

***Advancing Women in Science: An International Perspective***

Willie Pearson, Jr., Lisa M. Frehill, & Connie L. McNeely (Eds.).  
Switzerland: Springer International Publishing, 2015. 344 Pages

Tang Wee Teo  
*Nanyang Technological University, Singapore*

The book *Advancing Women in Science: An International Perspective* is an amalgamation of a wide genre of articles presenting insights and voices of professionals involved in various fields related to gender in cross-national contexts. As explained by the editors in Chapter 1, the book chapters address three broad strands of research regarding women's participation in science: Globalization, the social organization of science, and gendered societal relations. These three strands, however, are not used in organizing the book. Chapter 1 provides an overview of the entire work, and Chapter 11 delineates a future agenda for research, policies, and activism to advance women's participation in science globally; Chapters 2-10 are longer articles complemented by shorter articles (Vignettes) related to the respective chapter topic. This style creates a layering and chunking effect that can be realized when reading the book in sequence, causing one to wonder about the logistical arrangements that went into the construction of the book chapters and vignettes. Whose ideas were solicited initially? Who began writing the first piece? Some book chapters and vignettes are more explicit than others in illuminating the interplay of gender with one or more of the three strands mentioned above, showing the intersectionality of gender with sociocultural and sociopolitical forces.

Contributors to the book—academics, non-academics, sociologists, economists, demographers, analysts, and educators—represent different fields in the social sciences and education. One can find many more review articles showing trends across countries, populations, and periods. There are a handful of individual papers containing personal stories, reflections, case studies, and empirical work. Although the editors of this book considered scholars, educators, analysts, policy makers, and other stakeholders when constructing it, the work may be more suited for those interested in broad overviews of statistical information regarding gender trends. Conversely,

academic researchers seeking theoretical frameworks that can be used in analyzing data or theorizing based on empirical findings may find it less informative.

As promised, this book provides an international perspective, with almost every continent represented in its contents. In fact, this is one of the few rare books in the genre of gender and/or science education that has a relatively high and broad representation of articles on different countries in Asia, which is underrepresented in the current literature. Asian countries represented include India, Vietnam, Singapore, Pakistan, Taiwan, Cambodia, and Japan. The broad representation geographically illuminates the role of gender as a pervasive force that transcends boundaries. This pervasiveness points to a potential unifying force in organizing broader collective efforts to level the playing fields for women across sectors. This book highlights the sectors of the chemical sciences, computing, mathematics, and statistics—disciplines that are typically underrepresented in the discourse on gender equity. In the interest of the audience of *Asian Women*, I highlight the chapters connected to Asia in the next paragraph.

Most articles describe the status of women in various contexts. Sarita Khandka (Vignette 2.4) discussed the status of women in higher education in India. The enrollment of women in science showed an encouraging trend for the period 2006–2012. Margaret Petrochenkov and Phuong Thi Thanh Nguyen (Vignette 4.1) compared the perceptions of male and female students, instructors, and administrators in selected STEM (science, technology, engineering, mathematics) fields regarding opportunities in higher education. Yu Meng (Vignette 4.2) addressed the position of Singaporean women in science and technology education and the workforce, and Jamil Afaqi described the situation of Pakistani female scientists.

The second type of article is case study. Set against the background of the state of girl's education in Cambodia, Chantara Tann reflected on how she came to study and teach mathematics. Sanae M. M. and Iguchi-Arigo (Vignette 9.1) offered a case exemplar and review of a program entitled Female Researchers in Hokkaido University (FResHU), which has helped promote women scientists in Japan. Chia-Li Wu described science activities meant to encourage more young people, especially young girls, to consider studying the chemical sciences.

The third type of paper examines reasons for the trend of women in science. Based on an empirical study, Roli Varma (Vignette 8.2) examined

reasons for the attraction of women in India to computer science education and careers.

If there is a main limitation of this book, it is probably in the last chapter (i.e., Postscript). This chapter presents the editors' thoughts on an agenda for future research, policies, and activism. However, the recommendations seem to have been written in isolation of earlier discussions, as there are no explicit connections to preceding chapters and vignettes. Perhaps, a further resynthesis of the chapters and vignettes would be helpful to show how they explicitly relate to each of the three research strands and lead to each discussion point in the last chapter.

*Biographical Note:* **Tang Wee Teo** is an Assistant Professor at the National Institute of Education, Nanyang Technological University, Singapore. Her academic interest is in equity issues of science education including STEM education. She uses critical theories including gender and sociocultural theories to examine various issues in science education especially in low-achieving classrooms and STEM contexts. E-mail: [tangwee.teo@nie.edu.sg](mailto:tangwee.teo@nie.edu.sg)