# Retraction

**PSYCHOLOGICAL AND COGNITIVE SCIENCES**

Retraction for "Signing at the beginning makes ethics salient and decreases dishonest self-reports in comparison to signing at the end," by Lisa L. Shu, Nina Mazar, Francesca Gino, Dan Ariely, and Max H. Bazerman, which was first published August 27, 2012; 10.1073/pnas.1209746109 (*Proc. Natl. Acad. Sci. U.S.A.* **109**, 15197–15200).

The editors are retracting this article and note that Simonsohn, Simmons, and Nelson (http://datacolada.org/98) have provided evidence to question the validity of the data in the article.

<div align="right">

May R. Berenbaum
*Editor-in-Chief*

</div>

RETRACTION

# Signing at the beginning makes ethics salient and decreases dishonest self-reports in comparison to signing at the end

Lisa L. Shu[a], Nina Mazar[b,1], Francesca Gino[c], Dan Ariely[d], and Max H. Bazerman[c]

[a]Kellogg School of Management, Northwestern University, Evanston, IL 60208; [b]Rotman School of Management, University of Toronto, Toronto, ON, Canada M5S 3E6; [c]Harvard Business School, Harvard University, Boston, MA 02163; and [d]Fuqua School of Business, Duke University, Durham, NC 27708

Many written forms required by businesses and governments rely on honest reporting. Proof of honest intent is typically provided through signature at the end of, e.g., tax returns or insurance policy forms. Still, people sometimes cheat to advance their financial self-interests—at great costs to society. We test an easy-to-implement method to discourage dishonesty: signing at the beginning rather than at the end of a self-report, thereby reversing the order of the current practice. Using laboratory and field experiments, we find that signing before–rather than after–the opportunity to cheat makes ethics salient when they are needed most and significantly reduces dishonesty.

morality | nudge | policy-making | fraud

The annual tax gap between actual and claimed taxes due in the United States amounts to roughly $345 billion. The Internal Revenue Service estimates more than half this amount is due to individuals misrepresenting their income and deductions (1). Insurance is another domain burdened by the staggering cost of individual dishonesty; the Coalition Against Insurance Fraud estimated that the overall magnitude of insurance fraud in the United States totaled $80 billion in 2006 (2). The problem with curbing dishonesty in behaviors such as filing tax returns, submitting insurance claims, claiming business expenses or reporting billable hours is that they primarily rely on self-monitoring in lieu of external policing. The current paper proposes and tests an efficient and simple measure to reduce such dishonesty.

Whereas recent findings have successfully identified an intervention to curtail dishonesty through introducing a code of conduct in contexts where previously there was none (3, 4), many important transactions already require signatures to confirm compliance to an expected standard of honesty. Nevertheless, as significant economic losses demonstrate (1, 2), the current practice appears insufficient in countering self-interested motivations to falsify numbers. We propose that a simple change of the signature location could lead to significant improvements in compliance.

Even subtle cues that direct attention toward oneself can lead to surprisingly powerful effects on subsequent moral behavior (5–7). Signing is one way to activate attention to the self (8). However, typically, a signature is requested at the end. Building on Duval and Wicklund's theory of objective self-awareness (9), we propose and test that signing one's name before reporting information (rather than at the end) makes morality accessible right before it is most needed, which will consequently promote honest reporting. We propose that with the current practice of signing after reporting information, the "damage" has already been done: immediately after lying, individuals quickly engage in various mental justifications, reinterpretations, and other "tricks" such as suppressing thoughts about their moral standards that allow them to maintain a positive self-image despite having lied (3, 10, 11). That is, once an individual has lied, it is too late to direct their focus toward ethics through requiring a signature.

In court cases, witnesses *verbally* declare their pledge to honesty *before* giving their testimonies—not after, perhaps for a reason. To the extent that written reports feel more distant and make it easier to disengage internal moral control than verbal reports, written reports are likely to be more prone to dishonest conduct (3, 10, 11). However, for both types of reports (verbal or written) we hypothesize a pledge to honesty to be more effective before rather than after self-reporting. Thus, in this work, we test an easy-to-implement method of curtailing fraud in *written* reports: signing a statement of honesty at the beginning rather than at the end of a self-report that people know from the outset will require a signature.

## Results and Discussion

Experiment 1 tested this intervention in the laboratory, using two different measures of cheating: self-reported earnings (income) on a math puzzles task wherein participants could cheat for financial gain (3), and travel expenses to the laboratory (deductions) claimed on a tax return form on research earnings. On the one-page form where participants reported their income and deductions, we varied whether participant signature was required at the top of the form or at the end. We also included a control condition wherein no signature was required on the form.

We measured the extent to which participants overstated their income from the math puzzles task and the amount of deductions they claimed. All materials were coded with unique identifiers that were imperceptible to participants, yet allowed us to track each participant's true performance on the math puzzles against the performance underlying their income reported on the tax forms. The percentage of participants who cheated by overclaiming income for math puzzles they purportedly solved differed significantly across conditions: fewer cheated in the signature-at-the-top condition (37%) than in the signature-at-the-bottom and no-signature conditions (79 and 64%, respectively), $\chi^2(2, n = 101) = 12.58$, $P = 0.002$, with no differences between the latter two conditions ($P = 0.17$). The results also hold when analyzing the average magnitude of cheating by condition; Fig. 1 depicts the reported and actual performance, as measured by the number of math puzzles solved, for each condition, $F(2, 98) = 9.21$, $P < 0.001$. Finally, claims of travel expenses followed that same pattern and differed by condition, $F(2, 98) = 5.63$, $P < 0.01$, $\eta2 = 0.10$. Participants claimed fewer expenses in the signature-at-the-top condition ($M = \$5.27$, SD = 4.43) compared with signature-at-the-bottom ($M = \$9.62$, SD = 6.20; $P < 0.01$) and the no-signature condition ($M = \$8.45$, SD = 5.92; $P < 0.05$), with no differences between the latter two conditions ($P = 0.39$). Thus, signing before reporting

PSYCHOLOGICAL AND COGNITIVE SCIENCES
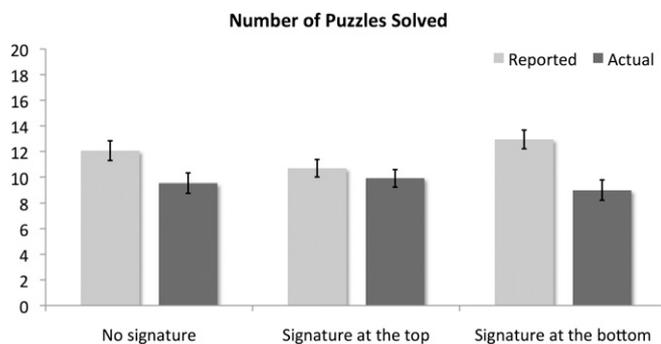
**Number of Puzzles Solved**



**Fig. 1.** Reported and actual number of math puzzles solved by condition, experiment 1 (*n* = 101). Error bars represent SEM.

promoted honesty, whereas signing afterward was the same as not signing at all.

Experiment 2 investigated the potential mechanism underlying the effect through a word-completion task (12, 13) serving as an implicit measure of mental access to ethics-related concepts (4). Sixty university participants were randomly assigned to one of two conditions: signature at the top or signature at the bottom. Experiment 2 used the same math puzzles and tax form procedure as in experiment 1, but varied the incentives for performance on the math puzzles task and the tax rate. Finally, the one-page tax forms were modified to mimic the flow of actual tax reporting practices in the United States, and as in experiment 1, all materials were imperceptibly coded with unique identifiers.

After filling out the tax forms, all participants received a list of six word fragments with missing letters. They were instructed to complete them with meaningful words. Three fragments ( _ _ R A L, _ I _ _ _ E, and E _ _ _ C _ _) could potentially be completed with words related to ethics (moral, virtue, and ethical) or neutral words. We used the number of times these fragments were completed with ethics-related words as our measure of access to moral concepts.

Similar to experiment 1, the percentage of participants who cheated by overstating their performance on the math puzzles task was lower in the signature-at-the-top condition (37%, 11 of 30) than in the signature-at-the-bottom condition (63%, 19 of 30), $\chi^2(1, n = 60) = 4.27$, $P < 0.04$. The same pattern of results held when analyzing the magnitude of cheating (Fig. 2), $t(58) = -2.07$, $P < 0.05$, as well as the travel expenses that participants claimed on the tax return form, $F(1, 58) = 7.76$, $P < 0.01$, $\eta^2 = 0.12$: they were lower in the signature-at-the-top condition ($M = 3.23$, SD = 2.73) than in the signature-at-the-bottom condition ($M = 7.06$, SD = 7.02).

In the word-completion task, participants who signed before filling out the form generated more ethics-related words ($M = 1.40$, SD = 1.04) than those who signed after ($M = 0.87$, SD = 0.97),
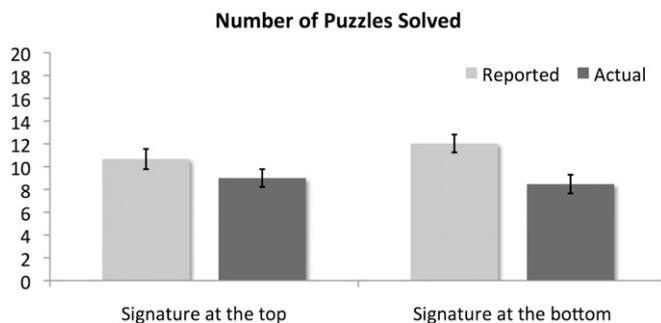
**Number of Puzzles Solved**



**Fig. 2.** Reported and actual number of math puzzles solved by condition, experiment 2 (*n* = 60). Error bars represent SEM.

$F(1, 58) = 4.22$, $P < 0.05$, $\eta^2 = 0.07$; this greater access to ethics-related concepts (our proxy for saliency of morality) significantly mediated the effect of assigned condition (signature at the top or signature at the bottom) on cheating on the tax forms [bootstrapping with 10,000 iterations (14): 95% confidence interval −1.85, −0.04].

Experiment 3 tested the effect of the signature location in a naturalistic setting. Partnering with an automobile insurance company in the southeastern United States, we manipulated the policy review form, which asked customers to report the current odometer mileage of all cars insured by the company. Customers were randomly assigned to one of two forms, both of which required their signature following the statement: "I promise that the information I am providing is true." Half the customers received the original forms used by the insurance company, where their signature was required at the end of the form; the other half received our treatment forms, where they were required to sign at the beginning. The forms were identical in every other respect. Reporting lower odometer mileage indicated less driving, lower risk of accident occurrence, and therefore lower insurance premiums. We expected customers who signed at the beginning of the form to be more truthful and reveal higher use than those who signed at the end.

We compared the reported current odometer mileage on 13,488 completed policy forms for 20,741 cars to the latest records of each car's odometer mileage to calculate its use (number of miles driven). Customers who signed at the beginning on average revealed higher use ($M = 26,098.4$, SD = 12,253.4) than those who signed at the end [$M = 23,670.6$, SD = 12,621.4; $F(1, 13,485) = 128.63$, $P < 0.001$]. The difference was 2,427.8 miles per car. That is, asking customers to sign at the beginning of the form led to a 10.25% increase in implied miles driven (based on reported odometer readings) over the current practice of asking for a signature at the end. Follow-up analyses suggested that the higher use in the signature-at-the-top condition was not due to more detailed reporting (down to the last digit) in comparison with customers who may have relied on simply rounding their odometer mileage in the signature-at-the-bottom condition. Thus, the simple change in signature location likely reduced the extent to which customers falsified mileage information in their own financial self-interest at cost to the insurance company—who must pass this expense on to all its policyholders, including honest customers who bear the ultimate burden of paying for the dishonesty of others.

According to data from the US Department of Transportation Office of Highway Policy Information, the average annual amount of travel per vehicle in the United States was roughly 12,500 miles in 2005 (15). This suggests that the average driver in our field experiment had been a customer with the insurance company for 2 y. We estimated the annual per-mile cost of automobile insurance in the United States to range from 4 to 10 cents, suggesting a minimum average difference of $48 in annual insurance premium per car between customers in the two conditions. The range of 4–10 cents was determined from comparing usage-based insurance—also known as PAYD, or pay as you drive—and calculating the premiums for different scenarios of car brand, model, mileage, and buyer demographic on two automobile insurance policy sites.

The current practice of signing after reporting is insufficient. It is important to make morality salient, right before it is needed most, so that it can remain active during the most tempting moments. When signing comes after reporting, the morality train has already left the station. The power of our intervention is precisely due to the fact that it is such a gentle nudge (16): it does not impose on the freedom of individuals, it does not require the passage of new legislation, and it can profoundly influence behaviors of ethical and economic significance. In fact, because most self-reports already require signing a pledge to honesty—albeit not in the most effective location—the cost of implementing our intervention is minimal. Given the immense financial resources devoted to prevention, detection, and punishment of fraudulent

behavior, a truly minimal intervention like the one used in our research seems costly not to implement—even if its effectiveness might wane over time as signing before reporting becomes prevalent and individuals may find new "tricks" to disengage from morality.

## Materials and Methods

Informed consent was obtained from all participants, and the Institutional Review Boards of Harvard University and University of North Carolina reviewed and approved all materials and procedures in Experiments 1 and 2.

**Experiment 1: Participants and Procedure.** A total of 101 students and employees at local universities in the southeastern United States ($M_{age}$ = 22.10, SD = 4.98; 45% male; 82% students) completed the experiment for pay. They received a $2 show-up fee and had the opportunity to earn additional money throughout the experiment.

Participants were randomly assigned to one of three conditions: (*i*) signature at the top of the tax return form (before filling it out); (*ii*) signature at the bottom (after filling it out); or (*iii*) no signature (control). The statement that participants had to sign asked them to declare that they carefully examined the return and that to the best of their knowledge and belief it was correct and complete.

At the beginning of each session, participants were given instructions in which they were informed that they would first complete a problem-solving task under time pressure (i.e., they would have 5 min to complete the task). In addition, the instructions included the following information, "For the problem-solving task, you will be paid a higher amount than what we usually pay participants because you will be taxed on your earnings. You will receive more details after the problem-solving task."

*Problem-solving task.* For this task (3), participants received a worksheet with 20 math puzzles, each consisting of 12 three-digit numbers (e.g., 4.78) and a collection slip on which participants later reported their performance in this part of the experiment. Participants were told that they would have 5 min to find two numbers in each puzzle that summed to 10. For each pair of numbers correctly identified, they would receive $1, for a maximum payment of $20. Once the 5 min were over, the experimenter asked participants to count the number of correctly solved puzzles, note that number on the collection slip, and then submit both the test sheet and the collection slip to the experimenter. We assume respondents had no problems adding 2 numbers to 10, which means they should have been able to identify how many math puzzles they had solved correctly without requiring a solution sheet. Neither of the two forms (math puzzles test sheet and collection slip) had any information on it that could identify the participants. The sole purpose of the collection slip was for the participants themselves to learn how many puzzles in total they had solved correctly.

*Tax return form.* After the problem-solving task, participants went to a second room to fill out a research study tax return form (based on IRS Form 1040). The one-page form we used was based on a typical tax return form. We varied whether participants were asked to sign the form and if so, whether at the top or bottom of the page (Figs. S1–S3). Participants filled out the form by self-reporting their income (i.e., their performance on the math puzzles task) on which they paid a 20% tax (i.e., $0.20 for every dollar earned). In addition, they indicated how many minutes it took them to travel to the laboratory, and their cost of commute. These expenses were "credited" to their posttax earnings from the problem-solving task to compute their final payment. The instructions read: "We would like to compensate participants for extra expenses they have incurred to participate in this session." We reimbursed the time to travel to the laboratory at $0.10 per minute (up to 2 h or $12) and the cost of participants' commute (up to $12). All of the instructions and dependent measures appeared on one page to ensure that participants knew from the outset that a signature would be required. Thus, any differences in reporting could be attributed to the location of the signature.

*Payment structure.* Given the features of the experiment, participants could make a total of $42—an amount which breaks down as follows: $2 show up fee, $20 on math puzzles task minus a 20% tax on income (i.e., $4), $12 as credits for travel time, and $12 as credits for cost of commute.

*Opportunity to cheat on the tax return form.* The experiment was designed such that participants could cheat on the tax return form and get away with it by overstating their "income" from the problem-solving task and by inflating the travel expenses they incurred to participate in the experiment. When participants completed the first part of the experiment (problem-solving task), the experimenter gave them a tax return form and asked each participant to go to a second room with a second experimenter to fill out the tax form and receive their payments. The tax return form included a one-digit identifier (one digit in the top right of the form, in the code OMB no. 1555–

0111) that was identical to the digit of one number of one math puzzle of each individual's worksheet (which was unique to each individual's work station). This difference was completely imperceptible to participants but allowed us to link the worksheet and the tax return form that belonged to the same participant. As a result, at the end of each session, we were able to compare actual performance on the problem-solving task and reported performance on the tax return form. If those numbers differed for any individual, this difference represented one measure of the individual's level of cheating.

First, we examined the percentage of participants who cheated by overstating their performance on the problem-solving task when asked to report it on the tax return form. This percentage varied across conditions, $\chi^2$(2, n = 101) = 12.58, P = 0.002: The number of cheaters was lowest in the signature-at-the-top condition (37%, 13 of 35), higher in the signature-at-the-bottom condition (79%, 26 of 33), and somewhat in between those two but closer to the latter for the no-signature condition (64%, 21 of 33).

Both actual and reported mean performances on the math puzzles task are shown in Fig. 1. As depicted, the number of math puzzles overreported in the tax return forms varied by condition, F(2, 98) = 9.21, P < 0.001, $\eta^2$ = 0.16: It was lowest in the signature-at-the-top condition (M = 0.77, SD = 1.44) and higher in the signature-at-the-bottom condition (M = 3.94, SD = 4.07; P < 0.001) and in the no-signature condition (M = 2.52, SD = 3.12; P < 0.05). The difference between these two latter conditions was only marginally significant (P < 0.07).

The credits for travel expenses (travel time and costs of commute) that participants claimed in the tax return forms also varied by condition, F(2, 98) = 5.63, P < 0.01, $\eta^2$ = 0.10 and followed the same pattern: Participants claimed fewer expenses in the signature-at-the-top condition (M = 5.27, SD = 4.43) than in the signature-at-the-bottom (M = 9.62, SD = 6.20; P < 0.01) and the no-signature (control) conditions (M = 8.45, SD = 5.92; P < 0.05). The difference between these two latter conditions was not significant (P = 0.39). These results suggest that the effect of the signature location is driven by the signing-at-the-top condition: Signing before a self-reporting task promoted honest reporting. Signing afterward did not promote cheating. In effect, signing afterward was the same as having no signature at all.

**Experiment 2: Participants and Procedure.** Sixty students and employees at local universities in the southeastern United States ($M_{age}$ = 21.50, SD = 2.27; 48% male; 90% students) completed the experiment for pay. They received a $2 show-up fee and had the opportunity to earn additional money throughout the experiment.

Experiment 2 used one between-subjects factor with two levels: signature-at-the-top and signature-at-the-bottom. The experiment used the same task and procedure of experiment 1 but varied the incentives for the problem-solving task, the tax rate, and the tax return forms participants completed. Namely, participants in this experiment were paid $2 (rather than $1) for each math puzzle successfully solved and were taxed at a higher rate of 50%. Finally, the tax forms were modified such that they mimicked the flow of actual tax reporting practices in the United States: deductions (commuting time and costs) were first subtracted from gross income (earnings from math puzzles task) to compute taxable income, and then taxes were paid on this total adjusted amount (Fig. S4 shows an example of the forms used).

After filling out the tax return forms, participants were asked to complete a word-completion task. Participants received a list of six word fragments with letters missing and were asked to fill in the blanks to make complete words by using the first word that came to mind. Following prior research measuring implicit cognitive processes (12, 13), we used this word-completion task to measure accessibility of moral concepts. Three of the word fragments (_ _ R A L, _ I _ _ _ E, and E _ _ _ C _ _) could potentially be completed by words related to ethics (moral, virtue, and ethical); these were our measures of access to moral concepts.

*Level of cheating.* We first examined the percentage of participants who cheated by overstating their performance on the math puzzles task when filling out the tax return form. This percentage was lower in the signature-at-the-top condition (37%, 11 of 30) than in the signature-at-the-bottom condition (63%, 19 of 30), $\chi^2$(1, n = 60) = 4.27, P < 0.04.

Fig. 2 depicts actual performance on the math puzzles task and reported performance on the tax return form, by condition. This difference (a measure for cheating) was lower in the signature-at-the-top condition (M = 1.67, SD = 2.78) than in the signature-at-the-bottom condition (M = 3.57, SD = 4.19), t(58) = −2.07, P < 0.05.

The deductions participants reported on the tax return form followed the same pattern and varied significantly by condition, F(1, 58) = 7.76, P < 0.01, $\eta^2$ = 0.12: they were lower in the signature-at-the-top condition (M = 3.23, SD = 2.73) than in the signature-at-the-bottom condition (M = 7.06, SD = 7.02).

*Word-fragment task.* Participants who signed before filling out the tax form generated more ethics-related words (M = 1.40, SD = 1.04) than those who

signed after filling out the form ($M = 0.87$, SD $= 0.97$), $F_{(1, 58)} = 4.22$, $P < 0.05$, $\eta^2 = 0.07$, suggesting that ethics are more salient when participants signed before—rather than after—the temptation to cheat.

*Mediation analyses.* We also tested whether ethics-related concepts (our proxy for saliency of moral standards) mediated the effect of condition on the extent of cheating. Both condition and the number of ethics-related concepts were entered into a linear regression model predicting extent of cheating measured by the level of overreporting of income. The mediation analysis revealed that the effect of condition was significantly reduced (from $\beta = -0.262$, $P < 0.05$ to $\beta = -0.143$, $P = 0.23$), and that the number of ethics-related concepts was a significant predictor of cheating ($\beta = -0.456$, $P < 0.001$). Using the bootstrapping method (with 10,000 iterations) recommended by Preacher and Hayes (4), we tested the significance of the indirect effect of condition on dishonest behavior through the activation of ethics-related concepts. The 95% confidence interval for the indirect effect did not include zero ($-1.85$, $-0.04$), suggesting significant mediation.

Additionally, we computed the *z*-score measure for both the deductions claimed and the magnitude of cheating on the math puzzles for each participant. We averaged the two measures to form an index for each individual's extent of cheating. Both condition and the number of ethics-related concepts were entered into a linear regression model predicting extent of cheating measured by this composite index. The mediation analysis revealed that the effect of treatment condition was significantly reduced (from $\beta = -0.424$, $P = 0.001$ to $\beta = -0.344$, $P = 0.005$), and that the number of ethics-related concepts was a significant predictor of cheating ($\beta = -0.308$, $P = 0.011$). Using the bootstrapping method with 10,000 iterations (4), we found that the 95% confidence interval for the indirect effect did not include zero ($-0.29$, $-0.01$), suggesting significant mediation.

Using an implicit measure of ethical saliency, this experiment shows that signing before the opportunity to cheat increases the saliency of moral standards compared with signing after having had the opportunity to cheat; subsequently, this discourages cheating.

**Experiment 3: Participants and Procedure.** We conducted a field experiment with an insurance company in the southeastern United States asking some of their existing customers to report their odometer reading.

When a new policy is issued, each customer submits information about the exact current odometer mileage of all cars insured under their policy, along with other information. For our audit experiment, we sent out automobile policy review forms to policyholders, randomly assigning them to either the original form used by the insurance company or to our redesigned form. The original form asked customers to sign the statement: "I promise that the information I am providing is true," which appeared at the bottom of the form (i.e., after having completed it; control condition), whereas our redesigned form asked customers to sign that same statement but at the top of the form (i.e., before filling it out; treatment condition). Otherwise, the forms were identical.

The data file that we received from the insurance company included a random identifier for each policy, an indication of the experimental condition, and two odometer readings for each car covered (a maximum of four per policy). The first odometer reading was based on the mileage information the insurance company previously had on file, whereas the second was the current odometer reading that customers reported. The data file did not have the date of the first odometer reading (it also did not have any of the other information requested on the policy review forms). Consequently, our measure of use was somewhat noisy, as the miles driven per car have been accumulated over varying unknown time periods. However, because we randomly assigned customers to one of our two conditions, such noise should be evenly represented in both conditions. To calculate each car's use or number of miles driven (our main dependent variable), we subtracted the odometer reading that was in the insurance company's database from the self-reported current odometer reading we received from our audit forms.

Although there was no explicit statement on the policy review forms linking car use to insurance premiums, policyholders had an incentive to report lower use: the fewer miles driven, the lower the accident risk, and the lower their insurance premium. Thus, when filling out the automobile policy review form, customers likely faced a dilemma between honestly indicating the current odometer mileage, and dishonestly indicating lower odometer mileage to reduce their insurance premium. We hypothesized that signing before self-reporting makes ethics salient right when it is needed most. Therefore, we expected that customers who signed the policy review form first, before filling it out, would more likely be truthful, and reveal higher use, compared with those who signed at the end, after filling it out.

Completed forms were received from 13,488 policies for a total of 20,741 cars. A single policy could cover up to four cars; 52% of policies had one car, 42% had two cars, 5% had three cars, and less than 0.3% had four cars. If a customer's policy had more than one car, we averaged the reported odometer mileages for all cars on the same policy. As hypothesized, controlling for the number of cars per policy [$F_{(1, 13,485)} = 2.184$, $P = 0.14$], the calculated use (based on reported odometer readings) was significantly higher among customers who signed at the beginning of the form ($M = 26,098.4$, SD $= 12,253.4$) than among those who signed at the end of the form [$M = 23,670.6$, SD $= 12,621.4$; $F_{(1, 13,485)} = 128.631$, $P < 0.001$]. The average difference between the two conditions was 2,427.8 miles. The results also hold for the use of the first car only [signature at the top: $M = 26,204.8$ miles, SD $= 14,226.3$ miles and signature at the bottom: $M = 23,622.5$ miles, SD $= 14,505.8$ miles; $t_{(13,486)} = 10.438$, $P < 0.001$].

Asking customers to sign at the beginning of the form led to a 10.25% increase in the calculated miles driven over the current practice of asking for a signature at the end. An alternative explanation for our findings could be that this difference is due to extra diligence of customers in the treatment condition relative to customers in the control condition, rather than higher rates of deliberate falsification of information among customers in the control condition. That is, perhaps those who signed at the top of the form were actually checking their odometers, whereas those who signed at the bottom of the form simply estimated their mileage without actually checking their cars. To address this possibility, we compared the last digits of the odometer mileage that customers in the two conditions reported. Specifically, we ran analyses examining whether the two conditions differed in the number of instances wherein reported odometer mileages ended with 0, 5, 00, 50, 000, or 500. Numbers that end with these digits indicate a higher likelihood that customers simply estimated their mileage. We detected no statistically significant differences between our two conditions in the instances in which these endings appeared (pooled measure: treatment, 19.9% vs. control, 20.8%; $\chi^2 = 2.5$, $P = 0.12$).

An important consequence of false reporting of this type is that the costs extend beyond the insurer to its entire customer base—including the honest policyholders—who bear the ultimate burden of paying for others' dishonesty. Using a field experiment, we demonstrate that a simple change in the location of a signature request can significantly influence the extent to which people on average will misreport information to advance their own self-interest.

1. US Department of Treasury (2009). Update on Reducing the Federal Tax Gap and Improving Voluntary Compliance. Available at http://www.irs.gov/pub/newsroom/tax_gap_report_-final_version.pdf. Accessed August 2, 2012.
2. Coalition Against Insurance Fraud (2006) *Coalition Against Insurance Fraud Annual Report* (CAIF, Washington, DC).
3. Mazar N, Amir O, Ariely D (2008) The dishonesty of honest people: A theory of self-concept maintenance. *J Mark Res* 45:633–644.
4. Shu LL, Gino F, Bazerman MH (2011) Dishonest deed, clear conscience: When cheating leads to moral disengagement and motivated forgetting. *Pers Soc Psychol Bull* 37:330–349.
5. Haley KJ, Fessler DMT (2005) Nobody's watching? Subtle cues affect generosity in an anonymous economic game. *Evol Hum Behav* 26:245–256.
6. Rigdon M, Ishii K, Watabe M, Kitayama S (2009) Minimal social cues in the dictator game. *J Econ Psychol* 30:358–367.
7. Bateson M, Nettle D, Roberts G (2006) Cues of being watched enhance cooperation in a real-world setting. *Biol Lett* 2:412–414.
8. Kettle KL, Häubl G (2011) The signature effect: Signing influences consumption-related behavior by priming self-identity. *J Consum Res* 38:474–489.
9. Duval TS, Wicklund RA (1972) *A Theory of Objective Self Awareness* (Academic, New York).
10. Festinger L, Carlsmith JM (1959) Cognitive consequences of forced compliance. *J Abnorm Psychol* 58:203–210.
11. Bandura A, Barbaranelli C, Caprara G, Pastorelli C (1996) Mechanisms of moral disengagement in the exercise of moral agency. *J Pers Soc Psychol* 71:364–374.
12. Bassili JN, Smith MC (1986) On the spontaneity of trait attribution: Converging evidence for the role of cognitive strategy. *J Pers Soc Psychol* 50:239–245.
13. Tulving E, Schacter DL, Stark HA (1982) Priming effects in word-fragment completion are independent of recognition memory. *J Exp Psychol Learn Mem Cogn* 8:336–342.
14. Preacher KJ, Hayes AF (2004) SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behav Res Methods Instrum Comput* 36:717–731.
15. US Department of Transportation (2009). Office of Highway Policy Information, Federal Highway Administration. Available at http://tinyurl.com/UShighwaystats. Accessed August 2, 2012.
16. Thaler RH, Sunstein CR (1998) *Nudge: Improving Decisions about Health, Wealth and Happiness* (Yale Univ Press, New Haven, CT).