



University of California
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Acknowledging bias, equity- focused research lens

Section 3.2

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"Bias is a prejudice in favor of or against one thing, person, or group compared with another"

<https://diversity.ucsf.edu/resources/unconscious-bias>

Race, gender, culture and religion affect our biases, please respect the right for participants in this course to express personal sentiment. This module will explore historic prejudice and may be triggering.

Learning objectives

- Understand our own, and our institutions', biases and privilege can influence research
- Understand how bias and racism can be propagated by research
- Understand best practices for working with populations that are socially and economically marginalized

The Origins of Western Research

- Western Science began as an elite discipline exclusively for white men of certain status
- Prestigious journals dictated clinical relevance
- The practice of eugenics and the use of statistics to support bias

Western Research Bias

Potential Sources

- Institutional Bias, organizations are slow to adapt and embrace diversity.
- Publication Bias: 6% of published literature is from regions of the world that account for over 90% of the global population

Publication bias towards Western populations harms humanity.

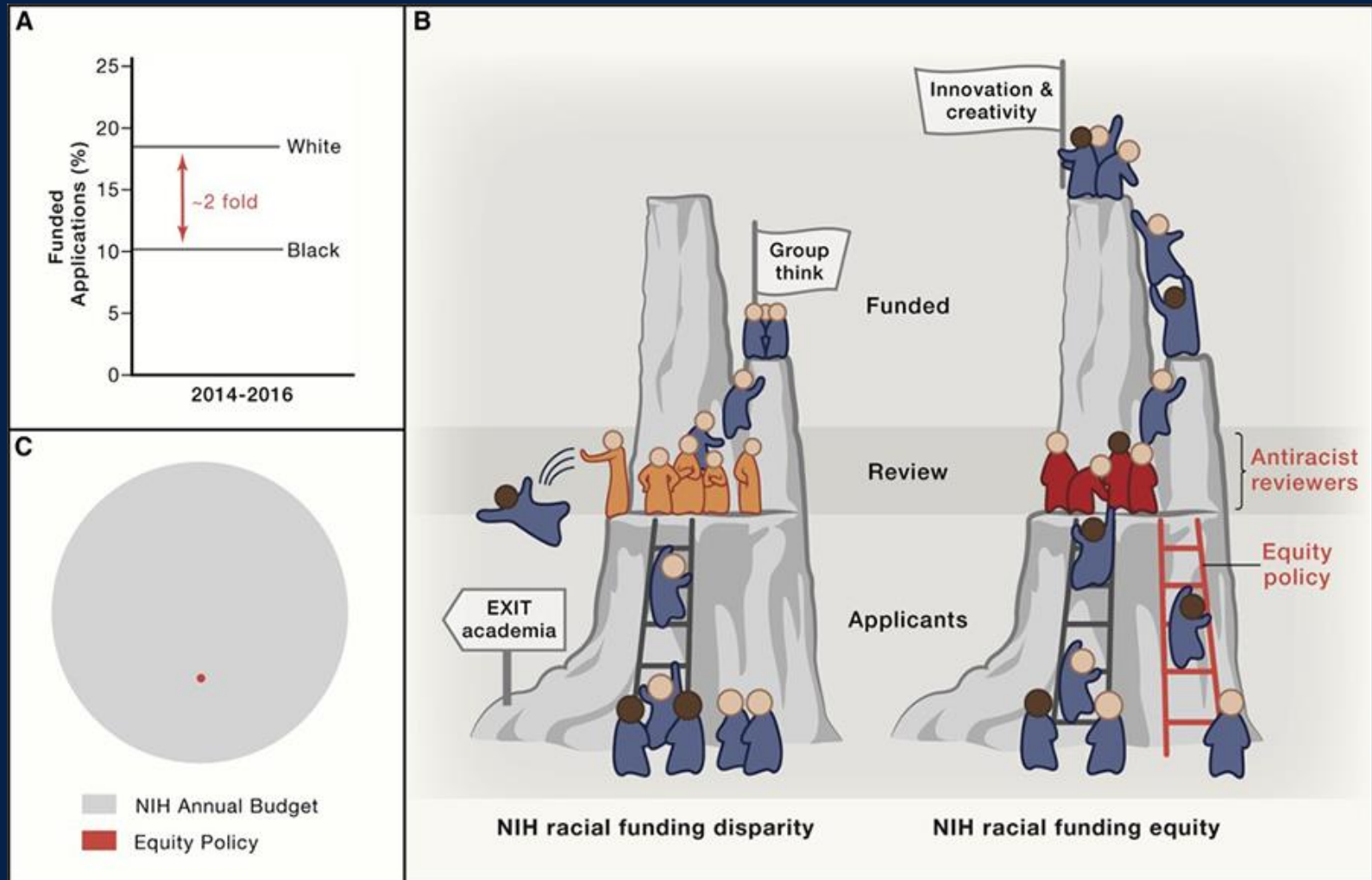
<https://doi.org/10.1038/s41562-019-0720-5>

- Socioecological factors run a broad spectrum of bias. We all must navigate personal experiences.

Traditional Hierarchy vs Innovation

Stevens, K.R. "Fund Black Scientists" Cell. V184.3 561-65

DOI:<https://doi.org/10.1016/j.cell.2021.01.011>



The privilege of Research

- What do we mean when we say, “health equity”?
- Researchers are recognized by tenure, publications and citations are synonymous with expertise.
- Exclusionary literature and jargon restricts audience comprehension and adaptation.
- Power dynamics suppress innovation and marginalize innovation.

The source of your information

What lens captured the data

- Health centers encounter a small percentage of the population.
- Research findings derived from a biased hypothesis. Case study: forced sterilization.
- Social construct sampling, race and gender may not be as significant as cultural, location and social status.
- Challenge traditional thought. Published research maintains the status quo.

Awareness of Bias During the Research Process

Failure to acknowledge bias during project design and execution can perpetuate institutional bias

Awareness of Bias

Social-Ecological Model:
Personal affects and the spectrum of bias



Awareness of Bias

Common Pitfalls

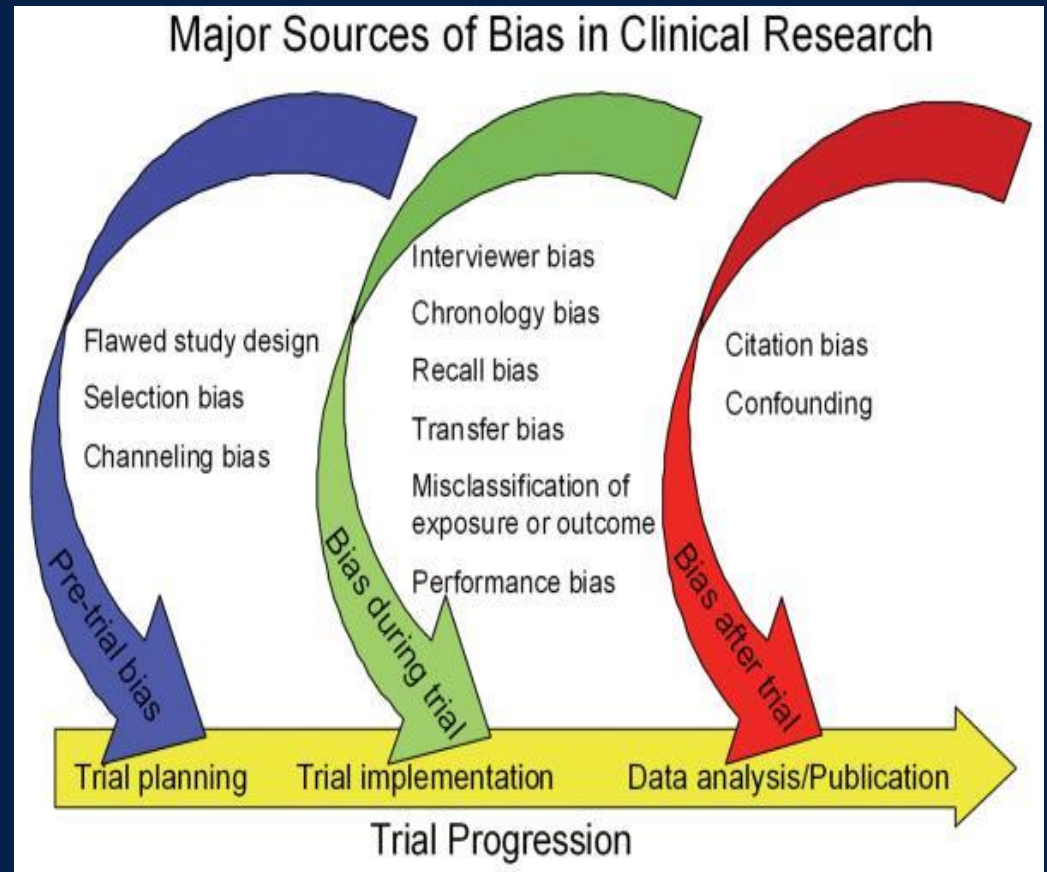
- Failure to engage and sample stakeholders.
- Mis-categorization of people based on social constructs
- Believing interventions fail due to user error or lack of utilization.
- Accepting traditional sources of bias as fact.
- Procedural errors.

Awareness of Bias

Source: Pannucci, C.J., Wilkins, E.G. "Identifying and Avoiding Bias in Research" PMID: 20679844

Common sources of Bias

Procedural bias can taint a project at various stages, but subconscious bias and systemic prejudice are subtle and confounding.



Pitfalls to Avoid

Examples of Research perpetuating bias

Clinical:
Colorectal cancer
test.

- Colonoscopies, physician preferred and widely prescribed. Stool samples a more accessible cost-effective screening tool.

Quality
Improvement.

- Sampling a marginalized populations without considering the research setting.

ImS

- Proposing behavioral interventions without community engagement.

Work to be Done

- Institutional Review Boards (IRB) approve research projects. Diversity among IRB members remains a challenge.
- Community stakeholders need the ability to define unique characteristics and needs.
- Language can be a barrier; disseminate information stakeholders can read and comprehend.
- Recognize minorities doing research on special populations.

McFarling, U.L. “Health Equity tourists”, STAT Sept 23,2021-
www.statnews.com/2021/09/23/health-equity-tourists-white-scholars-colonizing-health-disparities-research/

Work to be Done

Best Practices

Bias in research and academia is an emerging field

- Confront structural bias. Equitable research threatens historic practices.
- Consider representation, diverse perspectives and voices add validity.
- Speak to a consultant. Engaging special populations and accessing resources is best facilitated by experts.
- Acknowledge personal bias when constructing research questions

UCSF is driven by the idea that great breakthroughs are achieved when the best research, the best education and the best patient care converge.



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