Transversal: International Journal for the Historiography of Science 2019 (6): 3-5 ISSN 2526-2270 www.historiographyofscience.org Belo Horizonte – MG / Brazil © The Authors 2019 – This is an open access article

## Special Issue – Women in Sciences: Historiography of Science and History of Science – on the Work of Women in Sciences and Philosophy

## Introduction

Andrea Reichenberger<sup>1</sup> Moema Vergara<sup>2</sup>

DOI: http://dx.doi.org/10.24117/2526-2270.2019.i6.02 This work is licensed under a Creative Commons Attribution 4.0 International License.

Women's participation in the advancement of science and the discussions of philosophical issues have a long history. In fact, their participation in the production of knowledge is as old as mankind itself, or in order to avoid the generic use of "man" and to use gender-neutral language, it would better to say that it is as old as humanity itself.

In 1690, Gilles Ménage published the first-ever history of women philosophers, *Historia mulierum philosopharum* (*History of women philosophers*), which provides an account of 65 female philosophers from the past 2,500 years. The Paris intellectual, Ménage, advocated for the appointment of women to the *Académie française*, arguing that their contribution had greatly enriched science and philosophy. Nearly 100 years later, in 1775, Christian August Wichmann wrote the German encyclopedia entitled *Geschichte berühmter Frauenzimmer* (*History of famous women*).

Despite such remarkable exceptions, women usually remained unnoticed in the historiography of philosophy and science. Nowadays, there is a growing awareness of the importance of academic studies concerning women's contributions in the humanities and sciences. This is demonstrated by the numerous research projects and emerging funding priorities in universities worldwide. The reason for this positive development is, in a few words, gender equality. Which is defined as a fundamental right, an internationally agreed upon sustainable development goal, and an essential feature of stable and transparent democracies. The historiography of science, which analyzes scientific knowledge production in its many social implications as well as its epistemological and educational presuppositions, plays an important role here and bears a significant responsibility. It is of utmost importance that we practice what we preach, i.e., that we include women's contributions to the problem-

<sup>&</sup>lt;sup>2</sup> Moema Vergara [Orcid: 0000-0003-1837-082X] is a Senior Researcher at the Museu de Astronomia e Ciências Afins – Mast – Rio de Janeiro, Brazil. She is also a Professor in the Graduate Program in History at the Federal University of the State of Rio de Janeiro – UNIRIO, and in the Graduate Program in Teaching, Philosophy and History of Sciences at the Federal University of Bahia – UFBA. Address: Rua General Bruce, 586 – São Cristovão 20921-030 – Rio de Janeiro – R.J., Brazil. E-mail: moema@mast.br



3

<sup>&</sup>lt;sup>1</sup> Andrea Reichenberger [Orcid: 0000-0001-5007-935X] is a Postdoctoral Researcher at the Faculty of Arts and Humanities: Institute of Philosophy at Paderborn University, Germany. Address: Technologiepark 21, Room: TP21.2.31, 33100 Paderborn, Germany.

E-mail: andrea.reichenberger@upb.de.

oriented and systematic discourse of the current historiography of science and science education.

Learning from history does not guarantee that we can solve contemporary problems and open questions, but this knowledge can contribute to a better understanding and approach to these problems and issues. "Only those who know the past can understand the present and shape the future". This sentence, attributed to the Social Democrat August Bebel, carries with it a special, modified meaning against the background of the promotion of women and gender equality: "Only those who are able to rethink the past can shape the future". We have learned that without a well-established science education, science has no future. We should learn and understand that without a well-established integration of women in the historiography of science, the promotion of women in science has no future. What we need are not only gender-sensitive studies and quantitative-statistical evaluations of women's under-representation in research and teaching practice, but also the approaches that have the potential to reform and diversify our picture and image of science.

In the second half of the twentieth century, the feminist movement was fundamental to the entry of feminist studies into the Academy. It opened a new field of study that was complex and interdisciplinary and which, among other things, made a revision of the Marxist historiography that saw the main motor of history as a class struggle and furthermore, made women invisible in the historical narrative.

Feminist criticism and its attack on patriarchalism have made society rethink concepts, such as Man, Truth and Science as rigid categories that are committed to progress and always focused on the common good. It was within the context of women's studies that gender studies emerged, especially around the 1970s, which in turn was strongly influenced by anthropology. Therefore, the main point was made by the critique of essentialism, to the extent that (insofar as) Simone de Beauvoir said, "one is not born, but rather becomes, a woman" (de Beauvoir 1952 [1949], 249).

The feminist movement became increasingly involved in the dynamics of theories, in the change of scientific categories and in the great intellectual revolutions. At the same time, Kuhn's 1962 seminal work, *The Structure of Scientific Revolutions*, has become a modern classic. For many people, this book became part of the scathing criticism of the status quo by placing the demand for a paradigm shift in the social and political agenda, whether in the role of women in society, economic development, technology, ideology or the writing of history. In retrospect, it might appear as an irony of history that this book, written by a man, and its central concept of a *paradigm shift* became legendary, while Margaret Masterman's criticism of Kuhn's vague and inconsistent use of the concept "paradigm" has been forgotten as much as the contributions of women to this discourse.

According to gender studies, male and female categories are socially produced and relational. In order to advance in social studies, it is important to understand women and men in other categories such as social class, race/ethnicity, and religion, among others. Since there is no universal man, there is no universal woman either. We have learned from feminist studies that gender identities are cultural and are manifested not only in our bodies, but in language, philosophy, and worldview. Nevertheless, we still live in a world marked by gender differences in terms of access to employment opportunities and wages. Discrimination in the political sphere has shifted from the struggle for the right to vote to greater political representation. Furthermore, the public still identifies scientific activity with men in white coats, so in this sense, the struggle is still going on and the envisaged inclusion of women into the historiography of science is only marginally achieved.

This special issue aims to contribute to a historiographical reflection on the history of women in science as a "transversal" reading. It consists of two contributions to individual female figures, namely to Helena Antipoff (by Regina Campos and Erika Lourenço) and Sofia Alexandrovna Yanovskaya (by Dimitris Kilakos). Moreover, we have two studies providing a general overview of the state of research regarding the impact of women in computer

4

science history (by Karina Mochetti) and in the history of modern logic (by Karin Beiküfner and Andrea Reichenberger). Last but not least, Sandra Benítez Herrera and Patrícia Figueiró Spinelli offer a report on a school teaching project which demonstrates that the historiography of women in sciences is a valuable resource that can be used in all educational levels as well as museums. The contributed papers reaffirm that a lot of work still needs to be done. They are rather excerpts of a work in progress than a systematic overall presentation. We are grateful to Mauro Condé, who initiated this special issue and assisted and advised us with patience and precision.

## References

- Beauvoir, Simone de. 1952 [1949]. The second sex. Translated by Howard Madison Parshley. New York: Alfred A. Knopf.
- Kuhn, Thomas. 1970 [1962]. The structure of scientific revolution. Chicago: The University of Chicago Press.
- Mastermann, Margareth. 1970. The nature of a paradigm. In Lakatos, I.; Musgrave, A. (Eds.) Criticism and the growth of knowledge. Cambridge: Cambridge University Press.
- Ménage, Gilles. 1690. Historia mulierum philosopharum. Apud Anissonios, Joan. Posuel, & Claudium Rigaud.

5

Wichmann, Christian August. 1775. Geschichte berühmter Frauenzimmer. Leipzig: Böhme.