Misinformation inoculation videos - ad hominem (#55709)

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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?
For this study, we test a short, animated “inoculation” video that exposes ad hominem attacks, a manipulation technique commonly encountered on social media and in other online environments. This video is designed to “inoculate” people against being misled by flawed argumentation used in common online misinformation. We will test the following hypotheses: H1: Participants in the treatment (inoculation) group are significantly better than the control group at discriminating social media content containing an ad hominem and non-ad hominem (neutral) content. H2: Participants in the treatment group are significantly better than the control group at discriminating the trustworthiness of social media content containing an ad hominem and non-ad hominem (neutral) content. H3: Participants in the treatment group are significantly more confident in their judgment than participants in the control group. H4: Participants in the treatment group are significantly less likely to indicate being willing to share ad hominem content with people in their network than neutral content, compared to a control group.

3) Describe the key dependent variable(s) specifying how they will be measured.
As the dependent variable we will use test stimuli in the form of fictitious social media posts that make use of ad hominems. Participants will be randomly shown a series of either ad hominem posts or their matched neutral posts that are similar in content and length to the ad hominem post, but do not contain the manipulation technique against which people were inoculated. We will include the following metrics under each social media post (with Likert scaling, 1 being “strongly disagree” and 7 being “strongly agree”):
- This post is ad hominem
- I am confident in my assessment of whether this post is ad hominem
- This post is trustworthy
- I would share this post with people in my network.

4) How many and which conditions will participants be assigned to?
Participants will be assigned to one of two conditions: treatment (watching an inoculation video about ad hominem attacks) or control (watching a video of similar length and aesthetic that is unrelated to misinformation).

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.
Effectiveness of the inoculation treatment will be determined by calculating the difference between mean neutral post scores and mean ad hominem post scores for each outcome measure, and comparing these scores across the treatment and control condition (i.e., technique discernment). Intervention effectiveness will then be determined in two ways: 1) as a primary analysis, we will conduct an analysis of variance (ANOVA), independent samples T-tests and a difference-in-difference analysis (between real and manipulative content) between the treatment and control conditions; and 2) as a secondary analysis, we will run a mixed-effects model with participants and stimuli as random effects. Furthermore, using linear regression, we will also check for 3-way interactions for each outcome variable between technique discernment, treatment and several covariates: age, gender, education, political affiliation, minority status, country/region of origin, populist attitudes, analytical thinking, "bullshit receptivity" and conspiracy belief.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.
Participants who fail the attention check will be excluded. Participants who are not currently living in the US will be excluded. Participants who previously took part in previous studies on inoculation and misinformation will be excluded. Participants who take either too long or too little time to complete the study (<3 or >3SD from mean completion time) will also be excluded.

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.
We will first recruit a pilot sample of 200 participants. Next, we will recruit another 884 participants, for a total of 1,084.

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