Data Visualization for Social Change

Justine Ledochowski

PSYC 6135

March 28 , 2019

#psy6135

Psychology
of Data
Visualization
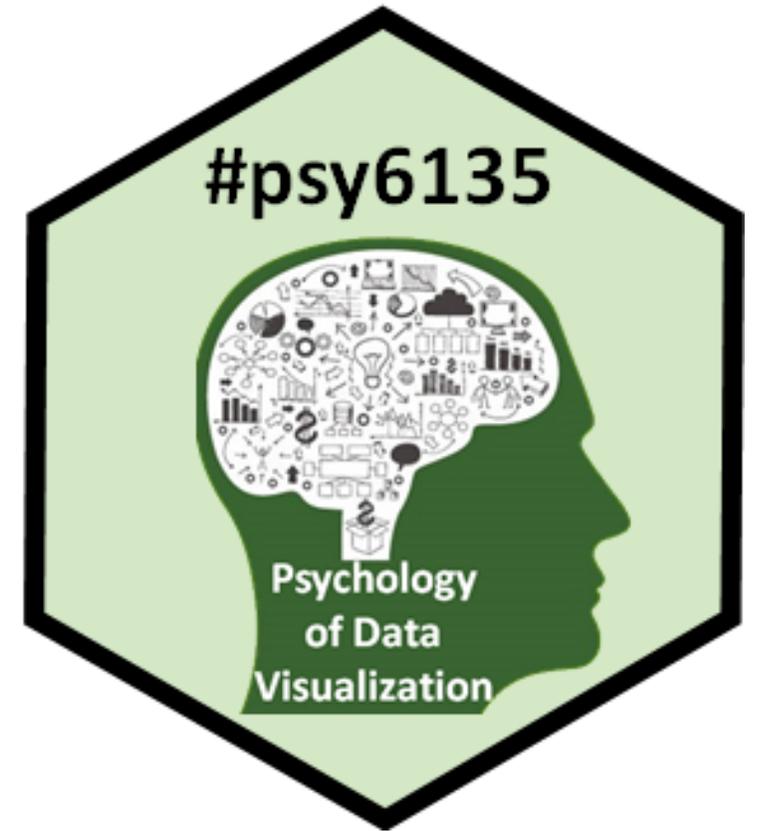
What is social change?

- Social change: how and why social, economic and political systems change over time (Shackman, Liu, & Wang, 2002)

- Social change involves alteration of the social order of a society. It may include changes in social institutions, social behaviours or social relations. (Wikipedia, accessed Mar 27, 2018)

- Social movements of our time:
  - The Women's March
  - Addressing climate change
 - Movement for a better economy (https://thesocialchangeagency.org/three-movements-to-watch-2019/)
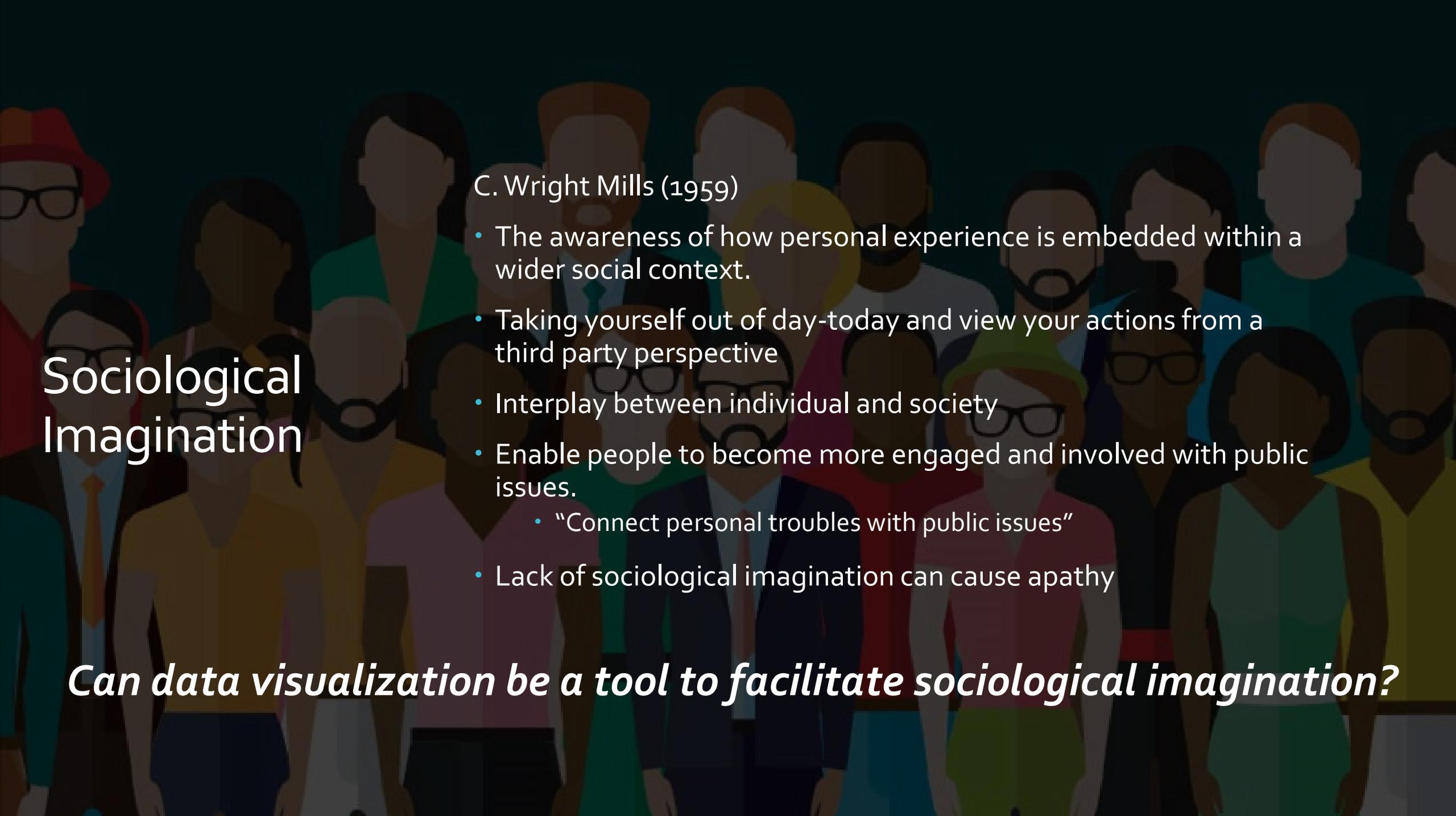
Sociological Imagination

C. Wright Mills (1959)

- The awareness of how personal experience is embedded within a wider social context.

- Taking yourself out of day-today and view your actions from a third party perspective

- Interplay between individual and society

- Enable people to become more engaged and involved with public issues.
  - "Connect personal troubles with public issues"

- Lack of sociological imagination can cause apathy

Can data visualization be a tool to facilitate sociological imagination?

Visualizing social data
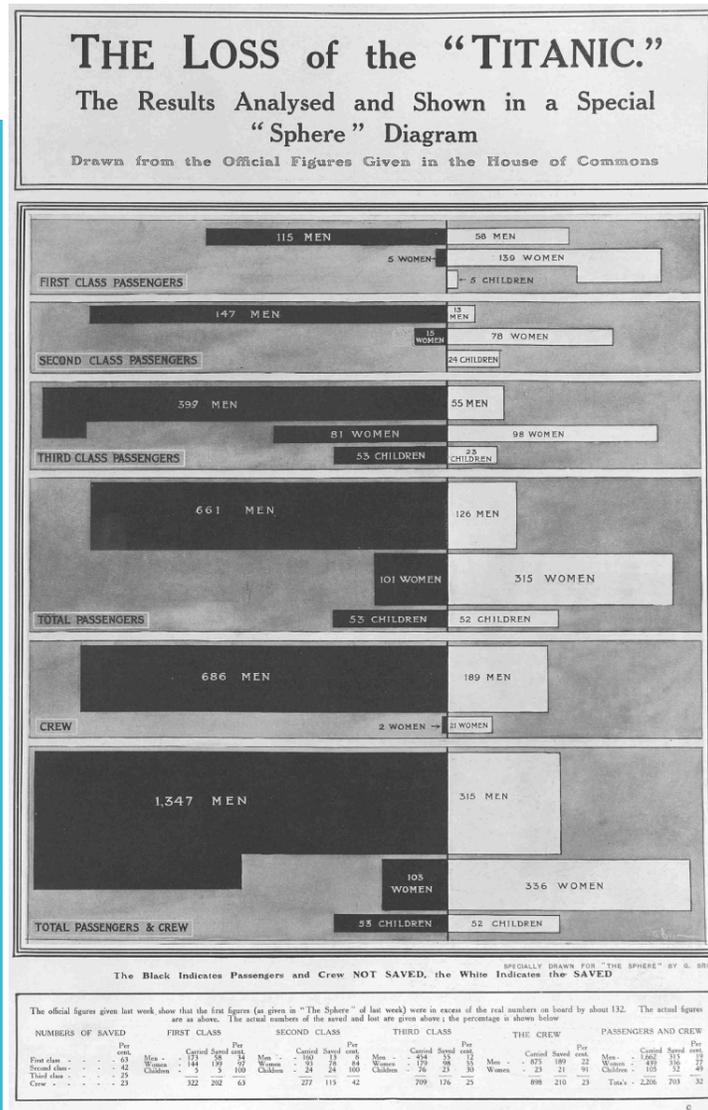
G. Bron, The Loss of the Titanic

John Snow, Cholera Map
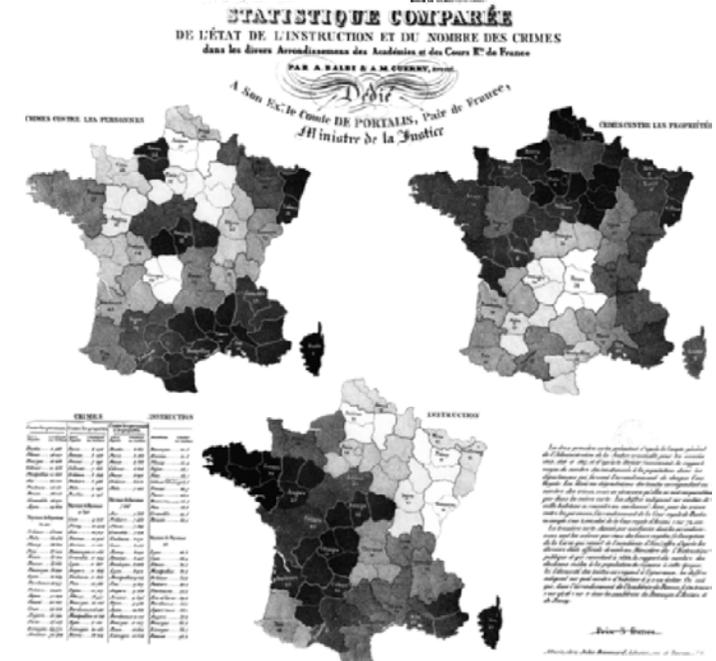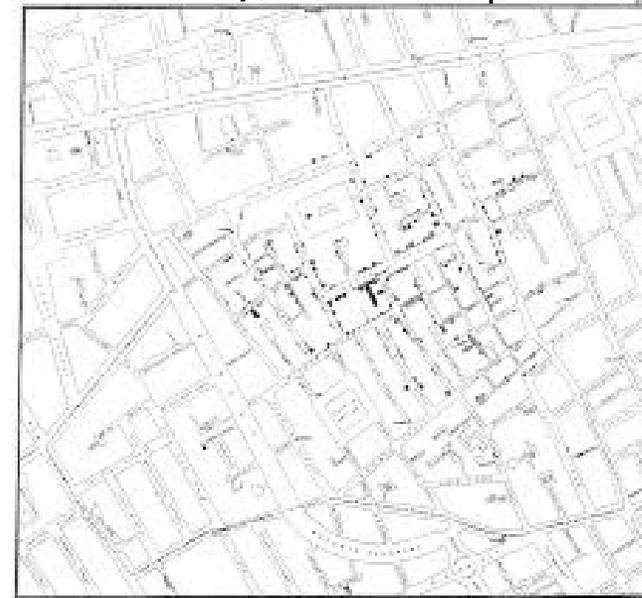
A-M Guerry, Moral Statistics of France

Guerry's moral statistics

- One of the first to study and link social issues (e.g., crime, literacy, mortality)
- Human actions in the social world are governed by social laws
- Comparative analysis of social issues

(Friendly, 2007)

A more recent example…

Brain Storm

Are there other examples you can think of from class or that you've seen recently?

What do you think makes data visualizations like this compelling?

What kind of social change do you think visualizations could lead to?

Data visualization: What is it good for?

"The visualization functions as a tool to facilitate comprehension and to evoke emotions in the viewers' minds" (Cairo, 2012)

"Translating dry reports and databases into a format that resonates with human beings is one of the main purposes of data visualization" (Lambert, 2016)

"Successfully illustrating vital data can help advocates maximize the impact of sound science in public debate and policy" (SXSW, 2012)
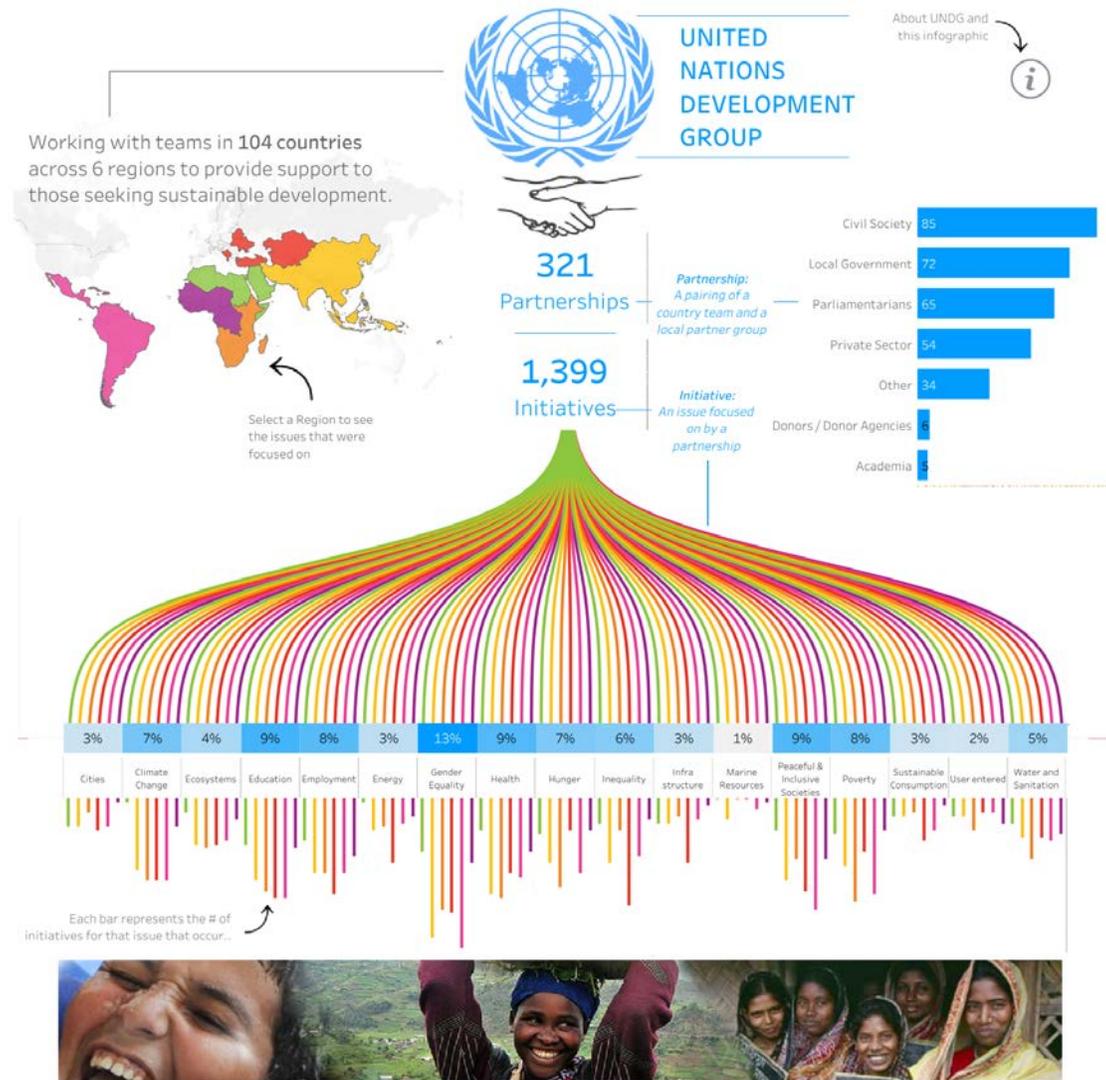
Viz for Social Good

"Harness the power of visualization for social change"

Connects data visualization professionals with non-profits

By: Michael Mixon
https://www.vizforsocialgood.com/

# "All That Gun Violence is Not a Mental Health Issue"

Periscopic
Do good
with data

"A socially conscious data visualization firm"
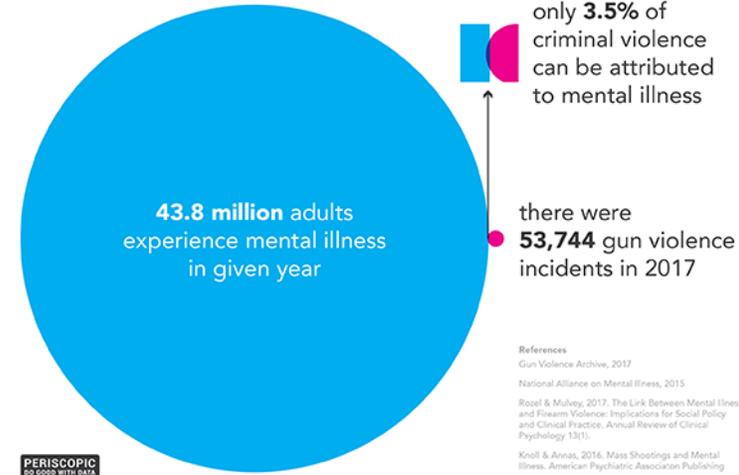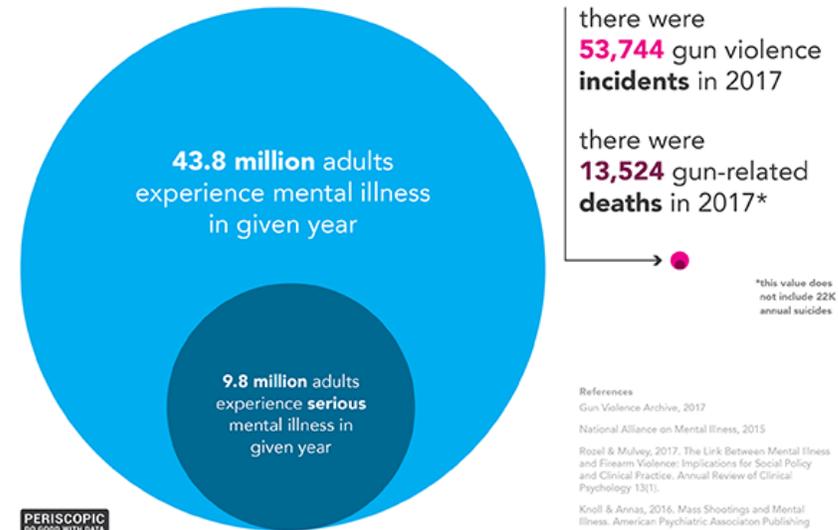
Brain Storm

What are your thoughts on these visualizations?

Would you add anything? Or do anything differently?

As a consumer what are your thoughts when presented with these visualizations?

And what do I do now?
Steven Lambert, 2016

"Without moving people to action, experiencing a visualization like this can be **tremendously depressing and disempowering because it provides no agency for the audience**. When we move people, **we must offer a productive outlet for that motivation**. Otherwise we confine people in compassion fatigue, frustration, and a resignation to the reality we present: evidence shows the world is colossally f*cked, and there's nothing you can do to change it. This lesson is learned and remembered. **It leads people to be more cynical and less likely to take action on that issue in the future. If our goal is social change, then this can't be the take-away we communicate to the world.**"

Do you agree with this? Or do you think the role of data visualization is to simply present the issue? Or something else?

Concluding Thoughts

Data visualization as a tool for social change

Making information more accessible, meaningful

Role in knowledge translation activities, how can we as scientists share our data and effect change?

What role is needed in connecting people to movement?

Extra slide: A knowledge translation example

- Bruce Lanphear, MD, MPH, professor at Simon Fraser University
- Studying childhood exposure to environmental toxins

"Little Things Matter"

- https://www.youtube.com/watch?v=E6KoMAbz1Bw&t=289s
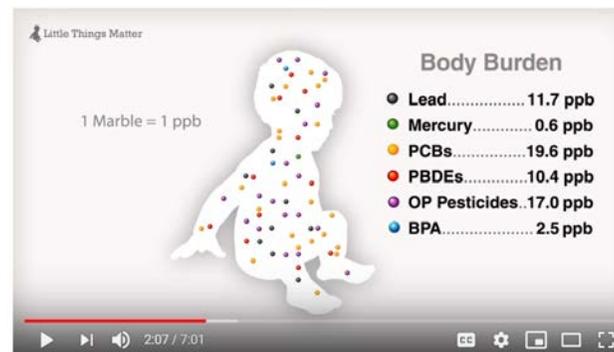
Little Things Matter: The Impact of Toxins on the Developing Brain

92,211 views