SOCI 325: SOCIOLOGY OF SCIENCE

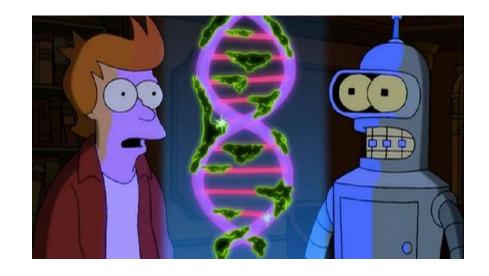
Agenda1. Genetic ancestry testing
& indigeneityScience & identity2. Group discussions

Genetic ancestry testing & indigeneity

GENETIC ANCESTRY TESTING

Types of tests

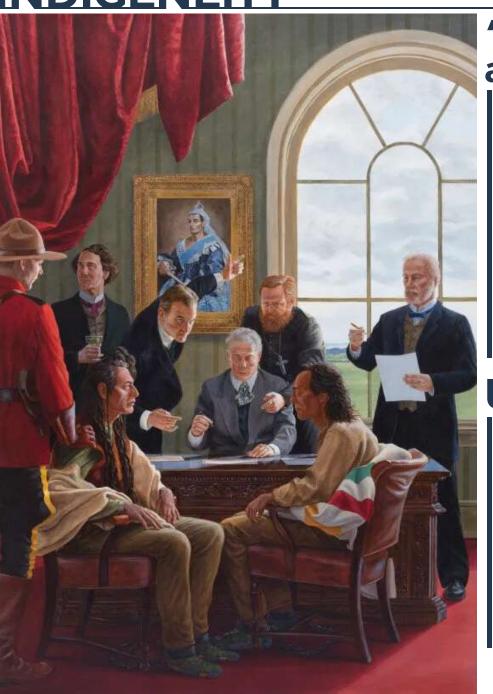
- Mitochondrial DNA (mtDNA): Identifies markers inherited matrilineally.
- Single nucleotide polymorphisms (SNPs): Identifies markers inherited patrilinealy.
- **Short tandem repeats (STRs)**: Tests for parentage.



Linking alleles to populations

- Most ancestry tests look for alleles/haplotypes that are associated with specific populations.
- ENot everyone in a population has any given allele.
- E Alleles that are common in a particular population are also present elsewhere.
- Based on sample of recent people using statistical inference.

DNA tests ≠ ancestry ≠ race



"Indigenous" as a category

- "Indigenous" is a term and identity related to the global indigenous movement
- Example: Refers broadly to peoples/nations that were already present when a colonizing or settling population arrived

Unifying term

- Eldentifies diverse, global peoples through shared struggle
- E Can also be used to "flatten" those peoples into a homogenous kind, defined by colonial history

Articulations of indigeneity (TallBear 2013)

Dominant "genomic" articulations

- Indigenous populations are defined by specific characteristics of populations' genomes.
- E Co-exists with a view of static "cultural" distinction.

Contrasted with various indigenous articulations

- Place-based:
 - "They were not simply first but they arose as peoples, as humans in relationships with particular places." (514)

Oppositional:

Indigenous identity defined in terms of resistance against colonial forces.

Generative:

"... enabling mutual recognition and collaboration by indigenous peoples across disparate histories and geographies." (514)

Narratives underlying genomic articulation (TallBear 2013)

TallBear discusses **two cultural narratives** that support and are supported by the genomic articulation of indigeneity:

1. "Indigenous peoples are vanishing"

- Indigenous peoples represent "pure" populations that developed in relative isolation.
- EDue to colonialism, genetic *admixture* is making "pure" indigeneity rarer.
- Provides scientific backing for indigenous erasure.

2. ""We are all related/all African"

- All humans can be traced to a single "mitochondrial Eve" who is supposed to have lived in North Africa.
- Implicitly (and often explicitly) conceives of non-Europeans as an earlier stage of human development.
 Provides scientific backing for indigenous erasure.

Co-opting indigeneity

- Many genetic ancestry tests will report a 'percentage' of indigenous ancestry
- Non-indigenous settlers may use these results to claim indigeneity for cultural cachet, tax benefits, etc.

Gaming the system

- In 2018, CBC reported on a scam linked to "Confederation of Aboriginal People of Canada" (CAPC)
- Equation Genetic tests of journalist's dogs were reported as having significant indigenous DNA



Heredity or hoax?

How dog DNA helped uncover a suspected Indian status scam

By Jorge Barrera and Tiffany Foxcroft June 13, 2018

When Louis Côté became suspicious of a Toronto-based laboratory that tests people's DNA to determine their ancestry, he decided to try an experiment by submitting a sample from his girlfriend's dog for analysis.



Even in a credible DNA lab, there are problems using tests to determine indigenous affiliation, Kim TallBear says. (Submitted by Kim TallBear)

AI, knowledge, and social data

- Joyce et al. (2021) Toward a Sociology of Artificial Intelligence
 Roberts (2020) optional Your Al Is a Human

Image credit



Still from <u>Futurama</u> (<u>1999)</u>



The Subjugation of Truth (2016) by <u>Kent Monkman</u> via <u>Huffpost</u>

Heredity or hoax?
Wingshows on the Annual

Screenshot from CBC



Screenshot from CBC