

Supplementary Information for PNAS article:

What hiding reveals

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SI Appendix Section 1: Disclosure statement

For all online experiments, we pre-specified a minimum number of participants per cell, collecting data beyond that point until we had the time to analyze it. Importantly then, collecting more than the pre-specified minimum number of participants was independent from the results. We sought to collect substantially more participants than the minimum of 20 per condition suggested by Simmons, Nelson, and Simonsohn (1). Therefore, for experiment 1 we sought to collect at least 30 participants per cell. This minimum increased in successive experiments as scholars began to question whether even cell sizes of 30 might be small (2). Therefore, we raised the minimum threshold to 50 participants per cell (in experiment 4A, the second experiment we conducted), and then again, to 75, for subsequent online experiments (experiments 2A, 2B, 3A, and 3B), and finally, to 200 for our final experiment (4B). For our lab experiment (experiment 3A), we collected as much data as we could in two days' worth of sessions. We did not use power analyses in setting our minimum sample sizes because we did not have sufficient information to confidently estimate effect sizes. We did not analyze the data until all data for a given experiment had been collected. No data were excluded from analysis and we report all manipulations and measures.

SI Appendix Section 2: Results of supplementary dependent measures

Experiment 1

Participants guessed the frequency with which the hider had engaged in the two behaviors s/he had chosen to leave blank.

Guessed answers. Estimates of the frequency with which hidere had engaged in the two unanswered items tracked with the hider's responses to the answered questions ($M_{never}=2.5$, $SD=.65$; $M_{once}=3.0$, $SD=.88$; $M_{sometimes}=3.4$, $SD=.64$; $M_{frequently}=3.4$, $SD=.74$; $F(2,123) = 10.67$, $p<.0005$); when targets answered "never" and then "choose not to answer," participants made less negative inferences than when targets answered "frequently" and then "choose not to answer." Note that these estimates of what hidere would have answered were positively correlated with the preference for the revealer ($r=.38$, $p<.01$) but did not mediate it; we further examine the mechanism underlying these effects in experiments 3A and 3B.

Experiment 2A

On the page after participants had indicated their interest in dating the prospective date (the primary dependent measure), participants guessed how frequently the prospective date had engaged in the two extra behaviors. In the revealer condition participants were asked: "If you had to guess, what do you think this person's responses were to the items below?" In the *hider* condition, participants were asked: "You may have noticed that the person chose not to answer some of the questions. If you had to guess, what do you think this person's response would be to these questions?" In the *inadvertent Nondiscloser* condition, participants were asked: "We've been experiencing a periodic computer glitch, whereby sometimes some of the person's responses don't show up. You're viewing this screen because this occurred. If you had to guess, what do you think this person's response was to these questions?" Participants guessed the respondent's answers to the extra questions using a response scale labeled: never / once / sometimes / frequently. Finally, all participants were asked: Suppose we were to ask the respondent a new question: "While an adult, have you had sexual desires for a minor?" What do you think the person's truthful response to this question would be? (never / once / sometimes / frequently).

Guessed answers. Estimates of the frequency with which hidere had engaged in the two unanswered items tracked with the extent to which the prospective date had deliberately withheld ($M_{revealer}=3.4$, $SD=.39$; $M_{inadvertent_nondiscloser}=2.6$, $SD=.66$; $M_{hider}=2.0$, $SD=.72$; $F(2, 213)=105.27$, $p<.0005$). Although these guesses were correlated with dating interest ($r=.29$, $p<=.01$), as in experiment 1, they did not mediate the effect. There were no significant differences in estimates of the frequency with which the prospective date engaged in the new behavior ($F(2, 213)=.75$, $p=.47$).

Experiment 2B

As in experiment 2A, on the page after participants had indicated their interest in dating the prospective date (the primary dependent measure), participants guessed how frequently the prospective date had engaged in the two extra behaviors.

Guessed answers. Estimates of the frequency with which hidiers had engaged in the two unanswered items tracked with the extent to which the prospective date volitionally answered the questions ($M_{revealer}=3.5, SD=.21; M_{inadvertent_nondiscloser}=2.5, SD=.79; M_{hider}=2.0, SD=.74; F(2,336)=165.91, p<.0005$). As in experiments 1 and 2A, these inferences were correlated with dating interest ($r=.35, p<.01$) but did not mediate the effect of missing information status on dating interest.

SI Appendix Section 3: Stimuli used in experiment 2A

Revealer condition:

Donating to charity.

Never Once Sometimes Frequently Choose not to answer

Volunteering your time.

Never Once Sometimes Frequently Choose not to answer

Doing your fair share of chores at home.

Never Once Sometimes Frequently Choose not to answer

Inadvertent Nondiscloser condition:

Donating to charity.

Never Once Sometimes Frequently Choose not to answer

Volunteering your time.

Never Once Sometimes Frequently Choose not to answer

Letting someone else have credit for something you did.

Never Once Sometimes Frequently Choose not to answer

Donating blood.

Never Once Sometimes Frequently Choose not to answer

Doing your fair share of chores at home.

Never Once Sometimes Frequently Choose not to answer

Hider condition:

Donating to charity.

Never	Once	Sometimes	Frequently	Choose not to answer
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Volunteering your time.

Never	Once	Sometimes	Frequently	Choose not to answer
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Letting someone else have credit for something you did.

Never	Once	Sometimes	Frequently	Choose not to answer
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Donating blood.

Never	Once	Sometimes	Frequently	Choose not to answer
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Doing your fair share of chores at home.

Never	Once	Sometimes	Frequently	Choose not to answer
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

SI Appendix Section 4: Stimuli used in experiment 2B

Revealer condition:

Donating to charity.

Never	Once	Sometimes	Frequently
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Volunteering your time.

Never	Once	Sometimes	Frequently
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Letting someone else have credit for something you did.

Never	Once	Sometimes	Frequently
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Donating blood.

Never	Once	Sometimes	Frequently
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Doing your fair share of chores at home.

Never	Once	Sometimes	Frequently
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Inadvertent Nondiscloser condition:

Donating to charity.

Never	Once	Sometimes	Frequently	Not displayed
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Volunteering your time.

Never	Once	Sometimes	Frequently	Not displayed
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Letting someone else have credit for something you did.

Never	Once	Sometimes	Frequently	Not displayed
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Donating blood.

Never	Once	Sometimes	Frequently	Not displayed
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Doing your fair share of chores at home.

Never	Once	Sometimes	Frequently	Not displayed
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Hider condition:

Donating to charity.

Never	Once	Sometimes	Frequently	Choose not to answer
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Volunteering your time.

Never	Once	Sometimes	Frequently	Choose not to answer
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Letting someone else have credit for something you did.

Never	Once	Sometimes	Frequently	Choose not to answer
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Donating blood.

Never	Once	Sometimes	Frequently	Choose not to answer
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Doing your fair share of chores at home.

Never	Once	Sometimes	Frequently	Choose not to answer
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

SI Appendix Section 5: Stimuli used in experiment 3A

- 1. Have you tried to gain access to someone else's (e.g., partner, friend, etc.) email account?**
- 2. While in a relationship, have you flirted with somebody other than your partner?**
- 3. Have you had sex with someone who was too drunk to know what they were doing?**
- 4. Have you called in sick when you were not actually sick?**
- 5. Have you had a fantasy of doing something terrible (e.g., torturing) to someone?**

SI Appendix Section 6: Stimuli used in experiment 3B

Revealer condition:

Imagine someone answers the below question as follows:

What is the lowest grade you ever received on a final exam in school?

A

B

C

D

F

Choose not to answer

Hider condition:

Imagine someone answers the below question as follows:

What is the lowest grade you ever received on a final exam in school?

A

B

C

D

F

Choose not to answer

SI References

1. Simmons JP, Nelson LD, & Simonsohn U (2011) False-positive psychology: Undisclosed flexibility in data collection and analysis allows presenting anything as significant. *Psychological Science* 22(11):1359-1366.
2. Simmons JP (2014) Mturk vs the lab: Either way we need big samples. Available at: <http://datacolada.org/2014/04/04/18-mturk-vs-the-lab-either-way-we-need-big-samples/>. Accessed November 9, 2015.