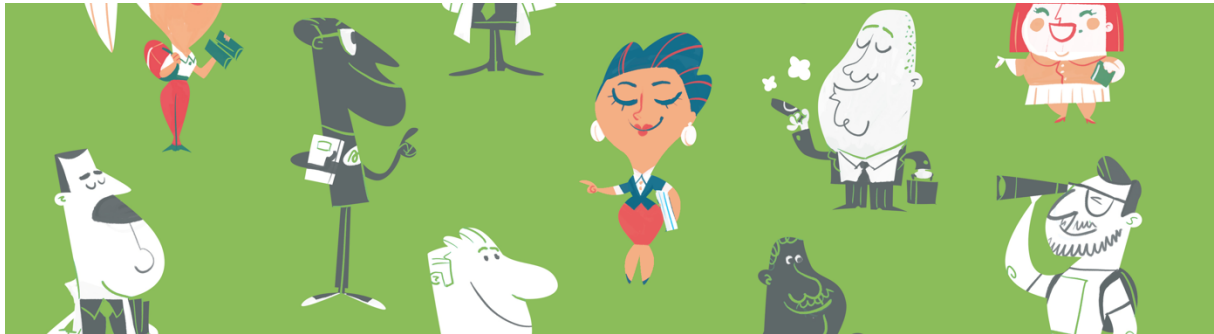


Webinar N°4 - The gender-equality paradox

within the SCNAT webinar series Achieving Gender Equality and Diversity in the Natural Sciences, held in 2021



Summary of inputs and conclusions

by Romaine Jean

The under-representation of girls and women in science, technology, engineering and mathematics (STEM) fields is an ongoing concern for social scientists and policy makers.

Three years ago, Professor Gijsbert Stoet of the Essex University in the UK, who has studied psychology, education and neuroscience published a paper entitled "The gender-equality paradox in science, technology, engineering, and mathematics education", which had a high impact by highlighting the scientific fact that the most developed and egalitarian countries, such as Finland, Norway or Ireland, have a lower percentage of women choosing STEM subjects than countries like Algeria or Turkey. This trend is part of a broader phenomenon called the "gender-equality paradox" where differences between men and women at various levels tend to grow instead of stabilizing or shrinking. Why is this? "Because in the more egalitarian countries, which are also the richest, women can live a decent life doing jobs outside the STEM, even if these jobs pay less," explains Professor Stoet. Thanks to data from the Program for International Student Assessment (PISA), we know that female students who are good at maths are much more likely than male students to be even better at reading. This can explain up to 80% of the gender gap in intentions to pursue maths studies and careers.

What can be done? Not much, says Professor Gijsbert Stoet. In countries where choice exists, it is difficult to promote STEM for women. But isn't this a socially constructed difference? "I keep hearing the same argument but the paradox obviously suggests the opposite," says the professor. I just don't think it's a problem if there are differences in choices between men and women.

Professor Thomas Breda from the Paris School of Economics also published an article last year entitled "Gender stereotypes can explain the gender equality paradox". For him, the gender-equality paradox exists, but it has cultural roots. "Mathematics is not for girls", says the stereotype, associating mathematics with men, which is stronger in more egalitarian and developed countries. Professor Breda argues that economic development and equal rights for women and men go hand in hand with a rethinking rather than an abolition of gender norms. He calls for the emergence of new, more horizontal forms of social differentiation between the sexes.

Literature

Gijsbert Stoet & David C. Geary (2018) The Gender-Equality Paradox in Science, Technology, Engineering, and Mathematics Education; Psychological Science Vol. 29 (4); <https://doi.org/10.1371/journal.pone.0153857>

Thomas Breda, Elyès Jouini, Clotilde Napp, Georgia Thebault (2020) Gender stereotypes can explain the gender-equality paradox; PNAS 117 (49); <https://doi.org/10.1073/pnas.2008704117>

Website of webinar series

https://biol.scnat.ch/de/activities/uuid/i/d87a53d7-bac7-522f-957c-12f0d9ebc843-Achieving_Gender_Equality_and_Diversity_in_the_Natural_Sciences