



Editorial

Our first two papers in this issue are engineering related. Focusing on teaching staff in engineering education, Lydia Ross and Eugene Judson explore how male and female engineering instructors view and utilize classroom strategies in '[Gender-Based Differences in Engineering Faculty Members' Views and Use of Student-Centered Learning Strategies](#)'. The results reveal significant gender differences in attitudes to using different techniques. For instance, female faculty members were more confident in the value and expectancy of success of using both real-world applications and formative feedback to adjust instruction.

In her article '[Social Construction of Gendered Engineering Culture in Turkey](#)', Ezgi Pehlivanli Kadayifci illustrates how the engineering profession's prestige in Turkish society derives from gendered codes and ideals. Male engineers are construed as the ideal type, and the level of prestige afforded to engineering is related to success in mathematics and natural sciences at high school and the hierarchy between engineering departments and engineers' class position.

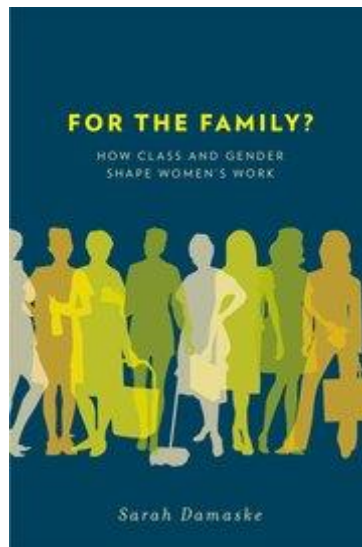
The next two papers focus on the importance of role models in the portrayal of female scientists in popular culture. The first is an analysis of 42 popular films featuring female STEM professionals released between 2002 and 2014. In '[Cultural Representations of Gender and STEM: Portrayals of Female STEM Characters in Popular Films 2002-2014](#)', Jocelyn Steinke and Paola Maria Paniagua Tavarez use content and textual analysis and found that male STEM characters in speaking roles outnumbered female STEM characters by 2 to 1. The authors conclude that increasing the number and diversity of female STEM characters in popular media may be critical for enabling adolescent girls and young women to see themselves as future STEM professionals.

The second of these papers, '["Where My Ladies At?": Online Videos, Gender, and Science Attitudes among University Students](#)' by Paul R. Brewer and Barbara L. Ley examines the impact of online videos on science attitudes that contribute to gender disparities in STEM participation. A randomized experiment tested the effects of three videos from a YouTube channel on science interest, self-concept in science, science anxiety, perceptions of scientists, and perceptions of gender bias in science among university students. The results showed that a video directly addressing sexism in science shaped university students' positive perceptions of scientists and perceptions of gender bias in science.



Moving to look at scientific careers in academia, Alison Chapple and Sue Ziebland contribute to the literature in their qualitative study exploring three controversial 'explanations' for gender inequality in science. In their paper '[Challenging Explanations for the lack of Senior Women in Science? Reflections from Successful Women Scientists at an elite British university](#)', they draw on interviews with 39 senior women scientists to show that, while they acknowledged potential barriers to other women existed, those who had successfully achieved senior roles did not experience social expectations, low confidence or a lack of support. Encouragingly, some did describe how gender stereotypes are being resisted; they are themselves role models for junior colleagues.

In the final paper, '[The influence of socializers in ninth graders' educational and career choices](#)' by Kirsi Ikonen, Risto Leinonen, Mervi A. Asikainen, Pekka E. Hirvonen, the influence of teachers, parents and peers on Finnish school children's educational and career decision-making are explored. They suggest that subject teachers and parents should take a bigger role in career-related discussions to prevent and mitigate pupils' gender stereotypes and update their knowledge about STEM career possibilities.



There are two reviews to complete this issue: Tamara Anne Franz-Odendaal's book review of '[For the Family: How Class and Gender Shape Women's Work](#)' (by Sarah Damaske) and a conference review by Anita Mary White and Christine Edith Heading of the [12th European Women Pharmacists Meeting](#) held in Vienna in Sept 2017.

Clem Herman, on behalf of the editorial executive: Helen Donelan, Holly Hedgeland, Barbara Hodgson, Carol Morris, Victoria Pearson, Gunjan Sondhi