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Letter

## We need diversity to accelerate scientific discovery

Essi Viding

*Division of Psychology and Language Sciences, University College London, 26 Bedford Way, WC1H 0AP, London, UK*

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Throughout my career, I have benefitted from collaborating with and being mentored by inspiring scientists, who have introduced me to new ways of thinking and new methodological approaches from experimental psychology to neuroscience and genetics. When I won the Royal Society Rosalind Franklin award in 2017 for my work in developmental psychopathology, I used the prize money for a project that might inspire young women from a variety of backgrounds to pursue a career in science [1]. I was partly motivated by my dismay at girls not choosing to study science at university, even when they had a clear aptitude for it [2].

Girls report low confidence in their abilities and a concern about being the minority in a male-dominated area as reasons for not choosing to pursue a scientific career [2]. Issues of confidence and belonging are likely to be compounded for those who are not white or from traditionally academic backgrounds. Black and ethnic minority groups, and those from lower income households are less likely to progress to scientific careers than white students from wealthy backgrounds [3].

The reasons for the lack of diversity in science are multi-faceted, including dearth of role models and financial realities. Pursuing competitive Ph.D. and postdoctoral funding is perceived as a less attractive option, if you do not have solvent parents who can bail you out should there be a gap in funding, or if you do not encounter people like you in successful career positions. Multiple initiatives are needed

to rectify the currently unhappy state of affairs. Not attracting diversity is bad for science. Diversity generates better problem solving [4]. Diversity also ensures that we can benefit from the best minds as we pursue our research questions. Cognitive ability is normally distributed and failure to attract people from the top end of the ability distribution to science is a collective loss.

I propose one practical solution that might attract more diversity to science. If we had funding programmes for the brightest individuals from underrepresented backgrounds – which guaranteed financial support throughout a Ph.D. and yoked postdoctoral funding that could be taken to another group for a substantive period – a career in research might appear less precarious. Any programme like this should be rigorously evaluated as a possible mechanism for change, but given that affirmative action for the past centuries has squarely valued affluent white males, it seems reasonable to invest in initiatives that would ensure that the balance is redressed, and a more diverse group of scientists get a look in.

#### Declaration of competing interest

None.

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*E-mail address:* [e.viding@ucl.ac.uk](mailto:e.viding@ucl.ac.uk)<https://doi.org/10.1016/j.ebiom.2019.11.034>2352-3964/© 2019 Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license. (<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

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