

- Agenda** | Science, race, & health
1. Biomedicine and race
 2. 'Thrifty gene'
 3. Group discussion

Western European men

- ∴ Historically, biomedical research has focused on white men.
- ∴ The types of questions asked and the kinds of treatments developed show consistent bias.
- ∴ The doing of biomedicine has long been dominated by white men



A medical student couldn't find how symptoms look on darker skin. He decided to publish a book about it.

By Sydney Page
July 22, 2020 at 7:00 a.m. EDT



Malone Mkwende, 20, recently completed his second year of medical school at St George's, University of London. Mkwende noticed a lack of teaching about how certain physical conditions manifest in darker skin tones and is producing a handbook to address the issue. (Courtesy of

Skewed knowledge

- ∴ This leads to more and better knowledge about certain conditions among certain groups
- ∴ E.g. heart disease in men, blood oxygen in white Europeans

“Inclusion and difference” paradigm Epstein 2007

Changes in legislation and norms of research since the late 1980s have altered the role of race and gender for biomedicine

“*Inclusion-and-difference*” as a paradigm

⋮ **Inclusion:**

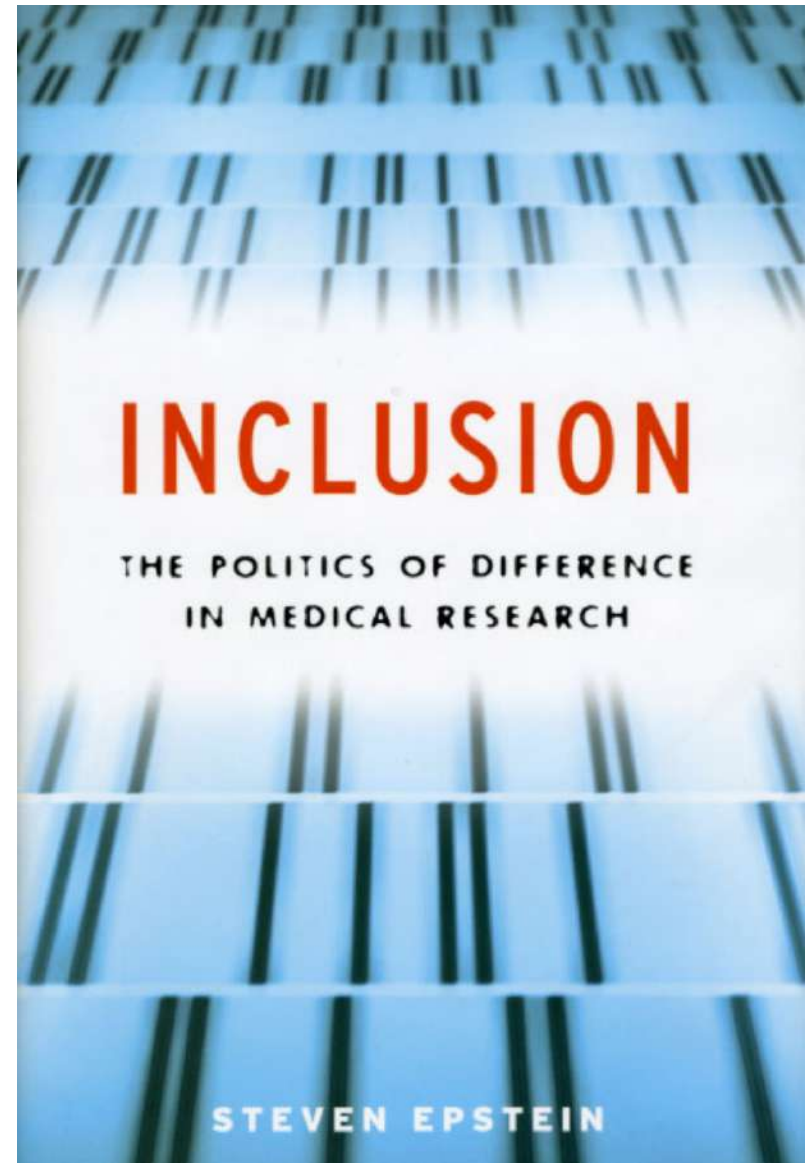
Research should explicitly seek to *include members of under-represented groups* (e.g. women, racialized categories)

⋮ **Difference:**

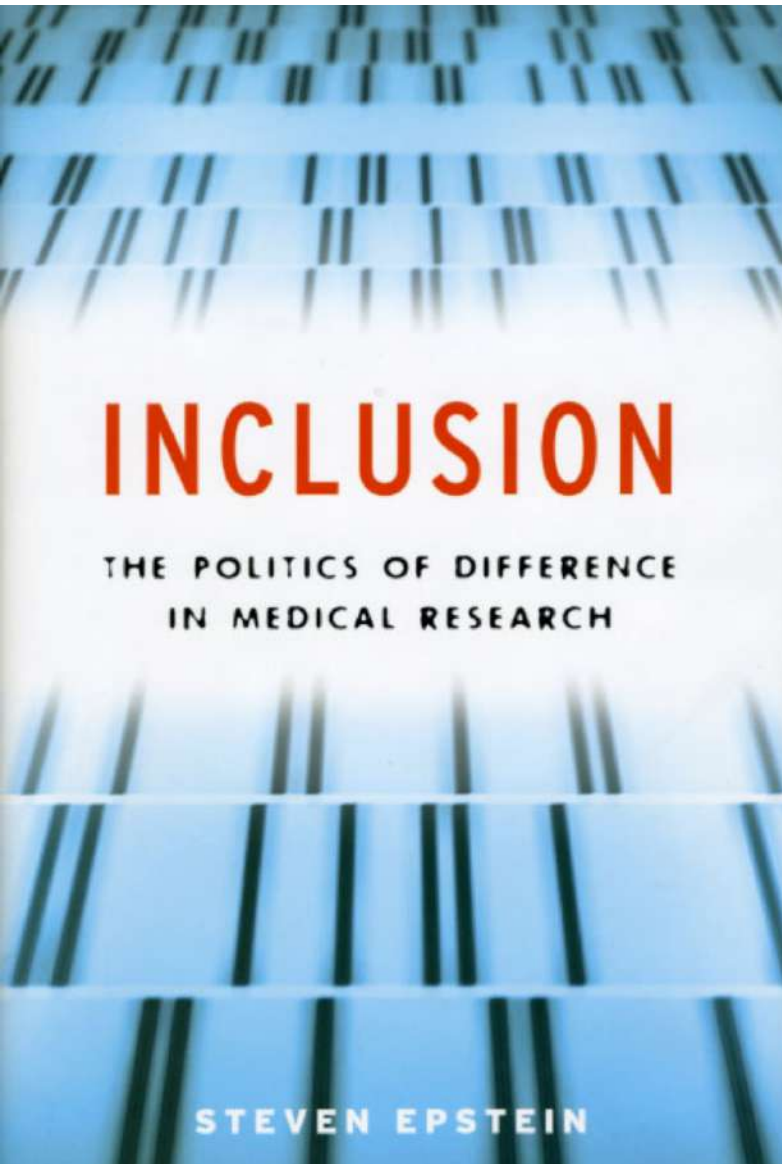
Research should aim to identify *differences between those groups* (e.g. incidence rate, mortality rate, treatment effectiveness, ...)

The paradigm is championed by practitioners and activist groups seeking to make biomedical research more inclusive

Currently enforce by law or by the policies of funding agencies



Consequences of “Inclusion and difference” Epstein 2007



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The 'thrifty gene'

Thrifty gene hypothesis

- ⋮ Aims to explain prevalence of some forms of diabetes among certain Indigenous communities
- ⋮ Proposes that European colonial expansion caused changes to Indigenous diets
- ⋮ Presumes that Indigenous populations are genetically adapted to “feast-and-famine”
- ⋮ Switch to “feast-only” diets predisposes Indigenous peoples to diabetes and obesity



Jennifer Poudrier (2007)

Existing research on 'thrifty gene' hypothesis relies on and reinforces "problematic and intersecting binaries" such as "civilized/primitive, Aboriginal/non-Aboriginal and science/culture." (p. 239)

Poudrier seeks to "***de-naturalize***" and ***decolonize*** the theory.

This means, among other things, that any discussion of the intersection of race, health, and genetics for Indigenous peoples must include voices and perspectives of those people at a foundational level.

She uses this perspective to confront two implicit assumptions of a 'thrifty gene' analysis of the Indigenous population of the Oji-Cree of Sandy Lake, Ontario:

1. ***genetic homogeneity***, and
2. ***validity of the the comparative groups***.

Decolonizing Methodologies (Linda Tuhiwai Smith, 1999)



Western scientific research is “inextricably linked to European imperialism and colonialism.” (p. 30)

Scientific research on and about colonized peoples is inherently exploitative.

Current issues of health, inequality, poverty, etc. are part of the broad **historical** narrative.

Indigenous peoples have “counter stories” that challenge categories and paradigms of Western science.

Does *not* seek to fully reject Western science, but to turn it into one part of a larger discourse.

Standardization, bodies, and society

⋮ **Herzig (1999)**

*Removing Roots: “North American
Hiroshima Maidens” and the X Ray*

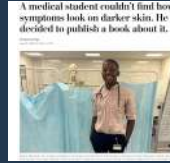
⋮ **Woods and Watson (2004) — optional**

*In Pursuit of Standardization: The British
Ministry of Health’s Model 8F Wheelchair,
1948-1962*

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