

Leveling the playing field for careers in science

Afreen Khalid

PhD Candidate

Behavioural Science Institute, Radboud University

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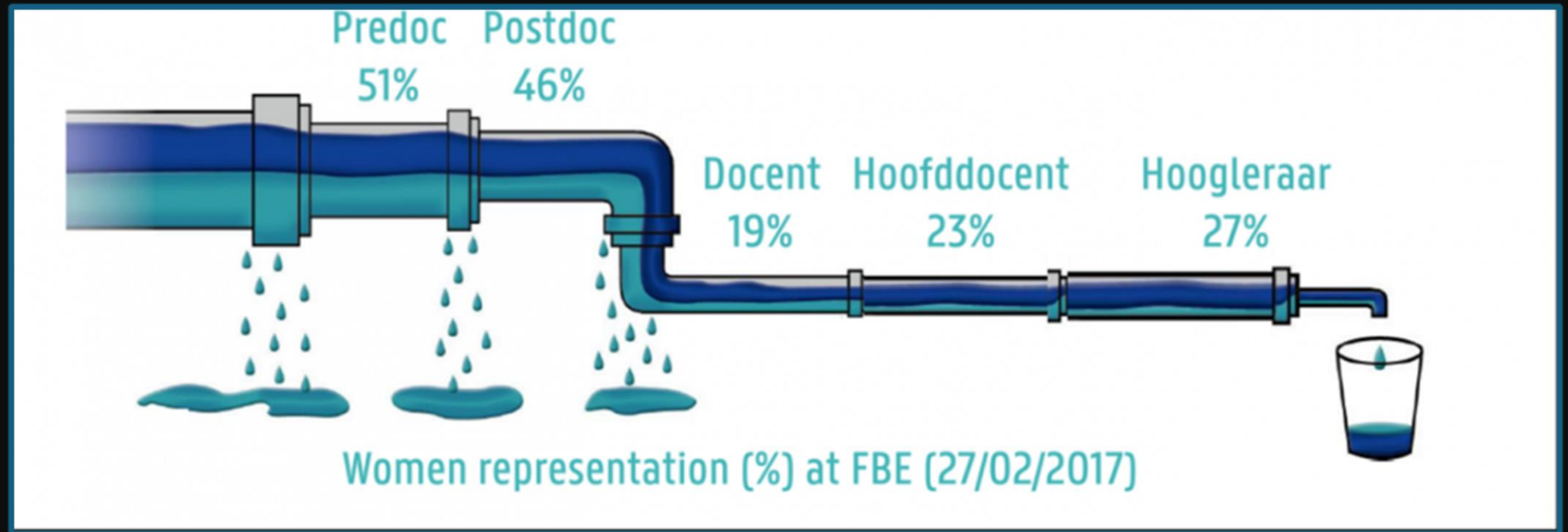
Behavioural Science Institute, Radboud University

You can't solve racism in
10 steps

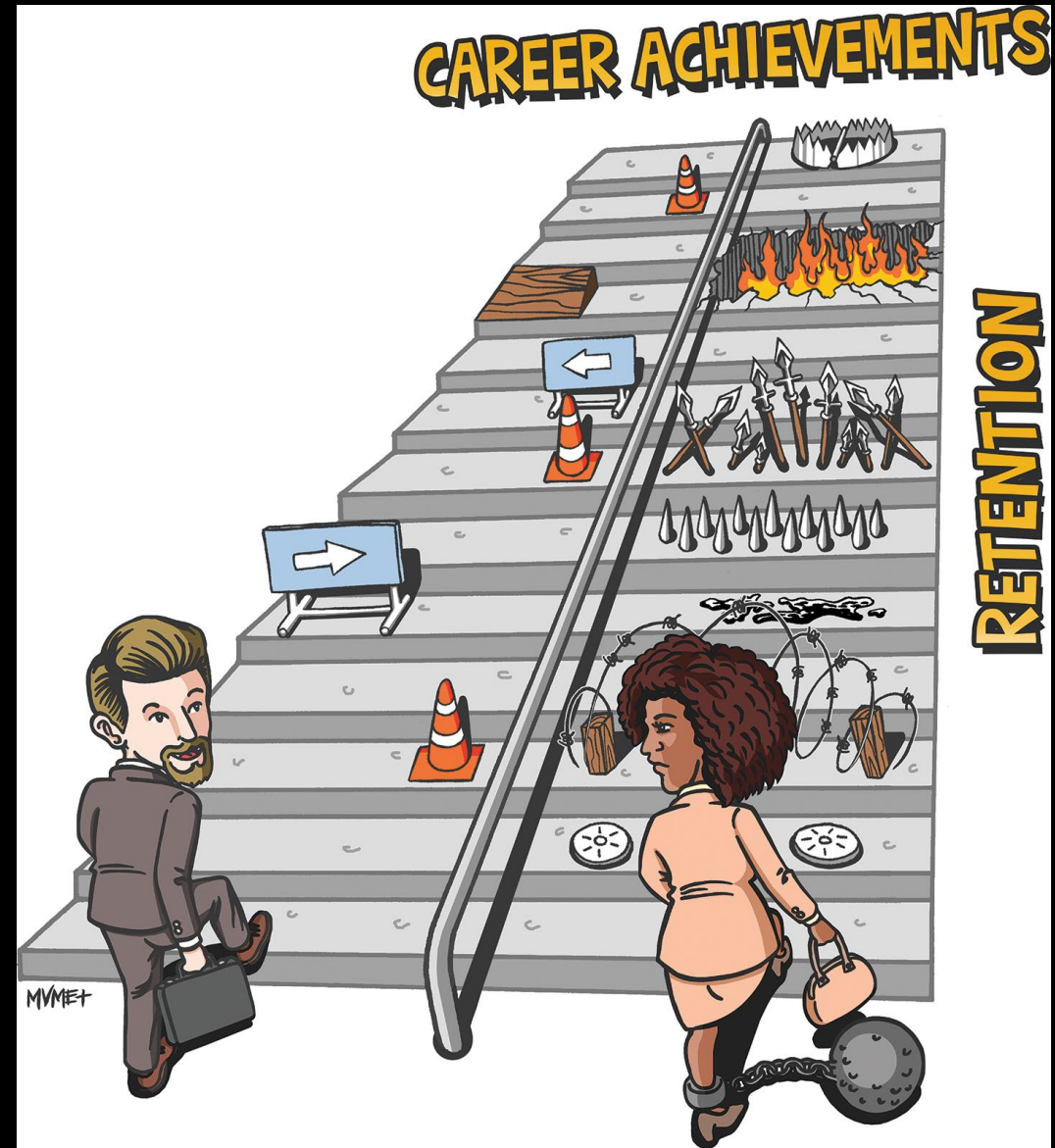
The Academic Timeline



Leaky pipeline



Hostile Obstacle Course



Admissions & hiring



Victoria Coren Mitchell

@VictoriaCoren



The moral of that is: never be scared when you hear it's a female pilot. To get to the same place, THEY HAVE TO BE BETTER.

Academia isn't meritocratic

Structural inequalities determine who gets ahead.

Admissions & hiring

Schools in wealthier (often white) areas are better funded

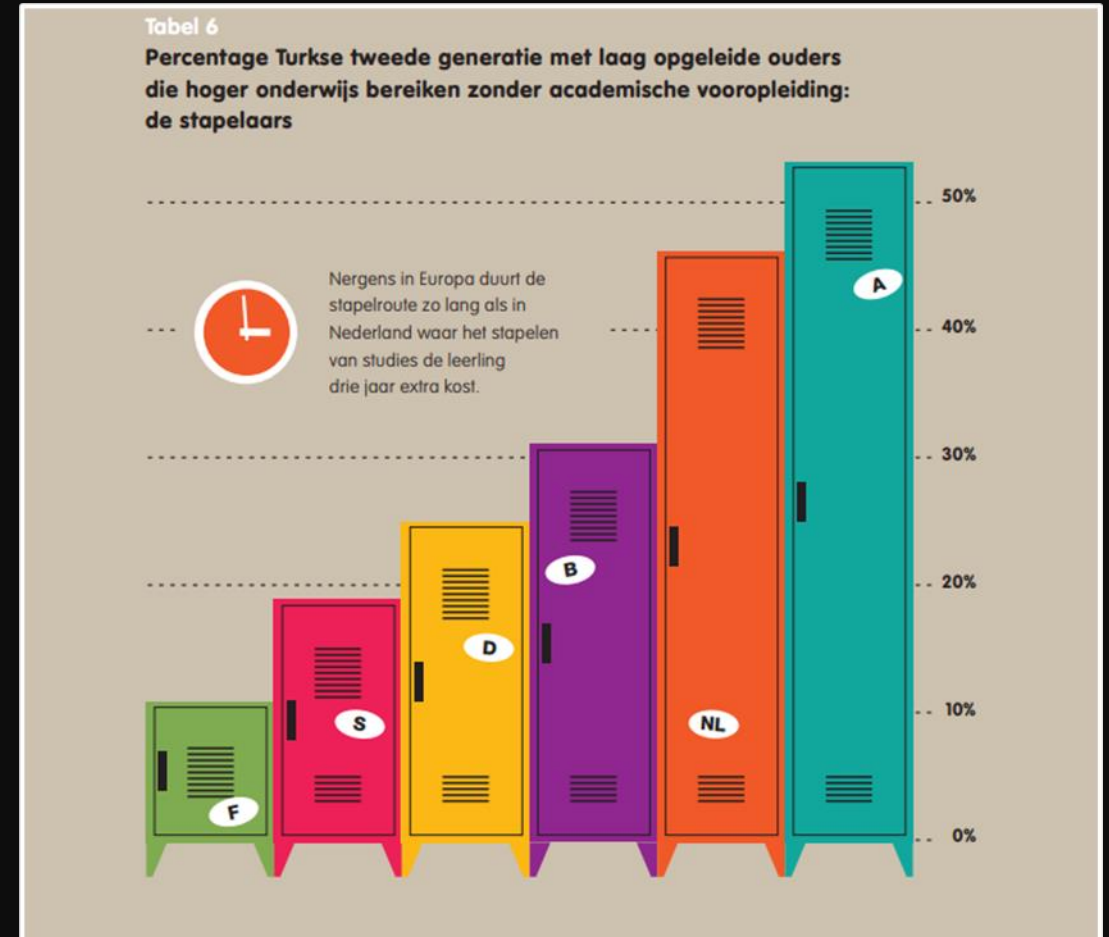
Teachers and professors may (even unconsciously) assume that white or male students are more “naturally gifted” in science.

Well the point is...If you live in a colored neighborhood or you go to a colored school...most of the time it's not a good school. It's because...it's actually really easy to explain. The natives are far more...we are far more behind than the natives, because the natives grow up here, they study here and most of their parents have a good job, they live good and everything. That's the common life style they have [...] it's better to go to a white school, than to a colored school where you are influenced by delinquents who are rebellious, who like to do bad things. There are a lot of families that are criminal because they never had the option to work and if you are brought up by criminals...most of them grow...they act up, because they didn't have good examples in the home. (Lamia, 23, VWO)

Turcatti (2018)

Admissions & hiring

- The Dutch system offers "stacking" — step-by-step progression to higher education
- Many Turkish second-generation students progress through senior vocational (MBO) to higher professional education (HBO)
- This path takes 3 extra years, requiring perseverance and ambition



Crul, M. R. J., Schneider, J., & Lelie, F. (2013). Superdiversiteit. Een nieuwe visie op integratie. VU University Press.

Admissions & hiring

- Children of migrants are twice as likely to take the longer educational route
- 50% of Turkish second-generation students reach higher education through stacking



Crul, M. R. J., Schneider, J., & Lelie, F. (2013). Superdiversiteit. Een nieuwe visie op integratie. VU University Press.

Publishing & grants

- Marginalized researchers receive less funding
- Matilda effect: male authors' work is rated as higher quality than female authors' (Knobloch-Westerwick et al., 2013)
- Single-blind review favors famous and high-prestige authors (Tomkins et al., 2017)

> [Elife](#). 2022 Nov 29;11:e83071. doi: 10.7554/eLife.83071.

Systemic racial disparities in funding rates at the National Science Foundation

Christine Yifeng Chen ^{1 2}, Sara S Kahanamoku ³, Aradhna Tripathi ^{2 4 5}, Rosanna A Alegado ⁶, Vernon R Morris ⁷, Karen Andrade ², Justin Hosbey ⁸

Affiliations + expand

PMID: 36444975 PMCID: [PMC9708090](#) DOI: [10.7554/eLife.83071](#)

Abstract

Concerns about systemic racism at academic and research institutions have increased over the past decade. Here, we investigate data from the National Science Foundation (NSF), a major funder of research in the United States, and find evidence for pervasive racial disparities. In particular, white principal investigators (PIs) are consistently funded at higher rates than most non-white PIs. Funding rates for white PIs have also been increasing relative to annual overall rates with time. Moreover,

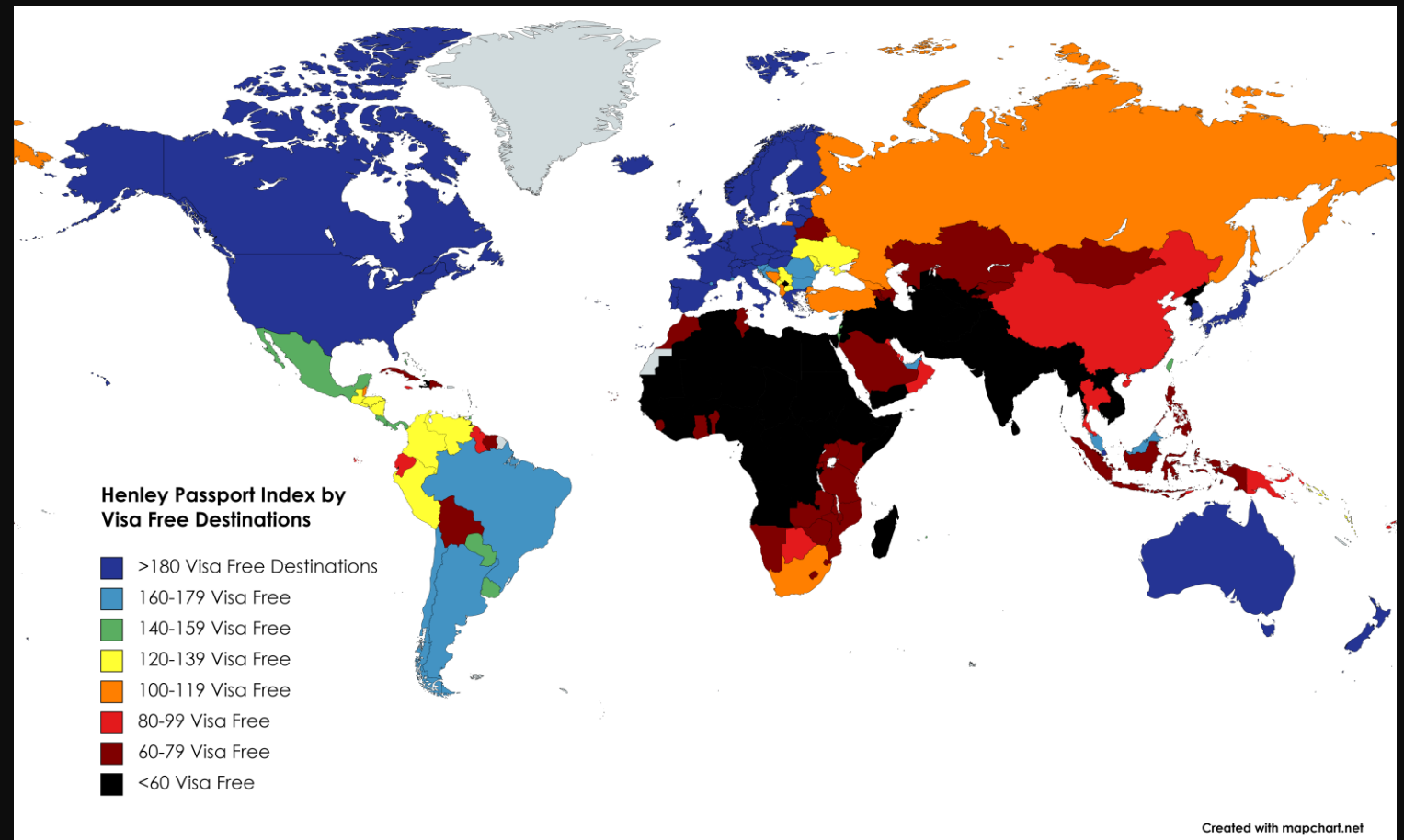
Peer review

Journal editors should actively discourage reviewer comments suggesting papers “be read/edited by native readers.” Instead, a fairer presentation could be to “carefully proofread or copyedit” the manuscript, without making assumptions about the language proficiency of the authors. Editors and reviewers could also ensure that the implications of findings are not

Puthillam, A., Montilla Doble, L. J., Delos Santos, J. I., Elsherif, M. M., Steltenpohl, C. N., Moreau, D., ... Kapoor, H. (2022, August 1). Guidelines to Improve Internationalization in Psychological Science. <https://doi.org/10.1111/spc3.12847>

Conferences & Networking

Hierarchy of passports:
marginalized
researchers have a
harder time getting
visas to conferences.



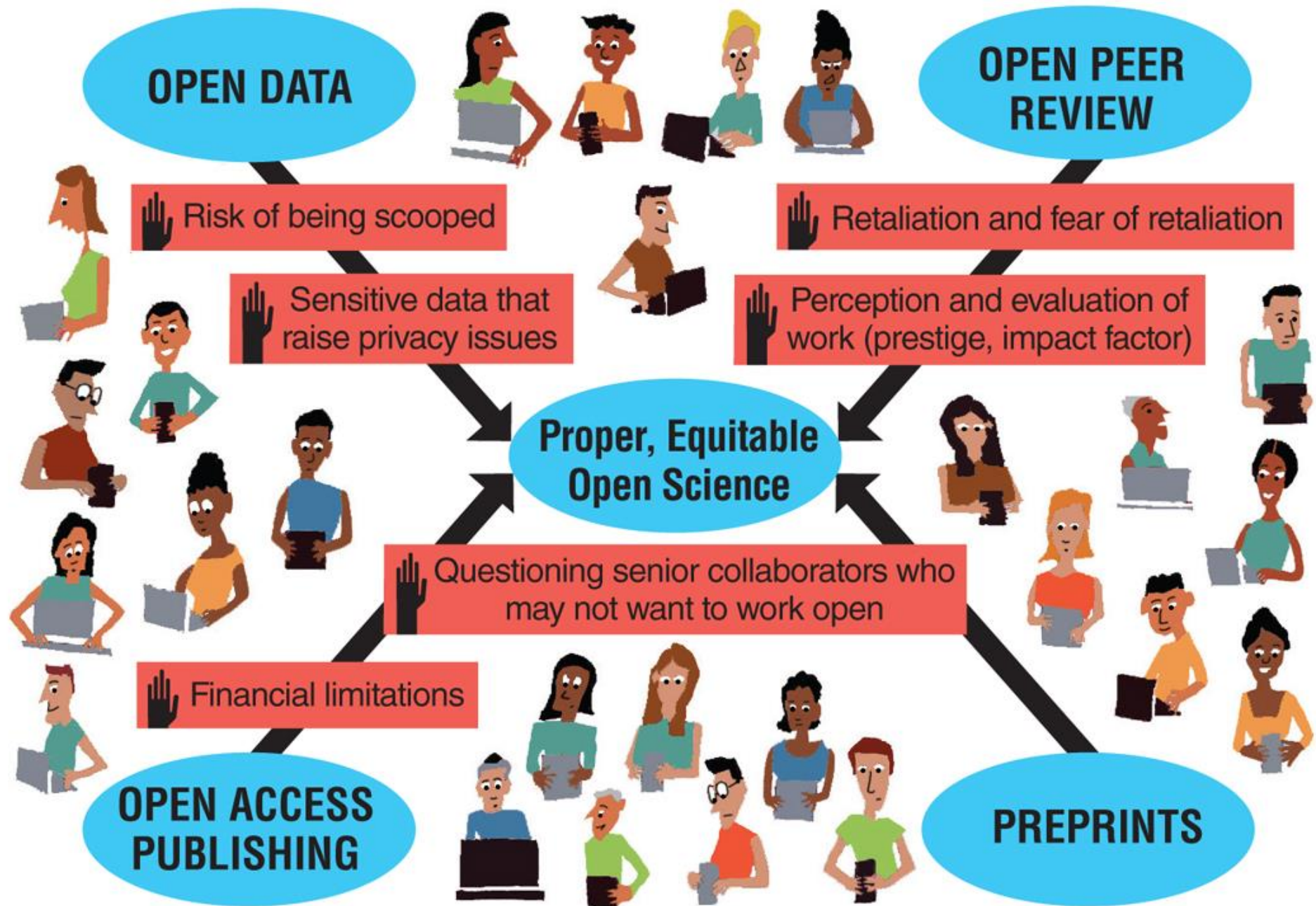
Conferences & Networking

- Minoritized scholars often lack access to mentors and role models
- The "hidden curriculum" of academia is rarely transparent

Open science disparities

- Open science consists of many of the same systemic issues as mainstream science
- Open science as a badge of quality





Open science disparities

We hope that understanding barriers we and other early career researchers have experienced can help open-science proponents empathize with the constraints under which many scientists operate and work for solutions that understand the social context science exists within.

So what can we do?

Rethinking admissions & hiring

In the US, GRE scores are used to gatekeep admissions into PhD programs.

Scores on standardized tests are not predictive of PhD completion

Column | Published: 11 June 2014

A test that fails

[Casey Miller](#) & [Keivan Stassun](#)

[Nature](#) 510, 303–304 (2014) | [Cite this article](#)

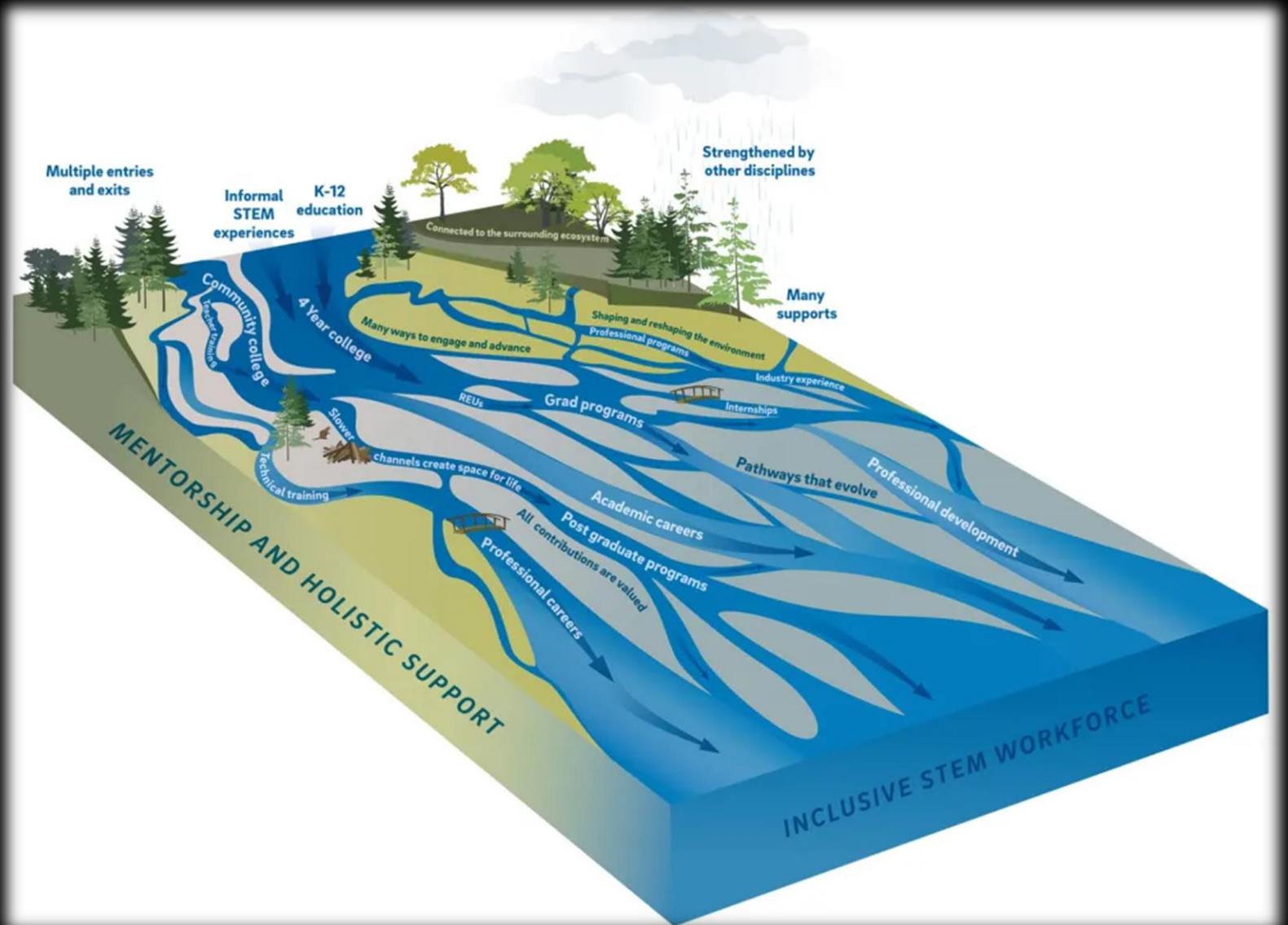
21k Accesses | 539 Altmetric | [Metrics](#)

A standard test for admission to graduate school misses potential winners, say Casey Miller and Keivan Stassun.

Rethinking admissions & hiring

Use holistic criteria for admissions and hiring
(grades + skills, resilience, commitment).

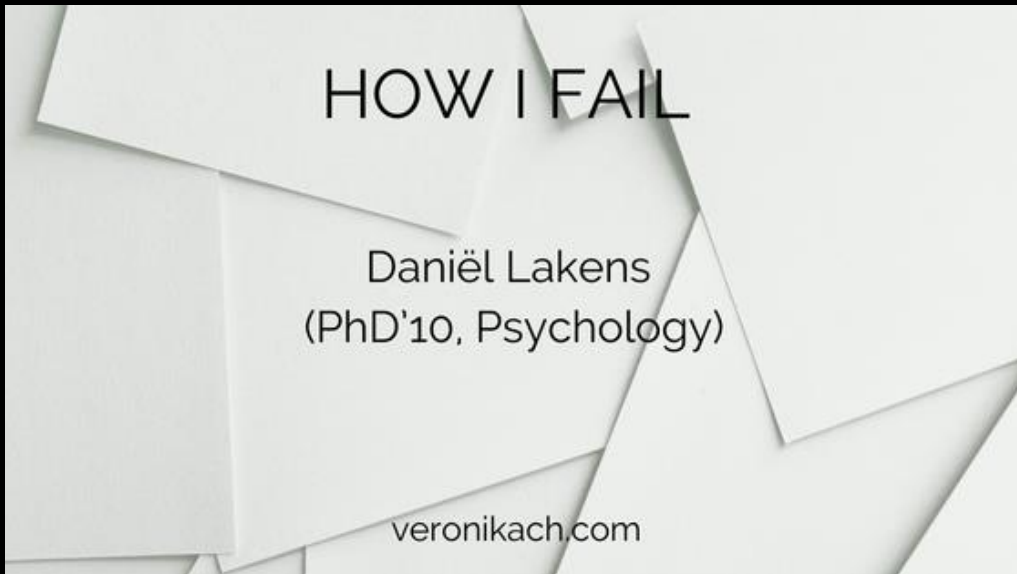
Braided pathway



Braided pathway

"I was invited to a job talk for a PhD position at the VU university and wasn't hired – again. However, Wilco van Dijk, who was in the hiring committee, had some money to hire a student assistant to program experiments. I had some programming experience, and he offered me a job for three days a week. I worked there for a year, and when I told people at the department my contract as a student assistant was ending and I was going to look for a PhD position, they apparently gotten used to having me around, and they offered me a PhD position.

This story has made me very aware that getting to where you are is largely a matter of luck. And when hiring people, I've realized that a messy CV happens. Careers are often not a straight line – and that's fine
- Daniel Lakens



Make conferences accessible

- Host conferences outside Global North where visa processes are easier for everyone
- Host hybrid conferences with equal importance given to virtual and in-person components
- Make conference fee affordable

Collaboration guidelines

- Multi-country projects: Lead roles, not just data collectors
- Ensure the safety of the involved scholars and participants (e.g., by not publishing sensitive data)

Fostering Global Collaboration in Social Science: Insights and Best Practices from Collaborative Projects

Author:

Tabea Hässler, University of Zurich

Abstract

Global collaborations can significantly enhance the diversity of perspectives in research, which is crucial for understanding the complexities of human behaviors and social relationships. However, current global projects often suffer from imbalances in representation among scholars, particularly in leading positions. This article shares insights and lessons I learned from leading a multinational project, contributing to several others, and jointly organizing meetings with scholars from all continents. I will provide a checklist for establishing global projects that emphasize creating inclusive and empowering environments, recognizing and addressing systemic inequalities, and ensuring equal participation and cultural-relevant knowledge creation. Ultimately, this reflection highlights the importance of building mutual respect and trust, cultural sensitivity, the empowerment of underrepresented scholars (e.g., through financial support, leadership roles, and training), and the principle of shared ownership in global collaborations. Through fair and transparent global projects, we

Collaboration guidelines

- Financially assist scholars with limited resources
- Provide training opportunities to enhance skills and encourage knowledge exchange (mentorship, workshops, and statistical advisory support.

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Decolonizing science

- Scientific power remains concentrated in the West
- Research samples are overwhelmingly from WEIRD (Western, Educated, Industrialized, Rich, Democratic) countries
- Editorial boards are dominated by Western institutions
- Most of the world is still underrepresented in publishing

Who is science for?

- Science isn't just about discovering facts — it's about deciding what gets built, who benefits, and whose problems are worth solving.
- Examples: Biases in tech and medicine.

Here's what we know. There are about 80 kinds of autoimmune diseases. Nearly four of every five affected people are women. Why? We're not quite sure. Because here's the other thing we know: autoimmune research is perennially underfunded. Maybe it's because women suffer the most—and women have, historically, been often ignored in medical research. Maybe it's

Abdurrahman, 2022; Slaton et al., 2015;
Konnikova, 2021

Who is science for?

- Current focus: “Getting more women/people of color into science”
- This approach treats them as outsiders who need to “fit in”
- Reframe: Ask “Who is science for?”
- Science should serve everyone, not just a select few
- Example: Rethink why science doesn't reflect marginalized students' needs

Who is science for?

- A more diverse team leads to more inclusive solutions
- Examples of key considerations:
 - Does software work for people with disabilities?
 - Is a medical device safe for darker skin?
 - Is an algorithm biased?

Who is science for?

Making scholarship look like the real world looks means changing:

- What we build
- Who we listen to
- How we teach
- Why we do the work

It's not just about counting people—it's about changing systems

Time to think of solutions

Put yourself in the shoes of a marginalized individual and think of a barrier they might face. Come up with a policy or plan to tackle this.

Label	Description
Support Groups, Mentoring and Skill Development	Members of underrepresented groups are supported through the provision of skill development opportunities (research-related and professional development), mentoring, or support groups.
Diversity Training	Initiatives that seek to raise awareness of inequity and encourage action within work environments.
Structural Change and Policy Interventions	Structural and policy changes, such as childcare or recruitment policies, including initiatives to raise awareness of or promote transparency around policies.
Distribution of Resources	Interventions directing material or financial resources to individuals because of their belonging to an underrepresented group.

Meyer, et al. (2025). Increasing diversity in STEM academia: a scoping review of intervention evaluations.

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