# Measuring Information Acquisition and Political Knowledge

SMaPP Lab Meeting, November 2018

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Slides are available on Google Drive: look for Week9\_SMaPP\_knowledge\_papers.pdf

#### Roadmap

- Barabas, Jason, Jennifer Jerit, William Pollock and Carlisle Rainey. 2014. "The question(s) of political knowledge." American Political Science Review.
- Munger et al. (SMaPP). "Political Knowledge and Misinformation in the Era of Social Media: Evidence from the 2015 UK Election"
- Barabas, Jason and Jennifer Jerit. 2009. "Estimating the Causal Effects of Media Coverage on Policy-Specific Knowledge." American Journal of Political Science

#### Barabas et al. (2014)

- Factors believed to drive knowledge
  - Ability
  - Opportunity
  - Motivation
- Usual covariates
  - Education
  - Amount of news coverage
  - Gender

#### Barabas et al. (2014)

- New typology of political knowledge questions
  - Temporal variation
  - Topical dimension
    - General: people/players
    - Policy-specific
- Hypotheses based on the question type: observed levels of knowledge – as well as established relationships – will hinge on question type

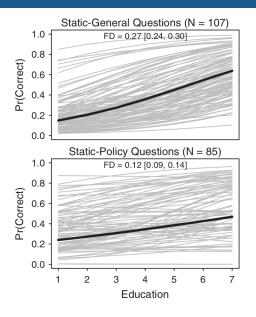
#### Barabas et al. (2014)

#### **Temporal Dimension**

		Static Surveillance	
Topical	General	Static-General Facts	Surveillance-General Facts
Dimension	Policy- Specific	Static-Policy Facts	Surveillance-Policy Facts

#### Hypotheses

- H1: Effect of education driven by general measures of political knowledge.
- H2: Positive relationship between media coverage and knowledge of surveillance facts.
- H3: Gender gap will be reversed regardless of question type when a question is relevant to women.

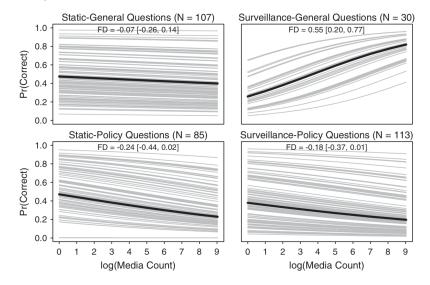


Support for H1: "education has a significantly larger effect for static-general facts than it does for static-policy facts"

#### Results, H2 & H3

- Mixed evidence in favor of H2.
- Some evidence in favor of H3. (In 2 out of 4 quadrants the gender gap is closed when a survey question pertains to group self-interest.)

#### Results, H2



#### Munger et al. (SMaPP)

Does consumption of social media content educate or mislead voters?

#### Panel of voters:

- Rank parties based on their positions on 3 issues (EU, Immigration, Spending)
- Issue-specific knowledge (Unemployment, Immigration, ISIS)

## Munger et al. (SMaPP)

Placement of Four Parties (UKIP, Conservatives, Labour, LibDems) in Waves 1 and 4 Among Twitter Users

	EU, N		
	Correct W1	Incorrect W1	Learning
Correct W4	54%	27%	-between waves
Incorrect W4	4%	15%	waves
Total W1	58%	42%	

H1: Exposure to information on Twitter about an issue will cause a net increase in knowledge about that issue.

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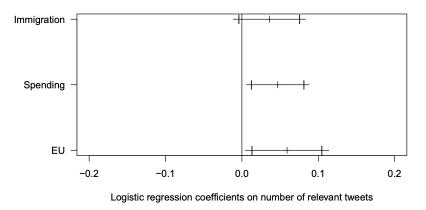


Figure shows the effects of tweets on probability of correctly ranking parties, controlling for demographic covariates, self-reported media consumption, and whether the respondent correctly placed the parties on that topic in wave 1.

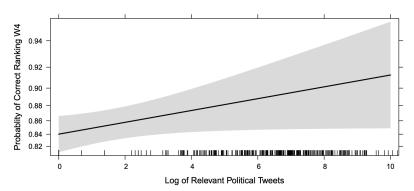
## Munger et al. (SMaPP): H2 confirmed

H2: Exposure to information on Twitter about a political topic sent by political parties will increase knowledge of the **parties' relative positions** on that issue.

## Munger et al. (SMaPP): H2 confirmed

H2: Exposure to information on Twitter about a political topic sent by political parties will increase knowledge of the **parties' relative positions** on that issue.





#### Measuring issue-specific knowledge

**Immigration**: Over the past 5 years, has the number of immigrants to the United Kingdom from other EU countries been: Less than 100,000 per year, **Between 100,000 and 300,000 per year**, Between 300,000 and 500,000 per year, More than 500,000 per year?

**Unemployment**: Compared to a year ago, has unemployment in Great Britain increased, **decreased**, or stayed the same?

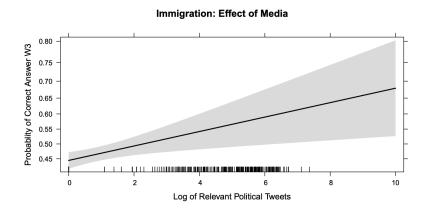
(And a question about the location of ISIS activities)

#### Munger et al. (SMaPP): H3 confirmed (media tweets)

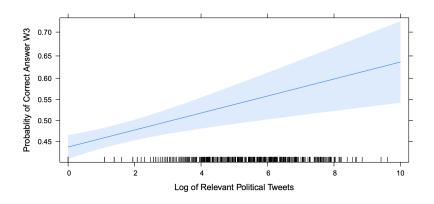
H3: Exposure to information on Twitter sent by a media organization on a specific issue will increase knowledge of the **facts** associated with that issue.

#### Munger et al. (SMaPP): H3 confirmed (media tweets)

H3: Exposure to information on Twitter sent by a media organization on a specific issue will increase knowledge of the **facts** associated with that issue.



# Munger et al. (SMaPP): All tweets about immigration



#### Munger et al. (SMaPP)

H4: Parties send messages strategically, and they are able to improve/distort knowledge

- H4A: Tweets from incumbent parties related to the economy will increase the accurate belief that unemployment rates were declining in 2015.
- H4B: Tweets from opposition parties related to the economy will increase the inaccurate belief that unemployment rates were increasing in 2015.
- H4C: Tweets from UKIP related to immigration will increase knowledge about the correct rate of immigration to the U.K.
- H4D: Tweets from UKIP related to immigration will increase belief in the number of immigrants coming to the United Kingdom, leading many to overestimate this number.

#### Results

- H4A confirmed: "tweets from the incumbent Conservatives had a positive effect on the true belief that Unemployment was falling"
- H4B confirmed: "tweets from Labour lead to a negative and significant change in knowledge about the unemployment rate"
- H4C not confirmed: UKIP tweets did not improve knowledge about immigration rates
- UKIP tweets did increase perceived immigration rates (H4D confirmed)

## Munger et al. (SMaPP): Conclusion

- Tweets from news media raise knowledge of politically relevant facts
- But partisan information misleads voters

#### Barabas and Jerit (2009)

Improvements upon earlier research:

- Use measures of media content
- Study people as they ordinarily encounter political information
- Conduct intra-individual analysis (but not over time)

Main hypothesis: The public's level of policy-relevant knowledge will be positively related to the volume of media coverage particular issues receive.

#### Barabas and Jerit (2009)

- Study 1: Respondents more likely to correctly answer questions about a Clinton health care reform proposal if a given aspect of the reform was covered in more stories.
- Study 2: Evidence on media-induced learning over time.
  Distinct respondents asked identical questions at different
  times. As the level of coverage increased, the proportion of
  correct responses about patients' right to sue increased from
  24% to 46%.

A smaller increase in correct responses when people were asked – first in Dec. 1998 and then April 1999 – whether Social Security or Medicare would face insolvency sooner.

#### Lupia (2016)

A book treatment on the topic of *Uninformed* voters.

A reminder that there is too much to know.

- Factual information: not enough without attention + motivation
- Information needs to be perceived as useful
- The source needs to be credible
  - Perceived common interests
  - Perceived relative expertise
  - Objective qualifications: neither sufficient nor necessary

Expected net benefits of processing new information are a function of **values**, issue complexity, and other factors.

#### Take-away

- There is exciting work treating knowledge / learning as outcomes
- Social media will not inevitably misinform the public
- Even questions where some cheap talk [partisan cheerleading] can be expected e.g. Has the unemployment rate decreased?
  are useful. But there are many measurement problems:
  - Design choices: Closed- versus open- ended questions; number of options, inclusion of "don't know" answers, etc.
  - Respondent incentives
  - Researcher nudging (intended and unintended)