



INTRODUCTION

Crossing Borders: Women and Higher Learning in a Nordic Perspective, 1860–1960

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This special issue on women and higher learning contributes to the exploration of the divergent, overlapping stories of women who sought knowledge and negotiated their womanhood in various ways. The special issue contains six articles about women's paths into higher learning. More specifically, there are articles concerned with female students at a teacher training college in Finland in the second half of the nineteenth century (Sofia Kotilainen); the construction of gendered statistical arguments in Sweden's girls' school committee in the 1880s (Sophie Winkler); the first woman professor in mathematics at Stockholm University, Sofia Kovalevskaya (1850–1891) (Maria Tamboukou); textile researchers in Denmark around the time of the First World War (Ulrikka Mokdad and Morten Grymer-Hansen); Nordic women within higher learning in home economics after the Second World War (Pernille Svare Nygaard); and the entangled lives of two female scholars in the middle of the twentieth century (Ning de Coninck-Smith).

Historiographies

Important literature has been written about the history of girls' schools, teacher training for women and the women who established schools for women in the Nordic countries.¹ Furthermore, biographies have traced the lives of well-known female scientists. Examples include the Danish physician Marie Krogh (1874–1943), the Norwegian philologist Clara Holst (1868–1935), and the Austrian-Swedish physicist Lise Meitner (1878–1968).² In recent years, the interest among scholars has shifted towards studies of women's encounters with specific disciplines. Interdisciplinarity, and not least the history of gender and emotions, have had an impact on the history

1 Emil Marklund, *Teachers' Lives in Transition: Gendered Experiences of Work and Family Among Primary School Teachers in Northern Sweden, c. 1860–1940* (Umeå: Umeå University, 2021); Birgitte Possing, *Viljens styrke: Nathalie Zahle - en biografi om dannelse, køn og magtfuldkommenhed*, (København: Gyldendal, 1992).

2 Bodil Schmidt-Nielsen, *August og Marie Krogh: et fælles liv for videnskaben* (København: Gyldendal, 1997); Hanne Sindbæk, *August og Marie: dansk videnskabs glemte stjerner* (København: Politikens Forlag, 2022); Ruth Lewin Sime, *Lise Meitner: A Life in Physics* (Berkeley: University of California Press, 1997); Ernst Håkon Jahr, *Clara Holst: En kvinnelig pioner i akademien i Norge* (Oslo: Novus, 2006).

of education, and several scholars have written about female physicists, chemists, and doctors, and about how they fulfilled, challenged, or reinterpreted their academic roles, or their *scholarly personae*.³ Today, women are in the majority among the students at institutions of higher learning in the Nordic countries.⁴ This has led to increasing discussion of how this came about, and to an interest in the paths and detours through which women have pursued knowledge and education.⁵ It has also drawn attention to women's vocational education and professional training, primarily in the fields of care work, home economics, teaching, and textiles,⁶ as also reflected in this special issue. During the twentieth century, education was no longer only a privilege for girls in the upper echelons of society, as was primarily the case for the pioneering generations of the nineteenth century. In this remarkable process, teacher training took on new meaning in women's struggle for independence at a time when female enrolment in upper secondary education was not a matter of course due to cultural, social, and geographical restrictions.⁷

In a broader perspective, studying the history of women's higher learning is a relatively young discipline, whether examined comparatively across nations or by country.⁸ In the western world, interest in women's educational history grew in the late 1970s with the rise of the second feminist wave. This growing interest was accompanied by a focus on the lack of female representation in history writing and educational history.⁹ However, there is still a need for exploration of the more personal stories of those women who pursued higher learning and the untold stories of the generations of women who followed in the wake of the pioneers. Therefore, this special issue shares new Nordic research on women and higher learning with a focus on women's individual

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- 3 E.g., Annette Lykknes, "Enabling Circumstances: Women Chemical Engineers at the Norwegian Institute of Technology, 1910–1943," *Ambix* 69, no. 3 (2022), 262–90; Rebecka Göransdotter, "En teoretisk anomali? Nytt ljus på intellektuella kvinnor under 1900-talets första hälft i Sverige," in *Ny utbildningshistorisk forskning II: Nio bidrag från Forskarskolan i tillämpad utbildningshistoria*, ed. Johannes Westberg and Germund Larsson (Uppsala: Uppsala Studies of History and Education, 2023); Heini Hakosalo, "Cut Out for Medicine: Anatomical Studies and Medical Personae in Fin-de-Siècle Finland," in *Gender, Embodiment, and the History of the Scholarly Persona: Incarnations and Contestations*, ed. Kirsti Niskanen and Michael J. Barany (Cham: Palgrave Macmillan, 2021), 149–80.
 - 4 Danmarks Statistik, "Uddannelsesgabtet mellem kvinder og mænd øges," <https://www.dst.dk/da/Statistik/nyheder-analyser-publ/nyt/NytHtml?cid=38257>; Eurostat Statistics Explained, "File: Number of Tertiary Education Students by Level and Sex, 2015 (Thousands) YB17.png," [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Number_of_tertiary_education_students_by_level_and_sex,_2015_\(thousands\)_YB17.png](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Number_of_tertiary_education_students_by_level_and_sex,_2015_(thousands)_YB17.png).
 - 5 E.g., Simonetta Polenghi and Tanya Fitzgerald, "Breaking Boundaries: Women in Higher Education," *Paedagogica Historica* 56, No. 6 (2020), 724–28.
 - 6 E.g., Åsa Broberg, Viveca Lindberg and Gun-Britt Wärvik, eds., *Kunskapstraditioner och yrkeskunnande: Kvinnors yrkesutbildning i historisk belysning* (Göteborg: Makadam, 2022).
 - 7 Anne Katrine Gjerløff et al., *Da skolen blev sin egen: 1920–1970*, (Aarhus: Aarhus University Press, 2014); Emil Marklund, "Teaching and Family: Either or Both? Work and Family among Women Primary School Teachers in Northern Sweden, c. 1860–1937," *Scandinavian Journal of History* 48, no. 4 (2023), 503–29.
 - 8 Linda Eisenmann, "Creating a Framework for Interpreting US Women's Educational History: Lessons from Historical Lexicography," *History of Education* 30, no. 5 (2021), 453.
 - 9 Joyce Goodman and Jane Martin, "Breaking Boundaries: Gender, Politics, and the Experience of Education," *History of Education* 29, no. 5 (2000), 383; Julie McLeod, "Feminism, Gender, and Histories of Education," in *Handbook of Historical Studies in Education: Debates, Tensions, and Directions*, ed. Tanya Fitzgerald (Singapore: Springer Nature, 2000), 120–23.

stories. We hereby want to contribute to a discussion of the social and cultural changes that might have facilitated women's participation in higher learning and in society more generally. What made these women leave behind their home and family, what were their dreams, and what impact did higher learning have on their identities as women?

Unsettling established narratives

When reviewing research on women's educational history in the western world, the historical lines seem to be roughly parallel with each other. Within a period of approximately 50 years around the turn of the twentieth century, women gained access to university and higher education. Teacher training schools for women were established, and female domestic occupations, such as caring, cooking, and sewing, were professionalised, with new education programmes emerging. *Access* is thus a key element in the history of women's efforts to obtain any level of education. Although details of the Anglo-American and Nordic histories differ, there are similarities in the overall chronology of women's initial attempts to demonstrate their intellectual capacities and their arguments for gaining access to education. According to Linda Eisenmann, the gradual opening of various opportunities and the persistent push for increased options characterise both these histories.¹⁰ However, the term *access* contains other significant aspects, such as the influence of patriarchy, as highlighted by Joyce Goodman and Jane Martin among others.¹¹ They note that “the breaking of boundaries and the crossing of borders is a far more complex process than trajectories of progress suggest.”¹² The notions of *boundaries* and *border crossing* challenge linear narratives of heroic women who fought and succeeded. The narratives in this special issue tell stories that are messy, entangled, and with multiple chronologies, where women have combined different kinds of education, both formal and informal, public and private, sometimes returning to higher learning after years spent caring for children and family. Therefore, from a post-structuralist, feminist, and neo-materialist perspective, women's educational history is not about writing women into the history of education, but about women's agency, the many paths they follow, and the dilemmas of being a woman within education. It is about encounters with the world of academia that did not go smoothly, inequalities that persisted, meaning that some women were included, and others excluded because of their religion or social class. The result was frequently a gendered precarity, with temporary positions and periods of unpaid academic work.¹³

Higher learning

To the extent that women's admittance to education has been examined, the focus has often been on access to the university and higher education.¹⁴ Women's educational

10 Eisenmann (2001), 455.

11 Goodman and Martin (2000).

12 Goodman and Martin (2000), 384.

13 Joyce Goodman, “Afterword: Histories of Women's Higher Education, Time, and Temporalities,” *Paedagogica Historica* 56, no. 6 (2020), 847–56, 852; Tamson Pietch, “Geographies of Selection: Academic Appointments in the British Academic World 1850–1939,” in *Mobilities of Knowledge*, ed. Heike Jöns et al. (Cham: Springer Nature, 2017), 157–79.

14 Bente Rosenbeck, *Kvindekøn: den moderne kvindeligheds historie 1880–1980*, (København: Gyldendal, 1991); Pelle Oliver Larsen, “En ukvindelig dame? Billedet af udenlandske kvindelige læger og andre akademikere i Danmark 1849–1875,” *Historisk Tidsskrift* 122, no. 1 (2023), 35–71.

pathways combining and connecting the private and the public, the formal and the informal, short courses and degree programmes have remained uncharted territory.

In this special issue, we use the term “higher learning” instead of “higher education.” The concept of higher learning enables an awareness of the many different layers of learning and training women have made use of, and how they were combined and connected. At the same time, a one-sided focus on university or upper secondary education is avoided, while also drawing attention to the important role that for example, teacher training and care work have had for women’s educational opportunities. As a concept, higher learning also points to the importance of women’s agencies, strategies, and plans in relation to education and their use of female networks – something that is easily neglected if the emphasis is on the formal educational system.¹⁵

In 2020, the international journal *Paedagogica Historica* published a special issue: *Breaking boundaries: women in higher education* (2020),¹⁶ inviting scholars to continue to think about female educational subjectivities and the encounters between women and academic disciplines, as Joyce Goodman frames it in her afterword.¹⁷ In the research project *Women’s University 1928–2000*, funded by Aarhus University Research Foundation and the Faculty of Arts at Aarhus University, we have taken up this challenge. The project deals with the encounters between gender and higher learning at Aarhus University from its founding in 1928 until 2000. From early on, we were joined on this journey by Maria Tamboukou and Joyce Goodman, as well as Astrid Elkjær Sørensen, Bente Rosenbeck, Harriet Bjerrum Nielsen, Christian Larsen, Susanne Malchau Dietz, and the late Katrin Hjort.¹⁸ The purpose of this special issue of *Nordic Journal of Educational History* was to invite other Nordic scholars to join our conversation about women and higher learning. A call for papers was published in the autumn of 2021, contributions were selected, and a workshop on gender and higher education was held in February 2022. The articles have developed and been discussed among peer reviewers and editors across different subjects, institutions, and countries throughout 2023. In September 2023, we expanded our network of conversation partners and organised an international seminar held at Sandbjerg Estate in Southern Denmark on the topic of higher learning, knowledge circulation, and gender history. At this seminar, papers were presented on women and education in France, Egypt, Australia, Sweden, and Denmark. The introduction to this special issue builds on the stimulating discussions and reflections at both the workshop and the seminar. We would like to thank Kystan Palani-Jafi for diligent assistance with the practical arrangements in planning and organising the events as well as this special issue.

Intersecting and connecting themes

The concept of higher learning helps make visible women’s contribution to knowledge production, for example as assistants to male researchers, as amateur botanists,

15 Sarah Jane Aiston, “Women, Education and Agency, 1600–2000,” in *Women, Education, and Agency, 1600–2000*, ed. Jean Spence, Sarah Jane Aiston and Maureen M. Meikle (New York: Routledge, 2010), 1–8.

16 Jeroen J. H. Dekker et al., eds., “Special Issue: Breaking boundaries: Women in Higher Education,” *Paedagogica Historica* 56, no. 6 (2020).

17 Goodman (2020), 855.

18 Ning de Coninck-Smith and Pernille Svare Nygaard, “Women’s University,” Projekter, Aarhus University, Danish School of Education, <https://projekter.au.dk/en/womens-university>.

or astronomers,¹⁹ or as governesses or private teachers, through which they gained knowledge and educational training. This is a topic addressed in Sofia Kotilainen's article about the first generation of female students at the Jyväskylä Teacher Training School, the first Finnish-language teacher training school for elementary school teachers, established in 1863. The concept of higher learning is also central when examining the movements that exist across, for example, women's colleges and universities, private and public institutions, and within women's associations and literary societies. Such movements are depicted in Ning de Coninck-Smith's contribution examining the entangled lives of two female academics, Grethe Hjort and Julie Moscheles, at the crossroads of the academic world in the middle of the twentieth century.

The lack of historical visibility of women in education is challenged by greater attention to the transitions between the formal and the informal, the private and the public, and to shifting chronologies and the interactions between educational programmes of different lengths.²⁰ A good example of this is the article by Ulrikka Mokdad and Morten Grymer-Hansen about a female drawing school and the emergence of textile research in Denmark. Here, they show how random, unintentional, and unplanned the design of the educational programme was – entirely dependent on the specific individuals involved. Pernille Svare Nygaard's analysis of a group of women from across the Nordic countries who applied for admission to a higher learning programme in home economics at Aarhus University in the years after the Second World War likewise shows how this programme came into being and was shaped over the years – a process that did not follow the original plan but was negotiated by various stakeholders.

Several interlinked themes frame the content of this special issue. For example, a discourse depicting women as “the intellectual other” appears in some of the articles. Central to this discourse was the relationship between intellect, body and soul, rationality, and emotions, as shown by Sophie Winkler in her examination of the 1888 report of the second Swedish Girls' School Commission and how statistics were used as an important tool to justify the view that girls are frail of both body and intellect, and as an argument for the creation of specific educations for women.

Another key theme deals with women's educational possibilities and the barriers they had to cross – and the resistance they encountered – when leaving their home and family. It could be the Finnish teacher and poet Isa Asp, who followed her dreams and travelled for many days to enrol at the first Finnish-speaking teacher training college in 1871, or the first generation of female mathematicians, who overcame restrictions and the limitations of their gendered position, as Maria Tamboukou writes. Even though mathematics was not considered a purely male domain in the late nineteenth century, it was far from simple and without conflict for women to enter this academic discipline. Conservatives considered women within the scientific subjects as bad role models that could stir unnecessary ambitions in the minds of young girls.

Another common theme is travelling as a female academic. This theme is explicitly detailed in Ning de Coninck-Smith's article on two women who fought for academic recognition in Denmark and Czechoslovakia, but who had to settle abroad to obtain

19 Ruth Watts, “Scientific Women: Their Contribution to Culture in England in the Late Eighteenth and Nineteenth Centuries,” in *Women, Education, and Agency, 1600–2000*, ed. Jean Spence, Sarah Jane Aiston and Maureen M. Meikle (New York: Routledge, 2010), 49–65.

20 Aiston (2010).

an academic position. In this way, women moved in terms of both geographical location and knowledge acquisition, as also seen in Pernille Svare Nygaard's contribution on the many Nordic women who travelled to Aarhus to pursue advanced learning in home economics.

A recurring theme concerns how women performed their roles as scholarly personae and which public and academic expectations they had to face in relation to marriage, motherhood, clothes, sexuality, and behaviour. This is present in Maria Tamboukou's description of how Sofia Kovalevskaya was constantly confronted with the dilemma of being a single mother and a professor of mathematics at Stockholm University in the 1880s. At Aarhus University, Pernille Svare Nygaard traces the emergence of a new female figure in the post-war years who embodied modernity and tradition at the intersection between the housewife and the female student at what was commonly referred to as "The Faculty of Meatballs."

Finally, we want to highlight how the exploration of the histories of women and higher learning benefits from micro-historical and collective biographical methodologies, as well as a plurality of theoretical thinking and new conceptualisations. It might be feminist state theory, with its emphasis on how the notion of patriarchy structures ways of thinking about the good state and concepts of citizenship. It could be affect theory, placing intersectionality and the development of new female figures within education at its core. Or it could be new materialist thinking, pointing to the importance of reading sources diffractively – and as a mattering.

In addition, there is a multiplicity of interwoven chronologies at play across the contributions in this special issue. Firstly, the past haunts the present; historical notions of women's bodies and abilities did not change overnight. Secondly, social and cultural events and changes outside the narrow walls of the educational institutions are important. Just as the development of Nordic welfare states after the Second World War required professional female caregivers such as health visitors, the nation states of the late nineteenth and early twentieth centuries called for educated women. These women were needed as mediators and teachers of language and culture, as seen in the Finnish school system; as scientific nutritionists to optimise the household economy and improve the population's health; or as textile researchers who could contribute to the understanding of a cultural heritage and the positioning of the Danish Kingdom as ancient old culture. Women desired education, but the education they had access to was largely dependent on time and place. Seen from a social and cultural perspective, the agency of educated women extended beyond personal and social autonomy into narratives of the nation and the welfare state.

Overall, the articles in this special issue show the importance of private tutoring, women's colleges, international networks, university courses, and vocational training in women's multiple and entangled paths to higher learning.

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