

# LORE methodological note

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### Effects of giving examples in questions about global epidemics

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#### ABSTRACT

This methodological note examines the effect of providing survey respondents with examples in questions about respondent's worry about global epidemics. Respondents answered questions about personal worry and worry for society at large, with the examples swine flu, Ebola or no example at all. Lower levels of worry were reported when the swine flu was provided as an example for both the personal and the societal questions, while the example of Ebola resulted in a significantly higher worry on the societal level, but not at the personal level. A possible explanation is that swine flu is perceived as less dangerous, framing the question and the respondents associations to other less threatening diseases and a lower reported worry, while the more acute circumstances around Ebola at the time of the data collection causes respondents to report higher worries when receiving that example.

#### Data

As part of the Citizen Panel 12, a small online survey embedded experiment was included where respondents were randomly assigned to answer one out of three pairs of questions regarding global epidemics. The questions used in this study appeared after questions about voting, trust in various institutions, satisfaction with democracy and political participation. The data was collected between October 15 and November 18 in 2014, the overall response rate was 67 percent and one reminder was sent. In total 3,172 respondents participated in this study, which means that number of responses to each version of the worry questions are slightly more than 1,000.

The first question asked the respondents how much they personally worry about six different things: unemployment, violence/assault, global epidemics, terrorism, economical problems and deteriorated health. The second question asked how much they worry about the effect on society of six similar items: unemployment, terrorism, global epidemics, economic crises, environmental deterioration and changes in the earth's climate. Respondents rated each item on a five-point scale from *Not at all worried* (1) to *Very worried* (5).

The first version of the questions was a general item with no example provided: *Global epidemics*. The other two items provided examples: *global epidemics (e.g. H1N1 swine flu)* and *global epidemics (e.g. Ebola)*. The item version each respondent received was the same for both the personal and the society-level question, making three different pairs of items/questions.

The aim of this methodological note is to examine if providing examples of this kind affects respondents' answers. More specifically this will be done through comparing means for the three items on each of the two questions.

## Results

Figure 1 displays means and confidence intervals for the question about personal worry for global epidemics. All three items yielded mean answers that were below the scale midpoint (3), which means that respondents on average leaned towards not being particularly worried about global epidemics.

The respondents who answered the general item, with no example of a global epidemic, had a significantly higher mean (2.10) than those who answered one of the two items that contained examples (swine flu: 1.95,  $p < 0.001$  and Ebola: 1.97,  $p = 0.002$ ). Means for the swine flu and Ebola items were very similar with no statistically significant difference between the two.

**Figure 1. Worry about personal situation: Global epidemics (means and 95 % confidence interval).**

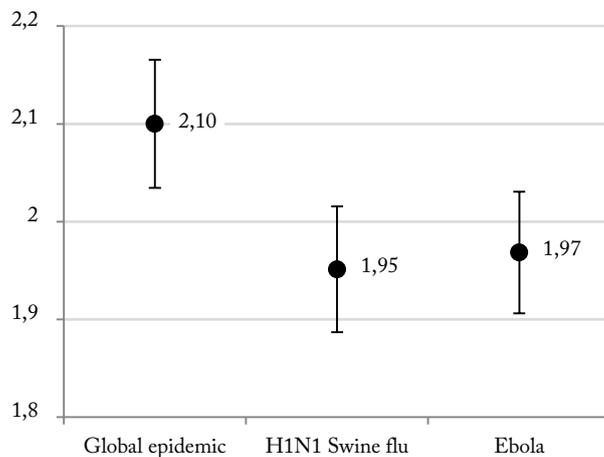
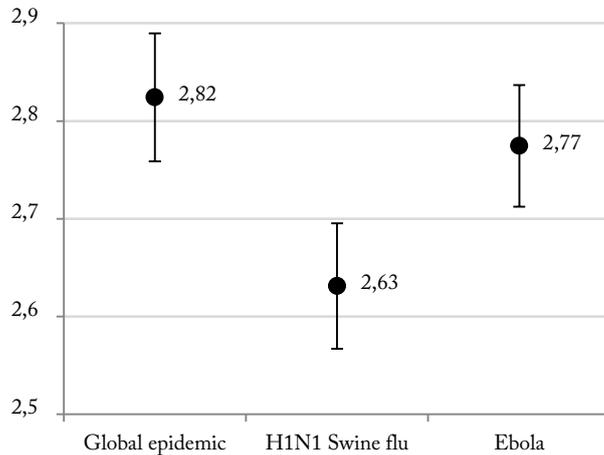


Figure 2 shows means and 95 % confidence intervals for respondents' worry about the effects of global epidemics on society. Means for all three items were significantly higher than in the question about personal worry, but still slightly below the scale mid-point, meaning respondents were leaning towards not being worried.

As for the personal question, the general item with no examples had the highest mean (2.82), but respondents receiving the Ebola example were almost as worried (2.77). There

was no significant difference between the two. Instead, the swine flu item stands out with the lowest mean (2.63), significantly different from both of the other items (General item:  $p < 0.001$  and Ebola:  $p = 0.002$ ).

**Figure 2. Worry about effects on society: Global epidemics (means and 95 % confidence interval).**



## Concluding remarks

Examples can affect a respondent's answers in several ways, depending on type of examples given and the context they are in. Tourangeau, Conrad, Couper and Ye (2014) examined the effect of providing examples with survey questions about consumption of different food types, and found that examples of common food meant respondents reported higher consumption, while the opposite was true when providing uncommon examples. Examples seem to make the respondent think about things similar to the examples and discard things that are perceived as too different.

Applying this logic to questions about epidemics, examples of less threatening diseases should affect respondents to report lower worries. The swine flu item has the lowest reported worry for both the personal and the society level question. Framed with swine flu (and, implicitly, similar epidemics) the item evokes less worry among respondents. This is likely because the last outbreak has been contained and was declared officially over by the WHO in 2010. Therefore it might be perceived as less threatening. More time had also passed since the swine flu was widely discussed.

At the time of the survey Ebola was still a frequent, though decreasingly so, subject of news reports. The salience of the subject, the damage already caused, and the remaining uncertainty of whether the Ebola epidemic would be contained or not might all contribute to the higher reported worry on the societal level compared to the swine flu example. At the same time, the Ebola item causes less worry among respondents at the personal level. Probably because few of those participating in the Citizen Panel feel they are at risk of catching Ebola fever themselves.

Exactly why the item without any example consistently yields a higher level of worry is hard to tell, but it is possible that providing examples limits respondents' memory search by guiding it in a certain direction. However, it cannot be excluded that examples improves the understanding of a question when the general notion used in the question is not very clear to all respondents.

## **References**

Tourangeau, Roger, Frederick G. Conrad, Mick P. Couper and Cong Ye. 2014. "The Effects of Providing Examples in Survey Questions", *Public Opinion Quarterly* 78(1), pp. 100-125

The Laboratory of Opinion Research (LORE) is an academic web survey center located at the Department of Political Science at the University of Gothenburg. LORE was established in 2010 as part of an initiative to strengthen multidisciplinary research on opinion and democracy. The objective of the Laboratory of Opinion Research is to facilitate for social scientists to conduct web survey experiments, collect panel data, and to contribute to methodological development. For more information, please contact us at:

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