

## ***Adjusting Swedish gymnastics to the female nature: Discrepancies in the gendering of girls' physical education in the mid-nineteenth century***

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**Abstract:** During the nineteenth century, Swedish gymnastics became one of the main models of physical education in the Western world. The purpose of this article is to explore how Swedish gymnastics was adjusted to the female body and mind in the mid-nineteenth century. Using handbooks published by the Swedish educationalist Anton Santesson as an empirical starting point, this article shows how the relationship between gender and gymnastics was complicated and exhibited significant discrepancies. In part, Swedish gymnastics was marked by a one-sex model of gender differences, which meant that gymnastics was perceived as a method for catering to the deficiencies and weaknesses of the feminine nature, in an attempt to make girls and young women more similar to boys. Swedish gymnastics had, nevertheless, vital elements of a two-sex model, according to which gymnastics was supposed to realise the true feminine nature of girls. Following this line of thought, Santesson claimed that, since gymnastics merely followed the laws of the body, it could not make girls more like boys. Santesson's vision of gymnastics also included disciplinary mechanisms, such as the partitioning of space, which were gender neutral. Apart from presenting insights into the ambiguous and contradictory notions of gender in Swedish girls' gymnastics, this article thus also raises questions regarding whether other models of physical education were marked by similar discrepancies during the nineteenth century.

**Keywords:** Swedish gymnastics; physical education; gender; discipline; history of education.

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### **1. Introduction**

Modern physical education was established in the Western world during the nineteenth century. The work presented in this article focuses on the educational practices of the so-called Swedish gymnastics (the Swedish system) that had a significant following across the world in the nineteenth century. German gymnastics

did, for example, experience a «Swedish phase» between 1851 and 1863, and in Victorian England, Swedish gymnastics became highly popular particularly among women. In France, the influence of the Swedish gymnastics grew at the cost of other methods during the nineteenth century, and in the U.S., Swedish gymnastics was involved in debates on the best system of physical education (Naul, 2002, pp. 16-17; Bazoge, Saint-Martin & Attali, 2013, pp. 232-233; Pfister, 2009, p. 1917).

Although extant research on the construction, dissemination, reception and transformation of Swedish gymnastics is extensive, the adaptation of this model of gymnastics to the female body has received less attention. Using the concepts of political rationality, discipline and gender as analytical tools, the aim of this work is to elucidate how the educational aims and practices of the Swedish system were adapted to the perceived qualities of girls and young women. Focusing on handbooks written by the Swedish educationalist Anton Santesson (1825-1892) allows in-depth exploration of how proponents of girls' gymnastics solved the main challenge of girls' gymnastics – to adjust gymnastics created for men to the female body. The Swedish system is in this respect of special interest since it was, in its various forms, adopted throughout the world, and had a particularly vital impact on girls' gymnastics (Trangbaek, 1996, p. 125).

In order to examine how Swedish gymnastics was adapted to the minds and bodies of girls and young women, I have employed the analytical grid developed by Michel Foucault and his prominent followers. More specifically, this study is influenced by the concept of governmentality (Foucault, 2000) that highlights the various attempts at governing the population, including programmes of social politics, healthcare and education, which has increased in importance during the last three centuries (Rose & Miller, 1992, pp. 174-175). As extant work in this research field has shown, governmentalities are complex and multidimensional, allowing analyses to delve deeper into issues such as explanations given, authorities evoked, subjectivities construed, or strategies deployed (Rose, 1999, pp. xi-xii).

When analysing girls' gymnastics, I have focused on its political rationality and technology. The political rationality denotes how girls' gymnastics was conceptualised and justified, and how the appropriate forms and purposes of physical education for girls were defined (Cf. Rose & Miller, 1992, p. 175). In other words, this concept highlights how the adjustment of gymnastics to the female body was justified and made intelligible. In this respect, the concept of gender has guided the analysis, allowing the effects of the notions of gender differences on these adjustments to be discerned. In particular, this study has been informed by insights into the way gender is inevitably viewed as a relationship between male and female, masculinity and femininity, and how gender remains structured according to the male norm (Scott, 1986: 1053-75; Tjeder, 2003, pp. 19-21, and literature cited therein).

In this respect, this article has been particularly inspired by studies of notions of gender differences evident in bodily form and function. These include Thomas Laquer's pioneering analysis of what he regards as a paradigmatic shift from a one-sex to a two-sex model of the body. Laquer claimed that an interpretation of human bodies that emphasised the similarities between the sexes (representing women merely as a less accomplished version of men) was replaced during the eighteenth century by a two-sex model, which emphasised the contrast between the male and

the female body (Laqueur, 1992, pp. 1-11). While Laquer's study has been influential, scholars have questioned his thesis, arguing that traces of the one-sex model still influenced beliefs of gender differences during the nineteenth century. Researchers have thus been able to show that, even in medical discourses, gender differences were sometimes vague, ambiguous and contested (Matus, 1995, p. 21; M. Larsson, 2002, pp. 16-22). Thus, these studies also raise important questions regarding gender notions in the history of girls' gymnastics, and whether these exhibited similar ambiguities as the medical discourses.

Exploring the technology of girls' gymnastics sheds light on the practices and techniques through which objectives envisioned are supposed to be reached (Rose & Miller, 1992, pp. 175, 182). In this article, the concept of discipline has been vital in analysing the practices of girls' gymnastics, and how they were adapted, or not adapted, to the female body. Foucault used this concept to highlight how certain kinds of disciplinary techniques of power and control spread across the major institutions of society. Disciplinary techniques, discussed at length in Foucault's seminal work *Discipline and Punishment* (Foucault, 1991), are characterised by constant surveillance, a detailed and analytical control of space and bodily movement and normalising judgements. While prevalent in the operation of armies, hospitals, prisons and schools, the technology of discipline was also applied in gymnastics, having particular similarities to the military drill (see, e.g., Barker-Ruchti, 2006, pp. 13-29; Ljungren, 1996, p. 109).

Focusing on how perceptions of gender differences influenced the educational practices and aims of gymnastics, this article contributes to a growing body of research on the history of physical education and gender (see, e.g., the chapters of Gigliola & Terret, 2005; Kirk & Vertinsky, 2016). These studies have yielded important insights into the way gymnastics was gendered during the nineteenth and early twentieth century. Gymnastics and other forms of physical education seem to have been often structured in accordance with a female ideal. During the nineteenth century, increasing numbers of physicians were convinced that physical exercise was beneficial for women, if it was gentle in form and well adapted to the delicate female nature. Consequently, they recommended that women not be exposed to overly energetic exercise regimen (Hargreaves, 1994, pp. 47-48). In line with such interpretations of gymnastics, in the early twentieth century, Danish gymnastics was, for example, adapted to women's feminine beauty and their curved physique (Bonde, 2012, pp. 238-241). In England, in this period, concerns emerged over gymnastics creating flat-chested women with narrow hips (Fletcher, 1984, pp. 27-28). In the US, women's gymnastics was devised in the nineteenth century with the purpose of cultivating overtly feminine bodies with straight spines and increased chest size (Chisholm, 2005, 2007), and in Spain gymnastics conformed to prevalent ideals of femininity. Women's gymnastics, in the decades around 1900, was adapted to the female organism, which for example meant that particular attention was paid to the muscles around the pelvis (García & Herraiz, 2013).

Girls and women's gymnastics were also construed in other ways. In a comprehensive book on Swedish Ling gymnastics, Jens Ljunggren has argued that Swedish gymnastics was based on a one-sex model, whereby the purpose of women's gymnastics was a pursuit of a perfect male body that women, admittedly,

would never attain (Ljunggren, 1999, p. 245). Swedish gymnastics also seems to have been implemented in a gender-neutral fashion. David Kirk claims that, in early twentieth century Australia, the Dano-Swedish system of school gymnastics was androgynous at core. His hypothesis is that the schoolchildren's sex was made irrelevant by the rational and scientific character of this system (Kirk, 2000).

Apart from presenting the educational practices and aims of Swedish girls' gymnastics in the mid-nineteenth century, the main contribution of this article is a more nuanced analysis of the effect of gender differences on girls' gymnastics. Was girls' gymnastics merely adapted to feminine qualities, constructed as androgynous, or interpreted in line with a one-sex model of the human body? In this article, I will argue that, in the case of Swedish girls' gymnastics, the answer to such questions is far from simple, as girls' gymnastics was characterised by fundamental ambiguities and discrepancies. Girls' gymnastics was not only adapted to the female nature in line with the prevalent one-sex and two-sex models, but also remained gender neutral in certain aspects. By shedding light on this complexity, this article also questions whether the issue of gender differences in gymnastics in other countries was not as clear-cut as was previously assumed.

## 2. Santesson and the history of Swedish gymnastics

In the late eighteenth and early nineteenth century, Sweden experienced an increased and renewed interest in physical education. Several dissertations focusing on bodily exercise were published, and physical education was discussed by Swedish educators in relationship to the works of Johann Christoph Friedrich GutsMuths (1759-1839) and Johann Heinrich Pestalozzi (1746-1827) (Ljunggren, 1996, p. 111).

Among these educators, Pehr Henrik Ling (1776-1839) took the lead, and is often described as the creator of Swedish gymnastics (or Ling gymnastics). Ling's pioneering efforts in gymnastics resulted from his studies at Lund University, Uppsala University, and continuing studies in Copenhagen 1799-1804. Whether Ling was mostly inspired by developments in Sweden or Denmark remains a matter of dispute. Swedish scholars have acknowledged the Swedish debate referenced above, while Danish scholars have emphasised how Ling was influenced by Franz Nachtegall (1777-1847), an early proponent of physical education in Denmark, who was appointed as professor of gymnastics at the University of Copenhagen in 1804. Regardless, Ling moved back to Sweden where he started working as a fencing master in Lund in 1805. Thereafter, his reputation grew, and in 1813 he was appointed as founding director of the Royal Central Gymnastic Institute (*Kungliga gymnastiska centralinstitutet*) (Ljunggren, 1999, pp. 36-37; McIntosh, 2007, pp. 84-90).

In Ling's main work on gymnastics, *The General Basis of Gymnastics*, published in 1840, one year after his death, he distinguished between four kinds of gymnastics: educational, aesthetic, military and medical. According to Ling, gymnastics had to conform to the laws of the human body. In order for this aim to be met, Ling emphasised the importance of strictly regulated and carefully chosen physical exercises. While Ling noted the many advantages of free-standing exercises, he also

offered examples of exercises that involved apparatuses, even though he warned the reader of making them into anything else than a subsidiary issue. And while Ling focused on creating a system of abstract and regulated bodily movements, he also included less regulated forms of exercise, such as walking, running and swimming (McIntosh, 2007, pp. 91-93; Ljunggren, 1999, pp. 104-106).

In this article, the focus is on the works published by one of the writers that elaborated on Ling's legacy: Anton Santesson (1825-92). These include the five handbooks that Santesson published in the 1850s and 1860s, as well as the articles he published as the editor of the *Svenska gymnastik-föreningens tidskrift* journal (The Journal of the Swedish Association of Gymnastics) in 1865-1866. In the analysis, emphasis is placed on the handbooks discussing girls' gymnastics at length, such as *Handbook of Educational Gymnastics for Gymnasiums and Primary Schools* (A. B. Santesson, 1856), *The Gymnastics of Primary Schools* (A. B. Santesson, 1859), and *Gymnastics for Young Women and Schoolgirls* (A. B. Santesson, 1866a).

Santesson was a well-known figure in Swedish gymnastics. Following studies at Lund University, Santesson worked at the Royal Central Gymnastic Institute and a number of Swedish grammar schools. Santesson was also a traveller. In 1852, he was sent to Berlin to establish an institute based on the model developed by the Royal Central Gymnastic Institute, and he was two years later sent to Posen (a Prussian city in present-day Poland) on a similar mission. In 1867, Santesson received public funds that enabled him to visit Prussia, Saxony, Bavaria, Austria, Switzerland, France, Belgium and the Netherlands to study how physical education and arm exercises were implemented in these countries (G. O. C. H. Santesson, 1982, pp. 63-64).

Although Santesson was not particularly successful in his career – his highlights include the period at the Institute in the 1850s and his position of editor as the journal *Svenska gymnastik-föreningens tidskrift* – he was an industrious writer and his influence was exerted through the handbooks that he authored in the 1850s and 1860s.<sup>1</sup> His handbooks were impactful partly due to the lack of handbooks at that time. Pehr Henrik Ling, who published little on educational gymnastics, did not for example publish any handbooks, and his son Hjalmar Ling began to publish his handbooks a little later. Alongside Hjalmar Ling, Santesson was also the main author dealing with girls' gymnastics. This was evident, for example, when a department for women's gymnastics was established at the Royal Central Gymnastic Institute in 1864. At that time, Santesson's handbook on gymnastics for young women and schoolgirls was one of the two handbooks used at that department (G. Santesson, 1982, pp. 63-64; Annerstedt, 1991, p. 127; Carli, 2004, p. 115; Svalling, 1913, p. 250; Ljunggren, 1999, p. 155).

Santesson's vision of gymnastics was consistent with the visions of the other Swedish proponents of Ling gymnastics, although he might have given the apparatus and competitive exercises a more prominent place (Sandblad, 1985, p. 146). Santesson himself also claimed that his handbooks were lingian, as his aim was to create a system of gymnastics true to the spirit of Pehr Henrik Ling. He went as far as to describe himself as Ling's disciple (A. B. Santesson, 1856, preface, p. 5).

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<sup>1</sup> These handbooks were also influential in Finland, see Sandblad (1985, p. 148).

Like Pehr Henrik Ling, Santesson defined gymnastics as the doctrine of body movements in accordance with the laws of the human body. As such, gymnastics comprised four branches: educational, aesthetic, military and medical (A. B. Santesson, 1856, p. [0]). In contrast to Ling, who focused his attention on military and medical gymnastics, Santesson's handbooks dealt primarily with educational gymnastics. According to Santesson, educational gymnastics consisted of body movements aimed at strengthening the health and force of the body. Health and energy implied a uniform and harmonious body, which led Santesson to the conclusion that bodily exercises should cater to the whole body (A. B. Santesson, 1859, p. 5).

Like Swedish gymnastics in general, Santesson's handbooks included both free-standing exercises and exercises involving apparatuses, such as pommel horses, bars and wall bars. Apart from the strictly regulated exercises, carefully described in his handbooks, Santesson's handbooks also included other forms of exercise, such as swimming, running, wrestling and dancing (see, e.g., A. B. Santesson, 1856, 1866a). Santesson promoted gymnastics as a daily exercise. In his handbook for gymnastics in primary schools, Santesson proposed that the pupils should take part in 30 minutes of gymnastics each day, and that they should be divided into two groups: pupils aged 5-9 and those aged 9-13. He further recommended that these groups should be divided by gender, so that girls and boys were placed in separate groups (A. B. Santesson, 1859, pp. 5-6).

### 3. Adjusting gymnastics to the female body and mind

In the political rationality expressed by Santesson's publications, girls' gymnastics was justified as a means of combatting the health issues prevalent among Swedish women. These concerns may be interpreted as an expression of an (almost) eternal male occupation with the health of «the weaker sex» (Vertinsky, 1994, pp. 1-5), but may also be linked to the contemporary nineteenth century debate on girls' and women's health (Vertinsky, 1994; Frih, 2007). Santesson acknowledged, for example, statistics on childlessness and stillbirth, which he ascribed to the poor state of women's health. He also lamented the detrimental effects of contemporary fashion trends on women's bodies, and used individual examples of girls with crooked backs and sickly postures when claiming that the health status of women was in decline (A. B. Santesson, 1856, pp. 77-79; A. B. Santesson, 1866b, pp. 81-82).

Santesson's efforts to implement girls' gymnastics were also based on notions of the nation, the family and the mother, which were recurrent in contemporary society. Although the strength of a nation was usually linked to the masculinity and strength of its male population, Santesson argued that women held the key to the prosperity of the Swedish nation (A. B. Santesson, 1866a, pp. 12, 16). In his view, gymnastics fostered strong women, who would give birth to strong sons. Moreover, women would, thanks to gymnastics, be able to provide their sons with correct clothing, food and physical education (A. B. Santesson, 1856, pp. 80-81, 89).

In order to solve the problems of girls' and women's health, Santesson argued that gymnastics had to be adjusted to the female body and mind. «Gymnastics for women», he writes, «cannot be just the same as [gymnastics] for men, but has

to be guided by the differences that characterizes their bodies» (A. B. Santesson, 1866a, p. 1). In this respect, the political rationality of girls' gymnastics was certainly informed by the great gender dichotomy that marked the nineteenth century: men and women had entirely different bodies and minds, and had thus different roles to fulfil in society. Whereas rationality, self-discipline and decisiveness were the ideals the men of the Swedish bourgeoisie should aspire to, mildness, the ability to please, cheerfulness and diligence were ideals for the girls of the bourgeoisie (see literature referenced in Backman Prytz, 2014, pp. 18-19).

Consistent with such notions of gender, Santesson saw significant differences between men and women. With respect to the body, he described how women were smaller, had rounder shapes, and were generally more delicate. While women were widest across their pelvis, men were widest across their chest; while women were flexible, men were strong; while women had strong minds, men had strong bodies. These differences were also reflected in their bodily movements. Using a nineteenth century materialist conception of energy as the basic unity of both mind and body (Rabinbach, 1992, pp. 48-51, 251), Santesson argued that whereas men had more muscle energy (*muskelkraft*) than nerve energy (*nervkraft*), women exhibited the opposite proportions. Women's relatively high levels of nerve energy were expressed in livelier, lighter, more pleasant and more expressive movements relative to those of men. Women also had a better sense of smell and sense of order than men did (A. B. Santesson, 1864, xxi). These differences were believed to affect the mentality of the sexes. According to Santesson, men were more courageous, determined, cold, strict, and ambitious, while women were more submissive, hesitant, warm, gentle, and content. This dichotomy between men and women was also expressed in their interests. While men pursued strength, women aimed to please; while men loved fencing, women loved dancing; while men preferred to compete, women preferred to play (A. B. Santesson, 1866a, pp. 1-2, 17, 71, 91).

As mentioned above, the Swedish historian Jens Ljunggren has claimed that Swedish gymnastics was generally based on a one-sex model in which gender differences were perceived as quantitative, not qualitative, and where the purpose of gymnastics was to achieve the perfect male body (Ljunggren, 1999, p. 245). When examining the political rationality inherent in Santesson's publications, there are nevertheless discrepancies in how the dichotomy between men and women was understood.

On one hand, the political rationality of girls' gymnastics conceptualised and justified girls' with physical education by claiming that gymnastics reduced the differences between men and women. Women had weaknesses in their bodies that required attention. Women had, for example, weaker ankles, a tendency to waddle when they walk, and an inclination to slouch when running (A. B. Santesson, 1866a, pp. 3-4). There were also aspects of women's mental abilities that gymnastics was purported to correct. Santesson noticed, for example, that women's tendency to be overwhelmed by their feelings was one of their major faults. Even though this was a part of women's nature – they were more heart than brain – this was nevertheless something that gymnastics could amend. This correction of women that would bring them closer to a male ideal was not only possible through gymnastics but was, according to Santesson, also necessary if women were to be respected and

prepared for the extended civil rights that they gained during the first half of the nineteenth century (A. B. Santesson, 1866a, preface and p. 55).

Gymnastics was in this respect perceived as a method for modifying typically female qualities, bringing them close to the male ideal. Gymnastics could strengthen girls' weak ankles through various ankle exercises (see, e.g., Figure 1), and girls and young women should also be put through exercises that prevented them from waddling when they walk. Jumping exercises could furthermore strengthen decisiveness, self-discipline and courage – qualities women tend to lack (A. B. Santesson, 1866a, pp. 3-4, 37, 59). This purpose of gymnastics was also evident in the discussions of the implementation of gymnastics in primary schools. When teaching gymnastics to children, Santesson proposed that boys and girls be placed in separate sections. Functioning as role models, the boys would first perform an exercise, followed by the girls. The expressed aim of this exercise was that the girls should compete with the boys, trying to perform the exercise as correctly and with the same strength and dexterity as the boys (A. B. Santesson, 1859, p. 6). In such exercises, girls' gymnastics was conceptualised in accordance with the notion of women as the lesser sex that through gymnastics may be able to approach a male ideal.

**Figure 1.** An ankle exercise guided by Hildur Ling (1825-84) at the Royal Central Gymnastic Institute of Stockholm. Hildur was the daughter of Pehr Henrik Ling. Although she worked as an instructor in women's gymnastics at the institute, Hildur did not publish any works on the subject. Source: Kungliga gymnastiska centralinstitutet, Riksarkivet.





On the other hand, the political rationality inherent in Santesson's publications included notions of qualitative gender differences that were firmly anchored in a two-sex model depicting women's bodies and minds as opposite to those of men. Santesson explained these fundamental differences between the sexes through specificities in their physical characteristics. In one section, he argued that gender differences can be explained by the organ that dominates each gender. At the core, women's qualities stem from the heart, while men's qualities stem from their brains (A. B. Santesson, 1866a, p. 91). In another section, Santesson argued that gender differences originate from the fact that men's nature is determined by their muscle strength, while the female nature is derived from women's flexibility (A. B. Santesson, 1865a, p. 128). Although Santesson acknowledged that women may perceive such descriptions as unfair, he argued that these gender differences do not present either men or women with special rights. Instead, he expressively argued that men and women complement each other, quoting Swedish bishop, professor and poet Esaias Tegnér (1782-1846), who noted, «they suit each other, like the helmet matches the head» (A. B. Santesson, 1866a, pp. 18, 91. The quote is from page 18, my translation).

This two-sex model that also marked the political rationality of girls' gymnastics underlies Santesson's discussions of the educational practices of girls' gymnastics. Santesson frequently described how girls' gymnastics was to be adapted to the qualities of women. In his view, girls should be treated in a less strict manner since girls have a sensitive and mild disposition, and they should not be allowed to use the pommel horse, as it is highly inappropriate for girls and women. Girls' gymnastics should also focus on exercises that take advantage of typically feminine qualities. Santesson thus recommended climbing exercises for girls and young women, as these promoted shrewdness, which fitted women's talents for resourcefulness and inventiveness. Santesson also recommended balance exercises, which promoted civility and grace, in contrast to the boys' weapons training that promoted courage and intelligence. In Santesson's view, bending exercises were well suited to the women's flexible nature, along with wave-like body movements, which fostered tact and balance that were among the main features of the female nature. In addition, Santesson promoted dancing exercises, purporting that they suited the gracefulness of women and their natural desire to dance, for young women danced when they felt healthy, happy and innocent (A. B. Santesson, 1856, p. 81; A. B. Santesson, 1866a, pp. 2-4, 63, 68, 70, 91-92; A. B. Santesson, 1866d, p. 108). In short, gymnastics were in this respect a technique for treating girls in line with their perceived qualities and realising their true feminine nature.

Consistent with this complementary notion of gender differences, inherent in the political rationality of girls' gymnastics, Santesson acknowledged that the aim of gymnastics was not to make girls into something that they were not. Girls' gymnastic should not encompass all the exercises of boys' gymnastics, but should instead focus on freestanding exercises (A. B. Santesson, 1856, p. 81). Like Spanish promoters of women's physical education, Santesson emphasised the importance of exercises that strengthened the pelvis (García and Herraiz 2013, p. 501), while push-ups and similar exercises of the «male chest» should be avoided (A. B. Santesson, 1866a, pp. 2-4).

In fact, Santesson even claimed that gymnastics cannot make girls become more like boys, which was a concern that had also been raised abroad (see, e.g., Fletcher, 1984, 27-28). Gymnastics was, according to him, based on the laws of the body. Consequently, it could not make individuals into something they were not, but only assist in developing and refining pre-existing predispositions. Thus, Santesson argued that it was wrong to assume that gymnastics would result in large and rough hands in girls. Women's delicate and soft hands, which Santesson claimed was the nature's way to convey that they were intended to lead humanity towards pleasure, virtue and art, would merely be further refined by gymnastics (A. B. Santesson, 1866a, pp. 5-6).

#### 4. The gender neutrality of disciplinary techniques

Although girls' gymnastics was conceptualised and designed to suit the feminine nature of girls' bodies and minds, whether in line with the one-sex or two-sex model, there were certainly aspects of gymnastics that were gender neutral. David Kirk, who noticed such aspects of Dano-Swedish gymnastics in Australia 1900-1940, argues that these may be explained by the rational and scientific character of the system that made the sex of the individual irrelevant (Kirk, 2000, p. 61). As evident from above, this seems not to have been the case in Sweden. In the political rationality of Swedish girls' gymnastics, it was instead the laws of the body that justified the adjustment of gymnastics to the female physique.

Unlike Kirk, I would suggest that the gender-neutral aspect of girls' gymnastics is largely explained by the reliance on disciplinary techniques. Although Santesson's vision of girls' gymnastics was in many ways adjusted to the perceived nature of the female gender, the disciplinary techniques employed in girls' gymnastics remained curiously intact, regardless of whether these techniques targeted boys or girls. Whether this was a conscious choice or just an omission – it may be argued that disciplinary techniques were so well established at the time that Santesson was not able to perceive them as something that could be altered – remains, however, to be determined.

According to Foucault, disciplinary techniques had gradually replaced pre-modern techniques of yielding power as a king, a judge, an officer or even a teacher in all the great institutions of society: armies, hospitals, prisons, factories, and schools. These techniques were marked by a tightly structured organisation of the movements of individuals under constant supervision. In Foucault's most concise definition of discipline, the model of a disciplinary mechanism was the «enclosed, segmented space, observed at every point, in which the individuals are inserted in a fixed place, in which the slightest movements are supervised, in which all events are recorded, [...], in which each individual is constantly located, examined and distributed among the living beings, the sick and the dead» (Foucault, 1991, p. 197). In the context of schooling, the organisation of classrooms envisioned by the monitorial system is perhaps the best-known example of a well-developed disciplinary system (see, e.g., E. Larsson, 2016).

In Santesson's gymnastics, children were organised using the analytical space of disciplinary institutions regardless of gender. Foucault defines such disciplinary

spaces as based on the principle of partitioning aimed at avoiding confusion and disorder. Instead, each individual is prescribed a place, and each place is assigned to an individual (Foucault, 1991, p. 143). In Santesson's writings, this strict regulation of spaces and bodies was applied to both boys and girls. In gymnastics, the children were lined up in straight lines at predetermined intervals, usually 90 centimetres apart (A. B. Santesson, 1866a, p. 25. See also A. B. Santesson, 1856, p. 18). By such simple measures, a disordered group of children was transformed into an ordered line in which each individual has a place, and each place belongs to an individual (see Figure 2).

**Figure 2.** Female students at the Royal Central Gymnastic Institute (1880s) performing bending exercises that, according to Santesson, perfectly suited the flexible nature of women. Notice how the students are organised according to a disciplinary analytical space. Source: Kungliga gymnastiska centralinstitutet, Riksarkivet.



While this analytical organisation of space exposes individuals, it also adds an additional visual element to their movements. Everything contained in this space is normalised, in the sense that it is perceived against the background of the norms regarding how such a movement should be carried out. As in boys' gymnastics, these norms were extremely detailed in gymnastics for girls and young women; both girls' and boys' gymnastics were certainly, as Foucault described discipline in general, a «political anatomy of detail» (Foucault, 1991, p. 139). In gymnastics, no detail was too small or insignificant, and the instructions that the teacher's scrutinising gaze was based upon were almost ridiculous in their obsession with detail. This is best exemplified in the basic position that the girls should assume, which was defined

both in picture (see Figure 3) and textual form. As evident from the quote below, gymnastics did not only define the position of the girls' body, literally from head to toe, but even stipulated what should characterise their gaze:

The basic position of free movements is assumed by the pupils with their heads held high, their backs held straight, their stomach lightly restrained, their arms and hands hanging free, their fingers slightly bent and closed, their legs closed, and their toes facing outwards, and with a steady, open and courageous gaze (A. B. Santesson, 1866a, p. 25)<sup>2</sup>.

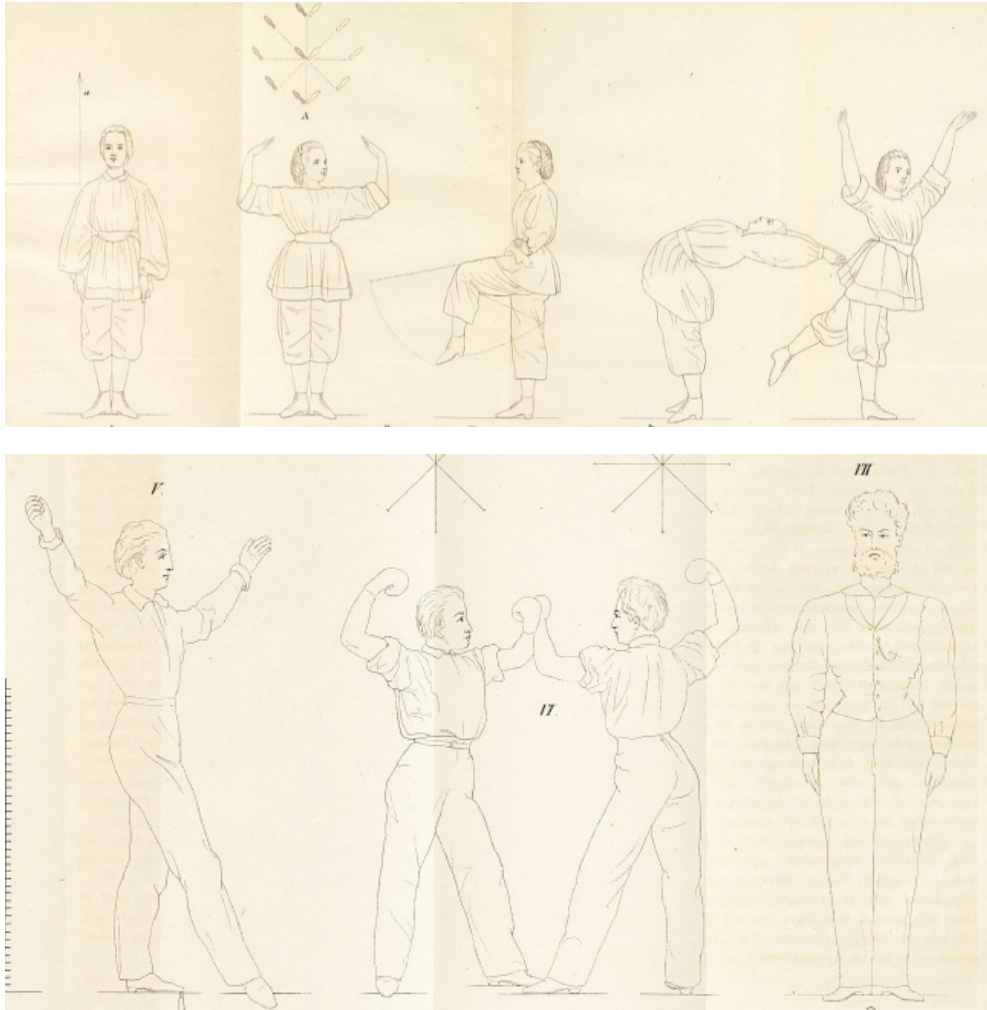
In addition to precisely defining their positions, the disciplinary techniques of gymnastics extended to girls' movements, which were defined in the same detailed fashion as the boys' movements. Similar to the children of monitorial schools and the infantrymen of the armies (Foucault, 1991, pp. 150-151), girls' gymnastics was marked by a far-reaching temporal elaboration of movements. Santesson's method for accomplishing this starts with his definition of bodily movement. For him, movements were not a state of flux, but were rather always structured, beginning with a starting position, followed by a number of positions through which the movement passes, and terminating in an end point (A. B. Santesson, 1856, p. 47). For example, when arm movements were performed, this was done in a precisely defined order: upwards, forward, outwards and finally upwards. Each of these movements was also defined more precisely. When arms were to be moved in front of the chest, these movements were initiated by the teacher's command «Arms, in front – bend!» Thereafter the children raised their arms in front of their chest so that their elbows were in line with their shoulders. Their hands were expected to be stretched out, their thumbs touching their chest (A. B. Santesson, 1866a, pp. 39-40; A. B. Santesson, 1865b, p. 81).

To aid such written instructions, Santesson published plates illustrating positions and movements (see Figure 3). These plates established what may be described as a grammar for the body (Rose, 1995, p. 178) that enabled readers to perceive otherwise ephemeral and constantly passing movements, consequently linking the theory of gymnastics to its practical implementation on schoolchildren. While interesting from the perspective of governmentality as techniques for visualization (Cf. Rose, 1995, p. 177-178), these plates also illustrate the complexity of gender differences in Swedish gymnastics. There were certainly similarities in the content of boys' and girls' gymnastics, such as the same basic position. There were also differences. Boxing was, for example, only included in the plates describing boys' gymnastics. Regardless of content, however, such plates illustrated the gender neutrality of the disciplinary techniques since they visualised and prescribed movements and positions in the same precise manner, irrespective of gender.

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<sup>2</sup> For an almost identically formulated definition of the basic position of boys, see A. B. Santesson, 1866d, p. 51.

**Figure 3.** Positions in girls' and boys' gymnastics. Positions 1 and VII describe the basic position. Source: A. B. Santesson, 1866a; A. B. Santesson, 1866d.



Apart from the analytical organisation of space, Foucault claimed that supervision was fundamental to discipline. A perfect disciplinary institution «would make it possible for a single gaze to see everything constantly» (Foucault, 1991, p. 173). Supervising children was also an important part of the disciplinary techniques of gymnastics, regardless of gender. According to Santesson, the teacher should commence his/her work by examining the body of each child, paying special attention to those found fragile in any way (A. B. Santesson, 1856, pp. 7-8). During classes, the teacher should closely monitor the children's movements, focusing primarily on the faults in their movements. Santesson noticed that this meant that the teacher would see many errors being made, which would annoy and trouble him/her. Among

all these faults, the teacher would nevertheless see examples of beauty of thought and movement, which will give him/her pleasure (A. B. Santesson, 1865b, p. 81).

Although faults may irritate the teacher, the possibility of identifying them was also the reason why weak children should be allowed to participate in gymnastics: the faults in their movements will reveal what parts of their bodies they need to exercise. Starting from the knowledge that all healthy organisms conduct movements in the same manner in all directions, the teacher can easily observe when a child cannot perform a certain movement in an unrestricted fashion. Furthermore, during gymnastic exercises, the teacher will be able to spot those children who masturbate, which according to Santesson is a vice that is conducted at «a grand scale at schools». It causes weak knees, indifference, and timidity – symptoms that the gymnastics teacher must pay attention to during class (A. B. Santesson, 1856, p. 8; A. B. Santesson, 1856, p. 9; A. B. Santesson, 1866c, p. 75).

Apart from supervision and analytical organisation of space, the disciplinary techniques of gymnastics also included a penal mechanism (Foucault, 1991, p. 177). In line with the productive purpose of discipline (Foucault, 1991, pp. 162-164), which amounted to increasing the abilities of the governed individuals, the penal mechanisms of discipline were not limited to punishment, or corporal punishment only. Instead, disciplinary punishment was in essence corrective and a normal part of training programs (Foucault, 1991, pp. 179-180).

Santesson himself was an opponent to physical punishment due to his perception of gymnastics as a method for creating mentally and physically strong national citizens. According to him, physical punishment could not contribute to raising the value of individuals. As an argument, Santesson used a general impression of military men worldwide, and claimed that in countries where soldiers were flogged, no intelligent warriors had ever been raised using that method. Yet, despite his arguments that the dangers of such punishments in a physical sense were well proven, their benefits in a moral sense remained disputed (A. B. Santesson, 1856, p. 10).

Instead, Santesson suggested a system consisting of three kinds of punishments that should be applied regardless of gender. The mildest remarks were given for compliance sins: inattention, neglect or carelessness. The more serious punishments targeted disobedience, foul language, insubordination and defiance, and such punishments ranged from placing the child in a punishment corner to expulsion from class and, in the worst cases, expulsion from school (A. B. Santesson, 1856, 10). Neither the offenses nor the punishments were unique to Santesson's vision of gymnastics. Instead, they were features of a disciplinary regime that transcended simple distinctions between legal and illegal, and instead judged all deviant behaviour, including such minor deviances as inattention (Foucault, 1991, p. 178). Although Santesson recommended that girls should be treated less strictly, since they have a more sensitive disposition (A. B. Santesson, 1856, p. 81), this normalising mechanism applied to children of both genders.

In line with the essentially productive purpose of discipline and gymnastics, Santesson devoted less attention to punishments of deviant behaviour, focusing instead on measures aimed at preventing it. In this context, Santesson criticised what he perceived to be the dull exercises of gymnastics, prescribed by most educators, including Pehr Henrik Ling's son Hjalmar Ling. Quoting the father, he argued that

to «only invite the glum labour and the strictly calculated zeal of education is to kill the spirit of education» (A. B. Santesson, 1856, p. 64). Instead, he argued that enjoyment and pleasure should characterise gymnastics. It is, however, important to note that enjoyment was not an end in itself, but a means for upholding discipline. In fact, Santesson claimed that true enjoyment never degenerates into disorder. Pure and innocent joy occurs only in cooperation between body and mind, which according to Santesson implies that enjoyment in the true sense of the word always has a serious purpose (A. B. Santesson, 1856, p. 64).

Apart from making gymnastics enjoyable, the correct exercises were to be produced by motivating the children to strive to become better at gymnastics. Discipline should in that sense not be upheld primarily by the teachers, but rather by the children themselves. With regard to boys, Santesson emphasised the significance of kindness and praise, but also variation in order to keep the interest of the boys (A. B. Santesson, 1866d, pp. 10, 34, 100-101). With regard to girls, Santesson claimed that teachers should take every opportunity to remember the practical applications of gymnastic exercises in children's everyday life. When performing jumping exercises, the girls should for example be reminded of the fences and small streams that they need to be able to cross. The teacher should also repeatedly remind the girls of the significance of their gymnastics, emphasising that the future happiness of society is dependent upon raising a healthy and capable generation of women (A. B. Santesson, 1866a, pp. 19-20, 80).

Although the methods recommended exhibited differences, the purpose of this strategy was the same, regardless of gender. By motivating children – making them enjoy and want to do gymnastics – the purpose of gymnastics was to prompt them to be more involved in their own subordination to the discipline of gymnastics. In the gymnastics envisioned by Santesson, the children's soul became the prison of their bodies (Cf. Foucault, 1991, p. 30).

## **5. In conclusion**

In this study of the political rationality and the technology of girls' gymnastics, I have explored how Anton Santesson adjusted gymnastics to the perceived needs and abilities of girls and young women. Unlike previous research on physical education that has mainly indicated how gymnastics was either gender neutral or gendered according to a one-sex or a two-sex model, this article has emphasised the discrepancies and the hybridised nature of this process. As evident from the preceding discussions, girls' gymnastics featured at least three ways of addressing the issue of gender differences.

First, in the political rationality of girls' gymnastics, gender differences were understood as quantitative from the perspective of a one-sex model of gender. This way of addressing gender differences has been acknowledged in previous research on Swedish gymnastics (Ljunggren, 1999). In that respect, girls' gymnastics was justified by its ability to amend weaknesses inherent in girls' nature, making them more like boys. Apart from exercises in which girls should try to mimic the boys' movements, this meant that gymnastics was aimed at strengthening girls' weak ankles, or encouraging their decisiveness, self-discipline and courage.

Secondly, girls' gymnastics was conceptualised using a two-sex model in which girls and boys had qualitatively different bodies and minds. While girls' qualities originated from their hearts, boys' traits were related to their brains. In this respect, girls' gymnastics was justified by its ability to adjust to these differences. Accordingly, girls should be treated less strictly, and Santesson stressed balancing and climbing exercises that were particularly well-suited to their female nature: their civility, grace and resourcefulness. Based on such a model, Santesson even claimed that gymnastics never risked transforming girls into boys, since it was underpinned by the laws of the body.

Third, girls' gymnastics was partly gender neutral. Although gymnastics was adapted to the female body and mind, it remained disciplinary at the core. Regardless of the exercises chosen for the girls, the disciplinary techniques of analytical space, supervision and normalising judgement remained intact. While girls' gymnastics was gendered on many levels, it was not gendered on the level of what Foucault called the «microphysics of power» (Foucault, 1991, p. 28). In that respect, gymnastics seems to have remained gender neutral.

Apart from presenting additional insights into Swedish girls' gymnastics in the mid-nineteenth century, my analysis of girls' gymnastics has thus shown how incongruous, ambiguous and contradictory the gendering of gymnastics could be. Although, there was no doubt that Swedish gymnastics should be adapted to the female nature, Santesson was not able to present a coherent answer to how that should be accomplished. Exploring the complex relationship between gender and Swedish gymnastics, this article raises questions regarding whether similar discrepancies can be found in other countries and other models of physical education.

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