

gesis

Leibniz Institute
for the Social Sciences

GOR 2021 Conference
September 10th



Satisficing Behavior Across Time

Assessing Negative Panel Conditioning Using A Randomized Experiment



Fabienne Kraemer, Michael Bosnjak, Joanna Koßmann, Henning Silber, Bella Struminskaya, Bernd Weiß

Background

- Data quality is a major concern in survey research
- Survey satisficing poses a threat to the quality of survey data
- Only little empirical evidence exists on how satisficing changes over the course of a longitudinal study affecting data quality in later waves (Bach & Eckman, 2018; Kreuter et al. 2011; Schonlau & Toepoel, 2015)

Research Questions

Does satisficing response behavior increase or decrease across waves of a panel study?

Is general experience with the survey (i.e., **process learning**) or the familiarity with specific questions (i.e., **content learning**) responsible for changes in satisficing across waves?

Survey Satisficing (Krosnick, 1991)

- **Mental shortcuts** in the response process to reduce cognitive effort and survey burden
- Providing satisfactory instead of optimal responses
 - ▶ Main drivers of satisficing response behavior
 - Respondents' cognitive ability
 - Respondents' motivation
 - Task difficulty
 - ▶ Examples of satisficing response strategies
 - Selecting first response options
 - Selecting „don't know“- options
 - Agreeing with statements (i.e, acquiescence)

Main Hypotheses

H1: Respondents show increasing levels of satisficing across panel waves as they learn to make shortcuts within the response process.

H2: Respondents show decreasing levels of satisficing across panel waves as they become more familiar with the survey process and find it easier to answer questions.

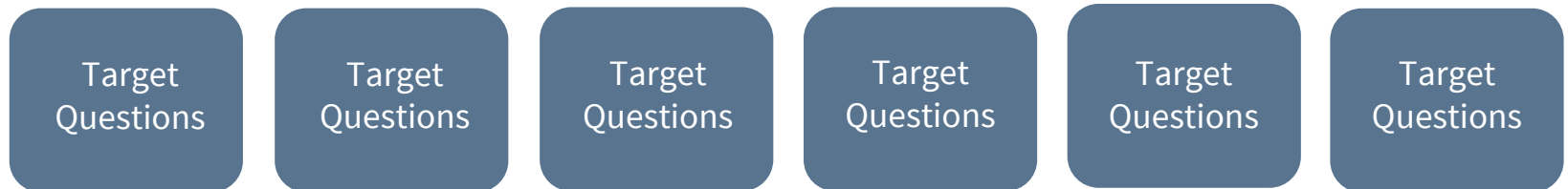
Data

- German non-probability panel
 - ▶ Quota sample on age, gender, and education
- 6 panel waves (Oct 2020 - Mar 2021) with N = 1,397
- Panel interval
 - ▶ Survey was administered monthly
- Dropout
 - ▶ 42.73%
- Analytic sample
 - ▶ Respondents who participated in all 6 panel waves (N=555)

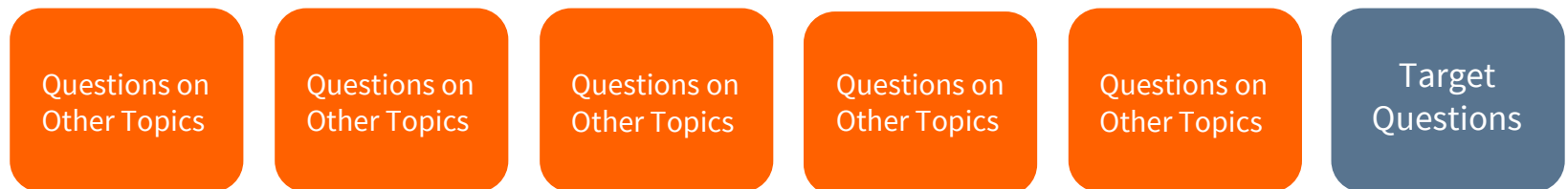
Design

- Non-probability panel includes randomized experiment manipulating the frequency of receiving identical questions

Conditioned Group



Unconditioned Group



Measures

- 6 question design experiments
 - ▶ 2 manipulating response order

Response Order Experiment 1

Version A

Some people think that the **state** should ensure adequate housing for everyone, while others think that **everyone** should take care of their own housing. Which of these views comes closest to your opinion?

A = The **state** should provide adequate housing.

B = **Everyone** should take care of their own housing.

Version B

Some people think that **everyone** should take care of their own housing, while others think that the **state** should ensure that everyone has adequate housing. Which of these views comes closest to your opinion?

B = **Everyone** should take care of their own housing.

A = The **state** should provide adequate housing.

→ Tendency to choose first response option irrespective of content (Primacy Effect)

Measures

- 6 question design experiments
 - ▶ 2 manipulating response order
 - ▶ 2 manipulating inclusion of „don't know“-option

Don't Know Experiment 1

Version A

In general, do you think courts are too tough or not tough enough on criminals, or do you not know?

A = Too tough

B = Not tough enough

C = Don't know

Version B

In general, do you think courts are too tough or not tough enough on criminals?

A = Too tough

B = Not tough enough

→ Tendency to say “don't know” instead of giving substantial answer (Saying “Don't Know”)

Measures

- 6 question design experiments
 - ▶ 2 manipulating **response order**
 - ▶ 2 manipulating inclusion of „**don't know**“-option
 - ▶ 2 manipulating whether question was displayed in **agree/disagree format** or construct specific format (i.e., acquiescence experiment)

Acquiescence Experiment 1

Version A

Do you agree or disagree with the following statement?

Most men are emotionally better suited for politics than most women.

A = Agree

B = Disagree

Version B

Would you say that most men are emotionally better suited for politics than most women, that men and women are equally suited for politics, or that women are better suited for politics than men?

A = Most men are better suited.

B = Men and women are equally well suited.

C = Most women are better suited.

→ Tendency to simply agree with statements
(Acquiescence)

Design

- Random assignment of each experiment independently in each wave

Conditioned Group

Panelist 1	RO Version A DK Version B ACQ Version B	RO Version B DK Version B ACQ Version A	RO Version B DK Version B ACQ Version B	RO Version A DK Version B ACQ Version A	RO Version A DK Version A ACQ Version A	RO Version B DK Version B ACQ Version A
Panelist 2	RO Version B DK Version B ACQ Version A	RO Version B DK Version A ACQ Version B	RO Version B DK Version A ACQ Version A	RO Version B DK Version B ACQ Version B	RO Version B DK Version B ACQ Version A	RO Version B DK Version B ACQ Version B

Unconditioned Group

Panelist 3	Questions on Other Topics	Questions on Other Topics	Questions on Other Topics	Questions on Other Topics	Questions on Other Topics	RO Version A DK Version B ACQ Version A
------------	---------------------------	---------------------------	---------------------------	---------------------------	---------------------------	---

Results

Response Order Experiment 1

- Wave 1

	Version A (State first)	Version B (State second)	Difference
State- funded	77.0	49.3	27.7
Self- funded	23.0	50.7	

Chi2-Test

Test Value: 22.44; $p < .001$

Response Order Experiment 1

- Wave 1

	Version A (State first)	Version B (State second)	Difference	Difference Probability Panel *
State- funded	77.0	49.3	27.7	15.9***
Self- funded	23.0	50.7		

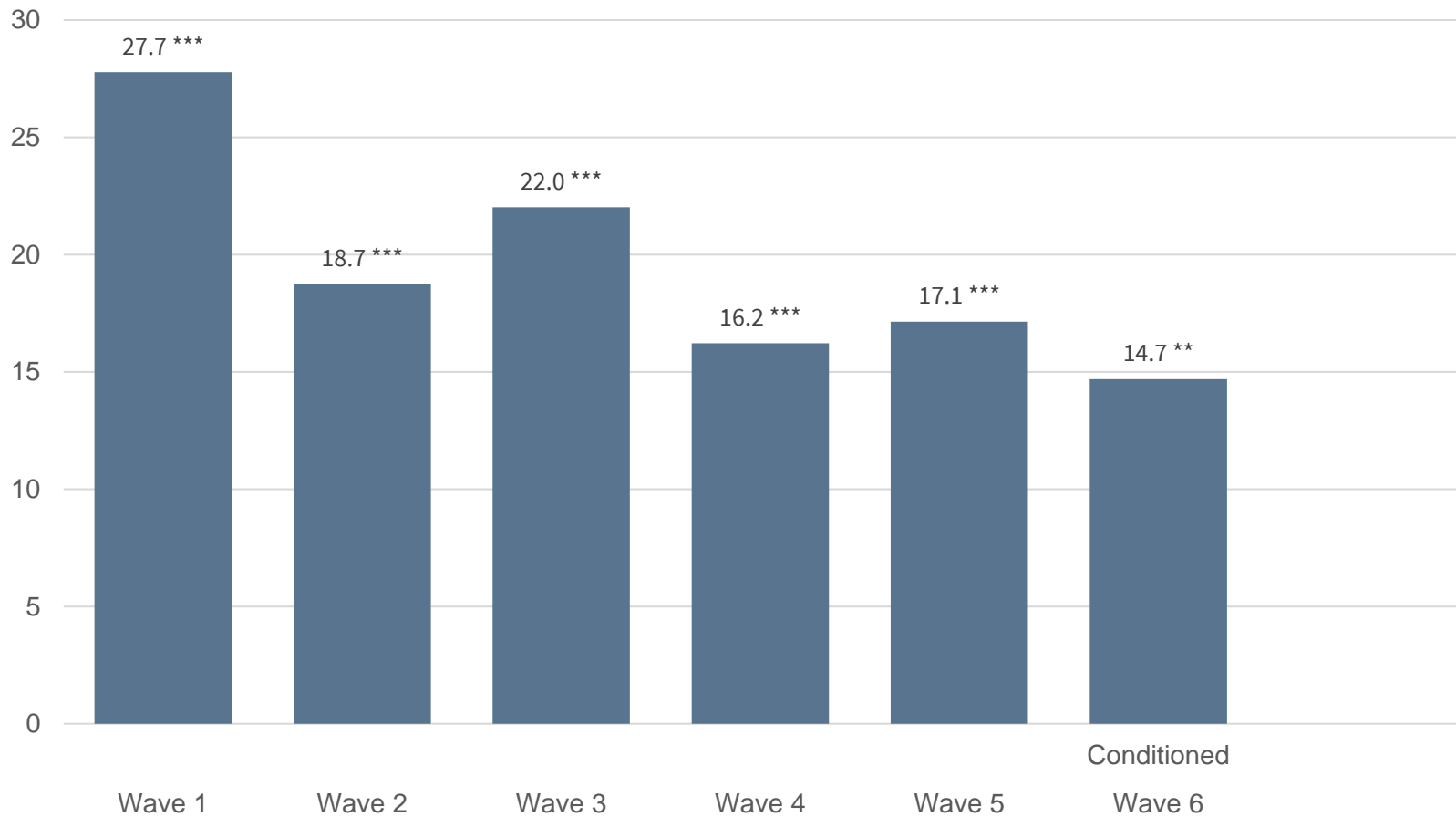
Chi2-Test

Test Value: 22.44; $p < .001$

*One-Time Measurement 2014

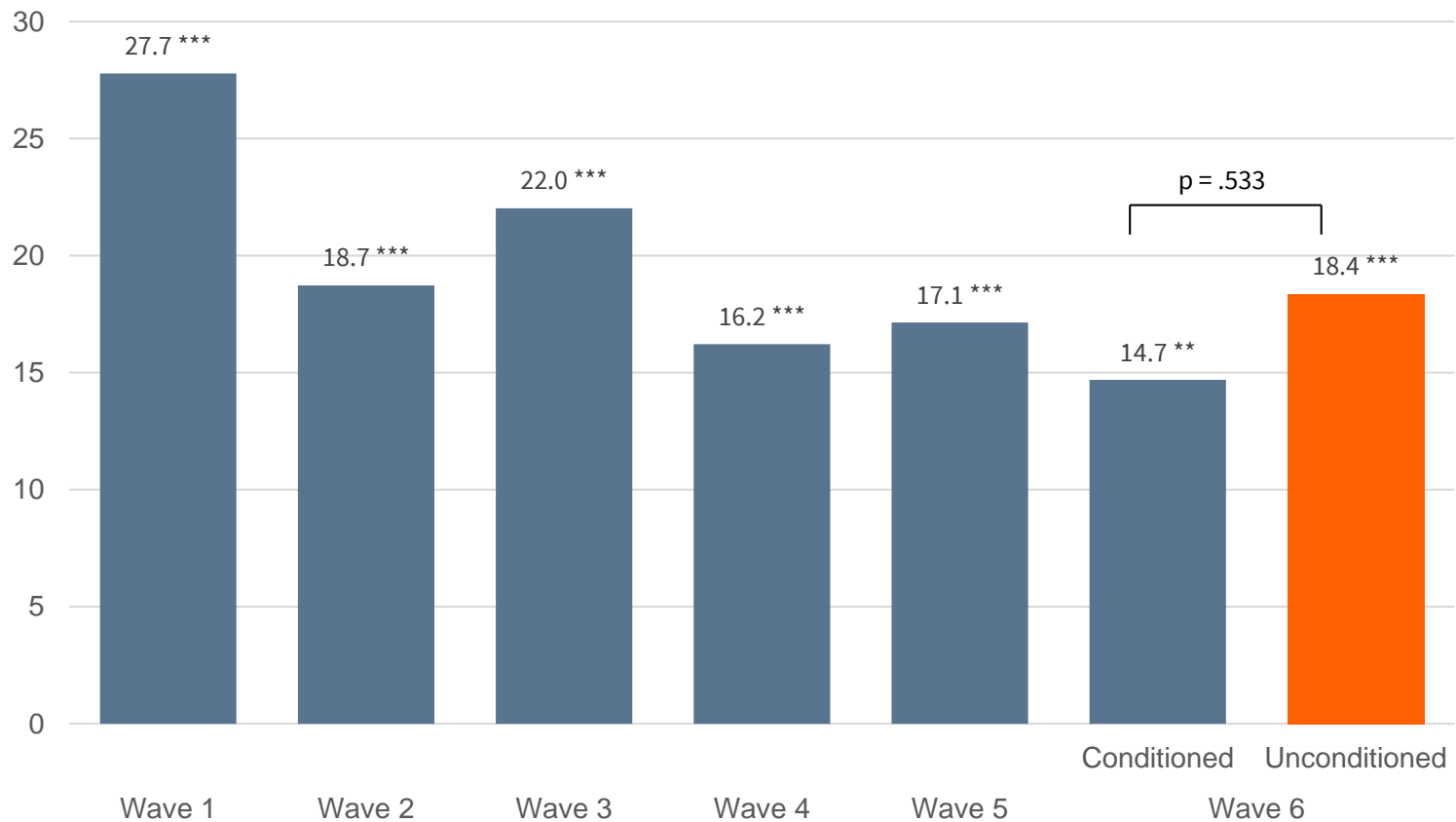
Response Order Experiment 1

Primacy Effect across Waves



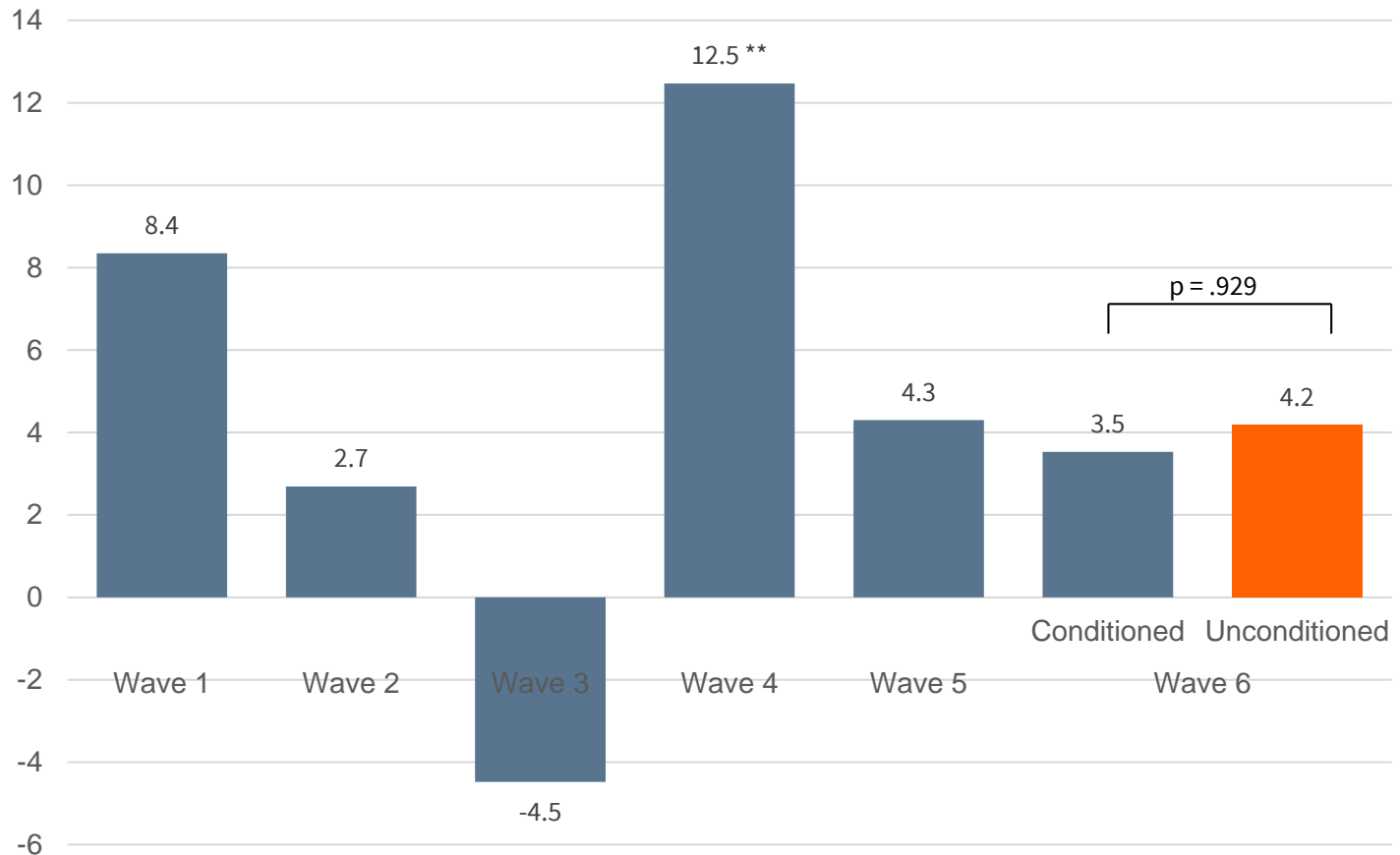
Response Order Experiment 1

Primacy Effect Across Waves and Between Groups



Response Order Experiment 2

Primacy Effect Across Waves and Between Groups



Don't Know Experiment 1

- Wave 1

	Version A (DK-option)	Version B (w/o DK- option)	Difference
Non- Response	10.0	0.8	9.2
Substantial Answer	90.0	99.2	

Chi2-Test

Test Value: 11.23; $p = .001$

Don't Know Experiment 1

- Wave 1

	Version A (DK-option)	Version B (w/o DK- option)	Difference	Difference Probability Panel*
Non- Response	10.0	0.8		
Substantial Answer	90.0	99.2	9.2	24.8***

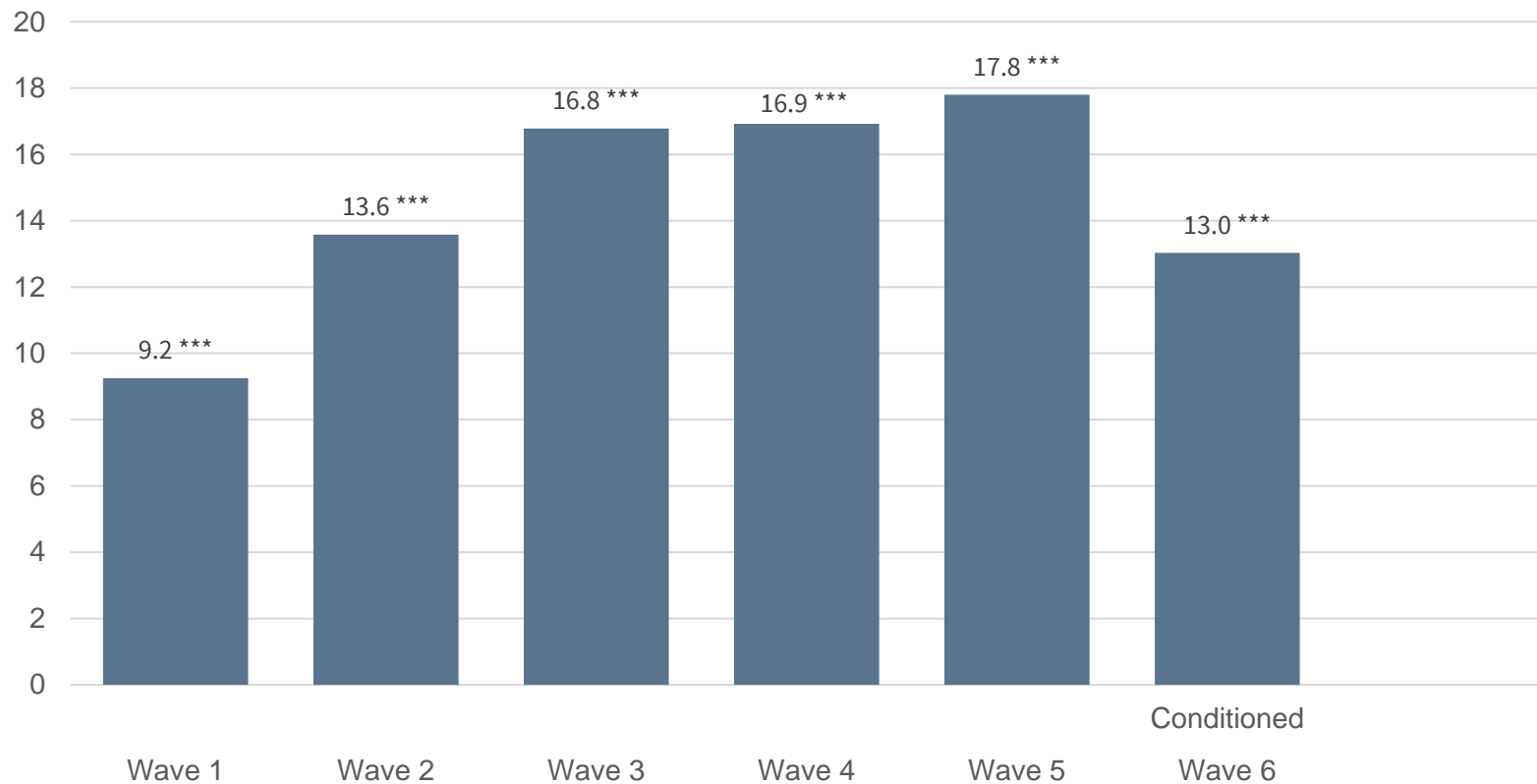
Chi2-Test

Test Value: 11.23; p = .001

*One-Time Measurement 2014

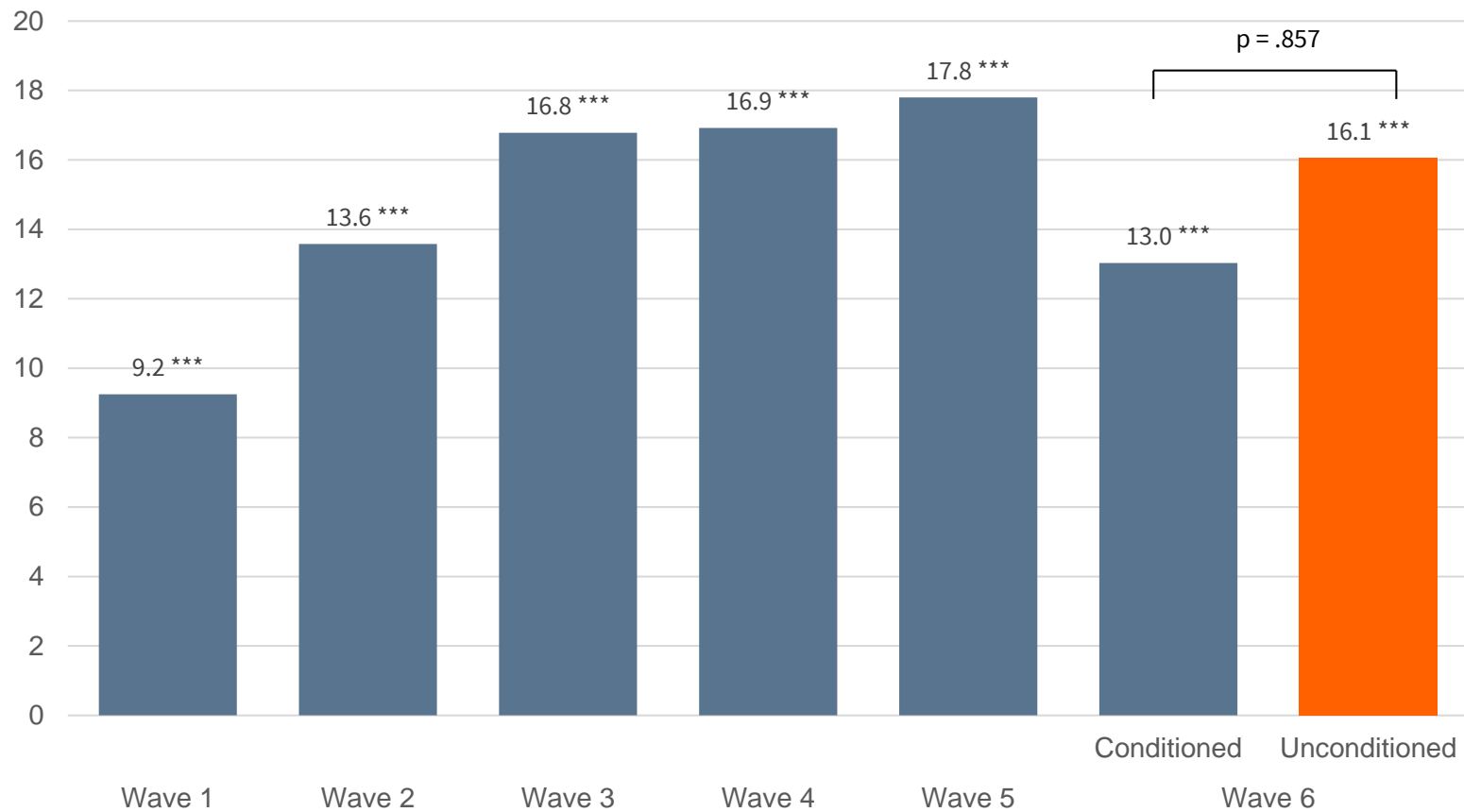
Don't Know Experiment 1

Don't Know Effect Across Waves



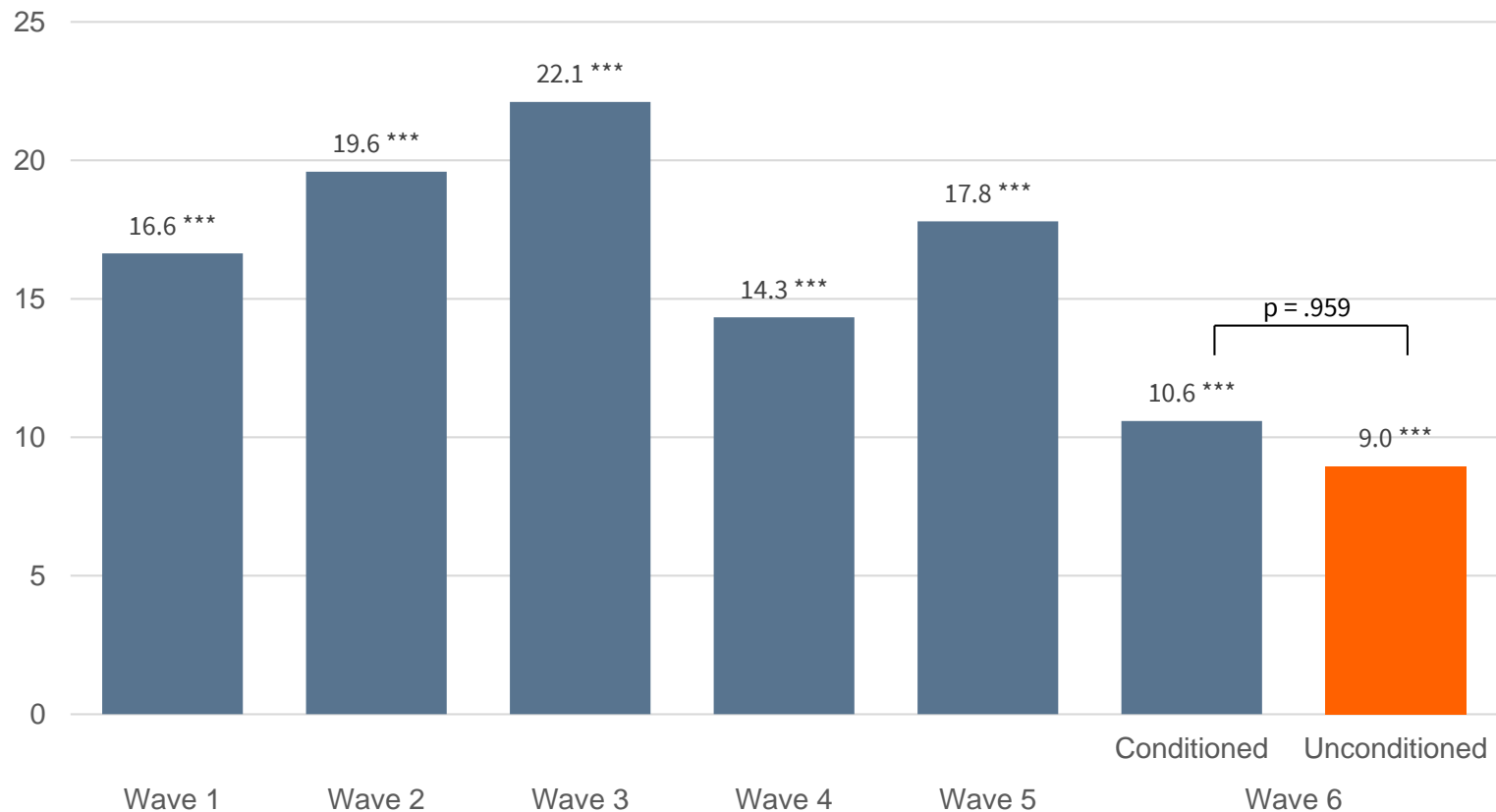
Don't Know Experiment 1

Don't Know Effect Across Waves and Between Groups



Don't Know Experiment 2

Don't Know Effect Across Waves and Between Groups



Acquiescence Experiment 1

- Wave 1

	Version A (Agree/ Disagree)	Version B (Response Options)	Difference
Men better than women	22.5	7.8	
Men not better than women	77.5	92.2	14.7

Chi2-Test

Test Value: 11.66; p = .001

Acquiescence Experiment 1

- Wave 1

	Version A (Agree/ Disagree)	Version B (Response Options)	Difference	Difference Probability Panel*
Men better than women	22.5	7.8		
Men not better than women	77.5	92.2	14.7	6.1***

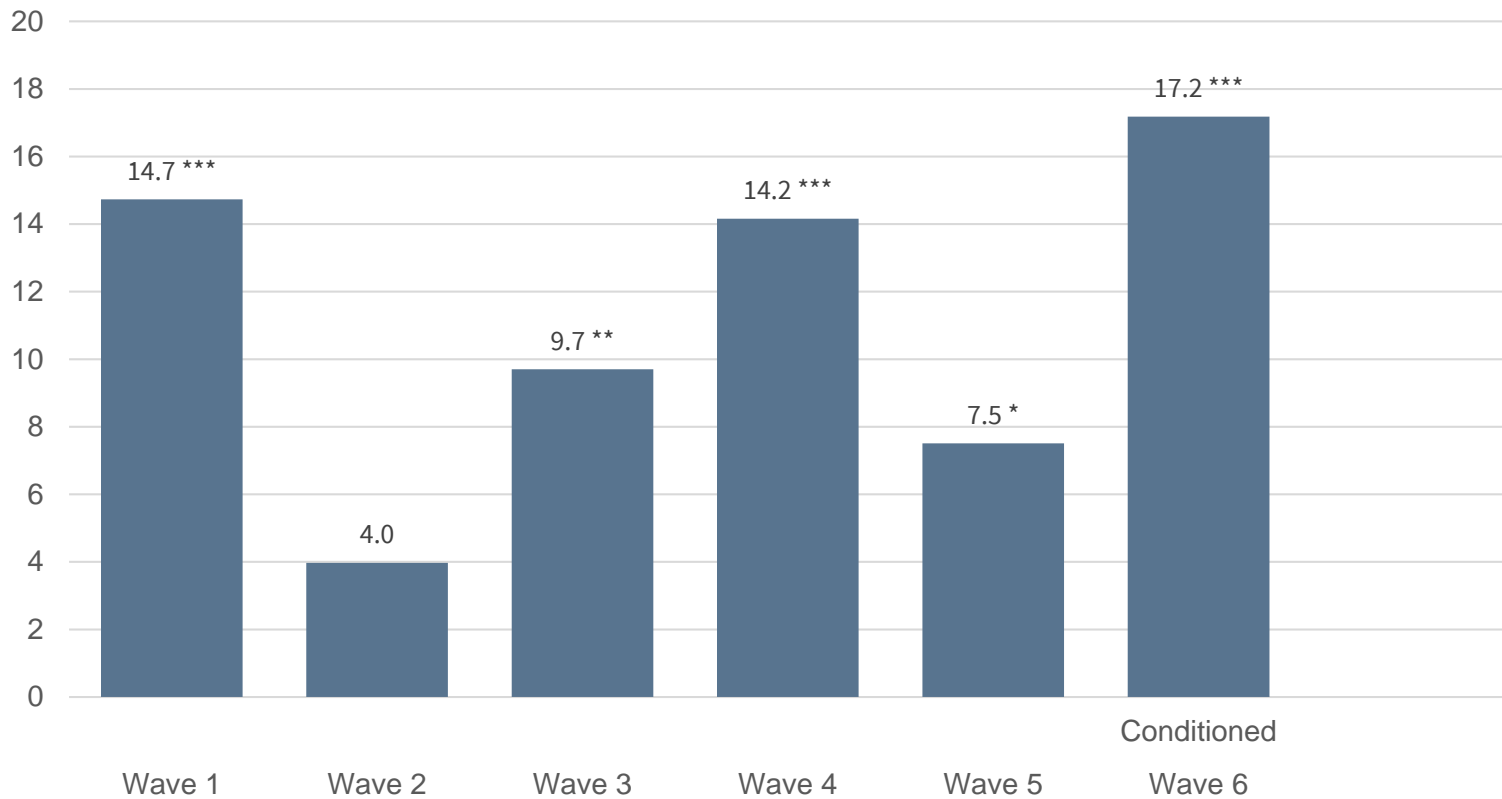
Chi2-Test

Test Value: 11.66; p = .001

*One-Time Measurement 2014

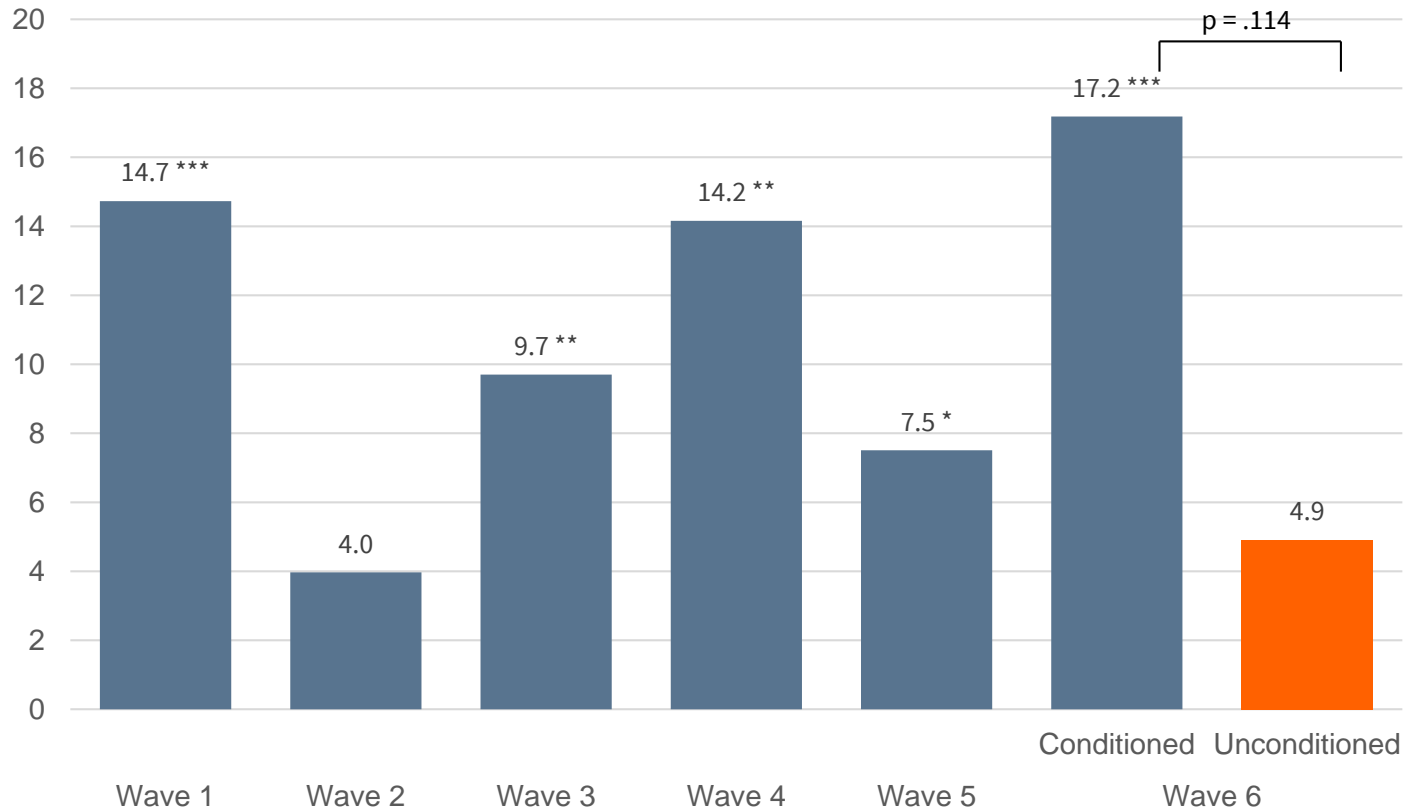
Acquiescence Experiment 1

Acquiescence Bias Across Waves



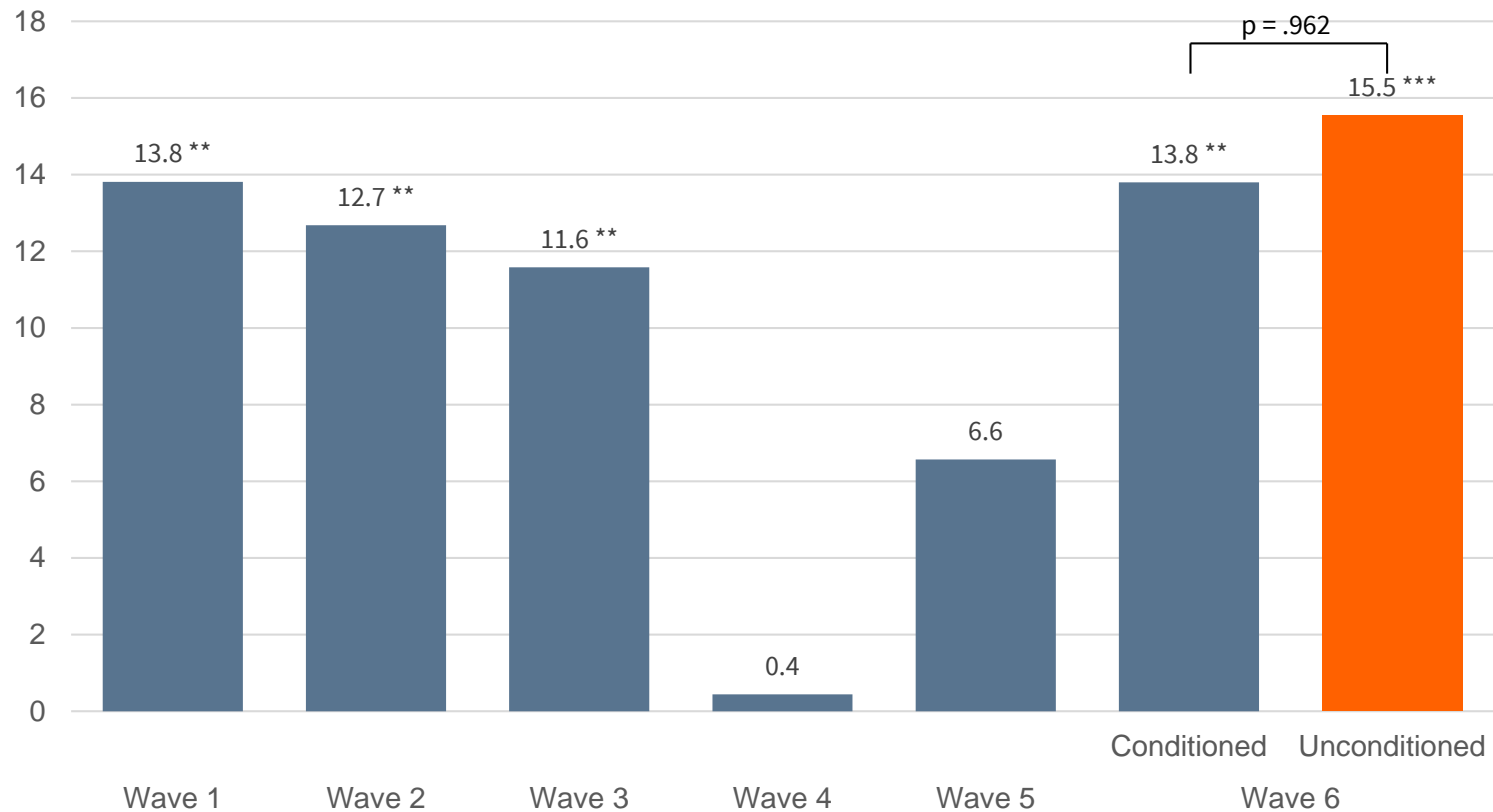
Acquiescence Experiment 1

Acquiescence Bias Across Waves and Between Groups



Acquiescence Experiment 2

Acquiescence Bias Across Waves and Between Groups



Implications and Further Research

- All three forms of satisficing (primacy effects, saying “don’t know”, acquiescence) do exist
- Effects of satisficing range between -4.5 and 27.7 percentage points
→ data considerably affected by satisficing
- No clear pattern of increase or decrease of satisficing response behavior across waves but partially large variations in effect sizes
→ In-depth analysis of underlying mechanisms is necessary (e.g., decreasing respondents’ motivation)
- No significant difference between conditioned and unconditioned group
→ Content learning does not seem to predict changes in satisficing across waves

GOR 2021 Conference

September 10th

Fabienne Kraemer, Michael Bosnjak, Joanna Koßmann, Henning Silber, Bella Struminskaya, Bernd Weiß

Satisficing Behavior across Time: Assessing Negative Panel Conditioning Using a Randomized Experiment

Contact:

Fabienne Kraemer
GESIS – Leibniz Institute for the Social Sciences
fabienne.kraemer@gesis.org

References

- *Bach, R. L., & Eckman, S. (2018). Motivated misreporting in web panels. Journal of Survey Statistics and Methodology, 6(3), 418-430.*
- *Kreuter, F., McCulloch, S., Presser, S., & Tourangeau, R. (2011). The effects of asking filter questions in interleaved versus grouped format. Sociological Methods & Research, 40(1), 88-104.*
- *Krosnick, J. A. (1991). Response strategies for coping with the cognitive demands of attitude measures in surveys. Applied cognitive psychology, 5(3), 213-236.*
- *Schonlau, M., & Toepoel, V. (2015, July). Straightlining in Web survey panels over time. In Survey Research Methods (Vol. 9, No. 2, pp. 125-137).*