literature used there was frequently based on Ling's physical therapy. Many foreigners had also been to Sweden or to a PT clinic abroad to train and learn. It is really not until the end of the century, when the Dutch physician Johan G. Metzger became known as the "inventor of scientific massage," that doctors got a "guru" of their own who could match Ling's reputation in the field of mechanical medicine (Ottosson 2011, 2016a, 2016c).

*

So far this article has dealt with the silent masculine PT history, but why did it become silent? As hinted at earlier, the underlying theory here is that it was silenced as a result of the professional conflict between PTs and physicians that began to develop as far back as the 1830s. The PTs eventually lost, with the outcome that the original masculine story fell into oblivion. Masculine gender, symbolically as well as physically, was actively removed from the profession. An intentional demasculinization occurred, which in two androphobic ways uprooted the profession's old shared masculine history, to be replanted globally with the new seeds of young feminine herstories (Ottosson 2016a, 2016b).

Theoretical Perspective

The gender perspective in this article focuses on the agents and their intentions as the center of attention, but the professional conflict analyzed here and its conclusion must, of course, also be related to structural processes. In short, society changed and the PT and medical professions and their members changed along with it. Around 1900 this contributed to the diminishing relevance of the original PT history with its accompanying "patriarch." At the same time, the conflict between PTs and physicians start to peter out. This coincided interestingly enough with the profession's incipient gender change—from male to female practitioners—and also with more PTs leaving the private market to start working in the expanding modern public health care system with large hospitals as its chief characteristic. To put it simply, there was an obvious shift of power in the doctors' favor. Crucial here was how health care was organized hierarchically. Legislation, governmental agencies, insurances, labor, and education were organized according to a pyramid in which the medical profession was able to seize all the top positions, not least thanks to its elevated scientific status. In this context we should not forget that many medical advances of the time also made physical therapy less interesting scientifically. This is perhaps best illustrated by the PTs' closest competitors—orthopedists—who progressed from being mainly ordinary conservative practitioners to

becoming specialized invasive surgeons (Cooter 1993; Holme 1996; Sturdy and Cooter 1998).

That the power of the medical profession increased from the 1850s and onward will be taken for granted here. It is not subject to analysis, but will serve to explain the result of the professional conflict. Over time, doctors grew to be too powerful, to put it simply, which meant that PTs lost and ended up as underlings. In their capacity as subordinates, PTs were no longer able to "write history" as they had in the 1800s. We know that a historical voice is proverbially reserved for winners, not losers. However, to better get a grip on the androphobic dimension behind PTs' lack of historical consciousness and the logic behind why the whole profession was demasculinized, the professional conflict must be studied at the level of those actively involved. Ultimately it boils down to how the professional conflicts and the strategies found therein can be understood in terms of gender. Before approaching the actual conflicts between PTs and physicians these need to be related to the developments of professions in the society, on a general level.

The modern meritocratic society's most advanced features are the professions. Through education and scientific recognition, they have reached an elevated expert status, which is often sanctioned by government, thus rendering their scope of practice a large degree of autonomy. It is also characteristic that the members have a strong professional identity and that they share a common set of ethical rules, an ethos (e.g., Abbott 1988; Murphy 1988; Parkin 1979). As has already been mentioned, the medical profession is the most archetypal of the professions, and there is an immense amount of literature on how its strong societal position was achieved. In this respect it has long been recognized that the professionalization process of physicians has a "Janus face." This metaphor is used to capture the fact that while the strivings of the medical profession certainly had a clear altruistic ambition—to help and serve society in the best way possible—this goal was also achieved thanks to the exercising of power (e.g., Friedson 1970; Larson 1977). Physicians had an education, a class background, and a gender that helped them take control of other related fields of knowledge and skills. Using a network of strategies, competitors' working conditions and training could be regulated and supervised, which is sometimes referred to as "occupational imperialism" (Larkin 1983). Tactics frequently used were to subordinate or exclude other groups and interests by means of explicit demarcation. A historical example of the former is how midwives and their work were made subordinate to the decisions of obstetricians. Examples of the latter are homeopaths and chiropractors. They were seen as totally undesirable and therefore pushed out to the unscientific fringe of medicine. A third way to attain medical hegemony was by inclusion, that is, competitors and their fields of activity were absorbed to become part of physicians' training/professional identity. The amalgamation of the theoretical medicine taught at the universities and the surgery learned within the guilds is an example of this. And, as will be seen, the subjugation of the PTs was a combination of all the above.

Thus the professions emerged out of an environment that both presupposed and built upon an exclusively masculine class and gender structure. The professionaliza-

tion process—the way to scientific recognition and autonomy—has for that reason been termed "masculinization"[8] (Florin 1993: 278). Analogously, the objective to improve educational standards, gain higher diplomas and qualifications, and so forth can be described as a reaching out for properties with masculine connotations. Worth emphasizing here is that professions at that time harbored a hegemonic type of masculinity. This should, however, not obscure the fact that there are also subordinate forms of masculinity based on class, sexuality, age, ethnicity, and so forth that are arranged hierarchically depending on context. The right class and gender in particular were critical to success for the formation of the professions in the nineteenth century (Glazer and Slater 1987; Witz 1992).

Homosocial Androphobia

Important to bear in mind is that the path to professional status rarely goes through a power vacuum, which not least the physicians' path to success has demonstrated. Conflicts have surrounded the process by which other interests have often reluctantly found themselves subjected to subordination, demarcation, or exclusion. However, in the present case, both PTs and physicians boasted the same professional/masculine attributes, that is, scientific rights of interpretation and autonomy. Because the PTs' professional project also displayed distinct features of "occupational imperialism" aimed at the medical sciences, a very strong hierarchal pressure consequently became manifest (Ottosson 2016a). Hence it was inevitable that there would be battles concerning who had the most right to stride around showing off "their" masculine attributes. On the symbolic level, then, it was therefore not just a power struggle between two male professional hierarchies, but also a kind of homosocial gender struggle for the professional power mediated through science. The more masculine the opponent was or became in terms of professional attributes, the greater the threat. In short, each party was afraid of the masculinity the opponent radiated or was trying to claim. Ultimately, it was an opposing masculinity that could disturb or alternatively put a stop to respective professionalization process. To overcome this fear—androphobia—the combatants needed to make the threat less masculine. It was imperative to demasculinize the enemy, thereby eliminating the hierarchal pressure (Ottosson 2005).

If the line of reasoning in the preceding text is tied more tightly to masculinity research, the androphobic dimension in professional conflicts becomes even clearer. Not only is it emphasized that there are different kinds of masculinity, but also that the construction and hierarchization of these masculinities are implemented in contrast to something else, sometimes in contrast to women, certainly, but especially in confrontations and competition with other men. At these meetings, femininity and unmanliness are created as a symbolic expression of inferiority, which also means a strategic weapon to create or maintain a position of dominance (e.g., Connell 1995;

8. It is not possible in this article to do justice to the considerable amount of research on masculinization and professionalization. For further reading see Lindsay (2007); Gromkowska-Meloosik (2014).

Connell and Messerschmidt 2005; Kimmel 1996; Tosh 2005). And that is exactly what happened when masculine PTs and doctors collided. Each group tried to convince the general public, that is, the state and the clients, that their opponents could not replace them in their professional roles, that is, that they were not masculine enough. There were two most common ways: first, accusing one another of quackery and unscientific conduct due to inadequate education, and second, invoking various forms of legal texts to support one's claims. Here, of course, state sanction was very important because virtually all kinds of professional power could be claimed through it. But both parties had the sanction of the state, which meant that the conflict became very lengthy and animated, especially in Sweden, where the PTs' professional roots were deepest and most resilient (Ottosson 2016a).

Consequently, the conflict both began and ended in Sweden, not initiated by physicians, however, but by PTs. The RCIG started a violent offensive against orthopedics, a discipline that had expanded its therapeutic horizon during the 1830s to also begin treating chronic and internal diseases with physical therapy (Holme 1996; Shiöler 2005). Because orthopedists did not have a formal qualification from the RCIG, the RCIG argued ferociously that the orthopedists were acting illegally and that they encroached on the RCIG's education monopoly. And PTs were so successful that orthopedics was on the verge of becoming extinct in Sweden in the 1840s (Ottosson 2011: 105–14). The discipline ended up therapeutically and scientifically bankrupt. PTs were the dominant factors in the context of mechanical cures, and not even the orthopedists' medical colleagues dared to counterattack. This was to slowly change when the PTs' conflict with the orthopedists was integrated into the medical profession's overall "occupational imperialism." From the 1850s it became increasingly problematic for physicians that PTs acted as independent professionals with a scientifically imperialistic agenda. In the eyes of the medical profession the field of mechanical medicine clearly had to be controlled and, as declared, PTs would finally become fenced in, and significantly so. They failed to fend off the increasingly powerful medical profession's demands for control and subordination.

This takeover seems to have occurred around 1900 in most European countries, but in Sweden it took until 1934 before the last of the PTs' professional power was reduced to nothing. The once-grand international professional project had by then been driven into retreat, back to its origin, the RCIG, to eventually be uprooted through a reorganization of that institution. To put it simply, physicians, mostly orthopedists, managed to separate the education of PTs from the education of PEs. Out of one education program came two. A new professional paradigm was outlined in which the sick body had nothing to do with the healthy. While effecting this change, physicians also managed to finally turn Ling's gymnastic system upside down. Admission requirements for PT education were set at a much lower level than for the PE program. PT education was also shortened. Two other innovations were a more intense focus on rehabilitation after surgery and a shift of responsibility regarding the prestigious medical courses (anatomy, physiology, etc.) (Ottosson 2005: 361–72). These were taken over by the Karolinska Institute. Hippocrates replaced Ling, so

to speak, a long sought-after change. Every time physicians had tried to supervise PTs, the great shadow of Ling had towered over them, even in the political process. Ling was a national icon, and his gymnastic system had placed Sweden on the world map. The main organizer behind the demasculinization of PT education in 1934, a professor of orthopedics, knew this more than anyone. For 30 years had he tried to call attention to the madness of permitting the founding year of the RCIG to have any influence at all on the structure of Swedish health care in the twentieth century. Included in his laments were also complaints that PTs had both a license and a training backed by the government, which nurses neither had nor needed. The fact that male PTs had more opportunity (and willingness) to shoulder professional attributes than female was also used in the propaganda for an official bar on men becoming PTs (Ottosson 2013a, 2016a). The aforementioned orthopedic professor even made this suggestion in a direct proposition to the government, when in 1929 he became responsible for a governmental investigation dealing solely with PT education in Sweden.[9]

To sum up this transformation, the reorganization of 1934 permitted PE education to remain masculine (scientific), while PT education was allotted a final definition as feminine/unmanly (unscientific). This naturally prevented any men from wanting to become PTs. The orthopedic professor did not, however, succeed in introducing a formal "man-ban" or in taking away state protection and the PTs' license. Nonetheless, the reorganization of 1934 followed the outlines of the governmental investigation of 1929 closely enough. PTs were incorporated passably into the medical profession's hierarchy. From now on, and according to careful planning, men would be able to fulfill their professional ambitions only in the gymnasium, and not as before in a clinic curing sick patients.

Heterosocial Androphobia

In the political negotiations behind the reorganization, another androphobic dimension also came into play, this time a heterosocial one. Female PTs began to side with the physicians. Around 1920, they started more and more to support the idea of an occupation free from male colleagues. They also wished Hippocrates to replace Ling, that is, that the medical profession should be responsible for their education. The old layman-tradition could no longer guarantee their work any legitimacy. The main reason for this shift was that one of their professional attributes had become a professional problem for female PTs: autonomy (Ottosson 2005). This problem first began to surface in England in 1894 and soon spread to other countries, finally reaching Sweden, where the RCIG's status enabled it to hold the problem at bay longer than in any other country.

9. Betänkande med förslag angående ordnandet av sjukgymnastutbildningen i riket avgivet av sakkunniga inom Ecklesiastikdepartementet, Ecklesiastikdepartementets konseljakter.

The decisive point was a scandal that British press capitalized on. It was said that seemingly respectable massage clinics in London had been proven to be brothels in disguise (Nicholls and Cheek 2006). This had a huge negative impact on the virtuous women working as PTs in the private market. Since the 1870s, these professional women had begun to join their male colleagues in their "missionary work." London especially was a popular destination. The labor market opened up for British women in this way. Male PTs however, did not suffer significantly from these rumors of prostitution, which meant that only women felt compelled to take action against them. They organized themselves into what is today called the CSP, an all-female organization. However, at a time when women's political as well as socioeconomic influence was formally marginal, they needed help to clean up the mess. And here the professional strength of the RCIG was no longer sufficient. On one hand, the institute's scientific aura had begun to fade in relation to the increasingly powerful medical profession. On the other hand, a scientific institute with special interests in curing disease but without formal connection to a faculty of medicine had begun to be perceived as something of a societal anomaly. Thus, what had once helped English women identify with a new field of work was now a factor that was seen as troublesome. This, of course, also affected the discourse on the scientific and autonomous PT that had previously been viable in mechanical medicine. Although there were veritable PT gurus (male) living in London, with impressive therapeutic reputations and influence, the CSP did not see them as resourceful enough to help it (re)legitimize physical therapy. Not only did these experts often lack a formal professional platform other than the one given to them by the RCIG, they had also started to drift away to the scientific periphery, though they seldom realized this themselves (Ottosson 2011, 2016a). In all, this gave the historical narrative on Ling less of a professional ring to it, and even made it harmful for the CSP to relate to.

Not surprisingly, the only patriarchal structure left that was possible to appeal to was that of the medical profession. A strictly controlled referral system of patients—from doctors to PTs—was seen as the only way forward by the CSP, which was appreciated by physicians who wanted to tighten up the unruly private sector (Nicholls and Cheek 2006). Together with the theoretical framework presented, we can understand it as particularly difficult for doctors to accept competing autonomous professionals. And in that sense, the scientific status that PTs had long accumulated turned into an extra irritable surface for friction. The autonomous (masculine) behavior of PTs, mostly that of men, but also that of some women, was perceived as a professional threat. Therefore, in order to gain medical patronage, it was crucial for the CSP to denounce the professional attributes belonging to the RCIG tradition. Anything that did not comply with the preferred order of hierarchy or control of the physicians became an anathema to the CSP. Always "observing strict loyalty towards medical advisors" was the new PT ethos, rapidly winning ground.[10] Accordingly, no member of the CSP was permitted to associate with male PTs, for instance receiving patients from them, unless the male PTs also had a medical degree. For the very same reason it was

10. Box 5B.1.1.1. Chartered Society of Physiotherapy.

mandatory for aspiring CPS members to demonstrate that physicians had sanctioned their training, and not male PTs, which could also be the case. "[T]he society [was] always averse to the training of women students by men other than qualified medical men," as was stated in 1913.[11]

In this manner, a semiprofessional culture and identity would quickly become a strong PT preference. The entire profession's nineteenth-century history was erased in favor of a new narrative telling the story about a young occupation dependent upon the medical profession, inhabited by scientifically disqualified but struggling female workers. This herstory would later also root itself in Sweden, and for the same reason. The PT profession's old insignia—autonomy—became a problem of masculinity for female PTs, which meant that the old RCIG history constituted an obstacle to improvements. Male PTs did not want to let go of Ling and their autonomy, which paradoxically led them to follow Ling into the historical trash-can (Ottosson 2016a). With a now very unwanted history there was no reason for PTs to look back, only forward. Even though nothing radical happened to physical therapy when it came to content, that is, the movements and manual techniques used by PTs remained the same, the final result was an altered historical consciousness.

The two androphobically embedded conflicts described in the preceding text forcibly divided the sick and the healthy body between two distinct occupations, with two separate historical narratives attached to them. Brief herstories of the PT profession (without Ling) and one long *his*tory of physical education (with Ling included) gradually came into acceptance. Overall, this would effectively block out PT *his*tory, also for scholars of history and sociology. Herstory was all-pervasive and all too persuasive. Partly it harmonized with the *his*tory describing the path of physicians to professional success, where they alone were prominent figures in terms of scientific recognition, and partly it corroborated gender research on how physicians' masculine "occupational imperialism" subordinated women's work and competence through a process of demarcation. That this was the case has been identified in a Swedish context especially, but also in an English one.

It has been suggested that the unifying PT *his*tory analyzed in this article is also to be found in most countries, though still obscured by herstories. What about the United States? Are there indications that it can be found there? First, an account of the current state of research is given in the following text, that is, the herstory of the US PT profession in the context of World War I. In that respect, the PTs' gendered relations vis-à-vis orthopedists, nurses, and chiropractors are of special interest, in combination with their professional conduct, there identified as odd and "un-Victorian." This account is followed by an attempt to deepen the perspective in time and space, that is, to connect the herstory described to the RCIG's professional project: the silent PT *his*tory.

11. Box 190 P1.3, 9/4 Chartered Society of Physiotherapy 1913. The CSP also worked to shut down schools with suspect ownerships (male PTs).

The Herstory of the US PT Profession

According to the sociologist Beth Linker, the start of the PT profession in the United States was a direct consequence of World War I. It came about as part of a broader military effort to "recruit women to war work." The army needed "reconstruction aides" with sufficient competence to rehabilitate all the maimed soldiers returning from overseas. This was necessary because unlike its war allies, the United States did not have "an established profession of physiotherapy to fill the ranks in the Division of Reconstruction." Notably, these aides almost exclusively had a background in physical education. With the US Army Surgeon General's office as the main architect, several physical education programs started "War Emergency Courses" in physiotherapy to train women for the job (Linker 2005a: 107–9).

In Linker's interesting and thorough work on the beginning of the PT profession and the APTA (originally the American Physiotherapy Association) in the United States, it is stated that "[t]he military's recruitment of female educators to serve as physiotherapists challenged the Victorian sex-segregated assumptions upon which the field of physical education had been built." The army's initiative enabled the female physical educators (PTs to be) to step out of their completely "feminine sphere," in which they educated only women and children, to work in the medical sector in which they "could become experts on the physical health and fitness of the male body or, at the very least, the disabled male body." Before the war it would have been "unthinkable" for physical educators (PEs) to work in this manner. Consequently, a military need created a new career path and after the war it continued into the civil society (ibid.: 61–72).

Linker emphasizes that APTA represented a special kind of female professionalism that complicated the standard perception of professional antagonism between men and women in the 1920s. APTA was concerned "more with achieving autonomy from other white-collar women than it [was] with gaining independence from men." PTs worked almost entirely to legitimize their status through the American Medical Association (AMA), wanting their PT knowledge to be "medicalized" or "made scientific" by the AMA, even though it meant giving up the "little independence" they had before. They made liaisons especially with male orthopedic surgeons (ibid.: 107, 109). Linker concludes:

> To secure the medical profession's support, physiotherapists created a post-Victorian gender identity, making them distinct from traditionally female health care workers. Unlike educated women of the nineteenth century who accepted their lots as the weaker yet more nurturing sex, physiotherapists thought of themselves as strong women who possessed specialized knowledge. . . . To place physiotherapy in the larger context of women's history, then, one must be willing to see physiotherapy as a reaction against Victorian notions of womanhood, creating a discontinuity with the conventional role of caregivers. (ibid.: 106)

According to Linker one reason behind this gender "discontinuity" and PTs' readiness to yield to medical doctors, was that other female professional groups "threatened their professional survival more than men did" (ibid.: 115). They had already experienced this during the war, where they had to work under unfavorable conditions compared to nurses. The army's Medical Department did not offer them pensions or other employee benefits either, as it did to nurses. More threatening yet to PTs' respectability and professional ambitions was that the nurses in the military hierarchy outranked them, in spite of often having a lower level of education. When nurses started to meddle with physiotherapy after the war, something had to be done. To help put an end to nurses' tendencies to usurpation, PTs made use of their brothers-in-arms from the war—orthopedic surgeons and rehabilitation physicians. These men willingly supported PTs' "exclusionary strategies against nurses" because it was helpful to their own ambition to establish an identity making them stand out "from the more well-known general practitioners of medicine" (ibid.: 111). Interestingly enough, Linker suggests that one reason for the orthopedic surgeons' willingness to support the early PTs was that they had good reason to believe that physical therapy, due to the military war context, would turn into a male occupation. This prospect might have threatened "their male-dominated professional authority" (ibid.: 64), something that rhymes well with the theoretical considerations of this article.

The strategy the PTs used to win against the nurses was to appeal to their own higher education. They emphasized that their background in physical education (including anatomy and physiology) and "specialty training under the tutelage of physicians" gave them a more scientifically based understanding (ibid.: 111–12; Linker 2011: 35–38). To sum up: imbuing physical therapy with women's traditional caring qualities would not help PTs keep nurses out of their territory. Expert caring was the nurse's forte and professional insignia, and to boast such qualities would probably have been counterproductive. Thus an "ethic of care" was not an option: "In many ways, physiotherapists resembled drill sergeants more than bedside nurturers, commanders more than those who were ordered to care," summarizes Linker (Linker 2005b: 330).

Another professional threat came from occupational therapists (OTs), a group of practitioners dealing with the same type of patients as PTs (Quiroga 1995). Orthopedic surgeons and rehabilitation physicians, who also had a certain professional aggression against OTs, backed up the PTs. But the issue with the OTs was of another kind. Occupational therapy had its background in the arts and crafts movement's antimodernistic line of thought. As a result, the OTs held views that did not always harmonize with the medical sciences' new strong preferences for technology and lab results, a fact that also made them oppose medical control. The OTs' "holistic" ideal and therapeutic proximity to physical therapy might cast a shadow over the PTs' proclaimed educational superiority and role as science-based professionals, who, not least, were also supposed to hold the nurses at bay. Demarcation against OTs was, therefore, imperative. In consequence, occupational therapy was degradingly described as "pleasant handicraft that c[ould] be picked up in a few spare hours"(Linker 2005a: 114; 2011: 70–75).

Besides intragender professional threats to PTs' field of expertise, Linker mentions their hardships in handling the competition found in the open private market:

> As these women moved from positions secured by the war machine to the private sphere, however, they encountered an unforgiving medical marketplace crowded with osteopaths, chiropractors, and nurses—all whom claimed to practice "physiotherapy."… Of all the so-called physiotherapy intruders, chiropractors posed the greatest threat. (Linker 2005a: 120)

Ultimately it was this fierce environment that made APTA actively give up its little autonomy to the medical profession in the 1930s. It was then more difficult to uphold a boundary against chiropractors than against nurses and OTs. Like PTs, chiropractors (and osteopaths) treated people with their hands placed on the patients' bodies. But unlike OTs and nurses, chiropractors had no standing whatsoever in the eyes of physicians. Chiropractors were the true incarnations of quackery (Wardwell 1992; Whorton 2002). To be associated with them was disastrous; hence APTA joined the AMA in its vicious campaigns against chiropractic. The AMA saw the support of the PTs as an excellent way to pull the rug out from under the chiropractors. Both groups had much to gain from a common front. But, as previously mentioned, with the benefits of medical protection came a loss of independence for the PTs. All in all, professional autonomy had become a problem for the new female PTs.

The *His*tory of the US PT Profession?

Linker's line of argument is convincing. Her gendered historical and sociological framework is not wrong either. But recapitulating what has been said so far, striking similarities with the situations in England and Sweden can be seen. Like the female PTs across the Atlantic, APTA reacted against the brutal reality of the private market and joined forces with physicians to gain respectability and status. The American PTs' front against the very patriarchal structure of chiropractic also parallels their sisters' (and European medical doctors') actions against male PTs especially. But did they likewise "abandon" the old PT narrative that their European counterparts were originally rooted in: a successful independent science founded outside the realms of what we today see as traditional medicine? If that is the case, can it even give us a new take on PTs' unique "un-Victorian" white-collar femininity? In the following I will tentatively answer yes to these questions.

We already know from Linker's work that medical doctors (chiefly orthopedists) were the architects behind the PT profession. They saw the need and taught the pioneers. But did medical doctors know anything about Ling's PT, and why did they view female PEs as the best material to become "reconstruction aides"? Starting with the first question, it is quite apparent that they did know a significant amount about Ling. Like their European colleagues, US physicians were exposed early on to Ling and his doctrines, which symptomatically have only been dealt thoroughly with in

historical studies on US physical education. The first mention of Ling in a North American context goes back to the 1830s, while awareness of him grew steadily during the second half of the nineteenth century, not least among doctors. They often regarded Ling's system favorably, compared to many other gymnastic systems that simultaneously flourished on the pedagogical market. Its scientific hallmarks were what made Ling's system preferable. It was viewed as "rational" (Park 2007a; Spears 1979). One of the first physicians in America to speak up on the behalf of Ling was Elizabeth Blackwell, the first American female doctor. While visiting England in 1850 she contacted the RCIG's principle teacher, Professor C. A. Georgii, a lieutenant in the Swedish army, who had a large PT clinic in London.[12] Back home she published *The Laws of Life with Special Reference to Physical Education of Girls* (Blackwell 1852: 172) where she had in mind Ling's system.[13]

However, as in studies on European conditions, the physical therapy part of Ling's system is also overlooked in research on the history of US physical education. And the same can be said regarding the impact of Ling's physical therapy on the therapeutic arsenal of the medical profession (Hansson and Ottosson 2015; Ottosson 2016c). Except in studies on the history of massage, Ling's physical therapy is seldom analyzed as part of a professionally and scientifically charged medical landscape (Walkley 2004; Whorton 2002). But the impact of Ling was immense, and it is accordingly necessary to include it in the analytic framework. The first medical publications explicitly advocating Ling's physical therapy as a new scientific remedy came from Drs. George and Charles Taylor. Outstanding is George Taylor's *An Exposition of the Swedish Movement-Cure* (1860), a vast review of its use in and for medicine. Like a true "Ling physician," he also treated orthopedic diagnoses and his younger brother Charles opened an orthopedic hospital in New York. Charles Taylor was such a devotee that his son was baptized Henry Ling Taylor. Henry Ling Taylor later became a well-known orthopedic surgeon in the United States and keen on physical therapy (Taylor, C. F. 1857, 1861; Taylor, G. H. 1860, 1880; Taylor, H. L. 1896).

The true experts on Ling, however, were Drs. Harvey Kellogg and Douglas Graham. In the closing decades of the nineteenth century they both became giants in American physical medicine. Among their piles of publications are many references to Ling's physical therapy (e.g., Graham 1890; Kellogg 1895). It is not a coincidence that the RCIG's most prolific author of textbooks on physical therapy, Professor T. J. Hartelius M.D., was translated and published in Battle Creek, with a foreword by Dr. Kellogg (Hartelius 1896). Another very influential paragon was Dr. Edward M. Hartwell, though not dealt with in research on the history of the PT profession. In 1882 Hartwell was appointed instructor in physical culture at The John Hopkins University and in 1890 he became director of physical training for the Boston Public Schools.

12. At the time, Professor Georgii was courting the British government to support a replica of the RCIG in London. He was very happy about Dr. Blackwell's interest. He recognized her as a likely missionary for "Ling's science to the new world." According to Georgii, Blackwell was in England to find out which system (of gymnastics) was the best. Carl August Georgii to Lars Gabriel Branting, 9/12 1850. Blåboksnummer 1955/16.

13. On Blackwell's European travels and experiences, see Morantz-Sanches (1992).

To Hartwell, when it came to physical education, the RCIG was the "best school in the world," and one reason for this was that it also prepared its students to treat pupils unfitted for physical education, using physical therapy (Barrows 1890: 61; Park 1986). In Ling's system he saw a functional bridge between the sick and healthy body that would work well in American schools. It is possible to trace Hartwell's interest in Ling's system through the correspondence between him and Professor Maritz Törngren, head of the RCIG in Stockholm.[14]

It appears that PTs could also be awarded appointments at hospitals to train physicians and nurses in Ling's physical therapy. How common this was has not been established, but the RCIG alumnus Hugo Oldenborg at least seems to have had such a position at Rush Medical College, Chicago.[15] The point is regardless that Ling's physical therapy was well known and respected, not least compared to osteopathy and chiropractic, both of which started to create great professional turbulence around 1900 (Baer 2004; Gevitz 1982, 1988; Wardwell 1992). The presence of osteopaths and chiropractors, typical for the United States, needs much further study in relation to the acceptance of Ling's physical therapy by physicians. Nonetheless, one wonders what attitude the medical community would have adopted toward the self-aware masculine PTs if it had not become troubled by the professional efforts of the new patriarchal usurpers: the chiropractors and osteopaths.

Does the preceding analysis also suggest that the "reconstruction aides" in America were exposed to Ling's physical therapy through their "War Emergency Courses" held in the context of World War I? And if so, was their exposure sufficient for it to be safe to say that they "abandoned" him and ignored 100 years of PT history, as their female colleagues did in Europe? Perhaps. At any rate, two of the three leading physicians in charge of the courses and the Division of Physical Reconstruction, Joel Goldthwait and Elliot Bracket, were orthopedic surgeons in association with the Medicomechanical Department at Massachusetts General Hospital. That department opened in 1904 thanks to a donation of 63 gymnastics machines invented by the "Ling physician" Gustaf Zander, which mimicked the movements and manual techniques practiced by PTs (Buchhold 1914). The third physician, Frank B. Granger, was a specialist in "physical therapeutics" at Harvard and Tufts College. In 1917 he became chief of the "physiotherapy section" in the Division of Special Hospitals and Physical Reconstruction (Gritzer and Arluke 1985: 38–45).

Irrespective of whether these physicians were influenced by Ling or not, I believe a much firmer and more direct link to him and the RCIG can be found if we avert our eyes from them and more closely examine the actual PT material—the female PEs chosen for the assignment. What happens if we let them, not male physicians, hold center stage and thereby allowing them more agency? For instance, why were they deemed best suited to become PTs? Through Goldthwait, Bracket, and Granger, the

14. Edward M. Hartwell to Mauritz Törngren, 19/10 1889; 1890 (date missing); 19/3 1891; 15/3 1892, Törngrens arkiv, National Archive, Sweden. Törngren's correspondence reveals many other connections, for instance, with Dr. Luther Gullick, a front figure in the YMCA. See also Park (1986).

15. Hugo Oldenborg to Mauritz Törngren, 27/1 1901, Törngrens arkiv, National Archive, Sweden; Oldenburg (1895).

army's Medical Department targeted them specifically. This was in fact something physicians did prior to the war. Both Goldthwait and Bracket hired women trained in physical education in their private Boston practices. They also had summer courses in "corrective gymnastics" aimed especially at students from the Boston Normal School of Gymnastics (BNSG) (Gritzer and Arluke 1985: 52; Linker 2011: 64–65). PE training was, of course, good in itself, with its focus on physical fitness and the functioning of the human body. But was that the real incentive? This is not very likely. PE training contained more than anatomy and physiology. Linker briefly mentions that many of them "were already educated in techniques of manual therapy." Knowledge of "massage" is also indicated (Linker 2005a: 113; Linker 2005b: 322; Linker 2011: 69).[16] When and where they received this training is not elaborated on, nor what kind of "manual therapy" and "massage" were involved.

Tentatively I suggest that we can find what kind if we more closely examine the physical education offered at the first six schools that began accommodating the "War Emergency Courses" for "recreational aides" in 1918. A glance reveals that more or less every one of them—Reed College (Portland), Normal School of Gymnastics (Battle Creek), New Haven Normal School of Gymnastics (Connecticut), BNSG, American School of Physical Education, and Posse Normal School of Gymnastics (Boston)—were based on Ling's system: a system that included physical therapy (Remley 1979; Verbrugge 1988: 174).[17] The PE students were to some extent already trained formally in physical therapy, which also parallels the situation in England (Ottosson 2016a). No wonder then that these PEs were reckoned as being well matched, and volunteered for the "War Emergency Courses." They already had it in them, which Bostonians like Goldthwait, Bracket, and Granger knew very well. Ling's system had become the "favorite" among the Normal Schools training women to become PEs (Spears 1979; Verbrugge 1988). This both strengthens the androphobic thesis put forward in this article and Linker's suggested fear among orthopedists that the reconstruction aides might in the future be males, not females.

The presence of the Ling system in Boston began to be noticeable in 1861 if not earlier. This was when the "eclectic" Normal Institute of Physical Education started giving classes, and not only to women, in "hygiene, physiology, anatomy, and gymnastics, in addition to an interpretation of, and practical work in, the 'Swedish Movement Cure'" (Rao 2008: 178). But it was when the BNSG opened its doors in 1889 that the real "triumph" of the Ling system in the United States started. Its courses were first headed by Baron Nils Posse, an army lieutenant and RCIG alumnus, who had emigrated from Sweden to Boston in 1885 to work as a PT. The RCIG was used as the model for the BNSG and its students have been described as "veritable crusaders"(Verbrugge 1988: 162). Posse's work in physical education was so influential that he has been given the title "the father of Swedish Gymnastics in the United States" (Reet 1979).[18] When Posse left the BNSG to open the Posse Gymnasium, his

16. Gritzer and Arluke (1985: 52) also mention "massage" and "manual therapy," but not what kind.
17. Reed College had for instance a PT clinic attached to it. See "War Work for Women" (1918).
18. It is clear that both BNSG and Posse Gymnasium had PT (medical/remedial gymnastics) in their curriculum. See Amy Homan to Mauritz Törngren, 25/3 1897, Törngrens arkiv, National Archives, Sweden.

position was taken over first by Claes Enebuske and then by Louis Collin, both of whom became "Ling physicians" practicing physical therapy in Boston hospitals.[19] Boston physicians sometimes even called upon the RCIG to send over female PTs. One such physician was the orthopedist Robert W. Lovell who had functioned as Dr. Goldthwait's supervisor during his internship at the Boston Children's Hospital.[20] Lovett's published work has had great impact on present US physical therapy, but not contextualized historically is that he was inspired by his close co-worker Wilhelmine G. Wright, who graduated from BSNG in 1905 (Lovett 1912: ix; Wright 1912).

So Ling's physical therapy was very much alive among the first US PTs, through their formal education. The more closely one looks at them, the stronger the connection to Ling gets. Mary McMillan was the founder of APTA. She organized and worked as an instructor at Reed College's "War Emergency Courses." Prior to her appointment, she was living in England, where she did "graduate work in physical culture and corrective exercises, including Swedish gymnastics and the dynamics of scoliosis" (Swisher and Page 2005: 32). Another front figure in early US PT history was Marguerite Sanderson, who had worked closely with the aforementioned Dr. Goldthwait. Sanderson was a graduate of the BNSG. In 1917 she was sent to Walter Reed General Hospital in Washington, D.C., to "organize units of the Reconstruction Aide Corps, which were to be sent to overseas hospitals." When Sanderson left for Europe to inspect her trainees, McMillan took her place (ibid., 32; Linker 2011: 66–67).

With this in mind, is it perhaps time for scholars of American PT history to better appreciate Ling (or the RCIG) as someone giving American women professional stamina and identity prior to World War I? Like in England and Sweden, his emancipatory power regarding women's work is dealt with in the history of the healthy body, but why not in the history of the sick body? Should we not pay more attention to an ignored passage of McMillan's most influential publication where she states that it is to "Peter Henry Ling and Swedish systemized order that we owe much today… in the field of medical gymnastics or therapeutic exercise" (McMillan 1921: 209)?[21] The author believes so, and a first step in that direction would be to reexamine old PE associations and their adjoining journals. The American Association of Physical Education for instance, was organized into four sections, and one of them was "Therapeutics," at times headed by Nils Posse's widow Baroness Rose Posse. And close to all American physicians mentioned in this article were members of these organizations, and so were also many alumni from BNSG and other schools built

Worth mentioning is that Posse made the word *kinesiology* popular in United States, a word originally coined in the early1850s to make foreigners able to relate to the Ling concept "rörelselära" (*rörelse*: movement and *lära*: logos/science). See Ottosson (2010a).

19. Claes Enebuske till Mauritz Törngren, 28/1 1897; Amy Homan to Mauritz Törngren, 9/9 1897, Törngrens arkiv, National Archives, Sweden.

20. Amy Homan to Mauritz Törngren, 25/3 1897, Törngrens arkiv, National Archives, Sweden. Miss Homan was head of staff at the Boston Normal School of Gymnastics. On Lovett, see Linker (2011: 209n86).

21. See also the preface where Posse, Enebuske, and Collin are mentioned.

upon Ling's system of gymnastics.[22] Could it be that American "Ling PEs," at the turn of the nineteenth century, were almost as interested professionally in the sick body as physicians were of the healthy body (Betts 1971; Park 2007b; Zieff 2010)?

Concluding Remarks

When situating the female PEs who became PTs in the historical foreground instead of far in the background hidden behind the agency of male medical doctors, it is not completely misleading to suggest that PTs in the United States did the same thing as their female counterparts in Europe: they gave up on a long *his*tory to be able to focus on the future through a short *her*story. In contrast to physical education Ling had lost his function as professional power source for physical therapy. He was of no help in facing the female professional challenges of American postwar society, as elaborated on by Linker. Hippocrates was, however, and the physicians, especially orthopedists, gladly helped the process along because such patronage would help them gain better control of the unruly market of mechanical cures. On one hand, it helped them face the usurping chiropractors claiming scientific (masculine) status and, on the other, to tune out the now unwelcome historical narrative of Ling as scientific revolutionary. Pending in-depth research on the subject, is it not possible to suggest that an altered historical consciousness surfaced in the same androphobic way that it did in Sweden and England?

To conclude, I would like to return to the "un-Victorian" femininity that characterized US PTs' professional conduct. "As a reaction against Victorian notions of womanhood" they did not acclaim a traditional "feminine ethics of care," but acted instead more like "drill-sergeants" (Linker 2005a: 106; 2005b: 330). According to Linker, it was a "discontinuity," which she understood as a product of the turbulent years in and after World War I. That explanation is not wrong, but perhaps is it historically shallow? I would like to suggest that the first PTs' un-Victorian manners were also offspring of the professional identity that had its origins at the RCIG. First, Ling's physical education was very military in its appearance, sometimes earning the label "Swedish drill" (Mélio 1889; Spalding and Collett 1910). Large numbers of students stood in formation obeying commands following the "I yell, you jump method" (Verbrugge 1988: 152). Second, and more important, could this "drill identity" not be a subset or remnant of the nineteenth-century "crusade mentality," which characterized the Ling-trained US female PEs (ibid.: 162)? But what about them dealing with the sick body? We know the sick body and the healthy body were fused by scientific recognition into a single organism and, to some extent, might even working with male bodies then not have been completely alien? Here more research is called for, but it is clear that female students from the BNSG opened PT clinics after graduation

22. See National Council (1898): 61; Journal of Education (1909): 437. Another stronghold for Ling's system was the Woman's College of Baltimore where its PE students recieved training in PT. Palmqvist (1900: 115–23).

prior to the war.[23] Was this not the same as following in the footsteps of female (and male) PTs coming to the United States from the RCIG at the end of the nineteenth century?

By way of summing up, it is possible that to fully grasp the "mind-set" and actions of the first US (and British/Swedish) PTs, a 100-year perspective or national borders might be too constricting. Maybe the PT profession does not differ much from many other professions in the health care sector? Could it not be studied and understood through the characteristic of a unifying, common professional history, like chiropractic, nursing, osteopathy, and medicine? By acknowledging an androphobic dimension in professional conflicts theoretically, and (re)marrying the sick and the healthy body empirically into a professional unity, this article has tentatively argued for a yes. Such a route can help us to deconstruct the discourse surrounding PT herstories veiling a PT *his*tory including both male and female professional agency. Maybe we need to reexamine the professional medical marketplace prior to World War I and then include another force masculine enough to affect both the course of events and the androphobic reactions?

References

Abbott, Andrew (1988) The System of Professions: An Essay on the Division of Expert Labor. Chicago: University of Chicago Press.

Baer, Hans (2004) "Divergences in the evolution of osteopathy in four anglophone countries: The United States, Canada, Britain, and Australia," in Kathryn S. Oths and Servano Z. Hinojosa (eds.) Healing by Hands, Manual Medicine and Bonesetting in Global Perspective. Walnut Creek: AltaMira Press: 63–80.

Barrows, Isabel C. (1890) Physical Training: A Full Report of the Papers and Discussions of the Conference Held in Boston in November 1889. Boston: Press of G. H. Ellis.

Berquist, Jon L. (1992) Reclaiming Her Story: The Witness of Women in the Old Testament. St. Louis: Chalice Press.

Betänkande med förslag angående ordnandet av sjukgymnastutbildningen i riket avgivet av sakkunniga inom Ecklesiastikdepartementet, Ecklesiastikdepartementets konseljakter, 19310220, 64 (3). National Archives, Sweden.

Betts, Richard J. (1971) "American medical thought on exercise as the road to health." Bulletin of the History of Medicine 45 (2): 138–52.

Bjurwill, Christer (1996) "Helhetstanken hos Per Henrik Ling." Stockholm: Idrott, Historia and Samhälle: 9–19.

Blåboksnummer 1955/16. Uppsala Universitetsbibliotek, Sweden.

Blackwell, Elizabeth (1852) The Laws of Life, with Special Reference to Physical Education of Girls. New York: S. Low.

Box 5B.1.1.1. Chartered Society of Physiotherapy, Wellcome Institute Library, London.

Box 190 P1.3, 9/4 1913. Chartered Society of Physiotherapy, Wellcome Institute Library, London.

Bradford, Helene (1996) "Women, gender and colonialism: Rethinking the history of the British cape colony and its frontier zones, c. 1806–70." Journal of African History 37 (3): 351–70.

23. J. Culver to Mauritz Törngren, 8/1 1900. Törngrens arkiv, National Archives, Sweden. Miss Culver was a graduate of the BNSG and in this letter she asks Törngren if he could help her find assistants for her crowded, combined PT clinic and gymnasium.

Brown, Theodore M. (1970) "The college of physicians and the acceptance of iatromechanism in England, 1665–1695." Bulletin of the History of Medicine 44 (1): 12–30.
Buchhold, C. Hermann (1914) "Six years' experiences at the Medicomechanical Department at Massachusetts General Hospital." JAMA 63 (20): 1733–39.
Calvert, Robert Noah (2002) The History of Massage: An Illustrated Survey from around the World. Rochester, VT: Healing Art Press.
Connell, R. W. (1995) Masculinities. Cambridge: Polity Press.
Connell, R. W., and James A. Messerschmidt (2005) "Hegemonic masculinity: Rethinking the concept." Gender and Society 19 (6): 829–59.
Cooter, Roger (1993) Surgery and Society in Peace and War: Orthopaedics and the Organization of Modern Medicine, 1880–1948. London: Macmillan Press.
Davies, C. (1996) "The sociology of professions and the professions of gender." Sociology 30 (4): 661–78.
Erenhoff, C. C. (1845) Medicina Gymnastica or Therapeutic Manipulation: A Short Treatise on This Science as Practiced at the Royal Institution at Stockholm. London: J. Masters.
Eulenburg, M. M. (1853) Die Schwedische Heil-Gymnastik. Versuch einer wissenschaftlischen Begrundung derselben. Berlin: Hirschwald.
Fletcher, Schiela (1984) Women First: The Female Tradition in English Physical Education 1880–1980. London: Athlone Press.
Florin, Florin (1993) "Kön och professionalisering," in Maja Lindström, Pirjo Markkola, and Sari Mäenpää (eds.) Kvinnohistoriens nya utmaningar: Från sexualitet till Världshistoria. Tampere: Tampereen yliopisto: 275–81.
Friedson, Elliot (1970) Professional Dominance: The Social Structure of Medical Care. New York: Atherton Press.
Georgii, C. A. (1847) Kinésiethérapie ou traitements des maladies par le mouvement selon la méthod de Ling. Paris: Germer-Baillière.
——— (1854) A Biographical Sketch of the Swedish Poet and Gymnasiarch Peter Henry Ling. London: Germer-Baillière.
Gevitz, Norman (1982) The DOs: Osteopathic Medicine in America. Baltimore: John Hopkins University Press.
——— (1988) "Osteopathic medicine: From deviance to difference," in Norman Gevitz (ed.) Other Healers: Unorthodox Medicine in America. Baltimore and London: John Hopkins University Press: 124–56.
Gilbert, J. (2001) "Science and it's 'other': Looking underneath 'woman' and 'science' for new directions in research on gender and science education." Gender and Education 13 (3): 291–305.
Glazer, P. M., and M. Slater (1987) Unequal Colleagues: The Entrance of Women into the Professions, 1890–1940. New Brunswick: Rutgers University Press.
Graham, Douglas (1890) A Treatise on Massage. New York: J. H. Vail & Co.
Gritzer, Glenn, and Arnold Arluke (1985) The Making of Rehabilitation: A Political Economy of Medical Specialization, 1890–1980. Berkeley: University of California Press.
Gromkowska-Meloosik, Agnieska (2014) "The masculinization of identity among successful career women? A case study of Polish female managers." Journal of Gender and Power 1 (1): 25–47.
Guenther, Katja (2014) "Exercises in therapy—Neurological gymnastics between Kurort and hospital medicine, 1880–1945." Bulletin of the History of Medicine 88 (1): 112–31.
Hackin, Thomas (2002) "Textual silence and the discourse of homelessness." Discourse and Society 13 (3): 347–72.
Hansson, Nils, and Anders Ottosson (2015) "Nobel Prize for physiotherapy? Rise, fall and revival of medico-mechanical institutes." Physical Therapy 95 (8): 1184–94.
Hartelius, T. J. (1896) Swedish Movements or Medical Gymnastics. Battle Creek: Modern Medicine Pub. Co.
Heap, Ruby (1995) "The emergence of physiotherapy as a new profession for Canadian women, 1914–1918," in Sharon Anne Cook, Lorna R. McLean, and Kate O'Rourke (eds.) Framing Our Past:

Canadian Women's History in the Twentieth Century. Montreal: McGill-Queen's University Press: 295–99.
Holme, Lotta (1996) Konsten att göra barn raka. Ortopedi och vanförevård i Sverige till 1920. Linköping: Carlsson.
In de Betou, J. Govert (1842) Therapeutic Manipulation: Or a Successful Treatment of Various Disorders of the Human Body by Mechanical Applications. London: Simpkin, Marshall, & Co.
Kellogg, Harvey (1895) The Art of Massage: Its Physiological and Therapeutic Applications. Battle Creek: Modern Medicine Pub. Co.
Kimmel, Michael (1996) Manhood in America: A Cultural History. New York: Free Press.
Larkin, G. (1983) Occupational Monopoly and Modern Medicine. London: Tavistock Publications.
Larsen, Dale (2005) "The historical development of knowledge in physiotherapeutic spinal manual therapy." PhD diss., University of Sydney, Sydney.
Larson, M. Sarfatti (1977) The Rise of Professionalism: A Sociological Analysis. Berkeley: California University Press.
Lindroth, Jan (1974) Idrottens väg till Folkrörelse. Uppsala: Vlg. Keine Angabe.
——— (2004) Ling—från storhet till upplösning. Studier i svensk gymnastikhistoria 1800–1950. Stockholm: Symposion.
Lindsay, Sally (2007) "Gendering work: The masculinization of nurse anesthesia." Canadian Journal of Sociology 32 (4): 429–44.
Linker, Beth (2005a) "Strength and science: Gender, physiotherapy, and medicine in early-twentieth-century America." Journal of Women's History 17 (3): 105–32.
——— (2005b) "The business of ethics: Gender, medicine, and the professional codification of the American Physiotherapy Association, 1918–1935." Journal of the History of Medicine and Allied Sciences 60 (3): 320—54.
——— (2011) War's Waste: Rehabilitation in World War I America. Chicago: University Chicago Press.
Ljunggren, Jens (1999) Kroppens bildning: Linggymnastikens manlighetsprojekt 1790–1914. Stockholm: Symposion.
Lovett, W. Robert (1912) Lateral Curvature of the Spine and Round Shoulders. Philadelphia: P. Blakiston's Son & Co.
Lundqvist-Wannerberg, Pia (2004) "Kroppens medborgarfostran. Kropp, klass och genus 1916–1962." PhD diss., Stockholm Unviersity, Stockholm.
McIntosh, P. C. (1957) Landmarks in the History of Physical Education. New York: Routledge.
McMillan, Mary (1921) Massage and Therapeutic Exercise. Boston: W. B. Saunders Company.
Mélio, George (1889) Manual of the Swedish Drill for Teachers and Students. New York: Excelsior Publishing House.
Morantz-Sanches, Regina (1992) "Feminist theory and historical practice: Rereading Elizabeth Blackwell." History and Theory 31 (4): 51–69.
Murphy, Raymond (1988) Social Closure: The Theory of Monopolization and Exclusion. Oxford: Clarendon Press.
National Council (1898) Report of the Council. American Physical Education Review 3: 61.
Neumann, J. Albert (1852) Die Heil-Gymnastik oder die Kunst der Leibesübungen, angewant zur Heilung von Krankheiten nach dem Systeme des Schweden Ling und seiner Schüler Branting, Georgii, de Ron, sowei nach eigenen Ansichten und Erfahrungen. Berlin: P. Jeanrenaud.
Nicholls, D., and J. Cheek (2006) "Physiotherapy and the shadow of prostitution: The Society of Trained Masseuses and the massage scandals of 1894." Social Science and Medicine 62 (9): 2336–48.
Oldenburg, Hugo Adalvard (1895) Collected Papers on Massage and Gymnastics. Chicago.
Ottosson, Anders (2005) "Sjukgymnasten—vart tog "han" vägen? En undersökning av sjukgymnastyrkets maskulinisering och avmaskulinisering 1813–1934." PhD diss., Göteborg University, Göteborg.
——— (2010a) "The first historical movements of kinesiology: Scientification in the borderland between medicine and physical culture around 1850." The International Journal of the History of Sport 27 (11): 1892–919.

——— (2010b) "Als Orthopäden noch Physioterapeuten waren, oder warum es Physiotherapeuten an Geschichtsbewusstsein mangelt—Verhältnis von Orthopädie und Physiotherapie in Schweden im 19. Jahrhundert." Manuelle Therapie 14 (1): 14–21.
——— (2011) "The manipulated history of manipulations of spines and joints: Rethinking orthopaedic medicine through the 19th century discourse of mechanical medicine." Medicine Studies 3 (2): 83–116.
——— (2013a) Gymnastik som medicin. Berättelsen om en svensk exportsuccé. Slovenien: Atlantis.
——— (2013b) "Svärdet, facklan och staven samt en ek på villovägar? Synen på sjuk och frik vid GCI 1813–1950," in Hans Bolling and Leif Yttergren (eds.) 200 år av kroppsbildning. Gymnastiska Centralinstitutet/Gymnastik- och Idrottshögskolan, 1813–2013. Stockholm: The Swedish School of Sport and Health Sciences: 51–76.
——— (2016a) "One history or many herstories? Gender politics and the history of physiotherapy origins in the nineteenth and early twentieth century." Women's History Review 25 (2): 296–319.
——— (2016b) "The age of gynaecological masseurs: Non-intrusive male hands, female intimacy and women's health around 1900." Social History of Medicine (forthcoming).
——— (2016c) "Gym machines and migration of medical knowledge in the 1800s," in Nils Hansson and Jonatan Wistrand (eds.) Bridging the Baltic: Transfer of Medical Knowledge in the Baltic Sea Region, 1850–2000 (forthcoming).
Palmqvist, Maria (1900) "The physical training department vid the Women's College of Baltimore." Tidskrift i Gymnastik 27: 115–23.
Park, Roberta (1986) "Edward M. Hartwell and physical training at the John Hopkins University, 1879–1890." Journal of Sport History 14 (1): 108–19.
——— (2007a) "Biological thought, athletics and the formation of a 'man-character': 1830–1900." International Journal of the History of Sport 24 (12): 1543–69.
——— (2007b) "Physiologists, physicians, and physical educators: Nineteenth century biology and exercise, hygienic and educative." International Journal of the History of Sport 24 (12): 1637–73.
——— (2008) "Sharing, arguing, and seeking recognition: International congresses, meetings, and physical education, 1867–1915." International Journal of the History of Sport 25 (5): 519–48.
Parkin, Frank (1979) Marxism and Class Theory: A Bourgeoise Critique. London: Tavitock Publications.
Pfister, G. (2003) "Cultural confrontations: German Turnen, Swedish gymnastics and English sport—European diversity in physical activities from a historical perspective." Culture, Sport, Society 6 (1): 61–91.
Quiroga, Virginia A. M. (1995) Occupational Therapy: The First Thirty Years, 1900–1930. Bethesda: AOTA.
Rao, V. K. (2008) The Teaching of Physical Education. New Delhi: A. P. H. Publishing Corporation.
Reed College Record (1918) War Work for Women: Training for Reconstruction Aides for Military Hospitals. Reed College Record 32. Portland: Reed College.
Reet, Howell A. (1979) "Baron Nils Posse—The 'father' of Swedish gymnastics in the United States." Uppsala: 8th International Congress for the History of Sport and Physical Education: 209–19.
Remley, Mary L. (1979) "An ever-widening circle: The expansion of Swedish gymnastics through teacher training." Uppsala: 8th International Congress for the History of Sport and Physical Education: 220–27.
Rogers, Naomi (2014) Polio Wars: Sister Elisabeth Kenny and the Golden Age of American Medicine. New York: Oxford University Press.
Schiller, Francis (1971) "Spinal irritation and osteopathy." Bulletin of the History of Medicine 45: 250–66.
Schreber, D. G. Mortiz (1852) Kinesiatrik oder die gymnastische Heilmetode. Für Ärtze und gebildete Nichtärtze nach eigenen Erfahrung dargstellt. Leipzig: Verlag.
Shiöler, Julia (2005) "Über die Anfänge der Schwedishen Heilgymnastik in Deutschland—ein Beitrag zur Geschichte der Krankengymnastik im 19. Jahrhundert." PhD diss., Westfälischen Wilhelms-Universität Münster, Münster.
Spalding, Muriel, and Laura Collett (1910) The Swedish Drill Teacher. London: J. Curwen & Sons.

Spears, Betty (1979) "The Royal Central Institute of Gymnastics and the formative years of the Boston Normal School of Gymnastics, Boston, Massachusetts." Uppsala: 8th International Congress for the History of Sport and Physical Education: 200–8.
Sturdy, S., and R. Cooter (1998) "Science, scientific management, and the transformation of medicine in Britain c. 1870–1950." History of Science 36: 421–66.
Swisher, Laura Lee, and Page G. Catherine (2005) Professionalism in Physiotherapy: History, Practice and Development. St. Louis: Elsevier.
Taylor, Charles F. (1857) The Movement Cure. New York: William Radde.
——— (1861) Theory and Practice of the Movement-Cure: or, Treatment of Lateral Curvature of the Spine; Paralyses, Indegestion, Constipation, Consumption, Angular Curvatures. Philadelphia: Lindsay & Blakiston.
Taylor, George H. (1860) An Exposition of the Swedish Movement-Cure. New York: Fowler and Wells.
——— (1880) Health by Exercise. What Exercises to Take and How to take them, to Remove Special Physical Weaknesses. Embracing an Account of the Swedish Method, and a Summary of the Principles of Hygiene. New York: American Book Exchange.
Taylor, Henry Ling (1896) "Exercise as a Remedy." Popular Science Monthly 48: 626–35.
Terlouw, Thomas (1991) De opkomst van het Heilgymnastisch beroep in Nederland in de 19de eeuwe. Amsterdam: Erasmus Publishing.
——— (2000) "How can we treat collective amnesia?" Physiotherapy 86 (5): 257–61.
——— (2007) "Roots of physical medicine, physical therapy, and mechanotherapy in the Netherlands in the 19th century: A disputed area within the healthcare domain." The Journal of Manual and Manipulative Therapy 15 (2): 23–41.
Tosh, J. (2005) Manliness and Masculinities in Ninehteenth-Century Britain. Malaysia: Pearson Education Limited.
Törngrens Arkiv, 1/8 1900. National Archives, Sweden.
Trouillot, Michel-Rolph (1995) Silencing the Past: Power and the Production of History. Boston: Beacon Press.
Verbrugge, H. Martha (1988) Able-bodied Womenhood, Personal Health and Social Change in 19th Century Boston. New York: Oxford University Press.
Walkley, Susan (2004) "When the body leads the mind: Perspectives on massage therapy in the United States," in Kathryn S. Oths and Servano Z. Hinojosa (eds.) Healing by Hands, Manual Medicine and Bonesetting in Global Perspective. Walnut Creek: AltaMira Press: 23–42.
Wardwell, I. (1992) Chiropractic: History and Evolution. St. Louis: Mosby Year Book.
Whorton, C. James (2002) Nature Cures: The History of Alternative Medicine in America. New York: Oxford University Press.
Witz, Anne (1990) "Patriarchy and profession: The gendered politics of occupational closure." Sociology 24 (4): 675–90.
——— (1992) Professions and Patriarchy. London: Routledge.
Wright, G. Wilhelmine (1912) "Muscle training in the treatment of infantile paralysis." Boston Medical and Surgical Journal 157 (17): 567–74.
Zieff, G. Susan (2010) "Leading the way in science, medicine, and physical training: Female physicians in academia." International Journal of the History of Sport 27 (7): 1219–36.