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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?

Research question: Does it affect their own vaccine uptake when people know that others do not vaccinate because they have a negative attitude toward vaccination and do not want to get vaccinated (i.e., intentional non-vaccination) vs. have a positive attitude toward vaccination but cannot get vaccinated (unintentional non-vaccination)?

Hypothesis: Individuals who are confronted with unintentional non-vaccinators increase vaccine uptake compared to individuals who are confronted with intentional non-vaccinators.

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

Individual vaccination decision (binary: vaccination vs. non-vaccination) in an incentivized one-shot interactive vaccination game (Böhm, Betsch, & Korn, 2016).

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

One Factorial between-subjects design:

Non-vaccination of other players: "unknown intention" (control condition); "intentional non-vaccination"; "unintentional non-vaccination".

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

Logistic regression,

X: Treatment conditions: "intentional" vs. "unintentional" (dummy variable)

Y: Vaccination decision

6) Any secondary analyses?

Logistic regression,

X: Treatment conditions: "unknown intention" (base) vs. "intentional" vs. "unintentional" (dummy variable)

Y: Vaccination decision

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.

Method: Logistic regression; we assume a difference of 20% in the vaccination rates of the intentional and unintentional treatment, which is an odds ratio of 2.33 (small to medium effect size);

z tests - Logistic regression

Analysis: A priori: Compute required sample size

Input: Tail(s) = Two

Odds ratio = 2.333333

Pr(Y=1|X=1) H0 = 0.5

α err prob = 0.05

Power (1-β err prob) = 0.8

R² other X = 0

X distribution = Binomial

X parm π = 0.5

Output: Critical z = 1.9599640

Total sample size = 190

Actual power = 0.8017291

We need 190 participants in the "intentional" and "unintentional" treatments, which are 95 participants per treatment condition. We collect the same amount in the control condition. We round up to 100 players in each of the three treatments.

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

Manipulation check of treatments: Perceived behavioral control (5 items, adapted from Ajzen, 2004) and vaccination attitude of other players (3 items)

Social value orientation (six item version from Murphy et al., 2011) and own vaccination attitude (3 items) serve as additional control variables

Motivation for the vaccination decision (3 items); including social welfare concerns

All regressions will be repeated with a continuous variable of vaccination intention [0;100] as dV, which is more sensitive to motivational differences.

Data exclusions: we announce to exclude participants who (I) need less than 3 and more than 25 minutes for the completion of the study and (II) do not correctly pass an attention check.