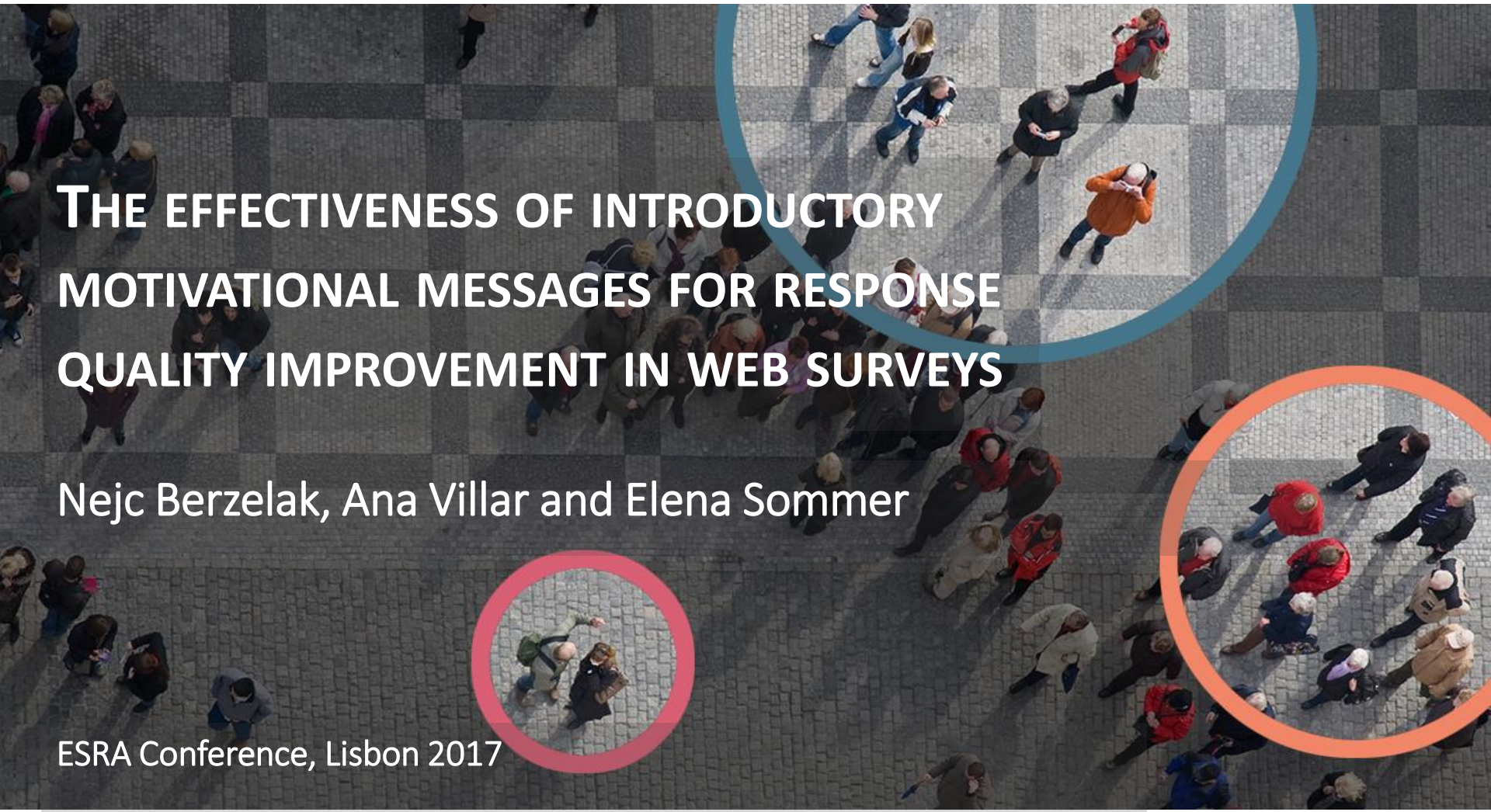

THE EFFECTIVENESS OF INTRODUCTORY MOTIVATIONAL MESSAGES FOR RESPONSE QUALITY IMPROVEMENT IN WEB SURVEYS

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Introductory messages as a motivational strategy

- Emphasising the importance of thinking about questions carefully…
- … and asking respondents to explicitly commit themselves to do so.
- Respondents who make the commitment may be more likely to do what they agreed to do.
- Limited amount of studies on various survey modes, mostly with mixed results and small effects.
  (e.g. Cannell et al., 1977; Miller & Cannell, 2981; Conrad et al., 2011; Revilla, 2016)

Focus of the current study

- Web surveys on a probability panel of the general population in cross-national context.
- Evaluation of the impact of introductory motivational messages on a variety of data quality indicators across several panel waves and three countries.
- Work in progress – initial results from the first wave presented.

Survey description

The CRONOS panel

- Probability-based online panel in Estonia, GB and Slovenia.
- Bi-monthly data collection.
- Offline panellists provided tablets and Internet access.

CRONOS Wave 1

- **Topics**: importance of work and family, trust, family norms, gender roles, political action… (European Values Study)
- **Overall participation rate**: 20%
- **Median survey completion time**: 21 minutes

Experimental design

Thank you again for participating in this important study with us. The goal of our study is to help social scientists better understand our society on issues like education, family life and work.

Control group — *n* = 629

To accomplish this, it is necessary to get a truthful picture of the beliefs and opinions of people living in [COUNTRY]. We rely on [ESS Web] participants being thoughtful and taking this task seriously to get accurate data. Please read each question carefully, think hard about it, and select the answer that best applies to you.

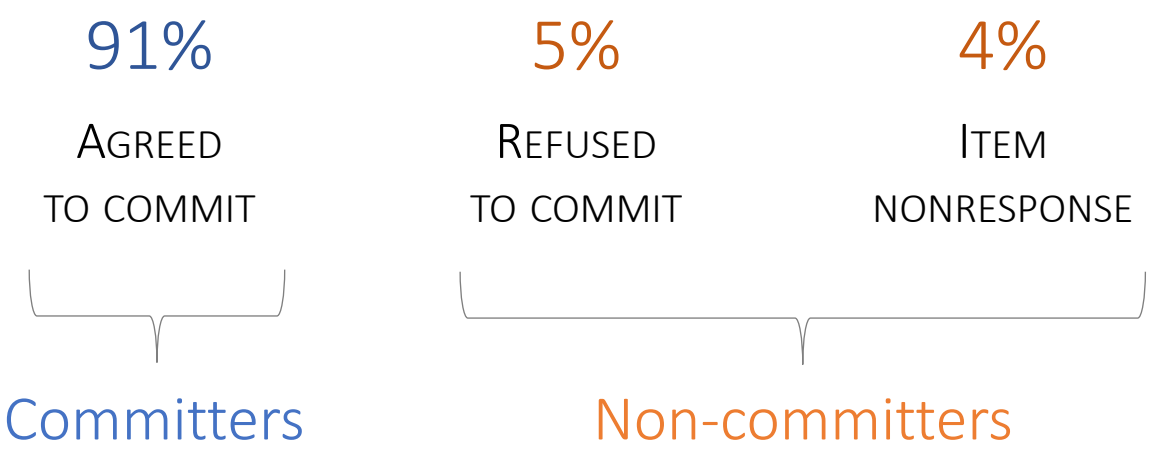
Exp. group 1: Accuracy emphasis — *n* = 641

Please select one of the following options to indicate whether you intend to read each question carefully and think about your answer before you give it:

- ○ I agree to do my best to provide accurate and complete answers.
- ○ I want to continue the survey without making this commitment.

Exp. group 2: Accuracy emphasis + commitment request — *n* = 674

Committers and non-committers



Committers and non-committers

		OR FOR COMMITMENT
COUNTRY (*ref.* Estonia)	Great Britain	▲2.71
	Slovenia	m▼0.55
GENDER (*ref.* male)	female	m▼0.56
AGE		▼0.72
EDUCATION (*ref.* medium)	low	0.59
	high	▲2.53

Control variables with no significant effect: weekly internet user, type of device.

Logistic regression, $n = 655$, $\chi^2_{LR}(9) = 56.8$, $\alpha = 0.05$, $\alpha_m = 0.10$

Response quality indicators

- Breakoffs
- Item non-response
- Response times (survey completion time)
- Non-differentiation
- Self-reported effort devoted to accurate answering

Control variables

- Experimental group
- Country (+ interaction with the experimental group)
- Gender
- Age
- Education (+ interaction with the experimental group)
- At least weekly Internet use
- Type of device (+ interaction with the experimental group)
- Self-reported multitasking during the survey completion

1. Breakoffs

	% BREAKOFFS	
G0: Control	3.0%	
G1: Accuracy emphasis	3.6%	▲+0.6pp
G2: Committers	2.0%	▼-1.0pp
G2: Non-committers	1.8%	▼-1.2pp

n = 1,937, $\chi^2_{(3)}$ = 3.30, n.s. at at α = 0.10

2. Item non-response and non-substantive answers

	MEAN % OF INR	MEAN % OF ALL MISSING ANSWERS	
G0: Control	2.7%	3.0%	
G1: Accuracy emphasis	2.4%	2.7%	▼-0.3pp
G2: Committers	2.4%	2.8%	▼-0.2pp
G2: Non-committers	6.5%	6.9%	▲+3.9pp

Only respondents who completed the survey are included.

Kruskal-Wallis for all missing with non-committers: n = 1,882, $\chi^2_{(3)}$ = 32.37, sig. at α = 0.05

Kurskal-Wallis for all missing without non-committers: n = 1,826, $\chi^2_{(2)}$ = 2.52, n.s. at α = 0.10

3a. Total survey completion time and multitasking

	MEAN COMPLETION TIME [S]		SELF-REPORTED MULTITASKING
G0: Control	1373		24%
G1: Accuracy emphasis	1428	▲+55	28%
G2: Committers	1404	▲+24	23%
G2: Non-committers	1728	▲+355	32%

Only respondents who completed the survey without termination are included. Top and bottom 1% times replaced with the corresponding percentile values.
ANOVA for ln(time) with non-committers: n = 1,760, F = 3.52, sig. at α = 0.05
ANOVA for ln(time) without non-committers: n = 1,715, F = 0.94, n.s. at α = 0.10
Multitasking: $\chi^2_{(3)}$ = 4.58, n.s. at at α = 0.10

3b. Total survey completion time

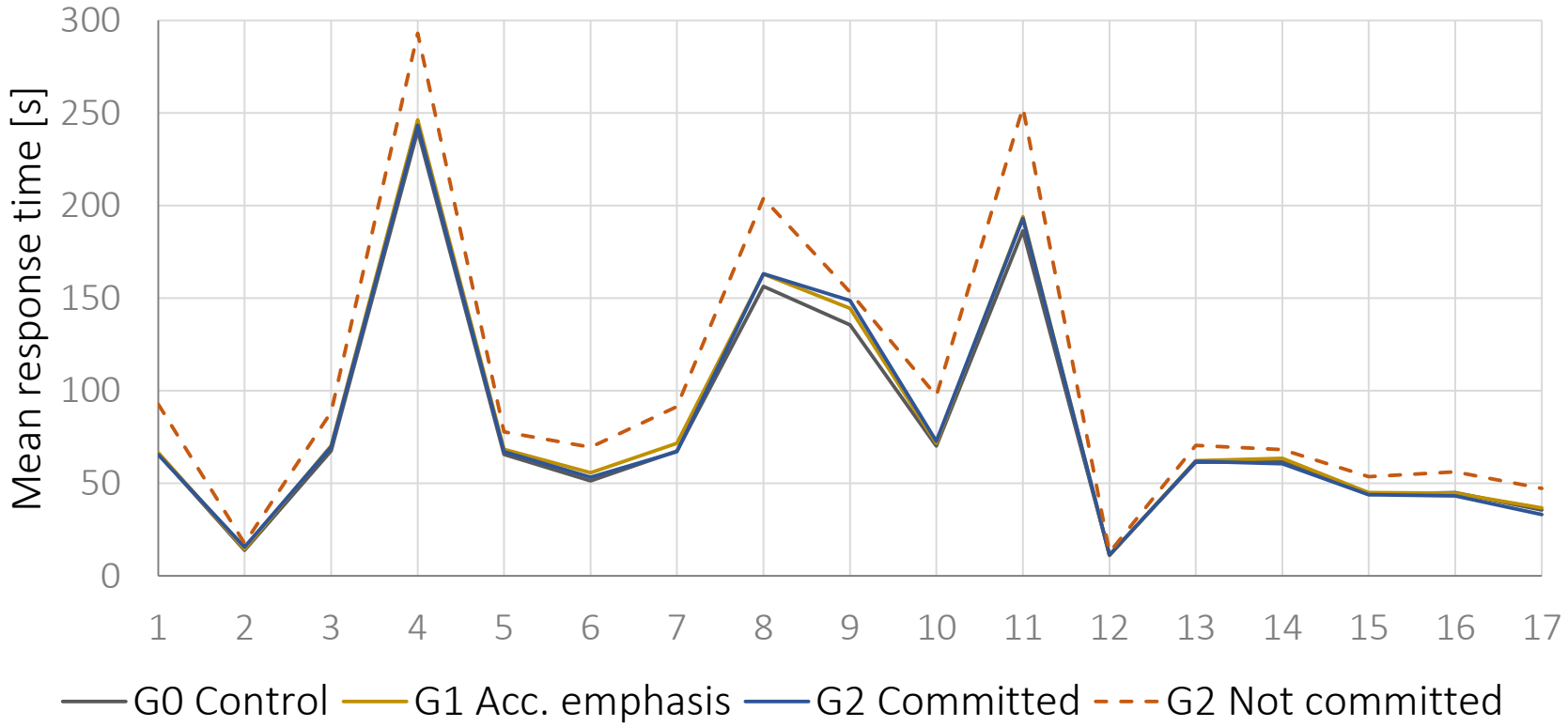
		COEFFICIENT
EXP. GROUP (*ref.* control)	G1: Accuracy emphasis	0.05
	G2: Committers only	0.07
SIGNIFICANT INTERACTIONS	*none*	

Other control variables with significant effects:

- Great Britain ▼(-0.14), Slovenia ▼(-0.01)
- Age ▲(0.07)
- Weekly Internet user ▼(-0.21)
- Multitasking ▲(0.15)

OLS regression with ln of time, n = 1,687, F = 18.68, α = 0.05, α_m = 0.10

3c. Response times by question blocks



Only respondents who completed the survey without termination are included. Top and bottom 1% times replaced with the corresponding percentile values.

Measuring non-differentiation

- Level of differentiation index: (Linville et al., 1989)

$$P_d = 1 - \sum_{i=1}^{k} p_i^2$$

normalised to [0, 1], higher value means higher level of differentiation.

- 15 items on a 10-point scale measuring the opinion about justifiable behaviours and actions.

4a. Level of differentiation

	MEAN DIFFERENTIATION INDEX [0, 1]	
G0: Control	0.77	
G1: Accuracy emphasis	0.78	▲+0.01
G2: Committers	0.78	▲+0.01
G2: Non-committers	0.70	▼-0.08

ANOVA with non-committers: n = 1,824, F = 4.75, sig. at α = 0.05
ANOVA without non-committers: n = 1,771, F = 1.81, n.s. at α = 0.10

4b. Level of differentiation

		COEFFICIENT
EXP. GROUP (*ref.* control)	G1: Accuracy emphasis	-0.00
	G2: Committers only	-0.02
SIGNIFICANT INTERACTIONS	G2: Committers, Slovenia	▲0.06

Other control variables with significant effects:

- Great Britain ▲(0.04), Slovenia ▼(-0.03)
- Age ▼(-0.01)
- High education ▲(0.03)
- Weekly Internet user ▲(0.04)
- Tablet ^{m}▼(-0.04), Mobile phone ▼(-0.04)

OLS regression, n = 1,737, F = 7.27, α = 0.05, α_m = 0.10

5a. Self-reported work at providing accurate answers

	MEAN SELF-REPORTED EFFORT [1, 5]	
G0: Control	3.77	
G1: Accuracy emphasis	3.64	▼-0.13
G2: Committers	3.81	▲+0.04
G2: Non-committers	3.30	▼-0.47

Estonia excluded due to suspected question comparability issues.
ANOVA with non-committers: n = 1,179, F = 3.46, sig. at α = 0.05
ANOVA without non-committers: n = 1,142, F = 2.32, marg. sig. at α = 0.10

5b. Self-reported work at providing accurate answers

		COEFFICIENT
EXP. GROUP (*ref.* control)	G1: Accuracy emphasis	-0.21
	G2: Committers only	-0.14
SIGNIFICANT INTERACTIONS	G1: Acc. emph., low educ.	[m]▲0.43
	G2: committers, mobile ph.	▲0.45

Other control variables with significant effects:

- Age ▼(-0.10)
- Mobile phone ▼(-0.34)
- Multitasking ▼(-0.22)

Estonia excluded due to suspected question comparability issues.
OLS regression, n = 1,117, F = 3.34, α = 0.05, α_m = 0.10

Summary and next steps

- Mostly small and insignificant effects on generally well-performing data quality indicators.
  Highly motivated panellists?
- Indication of higher effects for specific countries or other groups that needs to be further explored.
- (Very) specific small group of non-committers.
  What to do with them?
- Coming up: evaluation of data from later waves and detailed elaboration of measurement performance.

THANK YOU!

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