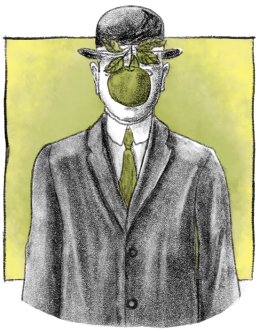

Summary of recommendations related to

Representation and Belonging

The Problem: Personal and societal perceptions about who is "suited" to science remain a barrier to belonging for people who do not fit the public image of a typical scientist. These challenges are most often exacerbated in fields where innate "brilliance" or "genius" are embedded in the culture. Studies have shown that girls as young as elementary school are less likely than comparably performing boys to see themselves as capable of being scientists. Women faculty in science are less likely to be included in scientific discussions, and are judged as less competent than men with comparable academic rank, field, and research output when they do participate. Challenging these narratives has been demonstrated to improve both perception and performance, which are otherwise harmed by anxiety associated with underrepresentation and the fear of reinforcing negative stereotypes. Exposure to female scientists (even in popular media) increases the likelihood that girls and women will see themselves as scientists. Yet in very male-dominated fields, such role models may be few and far between.

Recommendations:

- **Normalize effort-based success rather than "genius."** The scientific community must work to nullify the public perception that some fields are only open to those who exhibit extraordinary innate intellect. It is incumbent on individuals, in communicating the reality of their career trajectories, and on educators, in shaping curriculum and classroom climate, to emphasize a growth mindset–highlighting persistence, curiosity, and hard work rather than mythical notions of brilliance.
- **Strengthen communities of support and belonging.** A supportive network–including mentors, peers, and allies–plays a critical role in fostering persistence in science. Creating intentional "counter-spaces," where members of underrepresented groups are the majority, alongside active allyship from majority-identity colleagues, can meaningfully increase belonging and resilience.
- **Be intentional about recognition and visibility.** Women's research is less likely to be externally promoted, and there is a long history of minimizing or erasing women's accomplishments (e.g., credit for research conducted at Harvard Observatory across the turn of the 20th century). Institutions, departments, and individuals should be purposeful in whose work is highlighted and how it is presented–in the classroom, professional seminars, awards,and public-facing outreach.

Picture an Astronomer: Best Practices for Retaining Talent in Astrophysics
https://arxiv.org/abs/2512.24465
https://pictureanastronomer.github.io/whitepaper