

## Social identification and risk - vaccination (#46194)

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### 1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

### 2) What's the main question being asked or hypothesis being tested in this study?

The aim of this study is to examine whether shared group membership attenuates risk perception and increases risk taking behaviour. It will also examine whether this relationship is mediated by (a) trust, and (b) disgust. That is, whether shared group membership is associated with greater trust and reduced disgust, and thus reduced risk perception and greater risk taking behaviour. These relationships will be examined in the context of a hypothetical vignette whereby participants will be asked to imagine a scenario in which a COVID-19 vaccination becomes available.

### 3) Describe the key dependent variable(s) specifying how they will be measured.

The key dependent variables are risk perception and behaviour. Three measures of risk perception will be used:

- How risky do you think receiving this vaccine is?  
(0—100 sliding scale [0 = Not at all; 100 = Extremely])
- How safe do you think receiving this vaccine is?  
(0—100 sliding scale [0 = Not at all; 100 = Extremely])
- How risky do you think not getting this vaccine is?  
(0—100 sliding scale [0 = Not at all; 100 = Extremely])

A single item measure of risk behaviour will be used. Specifically, in the context of the hypothetical scenario described in the vignette, participants will be asked:

- “How likely is it that you will sign up for the vaccine?” 0—100 sliding scale [0 = Not at all; 100 = Extremely])

### 4) How many and which conditions will participants be assigned to?

The study will involve an experimental manipulation of the source of a hypothetical COVID-19 vaccine (ingroup, outgroup, or no source specified). Specifically, participants—who will all be Australians—will be allocated to one of three conditions. In all conditions, participants will be asked to imagine that a vaccine has been developed with an 85% success rate in preventing COVID-19 and a 2% risk of causing serious side effects. In the shared identity (i.e., ingroup) condition, participants will be told that Australian scientists have developed the vaccine, and that ‘our’ leading health experts consider this an acceptable level of risk. In the non-shared identity (i.e., outgroup) condition, participants will be told that French scientists developed the vaccine, and that France’s leading health experts consider this an acceptable level of risk. Finally, in the control condition, it will not be stated who developed the virus or whether the level of risk was considered acceptable.

### 5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

A one way ANOVA will be used to examine differences in risk perception and behaviour between conditions. Planned comparisons will explore differences between each condition.

Mediation analyses will be used to examine indirect effects of shared identification on risk perception and behaviour through trust and disgust.

### 6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

Our a priori intention is not to exclude any outliers on the basis of extreme scores. We plan to exclude participants who fail the manipulation check.

### 7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

Power analyses (using G\*Power) indicate that a sample size of 69 participants per condition will be needed to detect an effect ( $f$ ) of 0.25 with 0.9 power for a one-way ANOVA. Given (a) that tests of mediation are also planned (which typically requires larger samples), and (b) that sample attrition (e.g., due to failure of manipulation checks) is expected, we aim to recruit 250 participants.

### 8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

To assess our proposed mediators, we will include:

A measure of trust (in Australian scientists/French scientists/the scientists) from Mayer and Davis (1999)

A measure of disgust (Bates & Chadwick, 2015)

For exploratory purposes, we will also include:

A measure of perceived vulnerability to disease (Duncan, Schaller, & Park, 2009)

An obsessive-compulsive disorder symptoms scale (Foa et al., 2002)

A measure of exposure to COVID-19 – i.e., ‘Have you had COVID-19, meaning that you (now or earlier) have had a medically confirmed case of this disease?’ (Yes, I have had a medically confirmed case; No, but I believe that I have had COVID-19; No, I have not had COVID-19)

A measure of social identification (Leach et al., 2008)