



UNIVERSITÀ DEGLI STUDI DI MILANO

DIPARTIMENTO DI  
SCIENZE SOCIALI E POLITICHE

**ARE SCREENER QUESTIONS MEASURES OF  
INDIVIDUAL-LEVEL GENERAL ATTENTIVENESS TO SURVEYS?  
Evidence from an Italian electoral panel study**

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# WHAT A SCREENER IS?

People often do not pay sufficient attention when answering survey questions...

...especially, in online surveys  Measurement errors

Use of **manipulation checks**, aimed at evaluating respondents' attention:

- Subjective manipulation checks
  - Factual manipulation checks
-  After survey experiments
- **Instructional manipulation checks** (Oppenheimer et al. 2009), also defined as **screeners** (Berinsky et al. 2014): anywhere in the survey

# SCREENER - AN EXAMPLE

<p><b>Part 1. Introduction</b></p>	<p>Previous research shows that the large majority of people who gather information online prefer a site or portal that they perceive as more trustworthy than others.</p>												
<p><b>Part 2. Task</b></p>	<p>In this case, however, we are interested to know whether people take the time they need to follow carefully instructions in interviews. <b>To show that you have read this much, please ignore the question and select only the options “Local newspaper websites” and “None of these websites” as your two answers, no matter of the websites you actually visit.</b></p>												
<p><b>Part 3. Trap question</b></p>	<p><b>When there is a breaking news story, which is the news website you would visit more frequently? (Maximum three answers)</b></p>												
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Source - CAWI Panel Itanes-Unimi 2015 Post-regional election (see Mancosu et al. 2019)



# SCREENERS AS TOOLS FOR...

- Evaluating respondents' attention, by distinguishing between 'shirkers' (lazy respondents) and 'workers' (Berinsky et al. 2014)
- **Activating** respondents' **attention** during online surveys? Inconclusive evidence (Berinsky et al. 2016, Mancosu et al. 2019)

- Most of the research based on cross-sectional surveys

Aim of the paper:

- Studying the **working** of the screeners in **longitudinal surveys**
- Screeners not only measures of attentiveness to a single survey, but also **general measures of attentiveness to surveys**
- Studying the **calibration** of the screeners in **longitudinal surveys**

# RESEARCH QUESTIONS

Rq1 - **RELIABILITY**: Is the outcome of a screener associated with the outcome of a screener in the following wave?

Rq2 - **VALIDITY IN LONGITUDINAL SURVEYS**: Do individuals who pass the screener provide answers of better quality in the other waves with respect to the ones who fail the screener?

Rq3 - **'CALIBRATION' IN LONGITUDINAL SURVEYS**: Among respondents who pass the screener, does the quality of answers provided in other waves vary according to the complexity of the screener?

# EMPIRICAL STRATEGY

- DATA: CAWI **Panel** ITANES-UniMi 2013-18 (11 waves)  
Quota sampling from an opt-in community group of a private research company (SWG)
- SCREENERS: **Wave 6 (June 2015, N = 3,000)** and Wave 5 (May 2015)
- SURVEY EXPERIMENT: **Manipulation** of the **cognitive load of the screener**, in terms of **complexity (length)** of the screener question (HARD, MEDIUM, EASY) with random assignments
- SCREENERS' RELIABILITY: Comparing the screener's outcome in wave 5 with the screener's outcome in wave 6
- **VALIDITY in a longitudinal setting**: Compare **answers' quality** in **previous** (WAVE 4 -June 2014) and **following waves** (WAVE 7 - June 2016) by screeners' outcome and cognitive load (CALIBRATION)

# MEASURES OF QUALITY OF THE ANSWERS

Wave 4 (June 2014) and Wave 7 (June 2016)

Item-battery on attitudes toward democracy (some items with reversed semantic polarity)

0:Totally disagree - 10:Totally agree

- a) Compromises in politics are really just selling out on one's principles.
- b) Parties are necessary to defend special interests of groups and social classes.
- c) Parties criticize one another, but they are actually all the same (NO WAVE 7)
- d) Parties guarantee that people can participate to politics in Italy.
- e) Without parties there cannot be democracy.

- Straight-line response set
- Cronbach's alpha

# Manipulation of the screener

## Cognitive load: HARD

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# Manipulation of the screener

## Cognitive load: MEDIUM

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# Manipulation of the screener

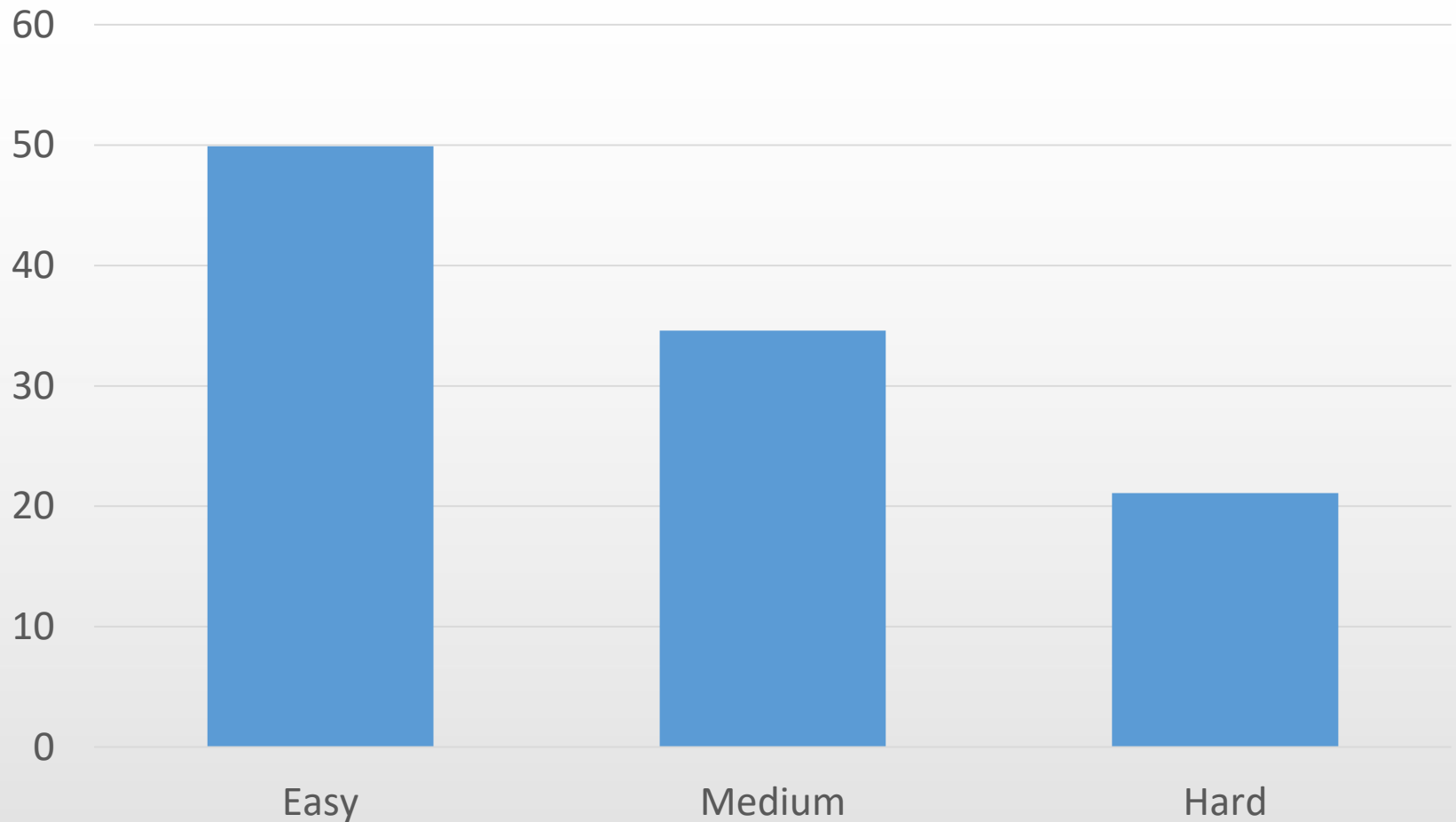
## Cognitive load: EASY

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# SUCCESS RATES BY COGNITIVE LOAD OF THE SCREENERS (LENGTH)

Screeners Wave 6 - N = 3,000



# RELIABILITY OF SCREENERS

Success rates in wave-6 screener by outcome of the screener in wave-5 and length of the screener in wave-6

Length of the screener	Screener Wave 5	
	Correct answer (N=1,092)	Wrong answer (N=1,757)
	Success rate Wave 6	Success rate Wave 6
Long	41.7	10.7
Medium	60.7	17.0
Short	78.4	33.7
Total	60.3	20.3

# VALIDITY AND CALIBRATION OF SCREENERS IN LONGITUDINAL SURVEYS

Answers' quality in a **previous** wave (w4) by screener outcome

Length of the screener	Correct answer (N=905)	Wrong answer (N=1,653)
	% response set	% response set
Long	0.5	6.4
Medium	2.1	6.6
Short	3.0	9.8
Total	2.2	7.3

Length of the screener	Correct answer (N=833)	Wrong answer (N=1,445)
	Cronbach's alpha	Cronbach's alpha
Long	0.79 (0.74-0.84)	0.69 (0.65-0.73)
Medium	0.80 (0.75-0.83)	0.72 (0.68-0.76)
Short	0.80 (0.77-0.83)	0.67 (0.61-0.72)
Total	0.80 (0.78-0.82)	0.69 (0.67-0.72)

# VALIDITY AND CALIBRATION OF SCREENERS IN LONGITUDINAL SURVEYS

Answers' quality in a **following** wave (w7) by screener outcome

Length of the screener	Correct answer (N=711)	Wrong answer (N=1,246)
	% response set	% response set
Long	5.0	8.5
Medium	3.9	7.8
Short	3.5	11.2
Total	3.9	8.9

Length of the screener	Correct answer (N=663)	Wrong answer (N=1,130)
	Cronbach's alpha	Cronbach's alpha
Long	0.79 (0.72-0.85)	0.69 (0.65-0.73)
Medium	0.77 (0.71-0.81)	0.72 (0.68-0.76)
Short	0.75 (0.71-0.80)	0.67 (0.61-0.72)
Total	0.76 (0.73-0.79)	0.69 (0.67-0.72)

# DISCUSSION

- Screeners can be considered as **individual-level measures of general attentiveness to surveys**
- Relevance of screeners in **longitudinal surveys**: they could help in identifying inconsistencies in panel data
- Overall, answer quality of ‘attentive’ respondents assigned to the different screener do not substantially vary
- Need of other batteries to test our research questions

## Questions:

- In data analysis, how to handle with respondents who fail the screeners?
- A single screener in a panel survey?
- Hard screeners too complex. **Easy screeners preferable?**

**THANKS FOR YOUR ATTENTION!**

