Study 5 - Conspiracy mentality and vaccination (#51309)

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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 conspiracy mentality reduce the impact of subjective norms on vaccination intentions?
Hypothesis 1: The positive relationship between the perceived subjective norm to vaccinate and vaccination intention is weaker, the stronger people's conspiracy mentality is.
Hypothesis 2: The effect predicted in Hypothesis 1 occurs for fictitious vaccinations to a stronger extent than for more realistic vaccinations.

3) Describe the key dependent variable(s) specifying how they will be measured.
Intention to get vaccinated
- Fictitious vaccinations: Intention to get vaccinated in two fictitious situations (vaccination before a holiday trip, vaccination of one's own child) with 1 item each "How likely do you think it is that you would see a doctor before you travel to get vaccinated?" and "How likely do you think it is that you would get your child vaccinated against Hepatitis B?" (0% to 100%); we will average responses across the two scenarios.
- Realistic vaccinations: Intention to get vaccinated in two realistic situations (vaccination against TBEV, vaccination against COVID-19 once a vaccine is available) with 1 item each "How likely do you think it is that you will be vaccinated against TBEV?" and "How likely do you think it is that you will get vaccinated against the corona virus?" (0% to 100%). For TBEV, participants will be asked, whether they have been vaccinated against TBEV within the last five years, which will be coded as 100%. We will average responses across the two vaccinations.

4) How many and which conditions will participants be assigned to?
Vaccination type (fictitious vs. realistic) will be implemented as within-subjects factor.
Additionally, we will vary the order of presentation between participants (fictitious vaccinations first vs. realistic vaccinations first).
Measured independent variables:
- IV1: Conspiracy mentality (12 items from Imhoff & Bruder, 2014; 7-point scale)
- IV2: Subjective norm (1 item per vaccination, see DVs): "People I care about probably think I should get vaccinated against [name of the disease]." (1 = do not agree at all, 7 = do fully agree); we will average the two items per vaccination type (i.e., fictitious vs. realistic).

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.
We will conduct a mixed model analysis with vaccination intention predicted by conspiracy mentality (Level 2 predictor), vaccination type and the perceived subjective norm (both Level 1 and nested in participants) as well their interaction. Both measured independent variables will be mean-centered prior to analysis. For an initial screening, we will also include order of presentation (Level 2 predictor) and its interactions with the other predictors. Based on this screening, we will follow one of two analysis strategies:

- If order of presentation does not moderate the hypothesized effects, we will remove it from the analysis.
- If order of presentation moderates the hypothesized effects, we will only analyze the vaccination type that was presented first, which converts vaccination type into a between-subjects factor. In this case, we would run a multiple regression analysis with vaccination intention as dependent variable, conspiracy mentality, subjective norm, and vaccination type as well as their interactions as predictors.

In all aforementioned analyses, specific attitude toward vaccination against the diseases in case of realistic vaccinations (6 items = 3 items per vaccination, 7-point scale) and perceived behavioral control (2 items = 1 item per vaccination, 7-point scale) will be added as covariates to test the full theory of planned behavior. In case of the fictitious vaccinations we will include the general attitude toward vaccination (see under #8) as covariate, since the specific attitude and vaccination intention in these cases might be so highly correlated that any other effects are overshadowed.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.
Requirements for inclusion:
- fluent in German (language-sensitive materials)
- no psychology students
- no chronic illnesses that speak against getting a vaccination
- no own children (in order to keep the vaccination of one's own child fictitious for all participants)
- After excluding participants based on these criteria, data will be checked for outliers using studentized deleted residuals (SDR) from the analysis chosen

according to #3. Participants with an absolute SDR > 2.59 will be regarded as statistical outliers.

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.

Based on an a-priori power analysis for a single regression coefficient in a multiple regression (two-tailed), we aim at recruiting N = 400 participants: small effect ($f^2 = 0.02$), alpha = .05, power (1 – beta) = .80, number of predictors = 9 results in a desired sample size of N = 395.

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

Exploratory measures:

- We will assess perceived societal norms with one item per disease mentioned under #3 (“Most people will probably get vaccinated against [name of the disease]”, 7-point scale) and test it as a moderator instead of perceived subjective norm.
- We will assess the general attitude toward vaccination (5 items; 7-point scale) and test it as a moderator instead of the specific attitudes toward the vaccinations.
- We will assess self-reported critical thinking abilities (3 items from Lantian et al., preprint; 7-point scale) in order to explore its mediating role in the hypothesized effect.

The study will be conducted in German.