WHAT IS QUANTITATIVE DATA
GOOD FOR?

Throwing great big
noisy fusses about
white colonial power
structures.

An ode to Ramona Quimby

## Oregon State University & Corvallis, Ore. are located:

- Within the traditional homelands of the Mary's River or Ampinefu Band of Kalapuya.
  - The Kalapuya people were forcibly removed to reservations in Western Oregon in 1855 after the Willamette Valley Treaty was enacted.
  - Living descendants of these people are a part of the Confederated Tribes of Grand Ronde Community of Oregon (https://www.grandronde.org) and the Confederated Tribes of the Siletz Indians (https://ctsi.nsn.us)

## Klickitat Street, home of Ramona Quimby, is:

  - in Northeast Portland, Ore.
    - Named after the Klickitat People.
    - The Klickitat people are a Sahaptian tribe.
    - They lived east of the Cascade mountains and whose people are now a part of the Confederated Tribes of the Grand Ronde
  - Ramona's street lies on the land of the Multnomah or Cathlascan people.
  - The Multnomah people were devastated by malaria, or a similar disease, and small pox between 1830–1834. In 1910 the remaining Multnomah tribe were forced to leave their land and join the Grand Ronde Tribes Reservation in Northwest Oregon

**About Brooke Robertshaw**

- White
- Colonial American
- Documented
- Short (4'9")
- 2nd Generation PhD
- 2nd generation academic
- Episcopalian
- Academic class
- Cisgender
- Episcopalian
- Straight
- Lives with PTSD

## About Ramona Quimby

What assumptions do we make about Ramona?
What is her ethnicity?
Her faith tradition?
Socioeconomic class?
Do her parents have a high school education?
College?
What about her community? Who is her community?

**When we think about Ramona Geraldine Quimby, who do we think about?**

# What are Ramona's assumptions about adults?

Fair?
Logical?
Problem solving?
With age comes wisdom?

# What are our assumptions about quantitative methods?

Fair?
Logical?
Problem solving?
With age comes wisdom?

How were our assumptions created?

SINCE 1619

**1790:** First Cenus 1 Jan
**1862:** Race Traits & Tendancies of the American Negro, Hoffman
**1869:** Hereditary Genius, Galton
**1872:** Scientific Charity Movement Begins

timeline.brookerobertshaw.com

1.  First Census:  The six inquiries in 1790 called for the name of the head of the family and the number of persons in each household of the following descriptions:

Free White males of 16 years and upward (to assess the country's industrial and military potential)
Free White males under 16 years
Free White females
All other free persons
Slaves

2. This book, Hoffman's first, characterized African Americans as exceptionally disease-prone. The work was motivated by a concern about issues of race, and also the need of insurance companies to justify the higher life insurance premiums charged to African Americans

3.Galton coins the term Eugenics and makes a scientific case for racial genetics.

4. Scientific charity movement: Will be discussed more, but a "data driven" way to determine who can get services and who can't.

How were our
assumptions created?

SINCE 1619

1927: Buck v. Bell
1942: Atanasoff - Berry
computer completed
1977: Apple II released
1998: Era of "Big data" begins

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1. Buck v. Bell decided: legalized involuntary sterilization. ""It is better for all the world if, instead of waiting
 to execute degenerate offspring for crime or to let them starve for their imbecility, society can prevent those who are manifest
unfit from continuing their kind. The principle that sustains compulsory vaccination is
broad enough to cover cutting the Fallopian tubes." "

**History in the making**

"If the poorhouse was a machine that diverted the poor and working class from public resources, scientific charity was a technique of producing plausible deniability in elites."
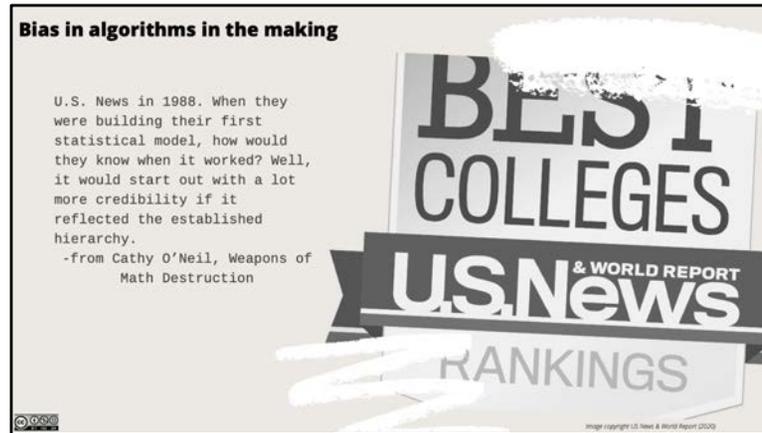— from Virginia Eubanks, "Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor"
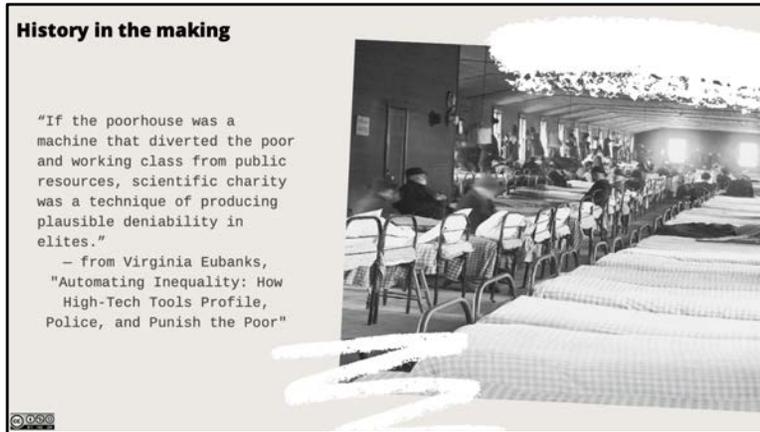
They asked: How can legitimate need be tested in a communal lodging house? How can one enforce work and provide free soup at the same time? In response, a new kind of social reform—the scientific charity movement—began an all-out attack on public poor relief. Scientific charity argued for more rigorous, data-driven methods to separate the deserving poor from the undeserving. In-depth investigation was a mechanism of moral classification and social control. Each poor family became a "case" to be solved; in its early years, the Charity Organization Society even used city police officers to investigate applications for relief. Casework was born.

Caseworkers assumed that the poor were not reliable witnesses.

They confirmed their stories with police, neighbors, local shopkeepers, clergy, schoolteachers, nurses, and other aid societies.

**Bias in algorithms in the making**

U.S. News in 1988. When they were building their first statistical model, how would they know when it worked? Well, it would start out with a lot more credibility if it reflected the established hierarchy.
  -from Cathy O'Neil, Weapons of Math Destruction

2. 1983 US News, at that point a struggling newsmagazine, decided to undertake a difficult project –
to evaluate and rank 1800 colleges and universities.
1st they sent opinion surveys to university presidents. Stanford and Amherst came out on top. People didn't like that.
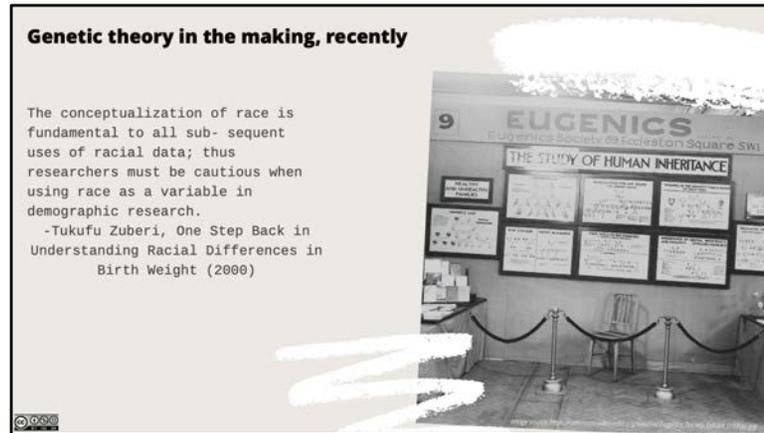2nd. They began to grapple with what made for an excellent educational experience. T
hey then began to look at what correlates with student success -> SAT scores, acceptance rates, donations from alumni.
The first rankings using the new algorithm  (3/4 was made up of data, and 25 percent was subjective
views of the university from higher ed leaders) made sense. Universities like Harvard and MIT came out on top.
But, the problem is, is that these rankings started to matter a lot, and universities started doing things
 like having admitted students re-take the SATs in order to bump up their rankings. Another university, that was
dropping in the ranks – despite higher retention rates and other improvments – launched a major capitol
campaign, made huge improvements to campus buildings, and thus began to climb in the rankings.
One of the things that the university built was an athletic facility, and athletics are a huge factor in drawing applicants.

They began having a star athletic program, got more applicants, had a lower acceptance rate, and thus shot up in the rankings.

**Genetic theory in the making, recently**

The conceptualization of race is fundamental to all sub- sequent uses of racial data; thus researchers must be cautious when using race as a variable in demographic research.
  -Tukufu Zuberi, One Step Back in Understanding Racial Differences in Birth Weight (2000)

A quantitative study, using an existing data set, was done by van den Ooord and Rowe,
2000 to investigate the differences in birth birth health risk between Black and White American mothers.
Their definition of race is 2 fold: 1 - that it is defined by the mothers and that definition is how race
was defined in the model, but 2- that race is genetic and social "uring prehistoric times,
the physical barrier of the Sahara Desert reduced gene flow between Europeans and sub-Saharan Africans.
 For many traits, including those physi- cal traits that visibly differentiate the groups (e.g., skin color and physical features),
gene frequencies are sharply differ- ent. The same is true of some neutral genetic markers (e.g., Spurdle and Jenkins 1991)."

In their modeling they find that birth weight is primarily impacted by environment, not shared genetics..
 But, they hold on to the idea that racial differences are connected to genetics.
 "If these genes influence birth weight, they will contribute to the racial gap.
 In fact, some authors even have argued that racial differences may originate

largely from genetic factors (Rushton 1995: chaps. 7, 11; Rushton and Bogaert 1987)."

 Further "Our findings suggest that the dif- ferences can be traced to the shared environment,
which can be produced socially or genetically in the case of birth weight.
This genetic effect would pertain not to fetal genes but to the mother's genes,
 possibly those affecting her physical or physiological characteristics."

Zuberi points out that even in 2000 we do not understand the relationship
between skin color and health outcomes. He states that connection between race needs
 to be interrogated, and that we need to consider race as it impacts social status.

This new effort is an attempt to understand biological processes outside the political framework
 of eugenics, and has been most successful in the analysis of births and mortality.
One potential benefit of this research is its use as a scientific

Why does history matter?

When whiteness becomes normative, it works like God, in mysterious ways.
-Edward Bonilla-Silva

These assumptions matter because of how we end up examining the institutions in society.
We continue to examine our institutions through the lens of those they were created for..
 we use all sorts of deficit, or othering, models. We examine first gen in comparison to
those who are not first gen, we examine based on race and gender.
These historical assumptions matter because we continue to use statistics to _other_ people.

Ramona made a lot of assumptions about adults.
She assumed that Ms. Binney didn't like her and she stopped going to school.
She assumed that Ms. Whaley thought she was a nuisance.
When she first met Danny, on her way to her first day of 3rd grade, she thought he was mean - he took her eraser.

So, what did Ramona do?

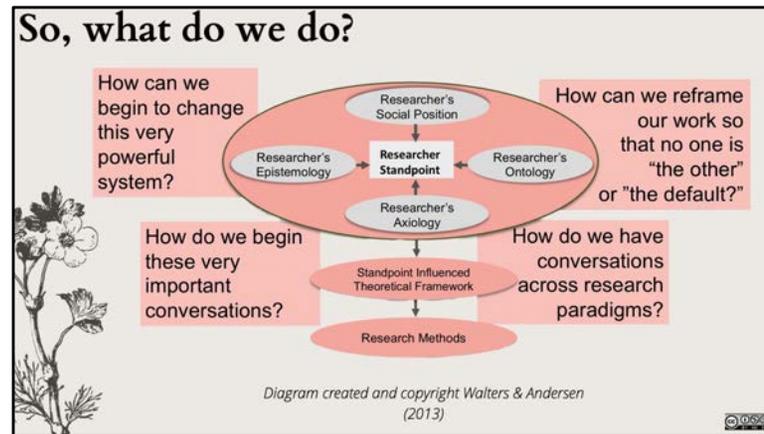"Mrs. Whaley, you told Mrs. Larson that I'm a nuisance, and I don't think I am."

Ramona made a lot of assumptions about adults.

She assumed that Ms. Binney didn't like her and she stopped going to school.

She assumed that Ms. Whaley thought she was a nuisance.

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So, what do we do?

How can we begin to change this very powerful system?

How can we reframe our work so that no one is "the other" or "the default?"

How do we begin these very important conversations?

How do we have conversations across research paradigms?

Researcher's Social Position

Researcher's Epistemology → Researcher Standpoint ← Researcher's Ontology

Researcher's Axiology

Standpoint Influenced Theoretical Framework

Research Methods

*Diagram created and copyright Walters & Andersen (2013)*

Many authors point out that we NEED to do this work. Quantitative research is valuable, and important.
In talking about indigenous methodologies and critical race theory ->
quantitative methods have been criticized because of the seeming positivist nature of them,
and that they stand in direct opposition to other ways of looking at the world.
But, quantitative work needs to continue.
Policy is based on quantitative work.
Laws are based on quantitative work.
The reason I was drawn to quant work is because I knew,
from my experiences on political campaigns and working in the legislature, that we need to have numbers.
But we need to change the ways we present those numbers, and how we interpret those numbers.
Walter and Anderson present this model. For qualitative researchers, this isn't new,
but for quantitative researchers, doing this work, laying out our axiology, epistemology, ontology a

nd positionality is new – unless someone is coming from a non-dominant paradigm.
We need to do this.

So much of what we see in traditional quantitative research is about defaulting whiteness,
maleness and upper middle and upper middle classes as the default, whereas everyone else is the other.

As Walter and Andersen talk about – in quantitative research
 we need to be explicit about our ways of conceptualizing information,
 our position, our view of how knowledge is formed, and those things we value

# What else can we do?

## Stop comparing

Quantitative methods utilize reference groups and control groups. There are ways not to do that. In higher education, we need consider how we change environments, rather than changing students.
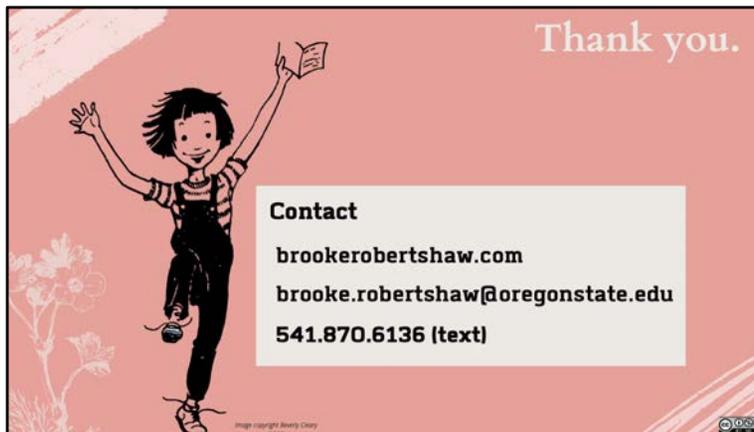
## Share power

Groups that you are researching know a lot about themselves. Include them on your research team. Use community engaged models whenever you can

## Normalize these conversations

All quantitative discussions should include discussions of bias and perspective.

Thank you.

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