The impact of breaking the conversational norm – up and left means good (?)

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Introduction

- Respondents follow certain heuristics when answering surveys

- One heuristic is the expectation of surveys to follow conversational norms, where questions are structured in similar ways as a conversation

- Tourangeau et al., (2004) & (2013) tests the heuristic *"Up means good"*
  – The most positive wording or greatest value to be at the top
  – This expectation could be due a cultural norm, for example: heaven and thumbs up meaning "up/good" and hell and thumbs down meaning "down/bad"

- Another possible heuristic is *"Left means good"*
  – The most positive wording or greatest value is expected to be at the left
  – This expectation could be due to the left alternative often is read first in western languages, and therefore excepted to also be the most positive

Purpose

- Up means good and Left means good has not been tested extensively in web-surveys
- The purpose of our study was to test if up means good and if left means good
  - Do these norms exist?
  - If so, how do they impact the data?

Sample

- 4,000 participants were invited from The Swedish Citizen Panel (SCP)
  - SCP is a Non-commercial online panel at the University of Gothenburg with over 75,000 active respondents
  - SCP recruits both through probability and non-probability methods
- The participants were drawn from the non-probability part of the panel and pre-stratified by age/gender/education
- 2,250 (56 %) answered more than 80 % of the questionnaire

Expected results

If up means good and left means good exist as norms respondents should:

- Take longer when answering questions that break the norm

- Prefer when questions follow the norm

- Give a higher average response when the norm is followed compared to when it is broken

- Provide higher data quality when the norm is followed compared to when it is broken

Survey design

Two experiments

Left means good (horizontal response options)

- Two Groups:
  – Horizontal follow (the norm)
  – Horizontal break (the norm)

Up means good (vertical response options)

- Two Groups:
  – Vertical follow (the norm)
  – Vertical break (the norm)

Structure of the questionnaire
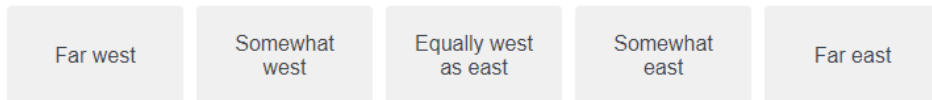
Three types of questions for all groups

- 3-4 questions on spatial norms (5-point scale)

- 5 political proposals (5-point scale)

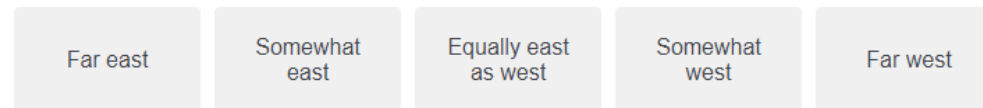- 2 questions measuring subjective preference (2-point scale)

Example question - Spatial norm

Some cities are located far west in Sweden while others are located far east.
On a scale from far west to far east, where would you place Stockholm?

Horizontal follow

Far west	Somewhat west	Equally west as east	Somewhat east	Far east

Horizontal break

Far east	Somewhat east	Equally east as west	Somewhat west	Far west

Stockholm

Example question - Spatial norm

Some cities are located far south in Sweden while others are located far north.
On a scale from far south to far north, where would you place Malmö?

Vertical follow

Far north
Somewhat north
Equally north as south
Somewhat south
Far south

Vertical break

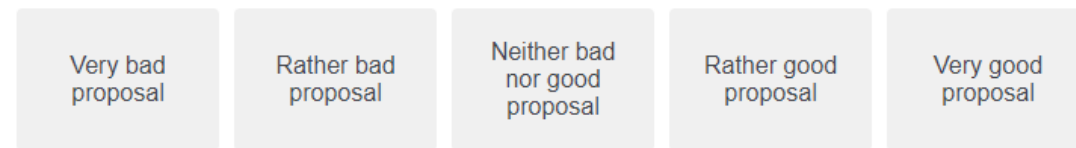| |
|---|
| Far south |
| Somewhat south |
| Equally south as north |
| Somewhat north |
| Far north |
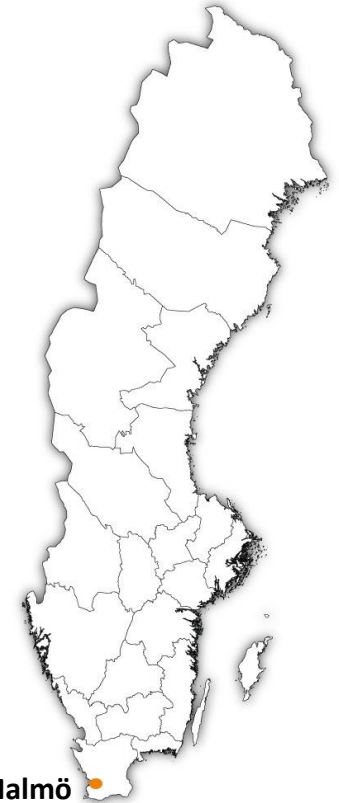
Malmö

Example question - Political proposal

What is your opinion on the following proposal?
Increase the CO2 tax on petrol

Horizontal follow
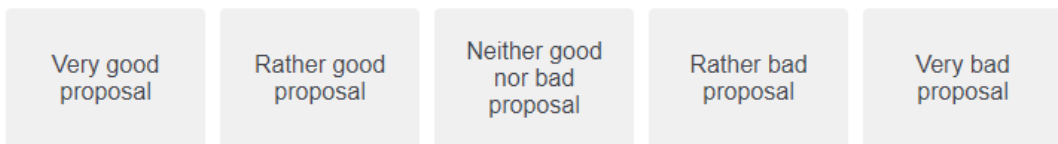
Very good proposal	Rather good proposal	Neither good nor bad proposal	Rather bad proposal	Very bad proposal

Horizontal break

Very bad proposal	Rather bad proposal	Neither bad nor good proposal	Rather good proposal	Very good proposal

Example question - Political proposal

What is your opinion on the following proposal?
Increase the CO2 tax on petrol

Vertical follow

Very good proposal

Rather good proposal

Neither good nor bad proposal

Rather bad proposal

Very bad proposal

Vertical break

Very bad proposal

Rather bad proposal

Neither bad nor good proposal

Rather good proposal

Very good proposal

Subjective preference − Horizontal question

Below you will see an image displaying two ways of arranging response options for a question. Out of these two ways of arranging the response options, do you prefer alternative A or alternative B when answering survey questions?

A

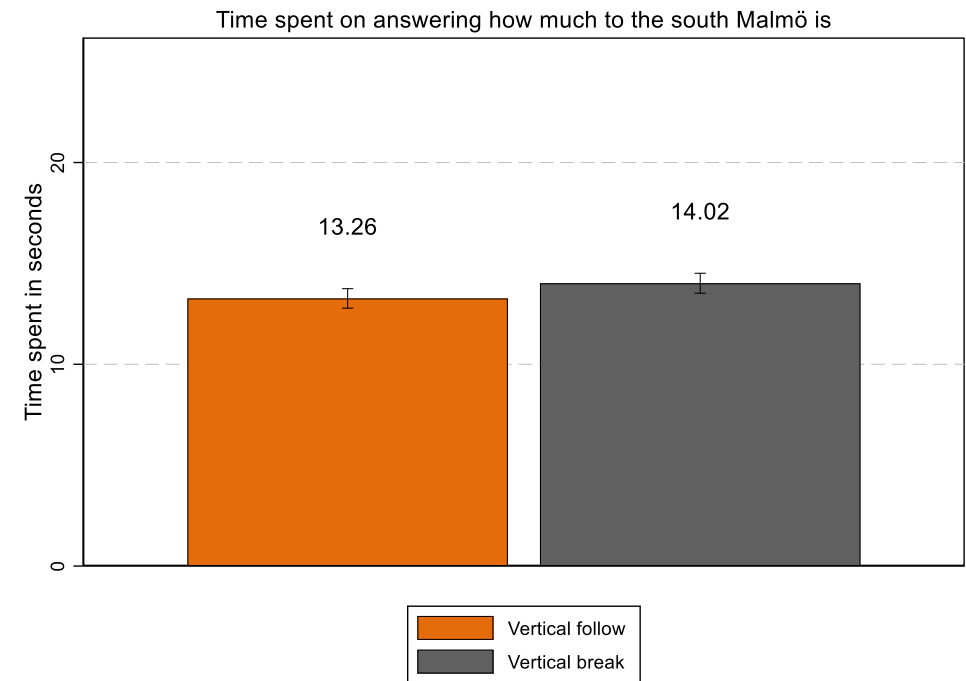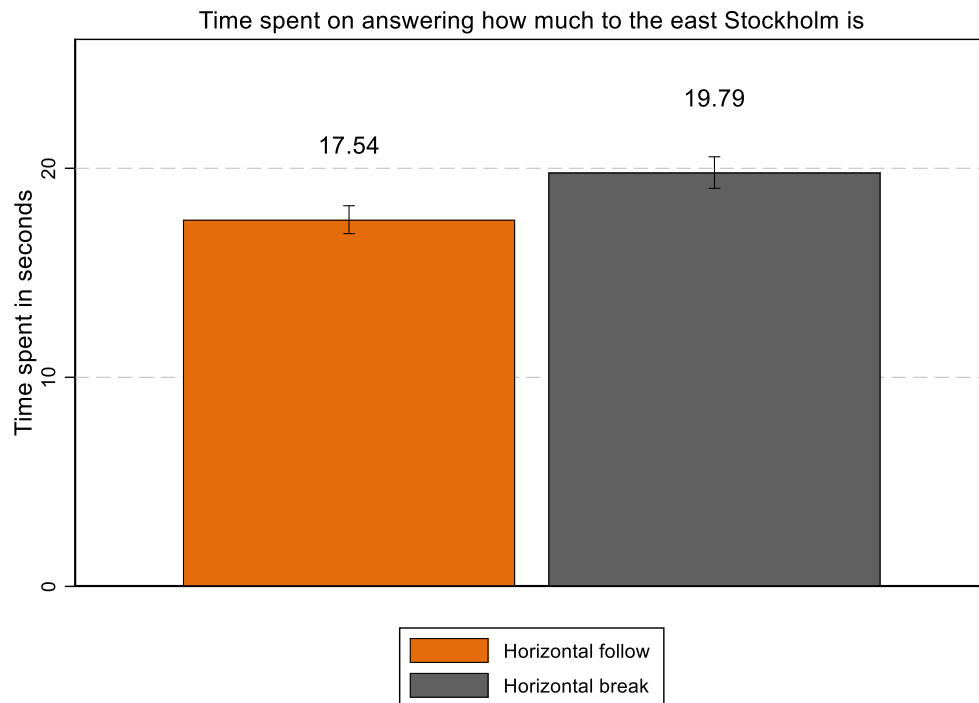○ Completely agree   ○ Partially agree   ○ Hardly agree   ○ Do not agree at all

B

○ Do not agree at all   ○ Hardly agree   ○ Partially agree   ○ Completely agree

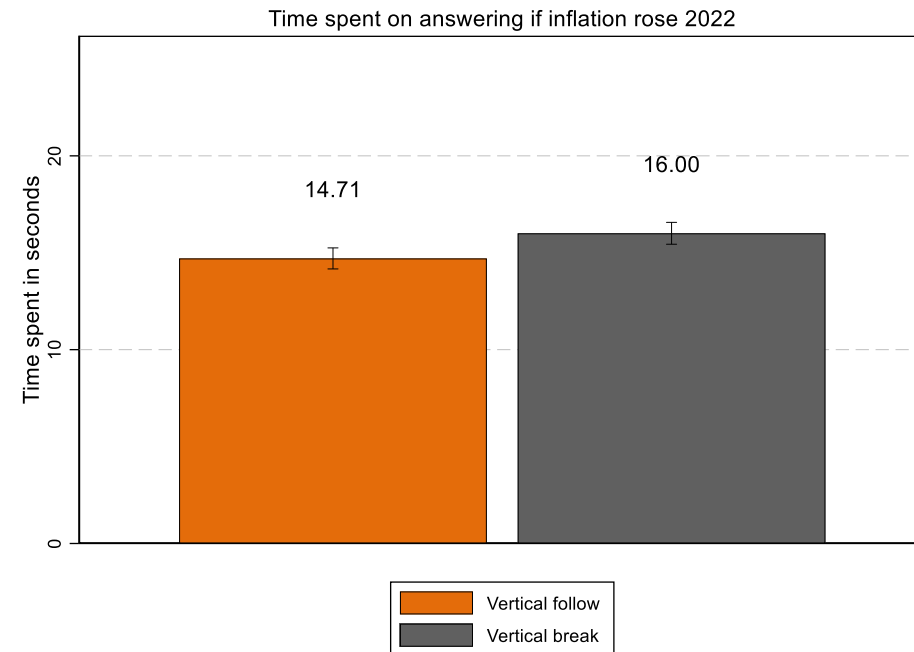Prefer alternative A

Prefer alternative B

Subjective preference – Vertical question

Below you will see an image displaying two ways of arranging response options for a question. Out of these two ways of arranging the response options, do you prefer alternative A or alternative B when answering survey questions?

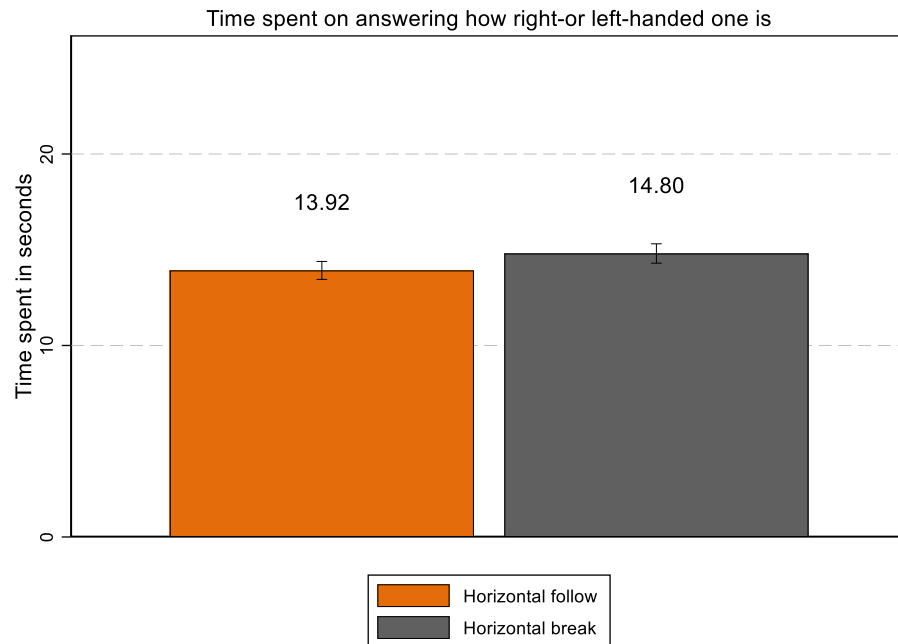| A	B
○ Completely agree	○ Do not agree at all
○ Partially agree	○ Hardly agree
○ Hardly agree	○ Partially agree
○ Do not agree at all	○ Completely agree

Prefer alternative A

Prefer alternative B

Results - Time

- It took significantly longer to answer questions that broke the spatial norms, both in vertical and horizontal groups

Time spent on answering how much to the east Stockholm is

Time spent on answering how much to the south Malmö is

Results - Time

- It took significantly longer to answer questions that broke the spatial norms, both in vertical and horizontal groups

Time spent on answering how right-or left-handed one is

13.92   14.80

Time spent in seconds

Horizontal follow
Horizontal break

Time spent on answering if inflation rose 2022

14.71   16.00

Time spent in seconds
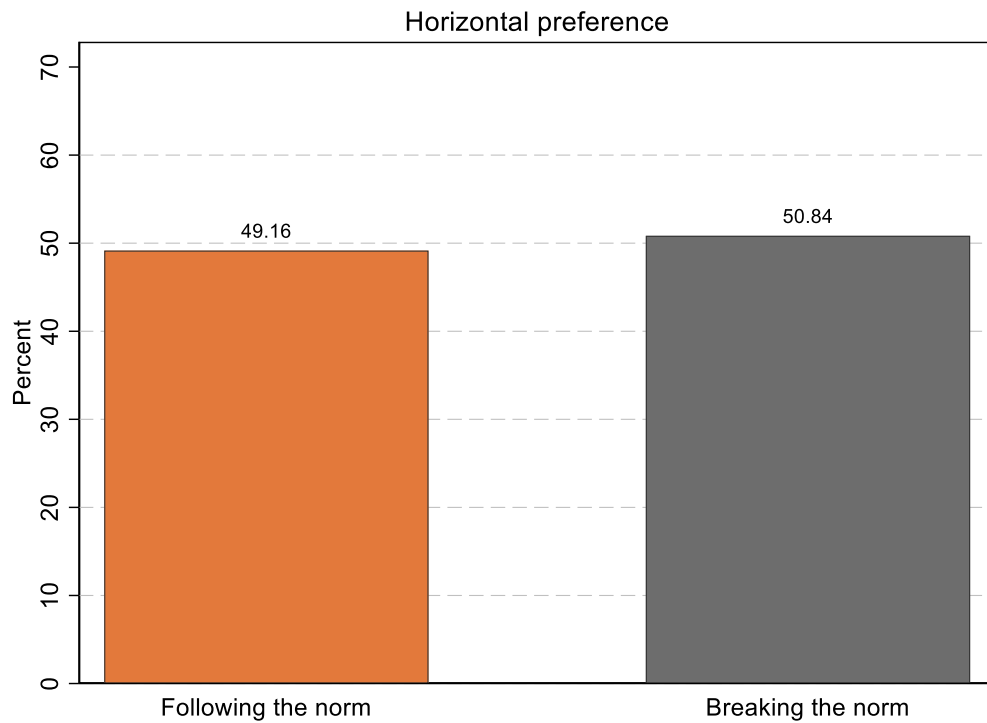
Vertical follow
Vertical break

Results - Time

- It took significantly longer to answer questions that broke up means good for political proposal questions

- No significant difference in time to answer political proposals in the horizontal group
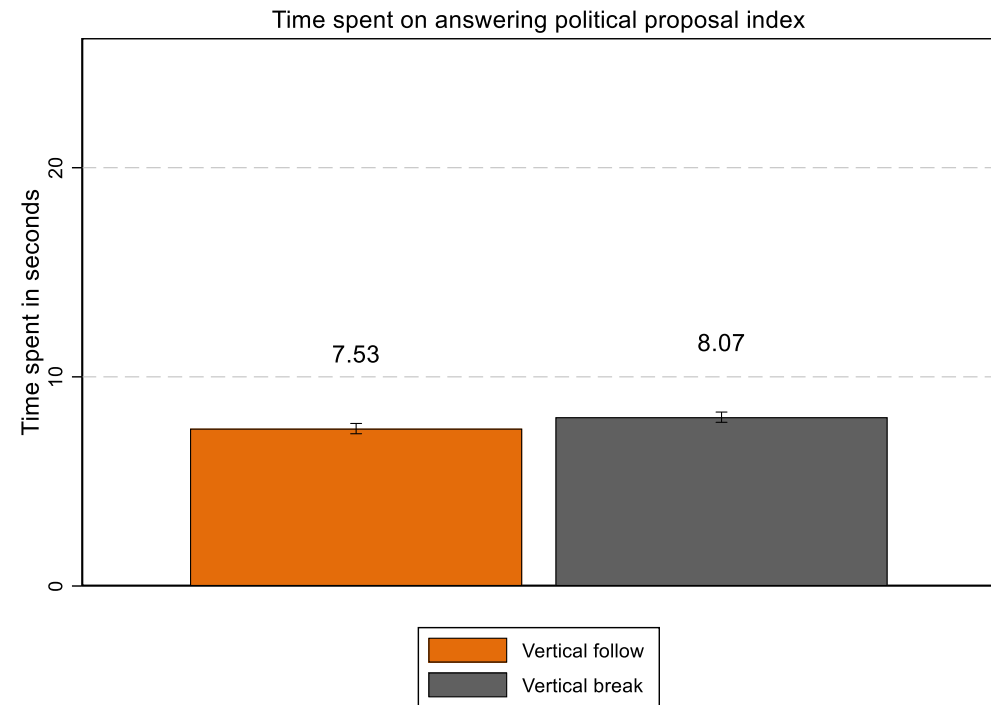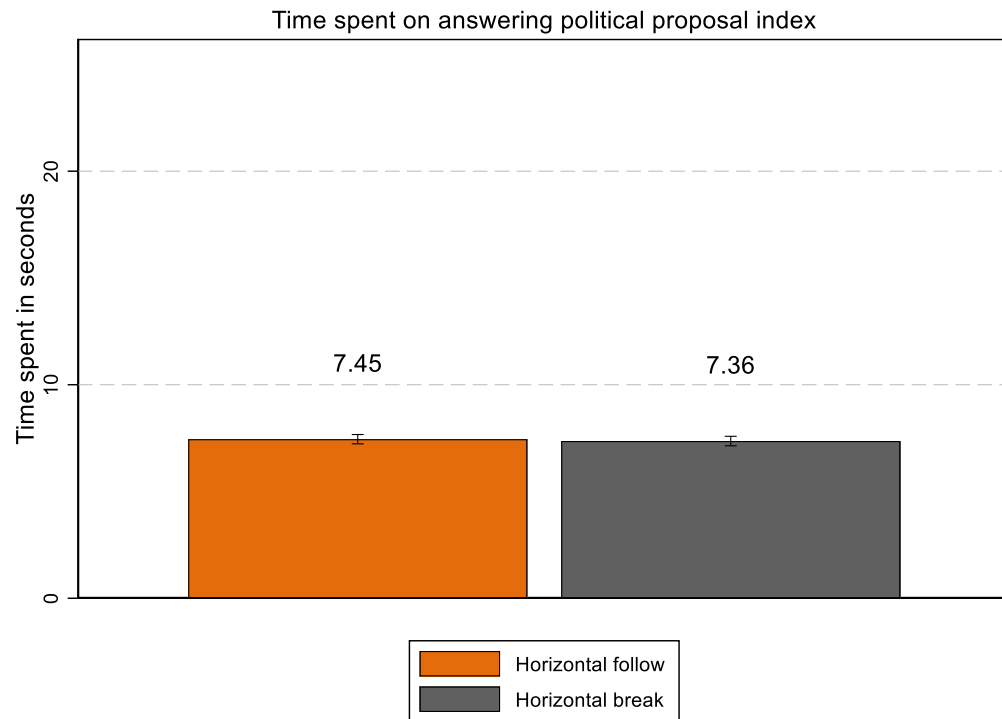
Results - Preference

- No preference for having the most positive wording to the left (49 %)

- Clear preference for having the most positive wording at the top (73 %)
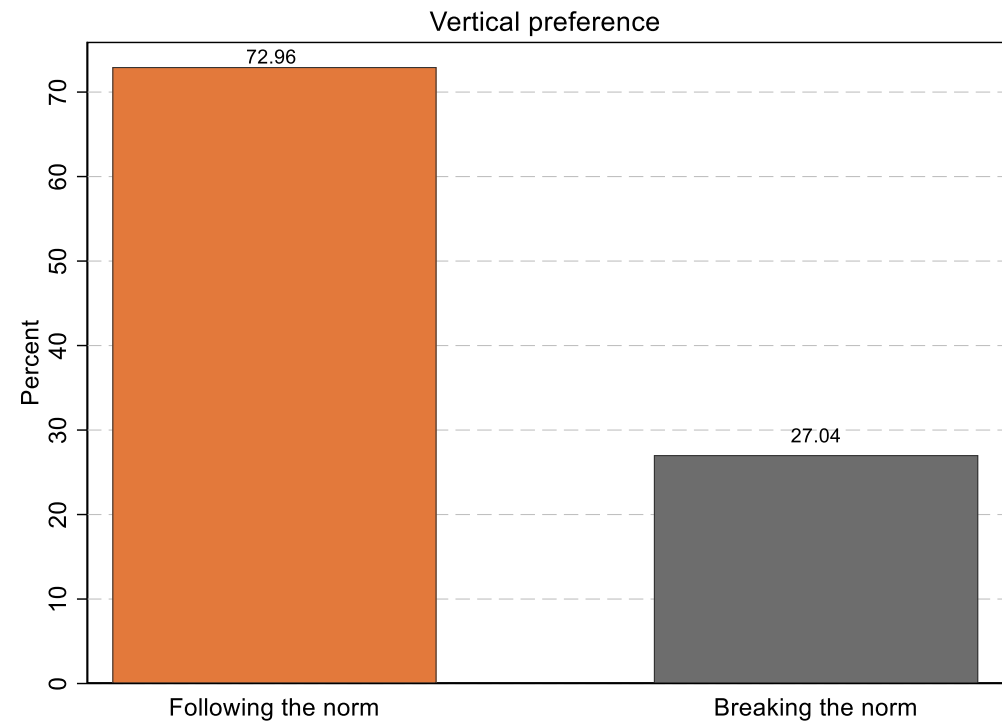
Results - Averages

- Average response for spatial norms – no difference between following the norm or not in either horizontal or vertical groups
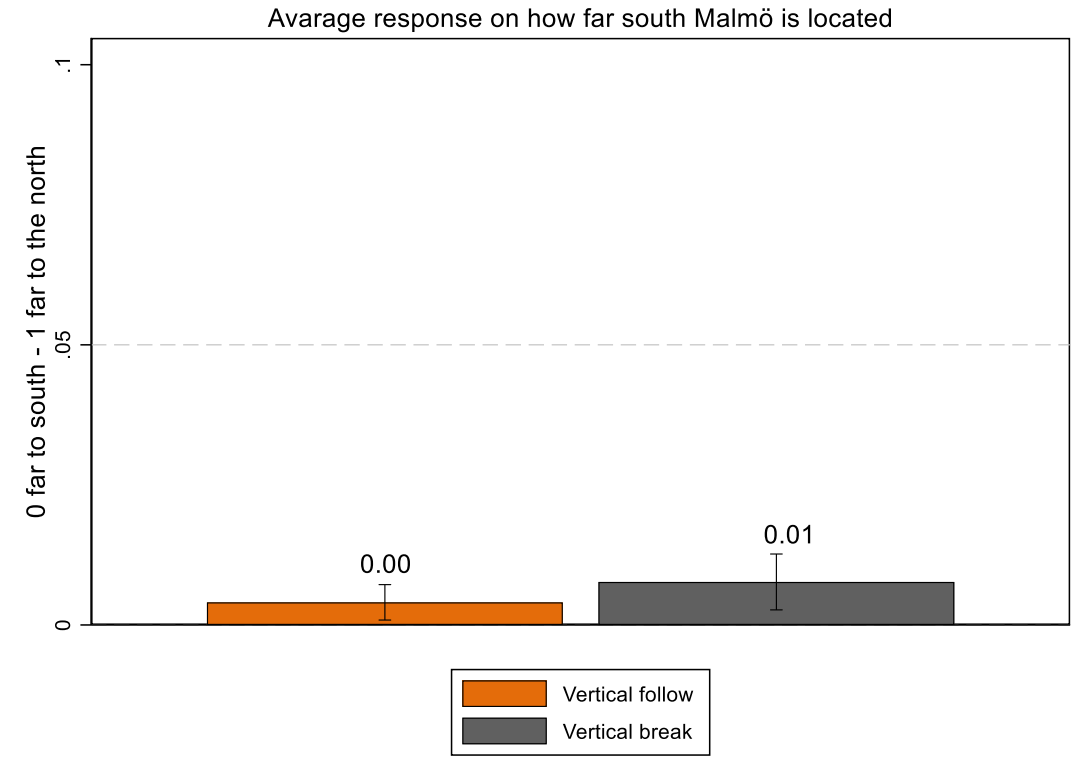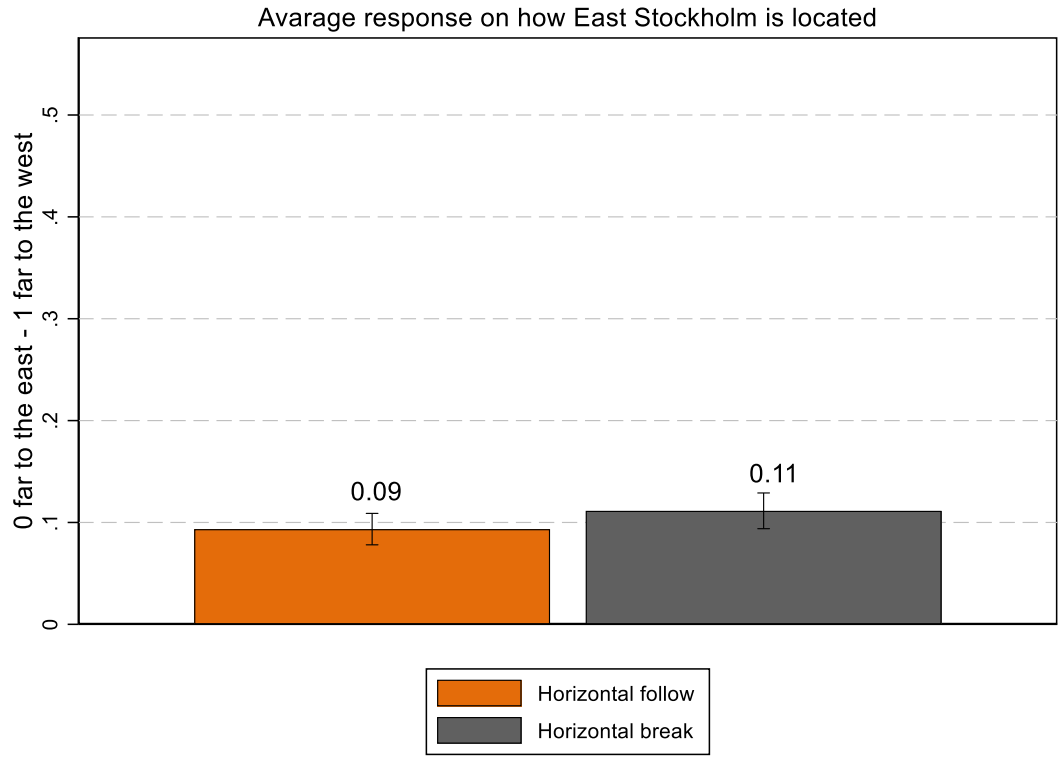
Results - Averages

- Average response for index of political proposals:

- Not significantly higher average for groups that follow the norm horizontally

- Slightly but significantly higher average for groups that follow the norm vertically (0.59 vs 0.57)

Avarage on political proposal index

Horizontal group: *p* = .17
Vertical group: *p* = .03
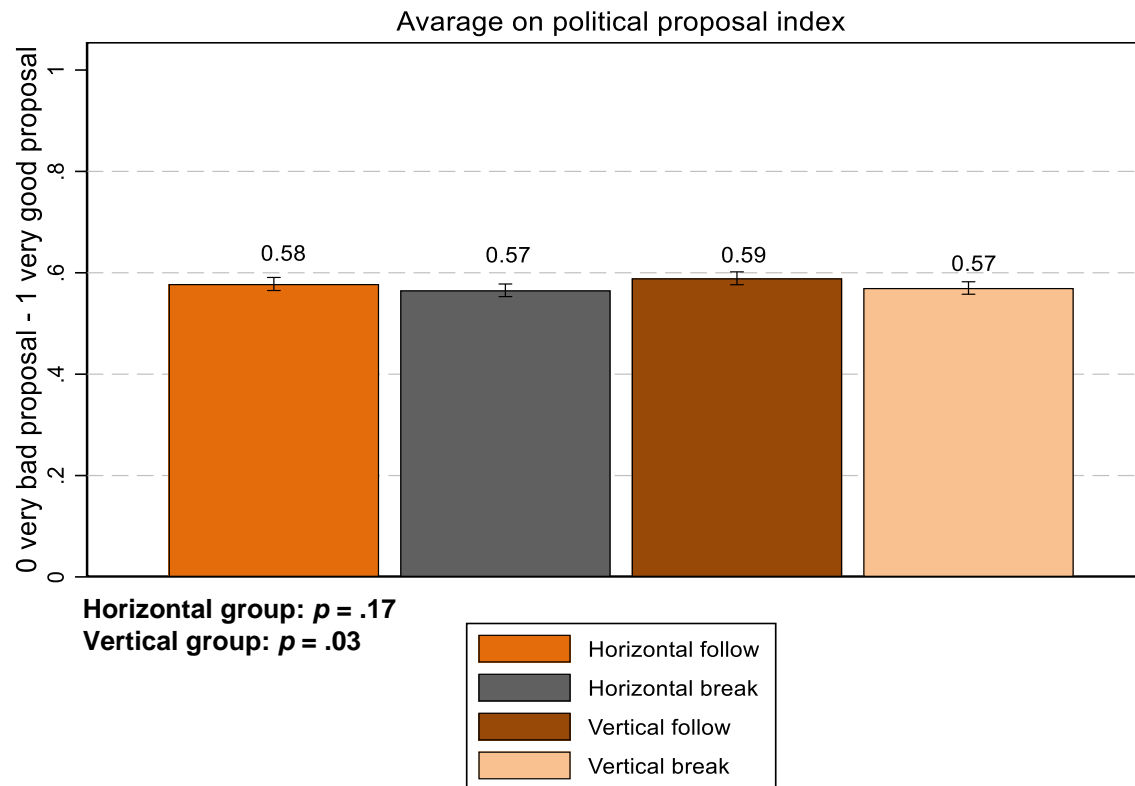
Results - Validity

- Concurrent validity – checking validity by analyzing if known correlations between variables increases or decreases depending on how the question is asked.

- If a correlation increases → higher concurrent validity/less measurement error = better way to structure the question

- Each political proposal had a background variable with a previous known correlation

- Example: Being in favor of *"CO2 Tax on petrol"* correlates with *"living in a big city/urban setting"*
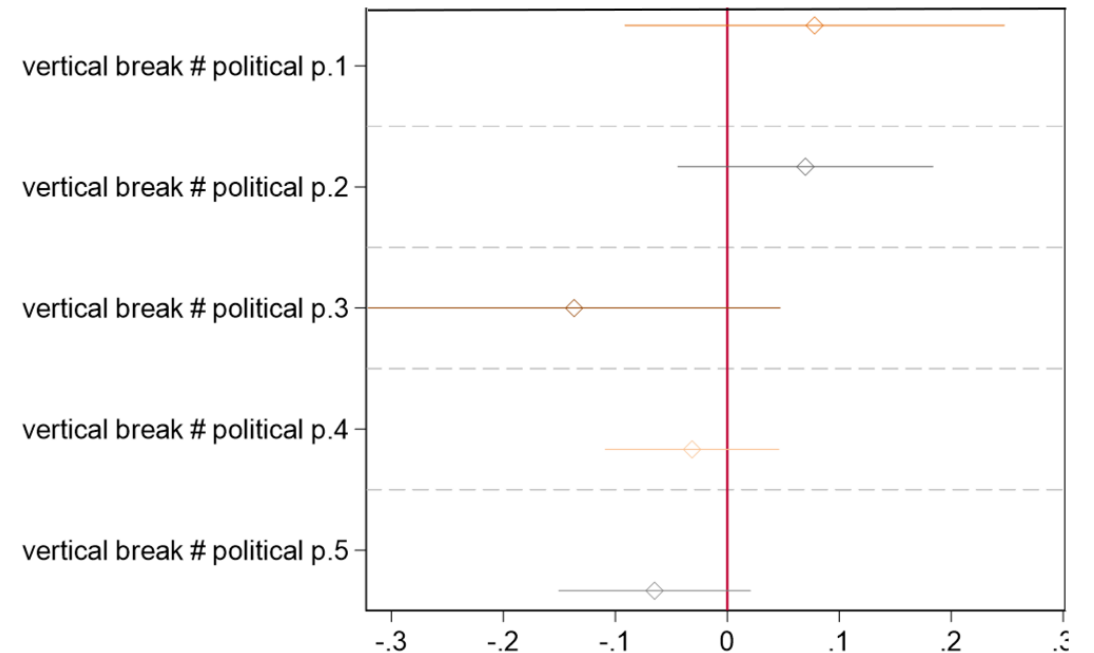
Results - Validity

- 10 independent OLS regressions - 5 for horizontal and 5 for vertical

- No significant interactive effects between response option order and political proposal which increased or decreased the correlation with the known background variables

Interaction terms of 5 regressions - horizontal
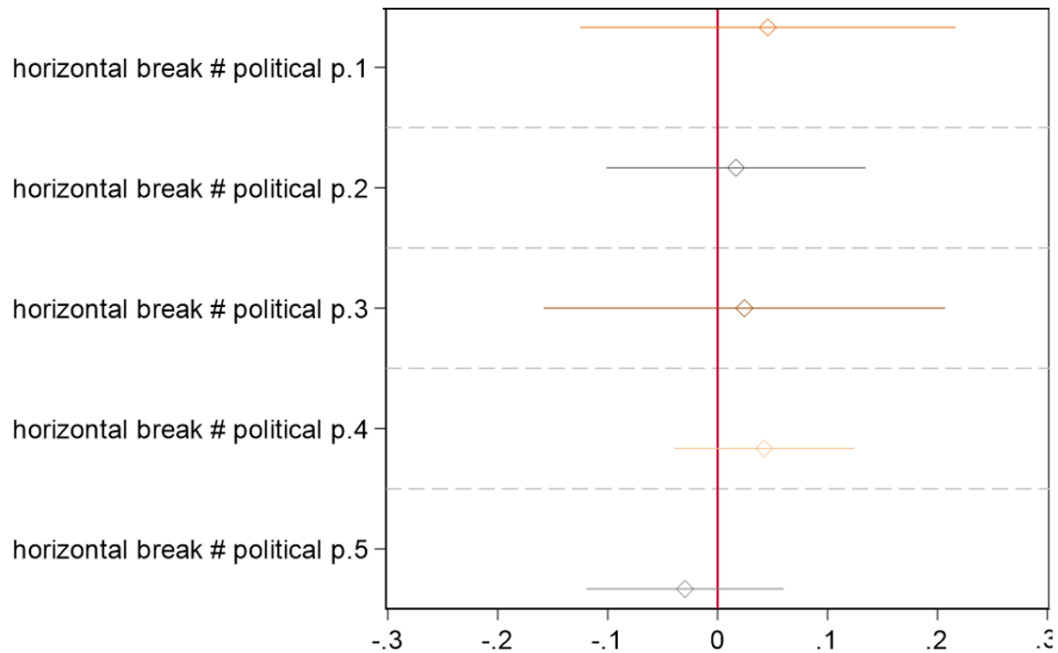
Interaction term of 5 regressions - vertical

Results – Robustness tests

- No difference in results when isolating respondents with low or high education in the data, showing that the no effects in the study was not due to a highly educated panel

- Groups breaking the norm did not skip questions or drop out of the survey to a higher degree than the groups following the norms, showing no difference in data quality from these aspects

Conclusion

- Longer response time in spatial norm questions for both experiments

- Political proposals only had faster responses for up means good

- Subjective preference for up means good, but not for left means good

- No clear effects on data quality, only a slightly higher average for up means good

- Suggestion – follow the norm to save some time, but small effects on data

- Up means good to some extent, but left only means left

Thank you for listening!