Achieving a True Meritocracy
Reducing Bias in the Peer Review Process
Karoline Gilbert and the INS Diversity, Culture and Respect Working Group
‘Myth of Meritocracy’ -> ‘Reality of Meritocracy’*

- Fighting against societal and cultural constructs, deeply and unconsciously ingrained biases
- Affect EVERYONE
- Have very real consequences for
  - Careers of minority groups
  - Our ability to hire, promote, and grant access to resources to the most qualified candidates
  - Our ability to identify the most scientifically promising proposals

* An excellent post on the Women in Astronomy blog by Carolyn Brinkworth
Limit Bias in the Selection Process: Get to Know Your Bias

+ Unconscious/Implicit Bias: “social stereotypes about certain groups of people that individuals form outside their own conscious awareness”
  + It is often at odds with our consciously held values and belief systems

+ Documented Real Life Consequences: controlled studies have shown that for equal qualifications:
  + Both women and men are less likely to hire a candidate with a female name than a male name
  + Both women and men are more likely to offer a male candidate a higher salary

Project Implicit: https://implicit.harvard.edu/
Limit Bias in the Selection Process: Understand Schemas

- The shortcuts your brain uses to increase its efficiency in navigating situations:
  - Conceptual frameworks that help your brain anticipate what to expect from experiences and situations
  - Built and enforced over a lifetime
  - Provide roadmaps for processing and categorizing information

*Your brain relies on schemas when time is short and pressure to make a decision is high...*
Limit Bias in the Selection Process: Guard against implicit bias and use of `schemas’

- Effects creep in everywhere:
  - The stories we tell about contributions to research teams (e.g., letters of reference)
  - Our relative evaluation of proposers’ qualifications
  - The perceived importance of different qualifications based on demographics
  - Our reliance on existing schemas increases when time is limited

*The Good News: Quantitative evaluation, done properly, is effective.*
Limit Bias in the Selection Process:
Guard against implicit bias and use of ‘schemas’

- STScI has taken steps to guard against bias:
  - Discuss implicit bias with panel members
  - Work to ensure diverse selection panels
  - Use first initials instead of full names
  - Remove the PI from consideration in the selection process
Limit Bias in the Selection Process: Evaluating the Proposing Team

Proposals do not include CVs of the proposing team members. Any discussions of the proposing team’s qualifications risk being influenced by:

- Strong implicit bias and schema effects
  - Discussion based on perceived qualifications, not quantitative metrics

- The size of the proposer’s network
  - Minority networks are smaller and have fewer connections to high-status individuals
Limit Bias in the Selection Process: Guard against implicit bias and use of ‘schemas’

+ Panelists must also guard against the effects of bias:
  + Identify evaluation criteria, and their relative importance, *prior to beginning discussions*
  + Ensure sufficient discussion time given to each discussed proposal
  + Be vigilant about decision process when time is short and when making global rankings
  + Refrain from identifying individuals by gender in discussions ("the proposal team")
  + Resist the temptation to guess the PI, or to discuss the PI’s individual qualifications if they have identified themselves
Ensure All Panelists Are Heard

- Members of the majority group and people with high status enjoy certain privileges:
  - Contributions more often ‘heard’, more often acknowledged
  - Less likely to be the target of patronizing or denigrating language
  - More likely to feel comfortable providing unsolicited opinions
Ensure All Panelists Are Heard

- Practice good group communication skills!
  - Maintain respectful, constructive dialog at all times
  - Listen carefully and acknowledge all points made
  - Actively engage all panel members in discussion
  - Advocate for all your fellow panelists
Achieve a True Meritocracy

- We all have implicit biases, we all use schemas – be aware and vigilant

- Use quantitative evaluation metrics
  - Be careful when making and evaluating global rankings
  - Avoid dwelling on proposal team’s perceived qualifications

- Practice good group communication skills