Replication of John et al. 2016
"Hiding personal information reveals the worst"
PNAS, 2016, 113(4), 954-959.
https://www.pnas.org/content/113/4/954

The original paper includes several experiments. We randomly chose experiment 2A. In this between-subject experiment, participants view a completed questionnaire for a hypothetical dating prospect who has indicated the frequency with which he/she has engaged in a series of desirable behaviors. Participants are randomized to one of three conditions: the Revealer condition (where three questions appear with the answers being a mix of "Sometimes" and "Frequently"), the Hider condition (identical to the Revealer condition plus two questions that are answered as "Choose not to answer"), and the Inadvertent Nondiscloser condition (identical to the Revealer condition plus two questions with a red x icon alongside each response option for these questions). We focus on the comparison between the Hider and the Inadvertent Nondiscloser conditions. Participants are asked how interested they would be in dating this man/woman on a scale from 1 to 10. Participants are more interested in dating Inadvertent Nondisclosers than Hiders.

Hypothesis to replicate and bet on: People are more interested in potential dates who inadvertently did not answer all questions on their desirable behaviors than potential dates who deliberately do not provide answers to all questions. To evaluate this hypothesis, the authors perform an independent samples *t*-test ($t(140) = 2.08$, $p = 0.04$); p. 956.

Criteria for replication: The criteria for replication are an effect in the same direction as the original study and a *p*-value < 0.05 in a two-sided independent samples *t*-test.

Power analysis: The original study had 142 participants in the two conditions. The standardized effect size (Cohen's *d*) was $d = 0.349$. To have 90% power to detect 67% of the original effect size, a sample size of $n = 776$ is required. For exploratory purposes, the Revealer condition from the original study will also be included, resulting in an overall sample size of $n = 1164$.

Sample: The original paper mentions no restrictions on who could participate. We will make sure that participants can only participate once from the same account in this specific study, and we will only recruit participants with a HIT approval rate of 95% or higher. We will also check all IP addresses via https://www.ipqualityscore.com/; and we will remove any participants where one or more of the following is true: fraud score >= 85; TOR = True; VPN = True; Bot = True; abuse velocity = high. The replication sample size is the sample size after any exclusions of participants.

Materials: We will use the same material as in the original study. We did not receive additional information regarding the materials from the original authors. However, the Supplementary Information provided detailed information about the stimuli used in experiment 2A, which allows us to create the survey ourselves.

Procedure: We will closely follow the procedure of the original experiment. The following summary of the experimental procedure is therefore largely based on the description of experiment 2A in the article (pp. 958-959) and the section "SI Appendix Section 3: Stimuli used in experiment 2A" (pp. 5–6) in the Supplementary Information.

Participants will first be shown a Captcha, and will thereafter provide informed consent. After this we will include an attention check that participants will need to pass to continue to the study. This attention check is in addition to any other potential attention check(s) used in the original study. Participants will indicate the gender they are interested in dating (male or female); the remainder of the survey is customized based on this answer.

Participants are then presented with one completed 5-item questionnaire in which a dating prospect has ostensibly indicated the frequency with which he or she has engaged in a series of desirable behaviors (i.e., Donating to charity, Volunteering your time, Letting someone else have credit for something you did, Donating blood, and Doing your fair share of chores at home) on the scale "Never", "Once", "Sometimes", "Frequently", and "Choose not to answer." Participants will be randomized to view one of three different versions of the completed questionnaire. In the Revealer condition, participants see the prospective date's answer to three questions. In the Hider and Inadvertent Nondiscloser conditions, there are two extra questions that are unanswered (i.e., Letting someone else have credit for something you did, Donating blood). In the Hider condition, the prospective date has endorsed "Choose not to answer" for the extra questions. In the Inadvertent Nondiscloser condition, a red "x" icon appears instead of the normal radio buttons alongside each response option for the extra questions. Below the screen shot of the questionnaire responses, participants are asked "How interested would you be in dating this woman [man]?" on a 10-point scale (1, not at all interested, to 10, very interested)."

The original study also included other questions after participants had indicated their interest in dating the prospective date, where participants were among other things asked to guess how frequently the prospective date had engaged in the two extra behaviors. We will exclude these questions since we will not use them in any analysis.

Analysis: The analysis will be performed as in the original paper. In particular, we will test whether the interest in the Inadvertent Nondiscloser is higher than the interest in the Hider using a two-sided independent samples *t*-test.

Subject payments: We are standardizing payments across all replications so that studies have a certain show-up fee depending on the expected length of the study, with an hourly wage from the show-up fee of $8 and a minimum payment of $1 (for studies with incentive payment we use the same incentive payment as in the original study; and this payment is paid in addition to the show-up fee). If we have problems recruiting, we will increase the show-up fee.