Towards equality in science

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Chemical Sciences for Horizon Europe, education & employability

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Gender And Diversity

• Is there inequality in science?
• Facts or emotions?
• It is complex
• Can and should we do something?
• Focus on gender
• mutatis mutandis for Diversity
Dutch Academia: The Leaky Pipeline

Monitor vrouwelijke hoogleraren 2018
Important points with inequality

1. **It is complex**
   There is not one simple cause for inequality and not one simple fix.

2. **We don’t judge**
   We all categorize people and have implicit biases and it is a very human thing to do.

3. **You can do something**
   There are things you can do differently to create a more inclusive work environment and attract more diverse talents.
Why is inequality a problem?

1. Social justice case
   as an organization we should give all students and employees equal opportunities.
   We should assess people independent of the social categories they belong to.

2. Business case
   by excluding groups we miss talents that otherwise could have contributed to science.
   A diverse team can improve the performance of the team. If we do not do anything about it, we harm ourselves.

What are the major mechanisms causing inequality?

• **Stereotypes** are unconscious expectations how people in a certain group are (and should be)
  
  **Advantage:** fast processing of information
  
  **Disadvantage:** inaccurate processing (too fast)

• Often conflicting with *explicit* thoughts (‘*implicit* bias’)
What are the major mechanisms causing inequality?

- Stereotypes and biases play an important role in academia

From Kirsten Pressner’s ted talk: https://www.youtube.com/watch?v=Bq_xYSOZrgU
EXAMPLE 1: review of a science paper

- 180 women, 180 men asked to review and rate a math paper (1=best, 5=worst mark)

- Same paper with author: J.T. Mc Kay or John T. Mc Kay or Joan T. Mc Kay

EXAMPLE 2: Judging CV’s

Job application for an undergraduate lab manager position:

• Male and female science professors at R1 universities each rate one application

• Male applicants were rated more competent, more hirable, more suitable for mentoring, and they were offered higher salaries

EXAMPLE 3: Teaching Evaluation

Online course taught by two instructors: 1 woman, 1 man

- False belief manipulation: 50% of the students believed that their instructor was a man while she was a woman, or the other way around
- No significant difference in rating between both instructors

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<th>Actual gender</th>
<th>Perceived gender</th>
<th>Woman</th>
<th>Man</th>
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<tr>
<td>Woman</td>
<td>Group A</td>
<td>3.5</td>
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<td>Man</td>
<td>Group C</td>
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Mean student ratings

EXAMPLE 3: Teaching Evaluation

Online course taught by two instructors: 1 woman, 1 man

- False belief manipulation: half of the students believed that their instructor was a man while she was a woman, or the other way around
- No significant difference in rating between both instructors
- Perceived male instructor was significantly higher rated

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Perceived gender

<table>
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<th></th>
<th>Perceived male</th>
<th>Perceived female</th>
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<tbody>
<tr>
<td>Mean student ratings difference</td>
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<td>3.5</td>
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EXAMPLE? : More men than women receive their PhDs *cum laude*

- It is about sponsorship and perceived excellence
What’s next? What can you do?

- 1970-1996 many US symphony orchestras began conducting screened auditions
- Data from 14,000 applicants show: probability increased that a woman would pass preliminary rounds by 50% after screen has been introduced

Anonymous application procedure helps but impossible in science

What’s next? What can you do?

1. Awareness, awareness, awareness

2. Procedures and some best practices
   • Install a gender and diversity committee
   • Introduce obligatory awareness training for hiring and selection committees
   • Offer financial support for pregnant staff to safeguard their productivity and talent
   • Provide guidelines on how to write job vacancy texts to attract diverse talents

EU: Inequality in science?

European referee panels?

How are biases addressed?
Is there inequality in Dutch academia?

If nothing is done it will stagnate
It doesn’t get solved by itself. Waiting is not an option.