



Achieving a True Meritocracy

Reducing Bias in the Peer Review Process

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'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 helps 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