

## ROUND-TABLE DISCUSSION SUMMARY

### How should universities and Research Councils proactively respond to gender bias in success rates in grant applications?

Held at The University of Leicester on 22<sup>nd</sup> June, 2016.

The hash tag for this debate is #fstgenderbias .

**Chair:** **The Earl of Selborne GBE FRS**  
Chairman, The Foundation for Science and Technology

**Speakers:** **Professor Paul Boyle CBE FRSE FBA**  
President and Vice-Chancellor, University of Leicester  
**Professor Henrietta O'Connor**  
Deputy Head of College of Social Science, Arts and Humanities and Professor of Sociology, University of Leicester  
**Linda Holliday**  
Director of Capacity and Skills Development, Medical Research Council

PROFESSOR BOYLE said that Leicester University considered the elimination of bias in all fields of research, appointment and promotion as high priority. The paper in Nature<sup>1</sup> (which had been circulated) authored by him and his colleagues, showed that there were areas in research funding where bias still persisted; and had made ten suggestions for further action. He hoped participants would consider these and comment on whether they went far enough and how they could be implemented.

PROFESSOR O'CONNOR said that the Nature paper demonstrated that women were more fairly treated in social sciences, but that there was still some way to go before gender equality was assured in STEM subjects. She was sure that there was some movement - the Nature paper itself had caused discussion and articles had appeared which reflected on issues in STEM subjects. HR Departments were more aware of the issues. But still, there were all male panels and panels composed of those with identical mind sets. There was still the gender pay gap (she applauded the aim to equalise pay). But is this movement superficial or does it represent a trend which will follow that of social sciences? In the 1950s gender

discrimination in the social sciences was rife, but it was gradually realized that more staff needed to be appointed and that the main source would be women. The women who came in did not like what they found and they wanted to focus research more on feminist lines, and, in particular about changes in life cycles. It was the pioneering work of women in the 1960s and 1970s which had changed social sciences. Would what was now happening in STEM subjects result in a similar change?

LINDA HOLLIDAY spoke of the work of the Medical Research Council and the other Research Councils in publishing material about applications and success rates. In 2015 analysis of applications over four years to the MRC, showed that there was still a bias, although the difference in success rates - 1.5% - was narrowing. But this was aggregated data, and it was important to look at success rates in different programmes. She noted that while the gender balance at PhD level was equal, the proportion of women in senior posts diminished. Only 19% of programme holders were women and women formed only 26% of Principal Investigators (PIs). The question was whether the Research Councils should rely on universities to rectify gender imbalance or

Proposed Action points from the Boyle et al Nature paper:

Action points for funding agencies

1. Commit to ambitious expectations for gender performance that link to eligibility for receiving awards, following the lead of the National Institute for Health Research.
2. Introduce targets for minimum gender representation on funding panels.
3. Train selection panels on gender-equality issues, including unconscious bias.
4. Submit data annually to independent scrutiny of gender differences in applications, success rates and award sizes.
5. Publish figures to allow cross-agency and cross-national comparison by discipline.

Action points for universities

6. Publish gender breakdowns in key areas including promotions, appointments and rewards in a consistent way, allowing for cross-institution comparison; such transparency would allow prospective employees and students to assess the institutional culture.
7. Embed gender-equality issues in work practice. Become beacons of good practice for public-sector and private employers.
8. Support women's career progression through the ongoing development of promotion criteria that focus on quality rather than quantity.
9. Engage men in championing gender equality. Commit to the principles and uptake of shared parental leave.
10. Celebrate women's achievements equally in a public way.

whether the Councils should try to do it through funding practices. New research had shown that barriers were created by time limit requirements (three years post PhD but not more than six years experience); lack of flexibility as clinical researchers move between universities and the NHS (affecting pay); and the perception that women ask for smaller grants and so get paid less. The Research Councils were aware of the importance of considering the life cycles of applicants and avoiding unnecessary barriers. Her concern over the 10 points listed in the paper was whether they ignored longer term funding issues. But the Research Councils now had an action plan which should decrease barriers and make progress.

The following points were raised in discussion

1. A very difficult problem was dealing with bias through references. One question was whether funders saw a personal reference from a woman differently from a reference from a man; another issue was that the name at the head of the research application was the PI generally, because of his seniority a man. More applications were now headed by CoPIs, which gave a woman's name as well, but there was limited data on the gender of PIs or CoPIs. Questions were sometimes asked about the rank of the employer: was he/she a Professor? Throughout the application process there should be a double blind system operating, so that the gender of applicants' reviewers and referees was hidden.

2. It was noticeable that many women reached the rank of senior lecturer and then either gave up applying for promotion or remained stuck in a grade. This is a group who should be targeted by Research Councils. Their failure to move on might be because of life circumstances, lack of stimulus, fear of failure or hierarchical prejudice, but undoubtedly there was a pool of talent here which should be accessed. The MRC was aware that there could be barriers to applications and success rates in all areas, and they were alert to seeking them out.

3. Many women found the application forms and procedures for grant application too complex and time consuming. They should be less cumbersome and be able to be fitted into a demanding workload. A possible help would be to have a two stage application procedure (as in Scandinavia) The Royal Society was supporting a project with the aim of enabling more grant applications to be made.

4. There was little evidence that the pay gap in STEM subjects was lessening. The radical Essex pay scheme had not been widely followed. Because there were fewer professors who were women, there were fewer applications for grants from women, which meant that women were getting less money. It was important that funders looked at the economic results of decisions. The gap between European awards for men and women was noted.

5. Several participants suggested that a reason for a dearth of women applying for grants was that women, compared with men, lacked self-confidence. Men are more likely to apply for grants, as well as seeking promotion. A University of Leicester Physics and Astronomy Department survey showed that nearly all respondents who had gone for promotion had self-initiated that process. A self-initiating system may be less favourable to women than a mentoring and coaching approach.

6. Stereotyping was an issue. There should be training in the research community and in panels and councils on how to avoid stereotyping. But, it was warned, training easily turns into a box ticking exercise and may become yet another hurdle to promotion.

7. There was a danger in assuming that the problem was that of how women respond to bias. If gender bias was to be overcome it must be through a change of attitude in both sexes. Certainly more CoPIs were important, but the process of cultural change would be long. It is not enough for women to put themselves forward if there is unchanged resistance to their progress. We need to look to the whole of the research community - say 43,000 - and get them all to see the need for change. We also need to consider revising the Athena SWAN programme, which was not always proving effective in changing attitudes towards women.

8. Universities have a duty to support applicants for grants, and they could help by flagging up applications where there were special circumstances - although the MRC said they already looked hard at the applicant's circumstances.

9. While the publication of statistics of success rates and other aggregated data was valuable, one should be careful that emphasis on quantity did not exclude the importance of quality. How to measure quality was difficult, but if excellence was to be found and real innovation achieved, it should remain a priority.

10. The discussion had focussed on Higher Education, but the attitudes engendered in both sexes were established much earlier, and much more attention should be given to the attitude of teachers in schools and the aspirations they expected from pupils of different genders. Indeed, the problem went back earlier, to the working class macho culture which trivialized women and set unconscious bias which could affect men of all classes at all stages of their careers.

11. A participant asked whether the Research Councils considered ethnic or racial bias, as well as gender bias. They did, as far as they could, but they were inevitably hampered by the nature of the applications which come forward.

The Chairman reminded participants that he had specifically asked if they had comments on the ten points put forward in the Nature paper. In response participants agreed that the points were valuable indicators towards a lessening of gender bias. But some doubted the wisdom of dividing the actions between universities and funders. It had been clear from the discussion that the two must work together and that it was not easy to decide whether funders should exercise greater pressure on universities, or whether the impetus should come from the institutions themselves.

But, it was pointless to commit to "an ambitious expectations for gender performance" without adequate funding support. There were also doubts about "targets for minimum gender representation on funding panels" as this did not take account of the pressures on women at different stages of their lives. But there was strong support for more radical action, particularly on pay, as in the Essex model.

Sir Geoffrey Chipperfield KCB

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Open this document with Adobe Reader outside the browser and click on the URL to go to the sites below.

**References:**

- 1 Gender balance: Women are funded more fairly in social science. Boyle PJ1, Smith LK2, Cooper NJ2, Williams KS2, and O'Connor H Nature 2015 Sep 10;525(7568):181-3. doi: 10.1038/525181a.
- 2 Head MG, Fitchett JR, Cooke MK, Wurie FB, Atun R. Differences in research funding for women scientists: a comparison analysis of UK investments in global infectious disease research 1997–2010. BMJ Open 2013;3:e003362 doi:10.1136/bmjopen-2013-003362 [www.bmjopen.bmj.com/content/3/12/e003362](http://www.bmjopen.bmj.com/content/3/12/e003362)

**Useful links:**

Academy of Medical Sciences

[www.acmedsci.ac.uk](http://www.acmedsci.ac.uk)

Arts and Humanities Research Council

[www.ahrc.ac.uk](http://www.ahrc.ac.uk)

Biotechnology and Biological Sciences Research Council

[www.bbsrc.ac.uk](http://www.bbsrc.ac.uk)

British Academy

[www.britac.ac.uk](http://www.britac.ac.uk)

Department for Business Innovation and Skills

[www.gov.uk/government/organisations/department-for-business-innovation-skills](http://www.gov.uk/government/organisations/department-for-business-innovation-skills)

Economic and Social Research Council

[www.esrc.ac.uk](http://www.esrc.ac.uk)

Engineering and Physical Sciences Research Council

[www.epsrc.ac.uk](http://www.epsrc.ac.uk)

Equality Challenge Unit's Athena SWAN Charter

[www.ecu.ac.uk/equality-charters/athena-swan](http://www.ecu.ac.uk/equality-charters/athena-swan)

Essex University closes pay gap for female professors (Press Release 2<sup>nd</sup> June)

[www.essex.ac.uk/news](http://www.essex.ac.uk/news)

Government Office for Science

[www.gov.uk/government/organisations/government-office-for-science](http://www.gov.uk/government/organisations/government-office-for-science)

Innovate UK  
[www.innovateuk.gov.uk](http://www.innovateuk.gov.uk)

The Learned Society of Wales  
[www.learnedsociety.wales](http://www.learnedsociety.wales)

Medical Research Council  
[www.mrc.ac.uk](http://www.mrc.ac.uk)

Natural Environment Research Council  
[www.nerc.ac.uk](http://www.nerc.ac.uk)

RCUK – Action Plan for Equality, Diversity and Inclusion  
[www.rcuk.ac.uk/documents/documents/actionplan2016-pdf/](http://www.rcuk.ac.uk/documents/documents/actionplan2016-pdf/)

Royal Academy of Engineering  
[www.raeng.org.uk](http://www.raeng.org.uk)

The Royal Society  
[www.royalsociety.org](http://www.royalsociety.org)

The Royal Society of Edinburgh  
[www.royalsoced.org.uk](http://www.royalsoced.org.uk)

Research Investments in Global Health study  
[www.researchinvestments.org](http://www.researchinvestments.org)

Science and Technology Facilities Council  
[www.stfc.ac.uk](http://www.stfc.ac.uk)

The Wellcome Trust  
[www.wellcome.ac.uk](http://www.wellcome.ac.uk)

Universities UK  
[www.universitiesuk.ac.uk](http://www.universitiesuk.ac.uk)

The Foundation for Science and Technology  
[www.foundation.org.uk](http://www.foundation.org.uk)

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