Supp Info

Contents

0.1   Supplementary material

1   WAIC comparisons for hypothesis 2

Below are the results of the model comparison between our attitude models that address hypothesis 2. The results include the Wanatabe-Akaike Information Criteria as well as their SEs and their akaike weights respectively. The model holding the most weight is the model that contains the experiment effect only (h2exp), i.e. participants attitudes were most affected after taking part in the experiment, regardless of condition or interactions between time and condition.

h2_exp: (WAIC: 18187.4, SE: 142.88, weight: 0.6)

h2_full: (WAIC: 18188.2, SE: 142.76, weight: 0.4)

h2_int: (WAIC: 18302.0 , SE: 142.38, weight: 0.0)

h2_null: (WAIC: 18382.7 , SE: 141.84, weight: 0.0)

2   WAIC comparisons for exploratory time-spent analysis

Below are the results of our model comparison between our exploratory models that look at the effect of spending more than the average amount of time reading the material. The table includes the Wanatabe-Akaike Information Criteria as well as their SEs and their akaike weights. The model holding the most weight is the full model, which contains both an interaction effect for post-treatment rating and spending above median time, as well as a main effect for post-treatment rating. This is good evidence that those

who spend above the average amount of time in the study were more likely to show an increase in positive attitudes towards the Covid-19 vaccines

h2_full_time: (WAIC: 18152.1, SE: 142.94, weight: 1)

h2_int_time: (WAIC: 18186.1, SE: 142.58, weight: 0)

h2_time: (WAIC: 18380.6, SE: 141.88, weight: 0)

3 Vaccine attitudes by attitude type

Plots showing the variation in vaccine attitudes in our population that reported being anti or neutral towards covid-19 vaccines.
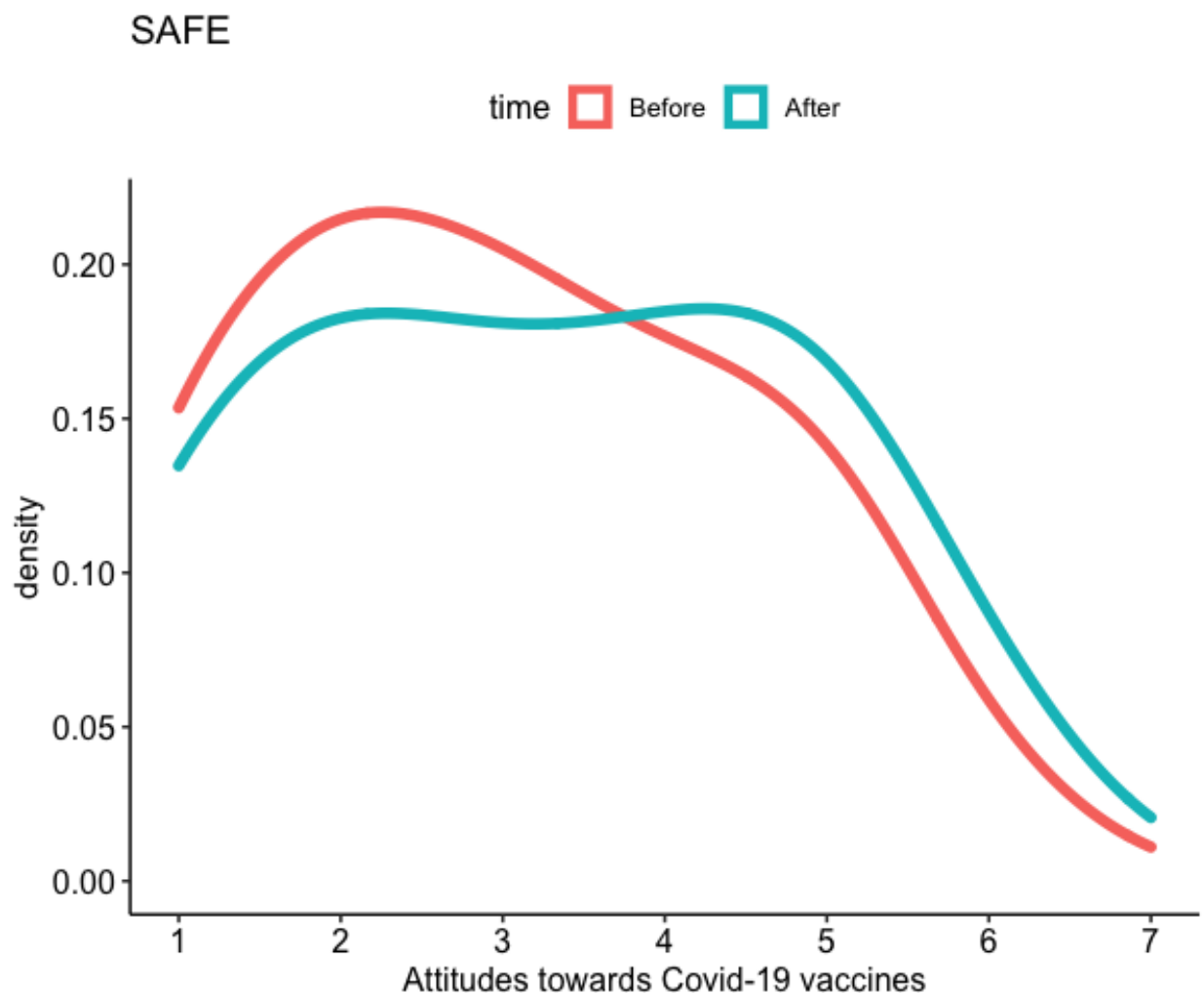
Safety: Figure 1

Figure 1: Density plot of raw vaccination attitudes when asked 'how strongly do you agree with the following statement: I think Covid-19 vaccines are safe.'

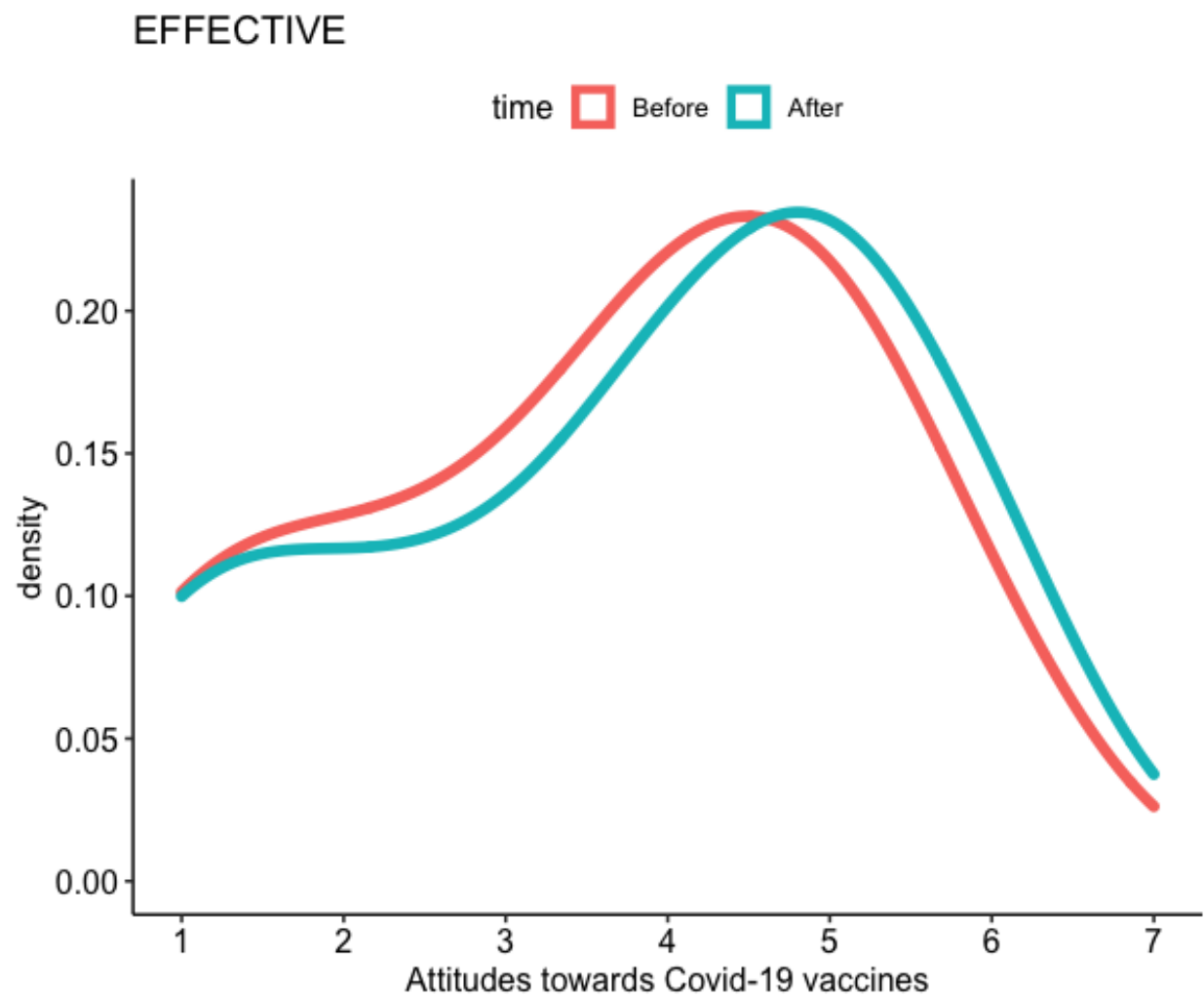Effectiveness: 2

Enough time: 3

Figure 2: Density plot of raw vaccination attitudes when asked 'how strongly do you agree with the following statement: I think Covid-19 vaccines are effective,'
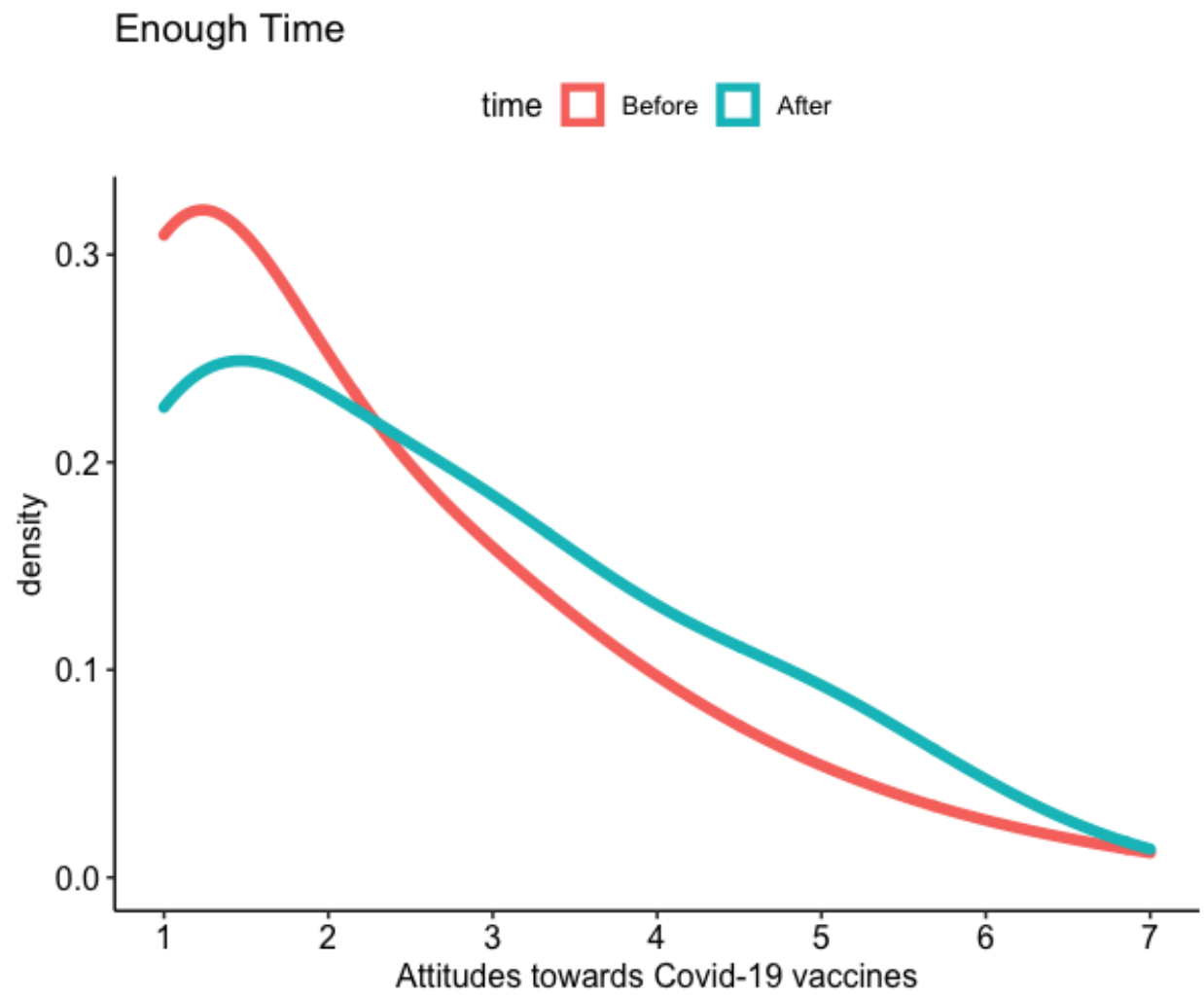
Figure 3: Density plot of raw vaccination attitudes when asked 'how strongly do you agree with the following statement: I think we've had enough time to develop Covid-19 vaccines'
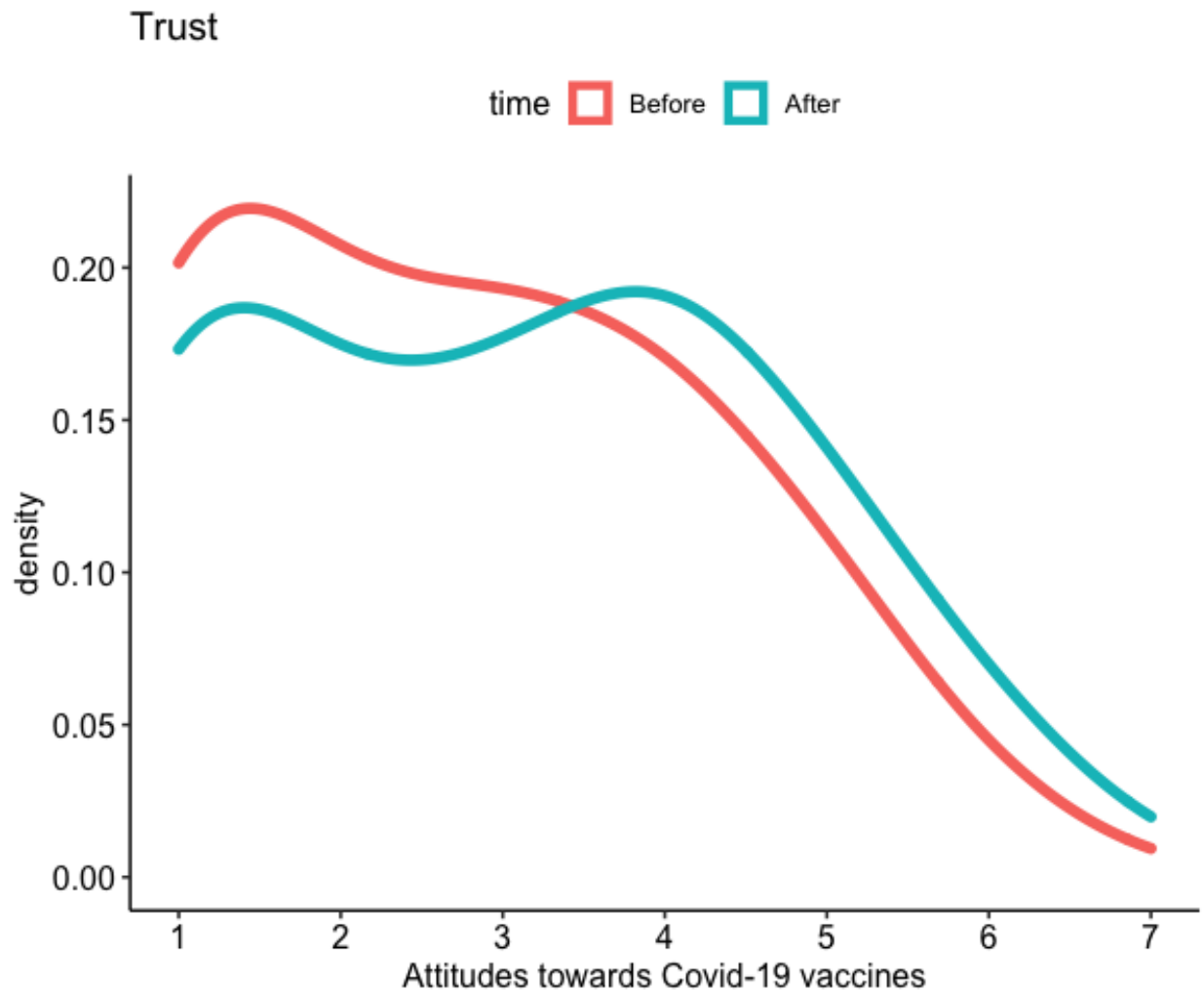
Trust: 4

Figure 4: Density plot of raw vaccination attitudes when asked 'how strongly do you agree with the following statement: I think we can trust those who produce Covid-19 Vaccines'

Important: 5

4 Addressing regression to the mean

Plot suggesting that those who previously answered they were "against" Covid-19 vaccines were less likely to change their vaccination intentions and more likely to stay the same, compared to those who answered that they were "neutral" towards Covid-19 vaccines. This is the opposite of what we would expect if we were simply witnessing regression to the mean rather than an effect of the information. /6

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.
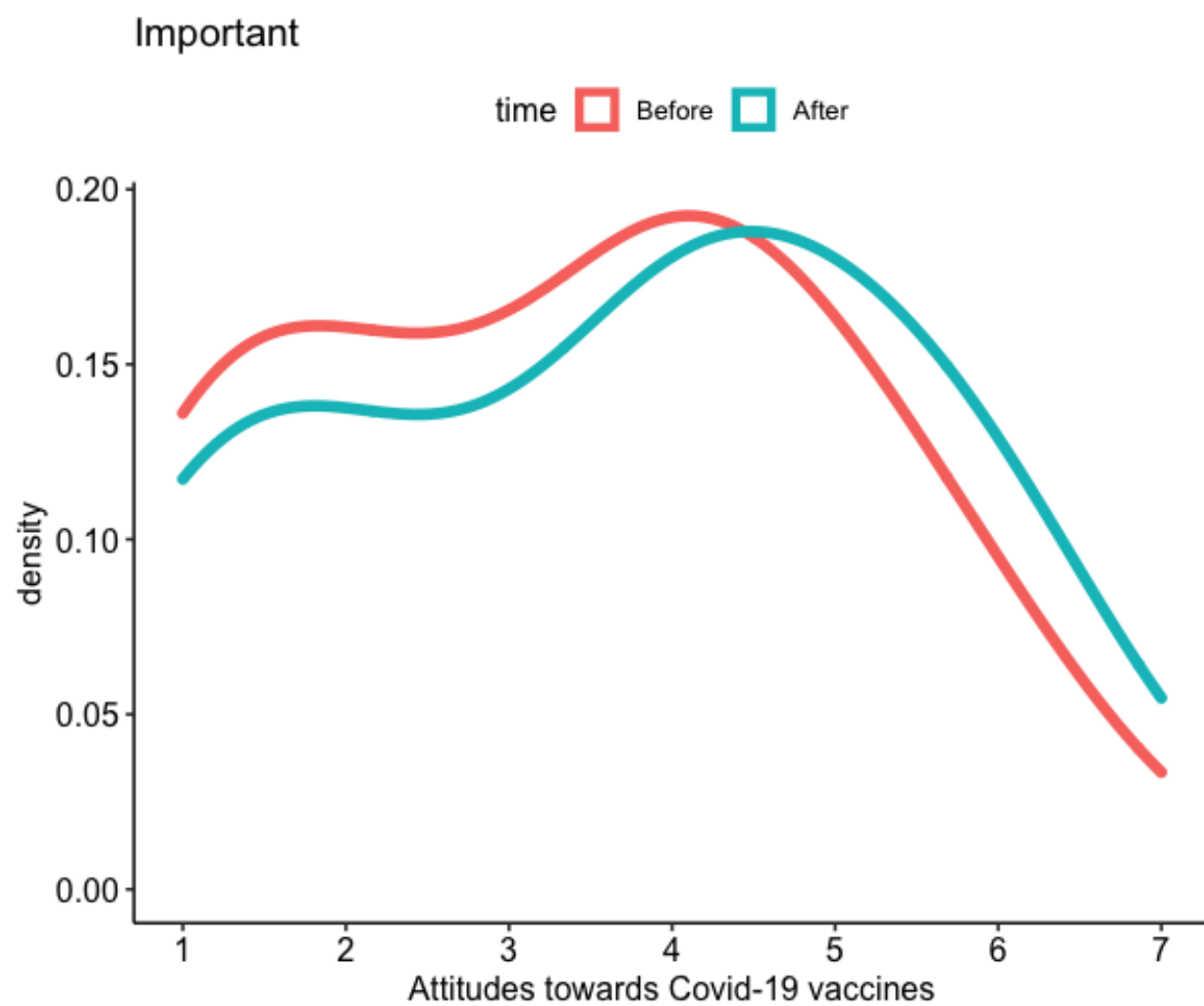
Figure 5: Density plot of raw vaccination attitudes when asked 'how strongly do you agree with the following statement: I think it is important to be vaccinated against Covid-19'
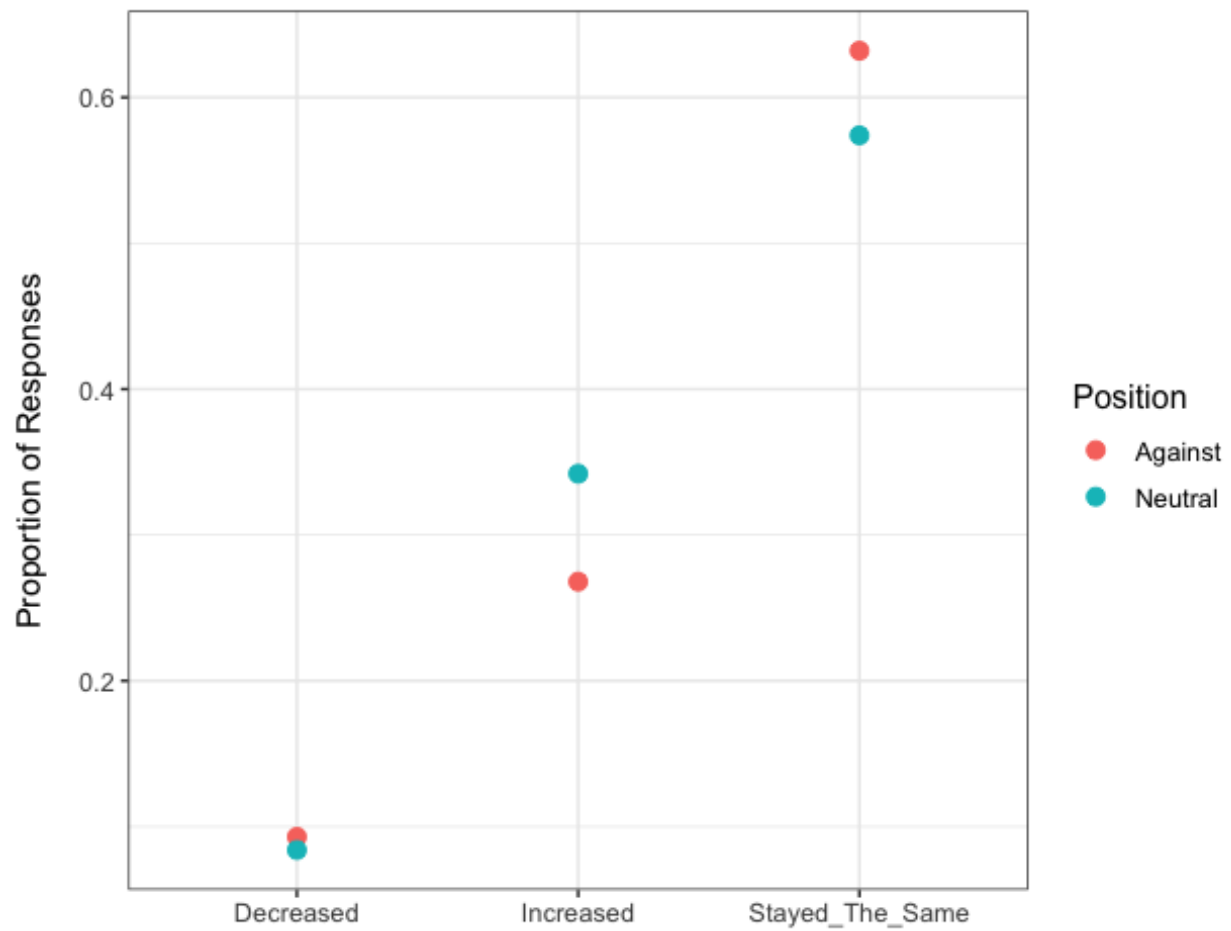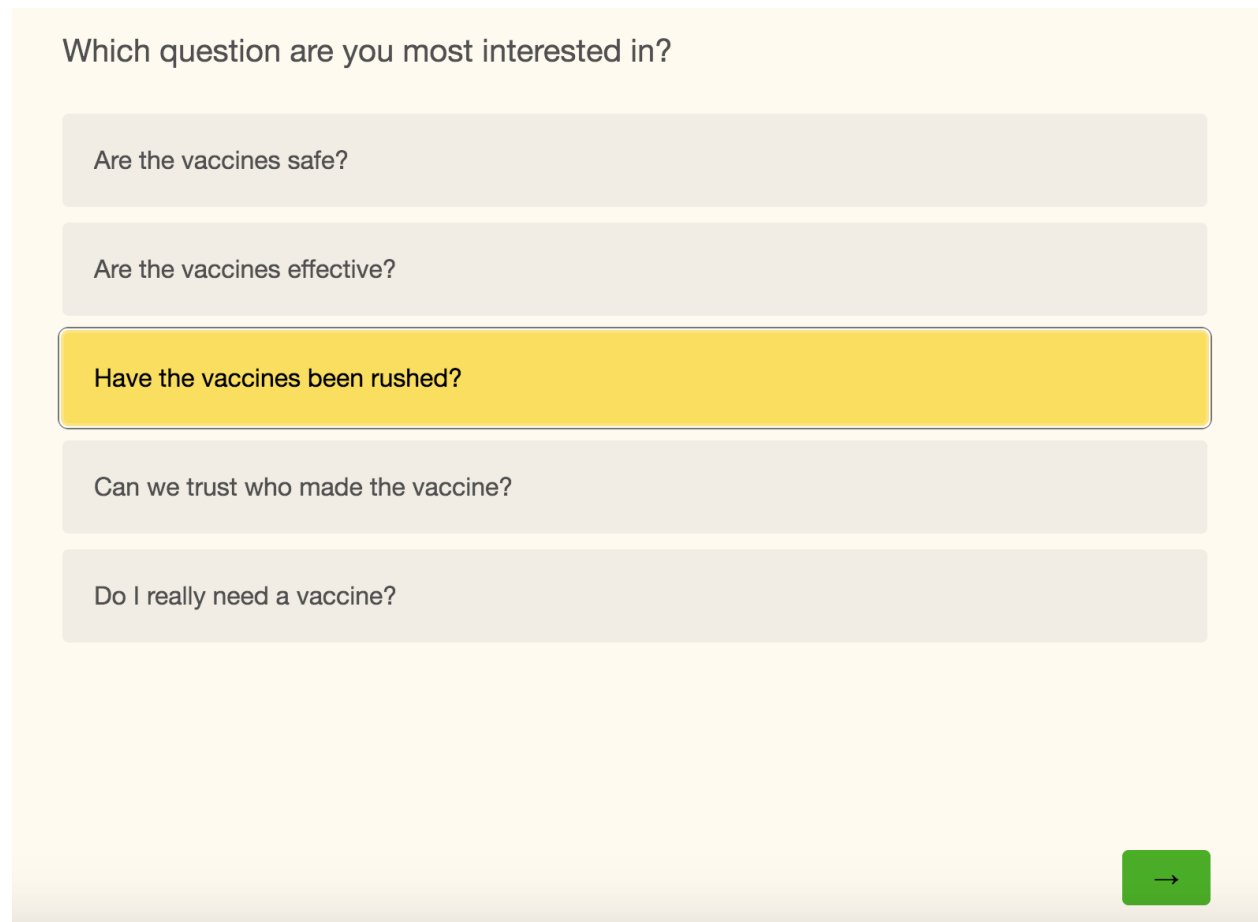
Figure 6: Plot showing the proportion of responses that either increased, decreased, or stayed the same when asked if they would take an approved Covid-19 vaccination in the future compared to when they were asked at the beginning of the experiment. The plot compares those who answered that they were Against Covid-19 vaccines or Neutral towards Covid-19 vaccines (as opposed to Positive towards Covid-19 vaccines in the Prolific Profiles used for Prescreening)

5 Example images of what participants see

:

Which question are you most interested in?

Are the vaccines safe?

Are the vaccines effective?

Have the vaccines been rushed?

Can we trust who made the vaccine?

Do I really need a vaccine?

→

Figure 7: Example image of one of four choices in the choice condition

6 Distribution of choices for each of the four choices

Figure 8: Example image of one of four choices in the choice condition

Have the vaccines been rushed?

Compared to previous vaccines, the development of vaccines against Covid-19 is very rapid. This exceptional speed is due to significant scientific progress in recent years, and to the mobilisation of hundreds of research teams and volunteers from all over the world.

The usual obstacles that scientists encounter in terms of funding, recruiting volunteers, and mobilising qualified personnel have been reduced by mobilising everyone to find a vaccine quickly.

However, all vaccines, including Covid-19 vaccines, go through the same procedures before they are distributed.

Have we had enough time to test COVID-19 vaccines?

To have a first measure of the effectiveness of the vaccines developed by Moderna and Pfizer, the health authorities imposed a minimum period of two months between the last injection during clinical trials and the analysis of the first results. The tens of thousands of volunteers who participated in clinical trials are followed for almost two years to detect the appearance of possible very rare side effects.

Figure 9: Example image of an information chunk that participants could see

Q1 - Which question are you most interested in?   Page Options ∨
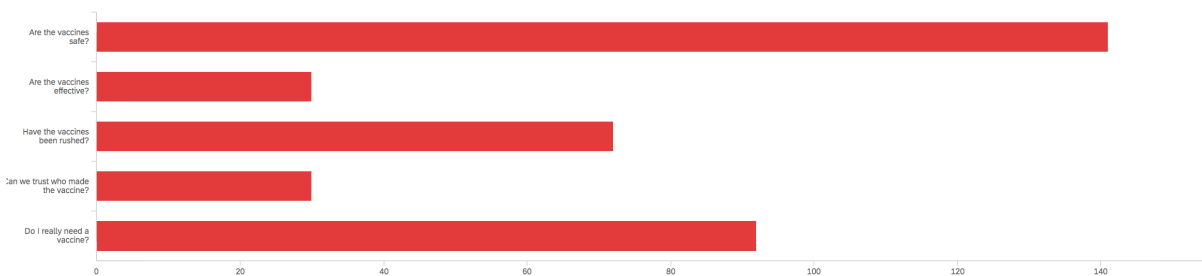
Figure 10: Distribution of choices for the first choice in the choice condition

Are vaccines dangerous in general?

Do we know enough about Covid-19 to develop a vaccine?

Could the virus mutate, reducing the effectiveness of the vaccine?

Can we trust vaccines from all countries?

Is Covid-19 dangerous for someone young like me?
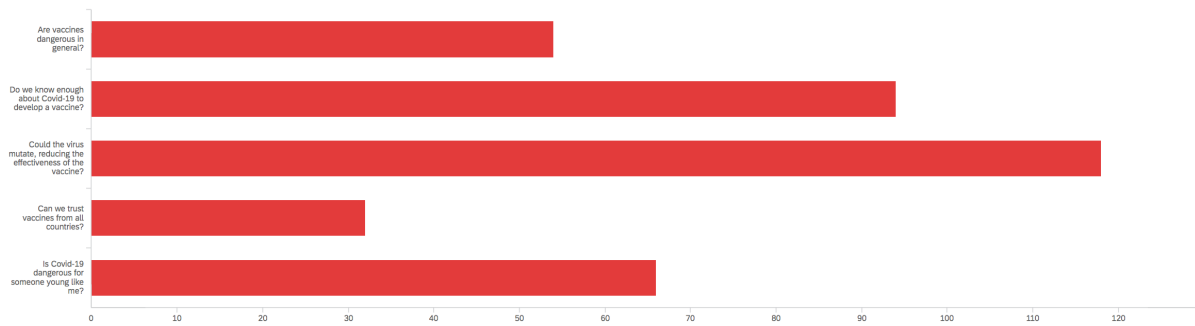
Figure 11: Distribution of choices for the second choice in the choice condition

Are there serious side effects to the vaccine?

Don't vaccines only have a placebo effect?

Will the vaccine be effective long term, or can immunity go away?

Is the pharmaceutical industry getting richer because of these vaccines?

Aren't other treatments preferable to vaccines?

Figure 12: Distribution of choices for the third choice in the choice condition

What is a messenger RNA vaccine?

Have vaccines been successful in the past?

How is the Covid-19 vaccine different to other vaccines?

Wouldn't it be better to invest in treatments for Covid-19 rather than vaccines?

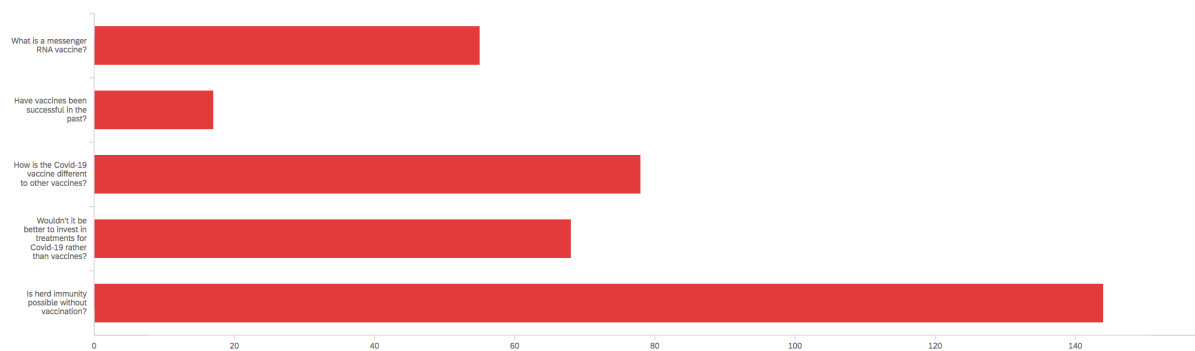Is herd immunity possible without vaccination?

Figure 13: Distribution of choices for the fourth choice in the choice condition