

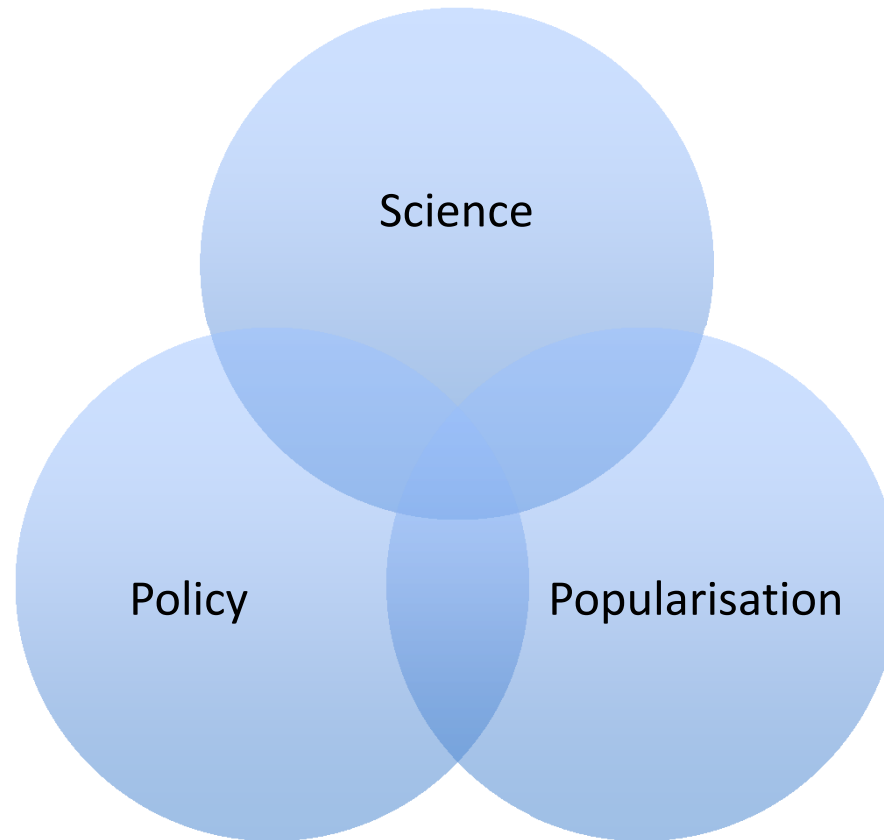
Tools for Natural Experiments

David Zeitlyn

ISCA, Oxford

Obesity, eating disorders, and the
media: An interdisciplinary workshop

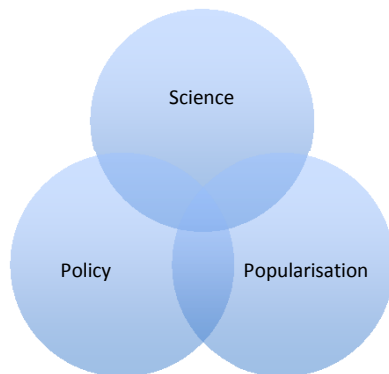
Experimental Triangles



Cases in Point

- Obesity Foresight 2007 => Jamie Oliver?
- Israel: legislation on fashion model size (June 2011 - BMI must be >18.5 , “Photoshopped” images must be declared)
- Ulijaszek in Denmark?

Scaling Problems: how to study



Chinese Whispers

Willful misinterpretation

Scaling Up

- Digging into Data:
- Google Books: more than can be read in many lifetimes
- Solution: the google ngram viewer

An Ngram comparison

Google books Ngram Viewer

Graph these **case-sensitive** comma-separated phrases: obesity,anorexia

between 1950 and 1995 from the corpus English with smoothing of 3.

Search lots of books



Media Studies

Popularisation: Science => Publics

- Print Media
- Broadcast

Reception Studies: what the audiences
make/understand of the messages they receive

- a) Sales of Products (pills) / Diets / Medical Care
- b) Blogging and social media

Scaling Up Media Studies

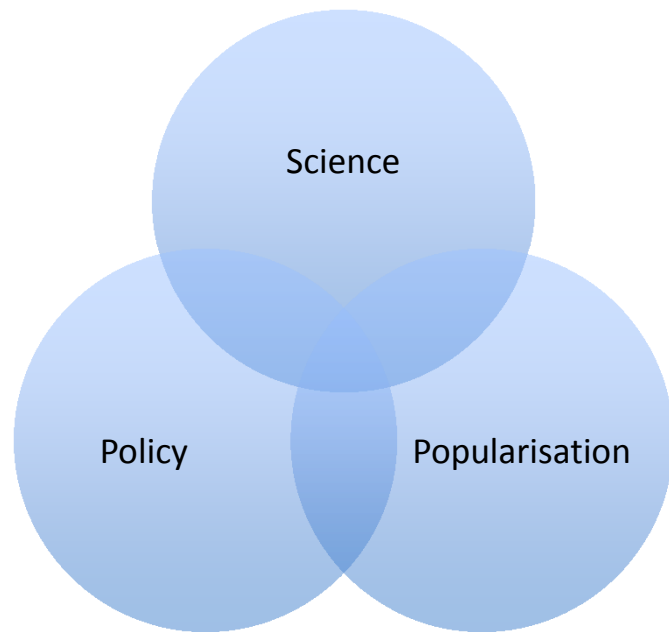
- We can study mass media and audience responses with same tools: Data Mining
=Quantitative Measures + Text Mining +Images
- Designed to Scale Up: dealing with $n > 1$ million
- (Questions about precision and recall)
- Overcoming scaling limitations of manual coding and problems with keywords – collocation etc

Entanglement

- Tools to **Sensitively Disentangle** complexity
- Dynamically – revealing networks of influence
- Hypothetical case Study: epidemiology of the Atkins Diet etc

- Actual case study: FTO 'Fat Gene' media impact study

Looking to the Future



Transmission Types

- Science ↔ Science
- Science ↔ Policy
- Policy ↔ Policy (Joined Up...)
- Public ↔ Policy
- Public ↔ Public (Blogs etc)
- Public ↔ Science (Citizen Science)