

Online Appendix

A1 Participant Recruitment

Study participants were recruited from existing members of the Respondi Online Panel. Panel members receive several invitations to different surveys multiple times a month. Participants are paid a small incentive for each survey they complete, depending on the length of the survey and other characteristics (Respondi, 2021). To ensure that the sample reflects the target population in some key characteristics, we used simple quotas for gender, age, educational attainment, region, and ownership of a driver's license. The latter was included due to a part of the survey regarding autonomous driving not associated with this study. The panel provider invited 9,047 participants via email to our survey. 5,833 people started the survey by clicking on the link in the invitation email. Of these, 306 were screened out because they did not meet the quotas, and another 3,479 were screened out because the quota was already full. Another 160 individuals failed the quality control in the latter part of the study, and 245 did not complete the study. This results in 1,643 completed interviews, the analytical sample of our study.

A2 Questionnaire

General Study Description

Welcome!

First of all, thank you for agreeing to participate in our survey and thereby contributing to our study. The study is conducted by the Department of Statistics and Methodology at the University of Mannheim.

This study is divided into two parts. The first part of the study examines the impact of the Corona crisis on the German population. The second part examines the attitudes of the population towards autonomous driving issues.

The survey takes about 10 minutes in total. In the survey, we ask you about your migration history, your level of education, your health, and your political views, among other things, as well as your driver's license, your driving experience, and your attitudes in the area of ethics. If you find these or other questions too uncomfortable or want to skip them for any other reason, you can skip the questions or stop participating at any time. The study is for scientific research purposes only, and you will not have any other direct benefits or disadvantages from participating in the study.

Participation in the study is voluntary. You may withdraw your consent to participate in this study at any time without giving any reason and without any disadvantage to you.

The data and results of this study will be used in anonymous form for scientific publications. This means that at the beginning of the study, a study-specific ID is created that links your answers. However, this ID cannot be traced back to you and your person by us. In order for you to receive your compensation, the panel provider can match the ID and your person. However, the panel provider does not have access to your survey data.

In accordance with good scientific practice guidelines, the data may be published anonymously in a secure data archive for other researchers to use scientifically.

Vignette Introduction

First, we will present you with a number of scenarios describing a person. Please read them thoroughly and answer the questions that follow.

Q1: How concerned would you be if you had this person as a neighbor?

1. Not at all concerned
2. Little concerned
3. Slightly concerned
4. Very concerned

Q2: How concerned would you be if this person married into your family?

1. Not at all concerned
2. Little concerned
3. Slightly concerned
4. Very concerned

Q3: How concerned would you be if this person worked closely with you?

1. Not at all concerned
2. Little concerned
3. Slightly concerned
4. Very concerned

Q4: How concerned would you be if you ate food cooked by that person tomorrow?

1. Not at all concerned
2. Little concerned

3. Slightly concerned
4. Very concerned

Q5: How concerned would you be if you were visiting a friend tomorrow who was that person's roommate?

1. Not at all concerned
2. Little concerned
3. Slightly concerned
4. Very concerned

Q6: How concerned would you be if that person took care of your children for a few hours tomorrow?

1. Not at all concerned
2. Little concerned
3. Slightly concerned
4. Very concerned

A3 Dependent variable: Social distance

We used six domains of social distance from the literature that fit the context of the COVID-19 pandemic, including questions that should reflect short- and long-term stigmatized responses:

- How concerned would you be if you had this person as a neighbor?
- How concerned would you be if this person married into your family?
- How concerned would you be if this person worked closely with you?
- How concerned would you be if you ate food prepared by that person tomorrow?

- How concerned would you be if you were visiting a friend tomorrow who was that person's roommate?
- How concerned would you be if that person took care of your children for a few hours tomorrow?

In accordance with prior research on stigmatization (Dinkel et al., 2013; Emlet, 2005; Gillespie-Lynch et al., 2015), respondents were asked to rate their concern about each of the six domains on a fully labeled four-point rating scale ranging from 1 not at all concerned to 4 very concerned.

Originally, we intended the first three items (Q1, Q2 & Q3) to represent long-term stigmatized responses and the other three items (Q4, Q5 & Q6) to represent short-term stigmatized responses. To indicate immediacy, we included “tomorrow” as the time reference in the latter three items. To verify this assumption, we conducted an exploratory factor analysis (EFA). We calculated the Kaiser-Meyer-Olkin criterion which is 0.89 thus the data is suitable for factor analysis. We use the `prcomp` to create a scree plot (Figure A1) and for the factor analysis the `factanal` function both from the `stats` package (R Core Team, 2013), in order to summarize the six variables and their underlying theoretical structure (short and long-term social distance). Promax rotation was used (displayed in Figure A) which allows the factors to be correlated with each other.

Figure A1: Scree plot

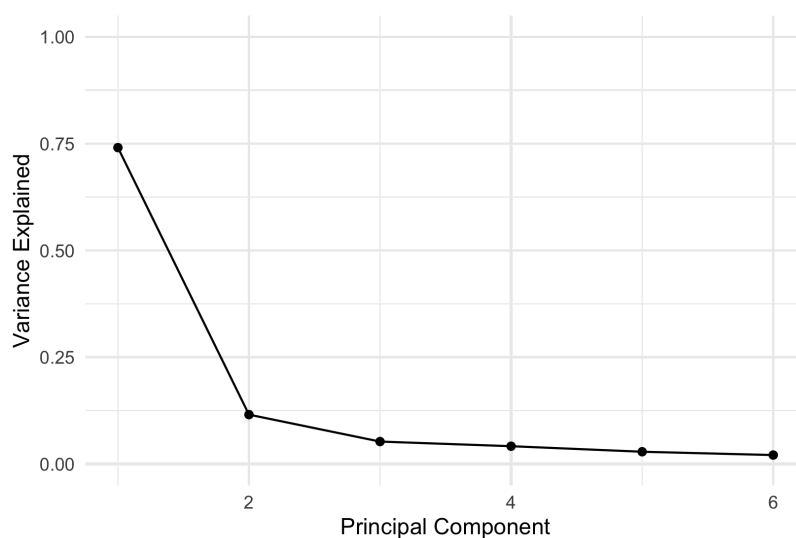
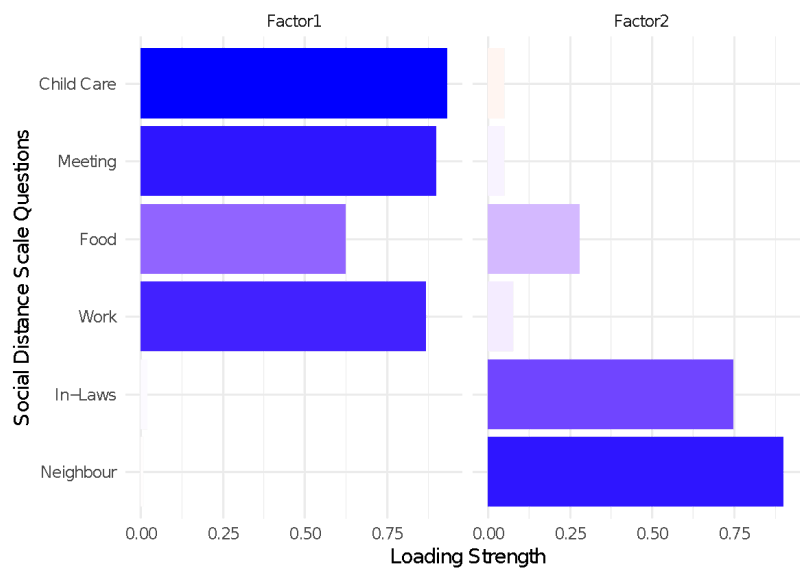


Figure A2. Factor Loading Strength of Six Social Distance Items with a Promax Rotation



As expected, the six items loaded on two independent factors. However, only items 1 and 2 loaded on the first factor while the remaining four items loaded on the second factor. The second factor thus includes one item that was initially intended to measure long-term stigmatized response (item 3: working closely with the described person) and three items that are intended to measure short-term effects. A potential reason why item 3 loaded highly on the second factor is the use of the term “closely”. Participants could have interpreted the term as indicating physical closeness instead of a working relationship, which also could be done via telephone or video calls.

References

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