

The stability of attitudes and habits

Charisma Choudhury - Modelling the changes in attitudes towards self driving cars in different parts of the world over time using Twitter (X) data

Patricia Mokhtarian - How temporally stable are attitudes? It depends

Attiya Shaw - Measuring Latent Psychological Constructs for Travel Behavior

Kelly Clifton - Discussant

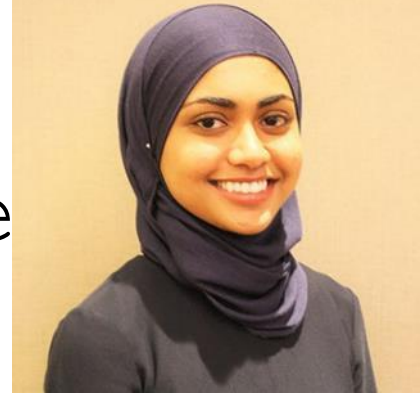
3rd Symposium on Activity-Based Modelling
Representation of Evolutionary Travel

Raitenhaslach, Germany

December 10-13, 2024



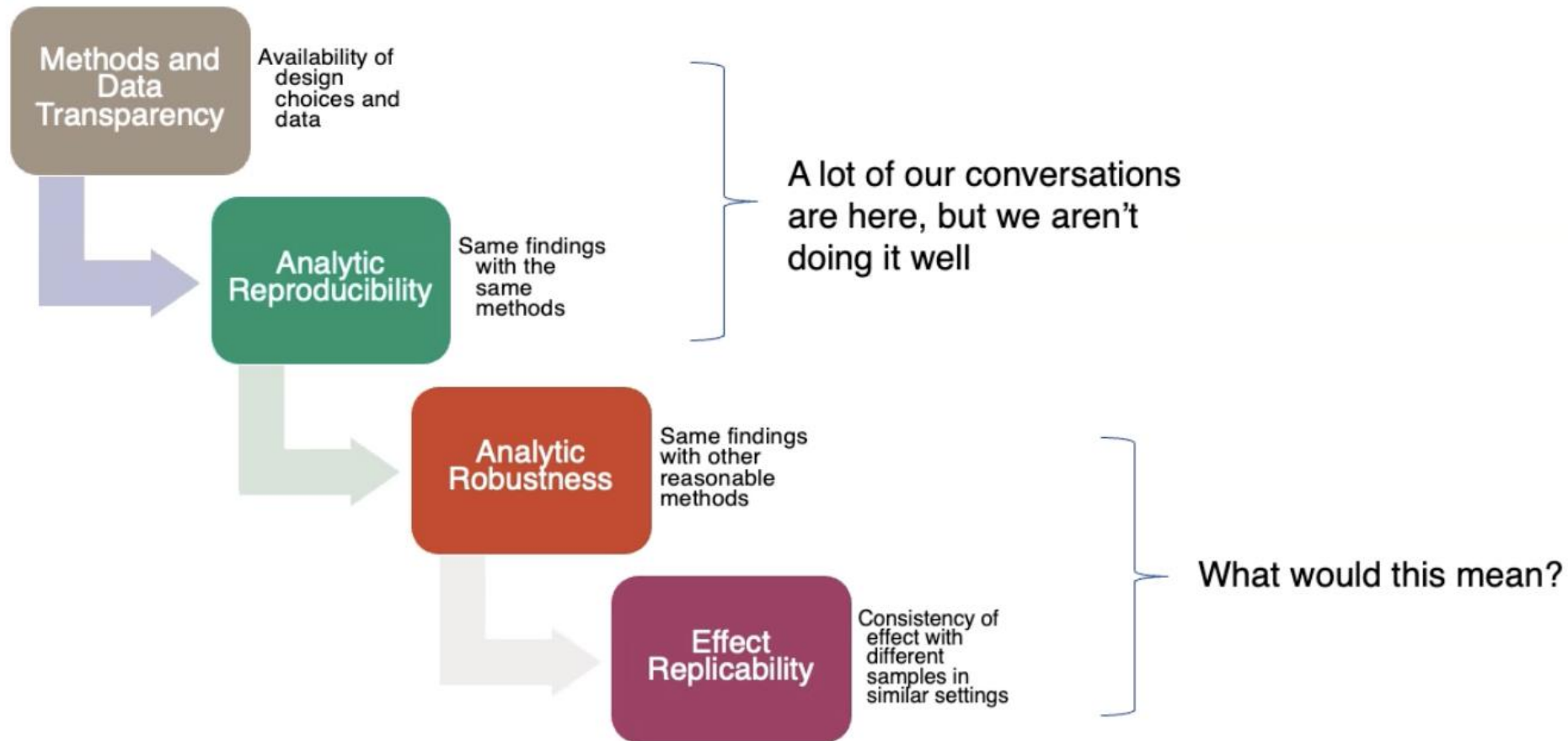
Attiya Shaw - Measuring Latent Psychological Constructs for Travel Behavior



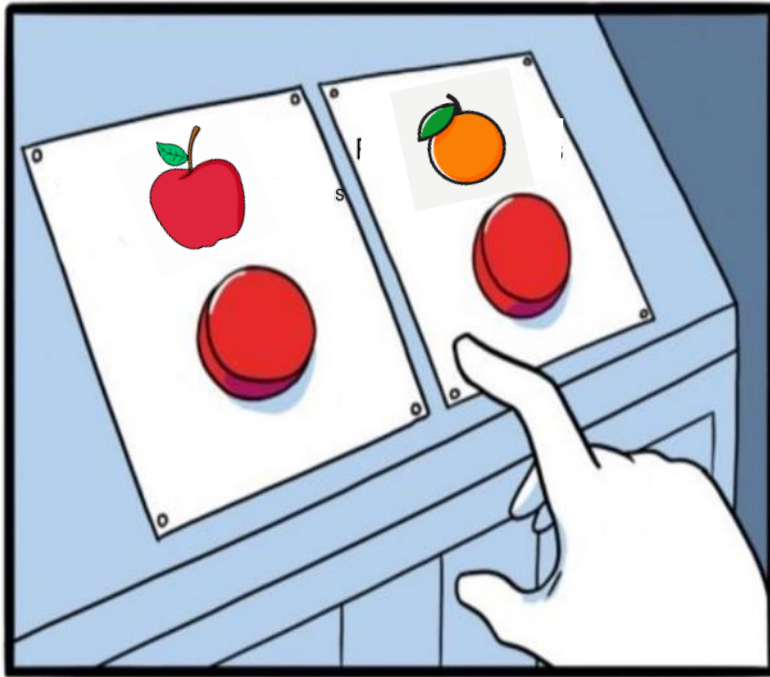
- Important to reflect on how we are measuring psychological characteristics - question development & latent constructs
- Hard to obtain as much data needed for validation as is done in psychometrics
- Intentionality: We should engage in focus groups, pre-testing of items/questions, and assessing item performance.
- We need to understand the distribution of these attitudes in the population.
- Without this, we cannot adequately track attitudes over time and we cannot adjust for

Elements of Credibility

BYU Civil & Construction
Engineering



LeBel EP, McCarthy RJ, Earp BD, Elson M, Vanpaemel W. A Unified Framework to Quantify the Credibility of Scientific Findings. *Advances in Methods and Practices in Psychological Science*. 2018;1(3):389-402.



Which attitudes?

- Psycho-social constructs: Attitudes, perceptions, beliefs, values, social norms, satisfaction

...plus: affect/mood,
personality, self-

esteem, control

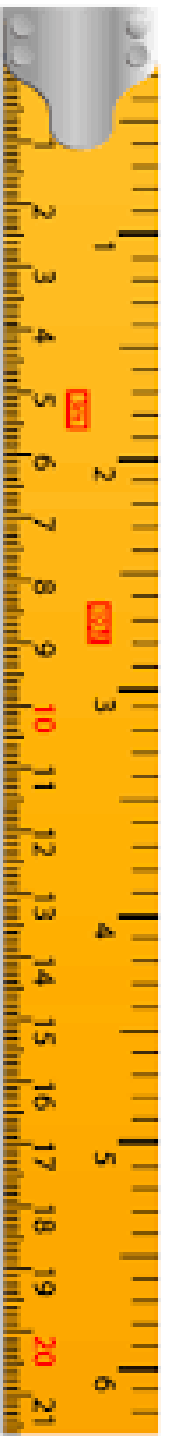


- Attitudes about mobility
- Attitudes about other aspects - environment, health, time, status, risk, control, consumption/materialism
- Which behavior? Residential location, mobility tool acquisition, work from home, activity engagement, trip generation, destinations, modes, routes?

- Need fundamental research on

How to measure?

- Aggregate measures - social norms or beliefs
- Individual level - attitudes, perceptions, beliefs, values
- How do we develop survey questions and latent constructs?
- Need to learn more from psychometrics about our survey design and construct identification
- One measure vs. indices
- Rigorous question & survey design, reliability, stability, replicability
- Stability of measure/construct before we understand stability over time



Attitudinal variations (cross-sectional)

Variations by demographics, cultural context, geography

- Cultural or contextual variations
- Cross-national models of society
- How is individual situated within the norm?

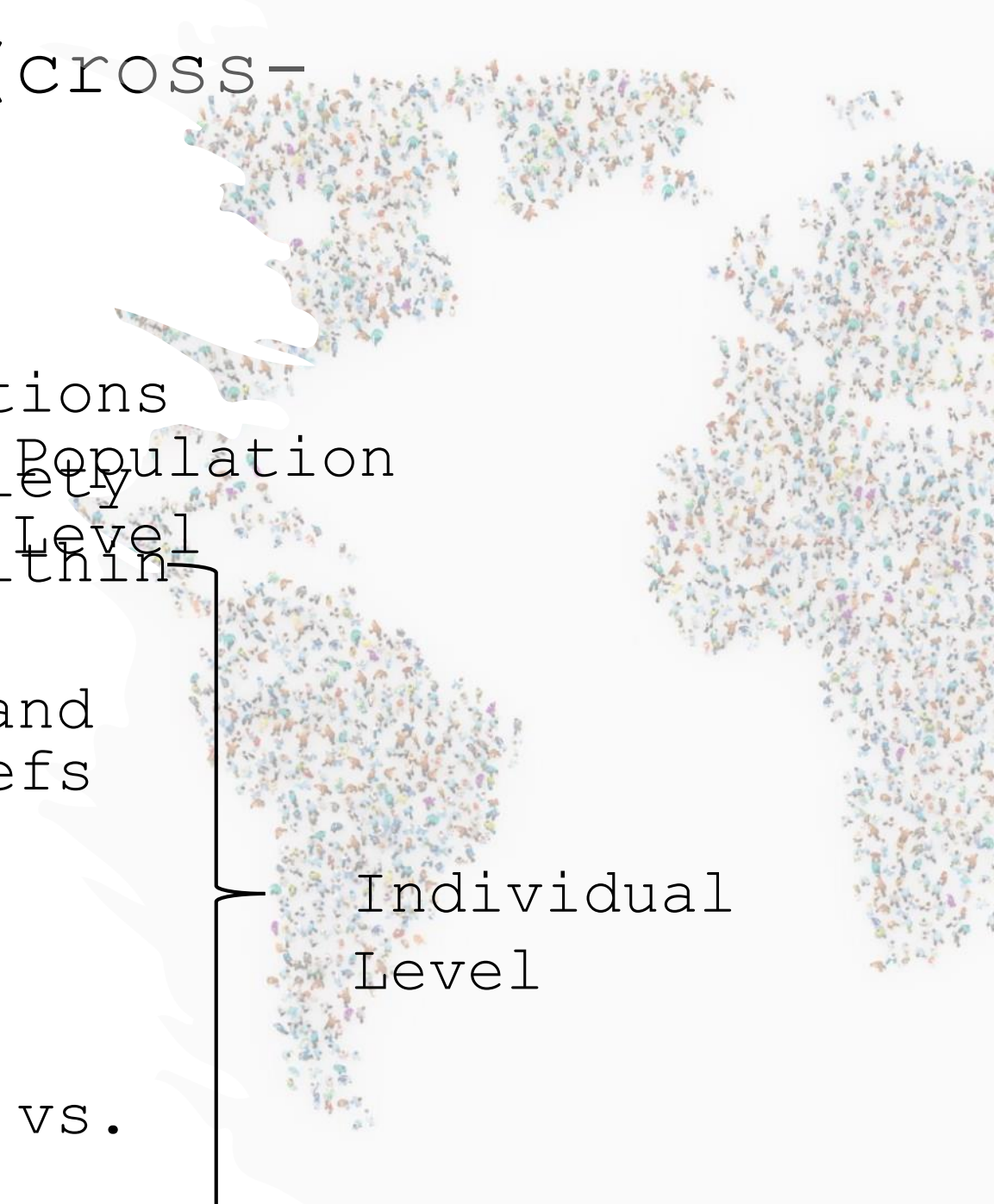
Population Level

- Dissonance between attitude and behavior (environmental beliefs but different lifestyle)

what are the motivations & intentions?

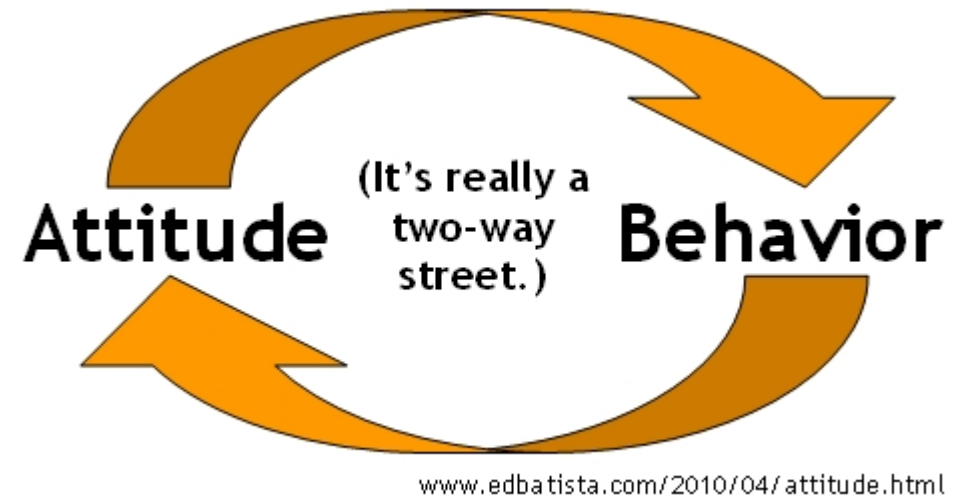
- Dissonance between attitudes (e.g., environmental beliefs vs. status/consumption)

Individual Level



Attitudinal Change

- Attitude formation process
 - Disruptions
 - Information
 - Built environment
 - Dissonance
- Attitudes \longleftrightarrow Behavior
- Population level attitudinal change or social norms
(e.g. attitudes about smoking, seatbelts, breast feeding) - generational/cohort)
- Trajectories of change (how are we evolving)
- How to capture change? What temporal frame?



Where do we go from here?



-
- Hard to measure (but getting better) and harder to forecast
 - Build theoretical understanding and frameworks
 - Validity and stability of measures
 - Novel data - Leverage other large data sets
 - Traditional data - incorporate attitudes into travel surveys
 - Understanding associations between attitudes and behavior
 - Modeling the attitude formation process
 - More collaborations with psychologists and

Let's disc

