

People are more likely to be insincere when they are more likely to accidentally tell the truth

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Although people lie often, and mostly for self-serving reasons, they do not lie as much as they could. The ‘fudge factor’ hypothesis suggests that one reason for people not to lie is that they do not wish to self-identify as liars. Accordingly, self-serving lies should be more likely when they are less obvious to the liars themselves. Here we show that the likelihood of self-serving lies increases with the probability of accidentally telling the truth. Players in our game could transmit sincere or insincere recommendations to their competitors. In line with the fudge factor hypothesis, players lied when their beliefs were based on flimsy evidence, and did not lie when their beliefs were based on solid evidence. This is the first demonstration of a new moral hypocrisy paradox: People are more likely to be insincere when they are more likely to accidentally tell the truth.

Everyday, people lie – and they mostly do so for self-serving reasons. Conservative estimations from diary studies suggest that people tell several lies a day, and that most of these lies aim at promoting the liar’s interests (DePaulo, 2004). The fact that people lie to promote their interests is not very surprising from the perspective of classic economic models, in which people are assumed to do and say whatever increases their material prospects. What classic models fail to predict, though, is that people do not lie (or cheat) as much they could. Furthermore, the decision to behave dishonestly does not strongly depend on strategic factors such as the probability of being caught, or the magnitude of potential punishment (Becker, 1968; Mazar, Amir, & Ariely, 2008).

Rather, current research suggests that an important determinant of dishonest behavior is what has been variously called *ethical fading* (Tenbrunsel & Messick, 2004), *moral wiggle room* (Dana, Weber, & Kuang, 2007), *ethical maneuvering* (Shalvi, Handgraaf, & De Dreu, 2011) or the *fudge factor* (Ariely, 2012). The critical idea behind all these terms is that people commonly seek to satisfy two goals: increasing their material prospects, and maintaining a positive view of themselves (Bénabou & Tirole, 2011; Fischbacher & Föllmi-Heusi, in press). When material prospects can only be increased through dishonesty, these two goals cannot be satisfied at the same time. However, people are more likely to behave selfishly or dishonestly if they have an opportunity to fudge, that is, to disguise to themselves the selfish or dishonest nature of their behavior.

There is some evidence that the fudge factor can affect lying in the laboratory. For example, participants who solemnly pledged to tell the truth were less likely to lie to

their interaction partners, even though lying would have been advantageous (Lundquist, Ellingsen, Gribbe, & Johannesson, 2009). Pledging to be sincere presumably makes it difficult to lie without self-identifying as a liar. One way not to self-identify as a liar, though, is to eschew big lies in favor of small lies. Accordingly, people are more likely to lie for small gains than for somewhat larger gains (Shalvi, Handgraaf, & De Dreu, 2011), and they are more likely to tell lies that inflict small losses to others, than lies that inflict large losses to others (Gneezy, 2005). Furthermore, people avoid large lies even when holding financial outcomes constant (Hilbig & Hessler, 2013), and they stretch the truth only to the extent that they can self-justify their lies (Shalvi, Dana, Handgraaf, & De Dreu, 2011).

In this article, we explore a novel and subtle opportunity to fudge, which is based on the probability of accidentally telling the truth when telling a lie. Imagine for example that you are selling lemonade at a flea market. A potential customer stops by, and asks you whether your lemonade is made of organic lemons. You would do well to say ‘yes’ and make a sale. However, you are perfectly sure that the lemons are not organic. In that case, there is no fudging around the fact that it would be a lie to say ‘yes’. But now consider the case when you believe that the lemons are not organic, but are not entirely sure; say, 90% sure. Is it still a lie to say ‘yes’? and what if you were only 51% sure?

We reason that the greater the probability that a statement is true, the easier it is not to construe it as a lie. Accordingly, we predict that people will make more self-serving lies, when they can rationalize that their lies actually have a good chance of turning out true. The experiment we report aims at providing a strictly controlled demonstration of this new paradox of moral hypocrisy: People are more likely to be insincere when they feel they are more likely to accidentally tell the truth.

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Disclosure statement

We report all measures in the study, all manipulations, all data exclusions, and the sample size determination rule.

Procedure

Participants were individually recruited at the campus library (21 men and 36 women, age range 18–33, mean age 22, s.d. 3.1, data collection stopped the day on which sample size exceeded 50 participants). They participated in individual sessions (i.e., they did not have an opportunity to interact with other participants). They were informed that they would compete in a 40-question quiz game, and that the participant with the greatest number of correct responses would win a prize of 50 euros (65 USD). At this stage, they also provided a quick self-assessment of benevolence, by rating on a 1-10 scale how likely they were to put the interests of others before their own interests.

Participants then received an illustrated booklet explaining the rules of the game and the whole procedure, and were invited to ask the experimenter for any clarification. The game included two phases (clearly explained from the start to all participants). In the first phase, participants were given a 20-question quiz sheet that was vertically divided in two sides (see Figure 1). Each question appeared on both sides. On the left side, participants selected their own response to the question (henceforth, their *choice*). One unusual aspect of the game was that the participants could see the question, but not the contents of the response options. What they saw instead was the proportion of players who chose each response option in a previous game (henceforth, the *support* for each response). These previous players could, of course, see the contents of the response options.

On the right side of the sheet, the questions appeared again, still without the contents of the response options, but this time without even the support for each response option. Participants were required to write down their *recommendation* to another player in competition with them. It was made clear that this player would have to respond without seeing the contents of the response options, nor the support for each response option. The only information that the other player would be able to count on was the recommendation. To this end, the right side of the sheet was to be cut off and passed on to this other player. This was the only element of deception in the experimental setup: Although the competition was real, the recommendations recorded during the first phase were not passed on to any other player.

The second phase of the game was meant to increase the plausibility of this cover story. Participants were given another 20-question quiz sheet, which did not show either the contents of the response options, nor their support, but only the recommendations purportedly recorded by another player. These recommendations received in the second phase had not been recorded by another player, but by the experimenter, and they were the same for all players.

Materials and measures

Our key measure was whether participants sincerely recommended the response option that they chose for themselves, or insincerely recommended another option. Everytime a participant chose one response option for herself and yet recommended another response option to her competitor, counted as one occurrence of lying.

To test our hypothesis, we needed to manipulate participants' subjective perception that they might actually tell the truth while making an insincere recommendation. To this end, we manipulated the distribution of support for each response option, across questions. Our key variable was the variance of this distribution. For high-variance questions (e.g., the Body Part question of Figure 1, var = .14), one response option clearly outclassed the others in terms of support. For low-variance questions (e.g., the Roman Emperor question of Figure 1, var = .01), the response options were closer in terms of support. Across the 20 questions, variance ranged from .0004 (support for the four options: .27, .25, .25, .22) to .19 (support for the four options: .90, .05, .03, .02).

If our hypothesis is correct, the probability of making an insincere recommendation should be low when people have strong confidence in their own choice (the probability of telling the truth when lying is low), and should be high when people have weak confidence in their own choice (the probability of telling the truth when lying is high). Thus, we expected that participants would select well-supported options as their own choices, and lie in inverse proportion to this support.

Results and Discussion

Choices. Expectedly, participants selected well-supported responses for themselves. The best-supported response was selected in 71% of cases, and the second-best response was selected in another 17% of cases, mostly when its support was close (within 12 percentage points) to that of the best-supported response. Accordingly and quite mechanically,¹ the correlation between the variance of support and the support for the chosen response was nearly perfect ($r(19) = .98$, see Figure 2).

Recommendations. Overall, 34% of recommendations were insincere, with a minimum of 18% and a maximum of 51% across questions. In line with our predictions, the support participants had for their own choice strongly predicted the probability that they would lie ($r(19) = -.79$, $p < .0001$, see Figure 2). The probability of lying was low when participants had strong support for their own choice, and increased when participants had weak support for their own choice. In other terms, participants who had solid evidence

¹ For any given question, high support for a response option requires high variance in support across response options. As a consequence, the correlation between maximum support and variance of support is nearly perfect. Because participants typically select the maximally supported response option, the support for their choice is also nearly perfectly correlated with the variance of support.

<p>Who of the following was a Roman emperor?</p> <p>A 27%</p> <p>B 39%</p> <p>C 20%</p> <p>D 14%</p> <p>Your choice <input type="text"/></p>	✂	<p>Who of the following was a Roman emperor?</p> <p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>Your recommendation <input type="text"/></p>
<p>Which of the following body parts includes a middle phalanx?</p> <p>A 3%</p> <p>B 15%</p> <p>C 7%</p> <p>D 75%</p> <p>Your choice <input type="text"/></p>		<p>Which of the following body parts includes a middle phalanx?</p> <p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>Your recommendation <input type="text"/></p>

Figure 1. Example of materials used in the first phase of the game. Participants recorded their own choice on the left side of the sheet, and their recommendation to a competitor on the right side of the sheet. Participants who did not recommend the same response they chose for themselves were counted as lying.

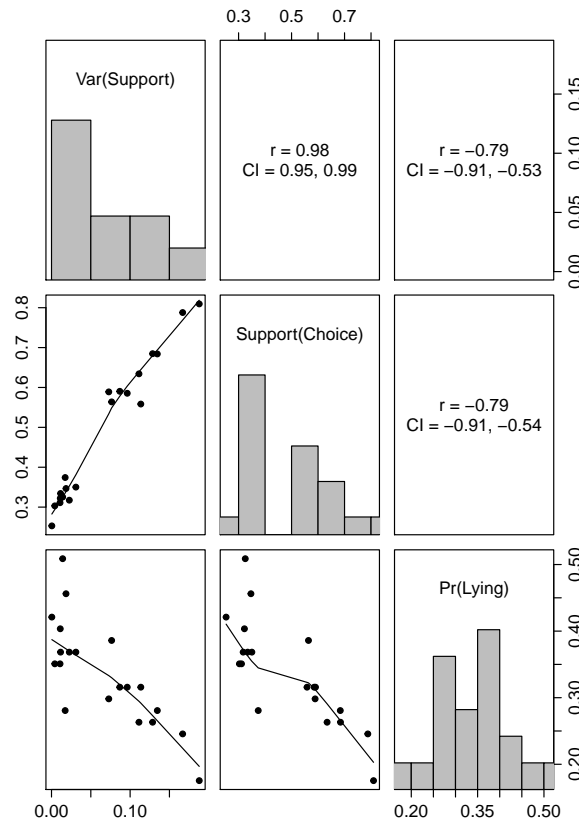


Figure 2. Correlations (across questions) between the variance of the support for the response options, the mean support for the participants' response of choice, and the probability of lying. Participants typically selected for themselves the response with the highest support, and lied in inverse proportion to this support. In other terms, the probability of lying increased with the probability of actually telling the truth.

for their own choice tended to make a sincere recommendation; whereas participants who had flimsy evidence for their own choice tended to make an insincere recommendation. In sum, the probability of lying (i.e., making an insincere recommendation) increased with the probability of telling the truth (i.e., the probability that the recommendation would turn out to be accurate).

Additional results. For the sake of completeness, we report in this paragraph the findings that were not directly related to our main hypothesis. Participants who rated themselves as more likely to put others' interests above their own, told less lies during Phase 1 of the experiment, $r(56) = -.42$, $p < .001$ – as they should, if they were motivated to maintain their benevolent self-image. Finally, and not too surprisingly, participants who told more lies were less likely to follow recommendations made by purported competitors,

$r(51) = -.53, p < .001$.² Apparently, players who lied more did not anticipate very well the behavior of others, and in particular the fact that recommendations tended to be honest when one answer was very well supported.

Conclusion

One reason for people not to behave dishonestly is their aversion to construe themselves as dishonest persons. This aversion helps to explain why people do not lie as much as they can in order to maximize their profit. There is a flip side to this phenomenon, though: any factor that can help people not to construe their behavior as dishonest, can increase the probability of dishonest behavior.

We applied this insight to a situation in which people had an opportunity to tell self-serving lies. We reasoned that people who had strong evidence for their own belief would find it hard to lie, compared to people who had weak evidence for their own belief. Our rationale was that people who had weak evidence for their own belief could avoid considering themselves as liars, because there was a substantial probability that they would actually tell the truth when being insincere. In line with our prediction, we observed a strong, negative correlation between our subjects' confidence in their belief and the likelihood that they would make a self-serving lie. In other words, participants were more likely to be insincere when they were more likely to accidentally tell the truth.

This finding has immediate implications for truth elicitation, a domain in which research has been scarce, when compared to the prolific domain of lie detection (e.g., for reviews, Bond & DePaulo, 2008; Hartwig & Bond, 2011; Vrij, Granhag, Mann, & Leal, 2011). One way to elicit truth-telling, or honest reporting, is to ask people to sign a pledge before they provide information. It appears that a pledge such as 'I promise that the information I am providing is true', when signed at the beginning of a self-report, can curb dishonesty both in laboratory and field settings (Shu, Mazar, Gino, Bazerman, & Ariely, 2012). Our findings, though, suggest that even such a pledge can leave room for fudging, and might be better replaced by something like 'I promise that the information I am providing is my best assessment of the truth'. The latter phrasing would avoid precisely what we observed in our experiment, that is, people finding it easier to lie when what they say has a decent chance to be true, even though they do not believe in it.

In parallel, our findings suggest an unexpected benefit of overconfidence, or more precisely *overprecision*, that is, excessive certainty regarding the accuracy of one's beliefs (Moore & Healy, 2008). Although overprecision is generally considered a bad thing, our results suggest that it may promote sincerity. This could help to explain the puzzling fact that people prefer taking advice from overconfident experts, rather than from properly calibrated experts (Price & Stone, 2004). According to our results, overconfident experts would find it harder to make an insincere recommendation, even when they would benefit from doing so. Relying on overconfident experts could therefore be an adequate strategy when the experts' and the decision maker's interests are in conflict

(Rode, 2010; Van Swol, 2009). Conversely, interventions aimed at recalibrating experts' confidence (Haran, Moore, & Morewedge, 2010; Winman, Hansson, & Juslin, 2004) could have the unintended effect of giving the experts more wiggle room for insincerity. Thus, in addition to providing a novel and strong demonstration of ethical manoeuvring, our findings open new perspectives on honesty elicitation in applied domains.

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² The correlation only has 51 degrees of freedom because the Phase 2 data were lost for five participants.

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