The moral cost of lying

Raymond M. Duch
Nuffield College
University of Oxford
raymond.duch@nuffield.ox.ac.uk *

Denise Laroze
Centre for Experimental Social Sciences
Universidad de Santiago de Chile
denise.laroze@cess.cl

Alexei Zakharov
Higher School of Economics
Moscow, Russia
al.v.zakharov@gmail.com

April 6, 2020

---

*Replication material can be found on `https://github.com/rayduch/The-moral-cost-of-lying`

Abstract

Lying is widespread, but for many people it entails moral costs. We investigate how these costs depend on the extent of lying. We observe over 1000 individuals from the U.K., Russia and Chile making over 10000 lying decisions, with the payoffs increasing in the extent to which the truth is distorted. We find that both incidence and extent of lying do not depend on the extrinsic benefit of lying. This is not consistent with the moral cost of lying being a smooth, increasing, and concave function of the extent of lying.

1   Introduction

Opportunities to misrepresent private information to one's advantage are ubiquitous and the cost to society of this dishonesty are enormous. Health care fraud may amount to up to $272 billion in US alone (Berwick and Hackbarth, 2012), and occupational fraud may cost 5% of company revenues worldwide (Association of Certified Fraud Examiners, 2016). Politicians and corporate executives lie, often to disastrous consequences. Lying occurs on scale both grand and small, as health services, tax authorities, banks, store owners, university professors, or public transportation firms are all well aware. According to some estimates, up to two thirds of day-to-day social interactions involve deception of some sort (M. DePaulo et al., 1996).

Dishonest behavior presents an empirical and theoretical puzzle. Classic economic theory predicts that individuals would always distort the truth to maximize their material gains, given the externally imposed costs and benefits (Becker, 1968). However, such behavior is far from universal in both laboratory and field. A large minority of subjects indeed cheat to the maximum extent possible (Abeler et al., 2014; Cohn et al., 2014), but most fail to take full advantage of lying (Abeler et al., 2019);[1] such partial lying is common and has been observed experimentally (Fischbacher and Follmi-Heusi, 2013; Gneezy et al., 2018).

It is now near consensus that, at least for some people, lying implies significant intrinsic moral costs that are increasing in the "size" of the lie or the degree to which the truth is distorted.[2] Recent research identified an aversion to viewing oneself as a dishonest person as the primary reason for economically disadvantageous honest behavior (Shalvi et al., 2015; Gino and Ariely, 2016; Cohn et al., 2019). In an influential paper, Mazar et al. (2008) argued that the moral costs of dishonest behavior can be avoided if the individual can find a justification

---

[1]Many individuals behave completely honestly even if lying confers significant material benefits. People such as whistleblowers or journalists in politically repressive countries tell the truth in the face of considerable peril. Honesty is a valued trait in many cultures; for example, the Biblical 9th Commandment prohibits bearing "false witness against thy neighbor", while historic warrior codes such as Bushido or Chivalry view honesty as virtuous and morally right. In experiments, a significant share of subjects choose to behave honestly when it is in their clear interest to distort the truth (Gneezy, 2005; Gibson et al., 2013; Gneezy et al., 2013; Rosenbaum et al., 2014; Jacobsen et al., 2017), and may refuse to lie even when doing so would benefit other people as well (Erat and Gneezy, 2012).

[2]When paid proportionally to the reported number from a privately rolled die, the subjects lied less frequently if the number rolled was 1 or 6 (Hilbig and Hessler, 2013). Similarly, Gneezy et al. (2018) argue that the cost of lying depends on the size of the lie by observing the difference between a treatment where the subjects have to report a number between 1 and 10, and a treatment where they report one of ten words in an unfamiliar language (and, therefore, there is no dimension on which the size of the lie can differ).

for that behavior, categorize it as morally acceptable, and therefore suffer no loss to one's self-concept. At the same time, there is a certain level of dishonesty beyond which dishonesty cannot be rationalized, and therefore is costly.[3]

The notion of a lying threshold implies two quite different models of how intrinsic moral costs respond to the size of the lie. The existence of a lying threshold could imply that an individual's cost of lying, as a function of the size of the lie, has a discontinuity or a kink at some point. An alternative model is a smooth cost function with partial lying being an interior solution to the individual's utility maximization problem satisfying first and second order conditions (with honest behavior and maximal lying being possible corner solutions). In a world of discontinuous cost functions lying can be unresponsive to the extrinsic benefits of lying. On the other hand, if the intrinsic moral cost of lying is a smooth, increasing, and convex function, then we will observe a negative correspondence between the benefit and the extent and/or incidence of lying. This of course has an important implication for how we model and interpret observed lying behavior. But it also has policy implications – the effectiveness of policies designed to moderate lying could vary quite significantly depending on whether we are in a world of discontinuous versus smooth cost functions.

We address this question experimentally by studying lying decisions in a setting where lying is beneficial, and the benefit of lying varies across treatments. The setting is one in which the true state is observed by the experimenter as well as by the decision maker, so that the lying decision is not compounded by the concerns for one's reputation (Dufwenberg and Dufwenberg, 2018; Gneezy et al., 2018; Khalmetski and Sliwka, 2017). There were no extrinsic costs, as the decision maker was not punished for lying.

We observed, over multiple periods, subjects earning income through a real effort task and deciding what fraction (if any) of the income to declare to the experimenter. A certain percentage of income was deducted from each subject; the deductions were pooled and redistributed across groups of four subjects. Our experimental design allows the subject to choose the size of the lie: from not lying (declaring all income), to a partial lie when some but not all income

---

[3]The threshold separating small and large lies was argued to be affected by both circumstances of the lying decision and personal factors, depending on such things as deniability (Mazar et al., 2008), recent behavior (Monin and T. Miller, 2001; Mazar and Zhong, 2010; Sachdeva et al., 2009), benefits to others (Gino et al., 2013), peer effects (Fosgaard et al., 2013), moral reminders (Pruckner and Sausgruber, 2013), and observing counterfactuals (Shalvi et al., 2011), among others.

is declared, to a maximal lie when the subject declares no income.

We manipulated several features of the game. *Our primary interest was to determine whether the intrinsic moral costs of lying are smooth and convex relative to the size of the lie.* To this purpose, we varied the economic benefit of lying by letting the percentage of income that was deducted from subjects differ across experimental sessions. As a robustness check, we manipulated the economic conditions under which income was earned. In some sessions, wage inequality was introduced, and the subjects in each group differed by the amount of income that they earned for completing the real effort task. In other sessions, subjects randomly received a large unearned random bonus of a fixed size in addition to the income earned through the real effort task. Finally, in some sessions subjects were randomly re-assigned to groups in each period.

The percentage of declared income that was deducted did not have an effect on the probabilities that the individual would lie maximally, partially, or behave honestly. It also did not have an effect on either the fraction or the absolute amount of income declared, conditional on lying partially. This is not consistent with the marginal costs of lying being smooth and strictly increasing with the size of the lie, defined as either the fraction or absolute amount of undeclared income.

This implies that either the individual's marginal cost, or the cost function itself, is discontinuous in at least one point. To see how our results imply that the marginal cost of lying is not a smooth and increasing function, consider the following argument. For the sake of exposition we will assume that the cost of lying is a function of the fraction of income that is not declared. It is straightforward to extend our argument (subject to some regularity constraints) to the case where the cost of lying depends the absolute amount of undeclared income, or both the fraction and the absolute amount of undeclared income.

Let there be a unit mass of individuals indexed by i, earning incomes I_i. Define the size of the lie $l_i \in [0, 1]$ as the fraction of income that is not declared by individual i. Let $b \in [0, 1]$ be the fraction of declared income that is deducted, and suppose that three quarters of the deducted amount are redistributed to the other three group members and lost to the individual. Let the extrinsic cost of lying be zero, and assume that the moral cost of lying is equal to $\alpha_i c(l_i)$, where $c(\cdot)$ is a twice differentiable function, with $c' > 0$ and $c'' > 0$.

The expected utility of individual i is then equal to

$$U_i = I_i \left(1 - \frac{3}{4}b(1-l_i)\right) - \alpha_i c(l_i). \tag{1}$$

The value $\alpha_i \geq 0$ is a parameter specific to individual i; individuals with a smaller α have a larger propensity to lie. Let $\frac{\alpha_i}{I_i}$ be distributed on $[0, \infty)$ with distribution function $F(\cdot)$ and density $f(\cdot)$. The individual i will be honest if $\frac{\alpha_i}{I_i} \geq \frac{3b}{4c'(0)} \equiv a_0$, will be a maximal liar if $\frac{\alpha_i}{I_i} \leq \frac{3b}{4c'(1)} \equiv a_1$, and will be a partial liar otherwise, with size of the lie $l^*(\frac{\alpha_i}{I_i})$ the solution to $\frac{\alpha_i}{I_i} = \frac{3b}{4c'(l)}$; that value, as well as a_0 and a_1, will be increasing in b.

Now suppose that, as in our experiment, the fractions of maximal liars, partial liars, and honest individuals do not change with b, and the fraction of partial liars is positive. Then we must have $f(a_0) = f(a_1) = 0$. But that also implies that the average size of the lie for partial liars $\frac{1}{F(a_0) - F(a_1)} \int_{a_1}^{a_0} l^*(a) dF(a)$ is increasing in b. However, in our experiment, the average size of the partial lie, as well as the fraction of partial/maximal liars, do not vary across treatments with different deduction rates.[4] Hence our results suggest that there is no smooth relationship between the size of the lie and the intrinsic moral costs of lying — efforts to better understanding lying need to recognize this empirical fact.

Our results allow us to make inferences about the distribution of the propensity to lie in our experiment. We observe that the likelihood of lying maximally did not depend on the deduction rate. If increasing the deduction rate from b_1 to b_2 does not change the share of maximal liars, then for each type k the measure of individuals such that $\frac{\alpha_{ki}}{I_i} \in [\frac{3b_1}{4c'_k(1)}, \frac{3b_2}{4c'_k(1)}]$ must be zero. If the fraction of honest individuals and the extent of partial lying do not increase as well, then the measure of individuals with $\frac{\alpha_{ki}}{I_i} \in [\frac{3b_2}{4c'_k(1)}, \frac{3b_2}{4c'_k(r_k)}]$ must be zero as well.[5] Hence, we can infer that there are two groups of subjects, with low and high costs of lying, and relatively few individuals with the costs of lying in the middle range. We do not claim that there exist distinct types in the population, as the cost of lying may be affected by the context of the decision (and this effect can vary across individuals). However, in our experiment under the

---

[4]This argument requires the subjects to supply their effort inelastically, so their incomes are exogenous; however, we also believe this to be the case. The performance of subjects in the real effort task does not depend on the experimental conditions, including, crucially, the amount earned per completed real effort task.

[5]Formally, we also require that there is a positive mass of individuals of each type k, and $\frac{\alpha_{ki}}{I_i}$ has distribution $F_k(\cdot)$.

controlled conditions, *changing the stakes had no significant effect on either the incidence of maximal and partial lying, or the extent of partial lying*.[6] The results were the same when only first-period decisions (that did not feature any feedback) were taken into account.

We report two individual-level characteristics that were correlated with lying. People who performed well at the real effort task were more likely to be maximal liars, and less likely to be either partial liars or honest.[7] This finding is robust, for three reasons. First, this correlation is present in the three quite different countries where we conducted the experiments as well as in the combined sample. Second, in any given period, lying depended on the subject's average performance over the 10 periods, and did not react to that period's deviation from the subject's average performance. Third, high-performance subjects were less likely than low-performance subjects to engage in near-maximal lying – that is when the size of the lie is large but the subject stops one step short from maximizing his profit. Lying was also linked with donations in the dictator game: subjects who gave less were more likely to be maximal liars, less likely to be either partial liars or honest, and declared less income. This relationship is also highly significant in every country in our study. Females were less likely to lie maximally, and more likely to lie partially, while lying was not affected by whether income was obtained through effort or luck, the inequality of payoffs, or whether the subjects interacted in the same groups throughout the experiment or were rematched.

The decisions that involved partial lying also had longer reaction times than either maximal lying or honest choices. This finding is open to several interpretations. In a well-known framework for analyzing reaction times, shorter decisions are associated with an instinctive and emotional response, while longer decisions indicate cognitive reasoning (Rubinstein, 2007). A different strand of literature suggests that people are slower if they have to choose between

---

[6]Kajackaite and Gneezy (2017) also find that incentives do not affect lying. However, in their experiment the decision whether or not to lie was binary, and the true state was not observed by the experimenter. In our case, the decision was observed, and the subject chose from a range of options, from not lying at all, to maximizing monetary payoff. Thus, we were able to observe the extent of lying, and did not find that it was affected by the incentives. We also compare lying behavior after receiving unearned as well as earned income, and find that the way the income was obtained does not affect the result. Similarly, the true state was not observed in Charness et al. (2019), who find, in their implementation of the die game, no cheating in the absence of financial incentives to cheat but find significant levels of cheating when subjects benefited financially from cheating. Vranceanu and Dubart (2019) use a strategy-form sender-receiver game to measure an individual's aversion to deception, but in their design the stakes do not vary.

[7]Thus our finding is a refinement of recent research that finds a strong positive correlation between subject ability and lying proclivities, but does not differentiate between partial and maximal lying (Duch and Solaz, 2017; Gill et al., 2013).

alternatives that they value equally (Konovalov and Krajbich, 2017), so partial lying decisions might involve decision conflict. These two interpretations do not necessarily contradict each other, as the cognitive mechanism behind decision times is still not fully understood.[8]

2 Experimental Design

We employed a computer-based experimental design using ZTREE (Fischbacher, 2007). A total of 64 experimental sessions were conducted at the Centre for Experimental Social Sciences laboratories in University of Oxford, U.K., and Universidad de Santiago, Chile, and the Laboratory for Experimental and Behavioural Economics at the Higher School of Economics in Moscow, Russia. Several Chilean sessions were also conducted at Universidad del Desarrollo. In total, there were 1080 subjects (508 in the U.K., 316 in Chile, and 256 in Russia). Slightly over half of all subjects were male (52.1% in U.K., 49.1% in Chile, and 52% in Russia). The majority of subjects were in their late teens and 20s, with the median age being 22 years in U.K. and Chile, and 20 years in Russia. The full list of sessions is available in Table A1, Appendix A.

The experiment consisted of between four and five stages. At the beginning of each stage, the subjects were given printed instructions for that stage, which were then read aloud by the experimenter. The payoffs for all stages were reported to the subjects at the end of the experiment.

The experiment started with the subjects playing a standard Dictator Game. Each subject was asked to allocate an endowment of 1,000 ECUs between himself and another randomly selected subject in the room; participants were informed that only one in each pair will receive the endowment.[9]

The dictator game was followed by 10 periods where each subject first completed a one-minute real-effort task, earning a fixed amount of ECUs for each successful addition of two-digit numbers, and then had to declare the amount earned. A fixed percentage was then deducted

---

[8]Much of the recent experimental evidence suggests that the lying decision is relatively complex and demanding and therefore takes more time. There is evidence to this effect in the cognitive psychology literature (Agosta et al., 2013; Verschuere and Shalvi, 2014). Lohse et al. (2018) find that time pressure results in more honest choices and more time, at least, allows individuals to better explore the lying options. And there is related evidence that the social consequences of prior decisions affect response times such that pro-social decisions may be quicker (Rand et al., 2014).

[9]The screenshot from the dictator game stage of the experiment is shown on Figure A1 in Appendix A.

from the declared amount and redistributed among the subject's four-player group. The subject was then informed about the amount that was redistributed from other subjects in the group. The payoff from that part of the experiment was equal to the payoff from a randomly selected period.[10] The 10 paying periods were preceded by one (Russia) or two (Chile and the U.K.) practice periods.

After the RET and declaration stage, we elicited subjects' risk preferences with a standard 10-choice task (see, for instance, Holt and Laury (2002)), where each subject had to make 10 choices between a safe lottery and a risky lottery. Each safe lottery offered two similar amounts (£2 and £1.6 in the U.K., 2,000 and 1,600 Pesos in Chile, and 50 and 40 Roubles in Russia), while the corresponding risky lottery offered a large and a small amount (£3.85 and £0.1 , 3,850 and 100 Pesos, and 96.25 and 2.5 Roubles, respectively).[11] The subjects were informed that, at the end of the experiment, one pair of lotteries would be selected at random, and the lottery chosen by the subject would be used to determine his or her payoff in that part of the experiment. Higher willingness to take risks should correspond to a higher proportion of risky lotteries chosen by the subject.

Finally, the subjects answered a post-experiment questionnaire. Before completing the final questionnaire, in some sessions subjects played two versions of the "die roll game" (that has been extensively used to analyze both the extent and correlates of lying (Fischbacher and Follmi-Heusi, 2013; Abeler et al., 2014; Gächter and Schulz, 2016)). The subjects were first asked to roll a six-sided die in private and report its value. The task was then repeated with an electronic version of the die that appeared on the screen. The subjects were informed that the reward for each task would be equal to 100 ECU times the value reported.[12]

On average, a session lasted 90 minutes, including instructions and payment. ECU earnings

---

[10]The screenshots from the RET and declaration stage of the experiment are shown on Figures A2-A5 in Appendix A show the screenshots from the experiment, while the printed instructions are shown on Figure A6. Following the RET and declaration stage, the subjects were then rematched and played another 10 periods, with declared incomes audited with some probability. In case of an audit, the deduction rate was applied to the entire income, and the subject payed a fine equal to 50% of the difference between the earned and declared amounts. However, the perceived probability of audit can differ from the actual probability (Kleven, 2014; Dwenger et al., 2016), and be heterogeneous across individuals. Moreover, under a positive audit rate, people may react differently to the threat of audit because for some of them lying may be associated with a fear of punishment (Bérgolo et al., 2017). For these reasons, we limit our analysis to the data from the first 10 rounds of the experiment when the audit probability is zero.

[11]See Figures A7 and A7 in Appendix A for screenshots.

[12]See Figures A9 and A10 in Appendix A for screenshots.

were converted at the exchange rate of 300 ECUs per £1 in Oxford and 300 ECUs per 500 Chilean Pesos in Santiago. The exchange rate in Moscow was 7 ECU for sessions without the die roll task, and 8 ECU per Russian Rouble for sessions with the die roll task. The minimum, mean, and maximum payoffs in Oxford were £9.6, £20.72, and £39.9; in Moscow these figures were 430, 832.3, and 1250 Russian Roubles, and in Santiago they were 4,300, 10,224, and 16,500 Chilean Pesos.[13]

Our design had several advantages. First, the subjects could choose the size of the lie, from being completely honest, to lying maximally, with the extrinsic benefits of lying being proportional to the percentage of income (either 10%, 20%, or 30% in most treatments) that was deducted from the subject's declared income.[14] Second, performance in the real effort task was used as a measure of the subject's ability, which is a potential correlate of dishonest behavior.[15] Third, the moral costs associated with other forms of dishonest behavior can be lower when earned income is at stake (Gravert, 2013). Fourth, the dictator game at the beginning of the experiment allowed us to control for other-regarding preferences while looking at the correlates and causes of lying behavior.[16] Fifth, we are able to see whether and to what extent maximal and partial lying in the main part of the experiment corresponds to lying in a different setting — the die roll game. Finally, each subject was given multiple opportunities to lie.

Our main research goal was to determine how the moral cost of lying varied with the size of the lie — in particular, whether the marginal cost of lying was positive and increasing. For that purpose, we varied the benefit of lying. We also manipulated several other characteristics

---

[13]Adjusted for purchasing power parity, the minimum, mean, and maximum payoffs in Oxford were $13.8, $29.8, and $57.3; in Moscow these figures were $17.7, $37.2, and $57.23; and in Santiago they were $10.9, $25.6, and $41.0, respectively. The 150 ECU that were earned for each successful addition in most treatment corresponded to $.71-$.72 in Oxford, $.61-$.64 in Santiago, and $.77-$1.1 in Moscow, depending on the year of the session. The higher purchasing power in Moscow sessions was necessitated by the relatively high family incomes of HSE students.

[14]In Gneezy et al. (2018), the lying decision was also observed by the experimenter, but the extrinsic benefits of lying did not vary with the treatment.

[15]Gill et al. (2013) is one work where ability at the real effort task was found to correlate with lying. However, in their study the benefit of lying did not vary, and the experimenter was not able to differentiate between maximal and partial lying.

[16]In our experiment, lying reduces the welfare of the subject's other three group members (thus, the lies are "selfish black lies", in Erat and Gneezy (2012) terminology). Potentially, this complicates our analysis, as some of the previous results find a positive association between honesty and altruism (Cappelen et al., 2013; Sheremeta and Shields, 2013; Maggian and Villeval, 2016), although there is also evidence of no relationship between the two (Kerschbamer et al., 2016).

of the game, both in order to obtain a greater diversity of settings in which the lying decisions were made, and to test additional hypotheses about the determinants of lying behavior.

First, the extent to which income is attributed to effort or luck varies significantly both across individuals and across countries (Alesina and Angeletos, 2005), and has also been shown to be associated with lying. This heterogeneity was introduced in the "Shock" treatment, where in each period two subjects in each group were randomly selected to receive a 1,300 ECU bonus, and were told whether they received the bonus after the real effort task, but prior to declaring income. A connection between the manner in which income is earned and lying was previously investigated by Schurr and Ritov (2016), who found that lying is more likely for earned income. However, their experiment involved lying on an unrelated die game task that is not well suited to differentiate between maximal and partial lying; in contrast, in our case we were able to measure the extent of the lie with each decision, while varying the amount of unearned income at stake.[17]

Second, the design of our experiment allowed for the remuneration to be different across subjects. This treatment was intended as a robustness check, to see whether the effort at the real effort task is supplied inelastically, or depends on the payoffs. In the latter case, the effort would also likely depend on the deduction rate, which would make comparisons between different deduction rate treatments more difficult. In the "Status" treatment, we induced wage inequality by varying the amount of income that subjects earned from the real effort task. In each group, two subjects earned 100 ECU for each successful addition, and two subjects earned 200 ECU (these roles were assigned at the beginning of the experiment, remained fixed throughout the first 10 periods, and were reassigned for the following 10 periods). This treatment was also valuable in allowing us to look at the effect of income inequality on cheating; income inequality is known to vary significantly across countries (Atkinson and Piketty, 2007), and previous studies indicated that income inequality can lead to dishonest behavior (Neville, 2012).

Third, in the "Non-fixed" treatment, the subjects were rematched every period to avoid strategic interaction. In that treatment, we also measured how accurately a subject was able to rank her performance at the real effort task, relative to the other subjects in her group. Before the beginning of the first period, each subject was also asked to rank her performance

---

[17]In a related experiment, Gravert (2013) found that earned income contributed to unethical behavior.

in the period relative to the other three group members, receiving 100 ECU if the prediction is correct. The same question was also asked before the beginning of one of the other 9 periods, and at the end of an another period.[18]

Finally, in the U.K. several more sessions were run under slightly different rules. In two "Dead-weight loss" sessions, only 30% of the deducted income was redistributed to the subjects. A higher incidence and/or extent of lying in this treatment would indicate that honest behavior is at least partly driven by other-regarding motives, instead of by the preference for honest behavior as such. In four "Redistribution" sessions, the two worst performers each received 35% of the public good and two top performers received 15%, increasing the potential impact of other-regarding preferences. A total of three U.K. sessions also included higher deduction rates (40% or 50%). Including or excluding these sessions does not affect the overall results. One "Redistribution" session was also conducted in Russia. The number of subjects in each treatment and for each deduction rate is shown in Table 1. The complete list of sessions is given in Table A1.

	Baseline[19]	Status	Shock	Non-fixed	
Deduction 10%	9 (148)	3 (56)	3 (48)	9 (156)	24 (408)
Deduction 20%	8 (128)	4 (60)	3 (48)	6 (96)	21 (332)
Deduction 30%	4 (72)	3 (52)	3 (52)	6 (88)	16 (264)
Deduction 40%	2 (44)				2 (44)
Deduction 50%	1 (24)				1 (24)
	24 (416)	10 (168)	9 (148)	21 (340)	64 (1072)

Table 1: Number of sessions (with number of subjects in parenthesis) for each treatment.

3   Results

In Table 2 we show, for each country, the incidence of maximal lying, partial lying, honest behavior, and the mean declared fraction of income over 10,720 decisions by 1,072 subjects. There is lots of lying — on average 62.8% of income is not declared; moreover, over 41.6% of decisions were to declare zero percent of the subject's income. At the same time, 26% of all

---

[18]See Figures A15, A16, and A17 in Appendix A for screenshots.

[19]Including deadweight loss and redistribution treatments.

decisions involved honest declarations.

	Declared 0%	Declared 1-99%	Declared 100%	Average fraction declared	N
Chile	.168	.349	.482	.625	308
Russia	.375	.504	120	.287	256
UK	.588	.214	.197	.263	508
Total	.416	.322	.260	.372	1072

Table 2: Lying behavior by country.

There were significant cross-country differences in lying. In Chile the modal behavior was honest; in Russia it was partial lying, and in the U.K. maximal lying was modal. The higher overall level of honesty among Chilean subjects may have been due to the fact that most of the experimental sessions in Chile were conducted at the Universidad de Santiago, where students come from more modest socio-economic backgrounds than at either Higher School of Economics in Russia or Oxford University in the U.K.[20] However, the average fraction of income declared by the subjects recruited at the Universidad de Santiago was not different from that among the subjects recruited at Universidad del Desarrollo, where the subject pool was more similar to those in Russia and the U.K. (two-tailed t-test, $p = 0.2925$, Univ. de Santiago $n = 224$, Univ. del Desarrollo $n = 84$).

Our primary goal is to investigate how the solution to the problem of choosing the size of lying responds to changes in the benefits of lying. We want to look at both the incidence of corner solutions and the location of the interior solution. If all three of these do not depend on the benefit of lying, then the marginal cost of lying cannot be a smooth, increasing function, implying that either the cost of lying, or the marginal cost, is discontinuous.

In the first three columns of Table 3 we estimate a multinomial logit models with a trichtonomous dependent variable: where the subject in each period could declare 0% of income, declare 100%, or declare some intermediate amount.

We do not find that lying increases with the deduction rate. The estimated probability of lying maximally was actually lower when the deduction rate was 20%, compared with 10%, as well as with 30%, deduction rates. In Appendix C, Table C1 reports separate country results for this model. We see that this nonlinearity was driven entirely by one country, Chile, while in

---

[20]See Belot et al. (2015) on subject pool composition and choices in standard economic games.

	All countries						All countries		All countries	
	Mlogit, average marginal effects						OLS		OLS	
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.295***	(0.0384)	-0.120***	(0.0404)	-0.174***	(0.0383)	0.0212	(0.0463)	914.7***	(81.73)
RET deviation	-0.00112	(0.00149)	0.00398**	(0.00179)	-0.00286*	(0.00155)	-0.000980	(0.00270)	91.68***	(5.343)
Male	0.0772***	(0.0229)	-0.101***	(0.0232)	0.0241	(0.0216)	-0.0354	(0.0259)	-71.06	(43.24)
Age	-0.00631***	(0.00213)	0.00308	(0.00206)	0.00323*	(0.00176)	-0.000000840	(0.00223)	0.0251	(3.490)
Period	0.0172***	(0.00131)	-0.0102***	(0.00139)	-0.00701***	(0.00119)	0.0120***	(0.00195)	32.02***	(3.343)
DG frac	-0.602***	(0.0506)	0.194***	(0.0508)	0.408***	(0.0520)	-0.294***	(0.0661)	-487.0***	(114.6)
Deduction 20%=1	-0.0503*	(0.0260)	0.0246	(0.0271)	0.0257	(0.0248)	-0.00251	(0.0294)	-17.67	(49.06)
Deduction 30%=1	0.0139	(0.0288)	-0.0218	(0.0280)	0.00791	(0.0267)	-0.000687	(0.0323)	-21.33	(51.53)
Deduction 40%=1	-0.0434	(0.0549)	0.0811	(0.0632)	-0.0377	(0.0541)	-0.0587	(0.0646)	-76.02	(104.2)
Deduction 50%=1	0.122	(0.0760)	-0.0153	(0.0841)	-0.107	(0.0677)	0.168**	(0.0665)	248.7**	(120.3)
Deadweight loss=1	-0.0475	(0.0548)	-0.0402	(0.0624)	0.0877	(0.0584)	0.0302	(0.0857)	79.32	(172.9)
Redistribution=1	0.0903**	(0.0433)	-0.0414	(0.0423)	-0.0489	(0.0427)	0.0129	(0.0541)	5.964	(86.76)
Russia=1	0.120***	(0.0332)	0.105***	(0.0331)	-0.225***	(0.0229)	0.0599*	(0.0327)	292.1***	(54.10)
UK=1	0.324***	(0.0306)	-0.156***	(0.0308)	-0.168***	(0.0257)	0.0813**	(0.0361)	405.5***	(55.77)
Shock=1	0.00335	(0.0386)	0.00871	(0.0396)	-0.0121	(0.0395)	0.0346	(0.0351)	-226.2***	(54.55)
Shock, yes=1	-0.0133	(0.0228)	0.0358	(0.0266)	-0.0225	(0.0233)	0.00962	(0.0257)	930.6***	(63.70)
Status=1	0.0642	(0.0445)	0.00294	(0.0466)	-0.0671*	(0.0406)	0.0275	(0.0456)	-333.5***	(64.62)
Status, 200 ECU=1	-0.0834*	(0.0504)	-0.0342	(0.0550)	0.118*	(0.0632)	-0.0356	(0.0556)	681.3***	(103.7)
Non-fixed=1	0.0290	(0.0314)	-0.0491	(0.0319)	0.0202	(0.0302)	-0.0106	(0.0382)	-66.91	(61.49)
Constant							0.640***	(0.0723)	382.7***	(112.4)
Observations	10718		10718		10718		3457		3457	
D20=D30	0.0248		0.112		0.524		0.953		0.944	
D20=D40	0.900		0.368		0.242		0.356		0.551	
D20=D50	0.0244		0.638		0.0548		0.00727		0.0215	
D30=D40	0.312		0.111		0.408		0.369		0.601	
D30=D50	0.161		0.940		0.101		0.0110		0.0242	
D40=D50	0.0529		0.317		0.386		0.00372		0.0154	
Russia=UK	2.08e-11		1.82e-18		0.0301		0.535		0.0571	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. Fourth and fifth columns report OLS regressions, the dependent variables are the fraction and the amount of income not declared in a given round; only partial lying decisions are considered. Standard errors are clustered by subject. RET rank is the national rank, between 0 and 1, of subject's national performance at the real effort task. RET Deviation is the difference between actual number of correct additions and one predicted from subject and period FE. DG frac is the fraction of the 1000 ECU donated in the dictator game.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 3: Determinants of lying, by period

Russia, maximal lying was not responsive to the deduction rate, and in the U.K., the only effect that we find is that the likelihood of maximal lying was slightly higher for 30% deduction rate, compared with 20% deduction rate. The probability of declaring the full amount of income was largely not affected by the deduction rate in Russia and the U.K., and in Chile that probability was actually lower for a 20% deduction rate, compared with 10%. In Columns 4 and 5 of the same tables we report the results of OLS regressions where the dependent variables are the fraction and the absolute amount of undeclared income, and the observations are restricted to partial lies. Likewise, we cannot say that the extent of partial lying was increasing with the deduction rate. In the combined sample, Russia, and the UK, both the amount and fraction declared did not differ across 10%, 20%, and 30% treatments, controlling for other variables, though in the U.K. both values were lower for 50% deduction rate. In Chile, the undeclared amount was actually lower for 30% deduction rate, compared with 10% deduction rate.[21]

[21]In Tables C2 and C3 we investigate whether the prevalence of maximal or partial lying, or the extent of partial lying, is instead affected by the economic benefit of declaring zero income. If so, the effect of earned income on lying should be conditional on the deduction rate, and some of the interaction terms between the deduction rate dummy variables and the amount of earned income should be significant and different from one another. Generally, we do not find this to be the case. The effect of earned income on maximal lying does not depend on the deduction rate, so the decision to declare zero income is not based on the economic benefit of lying maximally. In Russia and Chile, the effects of earned income on the probabilities of partial lying and full

Over the 10 periods of the experiment, most subjects tend to choose similar lying strategies, with some 34.9% of the subjects lying maximally in 8 or more rounds, 23.6% lying partially in 8 or more rounds, and 19.5% making full declarations in 8 or more rounds (see Figure C3)[22]. At the same time, the coefficients on *Period* in Tables 3 and C1 are positive and significant for maximal lying in all three countries and the combined dataset, meaning that maximal lying is more likely in later periods. The evidence with respect to honest behavior is not unequivocal; in later periods, it becomes less likely in Chile and the UK, and more likely in Russia (Figure C1).

Several factors can contribute to the increase in maximal lying in later periods. First, such dynamics are consistent with the depletion of self-control that may be required to resist acting selfishly (Achtziger et al., 2015, 2018; Ainsworth et al., 2014).

Second, subject decisions were highly dependent on their past actions. Tables 4 and C4 introduce controls for the previous period's decision. If a subject declared 0% in the previous period, she was 61.0% to 82.6% more likely, depending on the country, to have made a zero declaration this period (compared with a 100% declaration in the previous period), and was 35.3%-59.0 % less likely to have declared 100%. The effect of partial lying in the previous period depended on how much income was declared; with lower declarations leading to higher probability of maximal lying and lower probability of honest behavior in the following period.[23]

Finally, income declared by the other group members in the previous period also had a significant effect on lying. In Table 4 we include the coefficient for the total income declared by the other three group members in the previous period (at the end of each period, the subject can deduce this value, because she is informed about the redistribution from the group, and the deduction rate is the same for all group members). Every additional 1,000 ECU of income declared by other group members decreased the probability of maximal lying by 0.81%

---

declarations do not depend on the deduction rate, while in the UK higher earners are somewhat more likely to lie partially if the deduction rate is 20%, and somewhat less likely to do so if the rate is 40%. The effects of the interaction terms on the fraction and amount of undeclared income conditional on lying partially are also not consistent across countries.

[22]The correspondent figures were 26.9%, 13.8%, and 14.6% for 10 rounds 32.3%, 21.2%, and 17.7%for 9 or more rounds.

[23]The period effect on maximal lying was actually negative in Table 4, with the probability of maximal lying decreasing by 0.15% each period, once the previous period's decisions are controlled for — this compares with a 1.72% per period increase in Table 3. The individual country results presented in Table C4, indicate this was the case for the U.K., while in Chile and Russia the effect of period on maximal lying was not significant.

	All countries						All countries		All countries	
	Mlogit, average marginal effects						OLS		OLS	
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.0513***	(0.00981)	-0.0258*	(0.0133)	-0.0255**	(0.0117)	0.00523	(0.0167)	888.3***	(46.78)
RET deviation	-0.00294*	(0.00160)	0.00422**	(0.00213)	-0.00128	(0.00178)	-0.00410	(0.00270)	88.01***	(5.235)
Male	0.0182***	(0.00546)	-0.0298***	(0.00755)	0.0116*	(0.00654)	-0.0104	(0.00951)	-32.83	(22.63)
Age	-0.00171***	(0.000584)	0.000589	(0.000663)	0.00112**	(0.000506)	-0.000418	(0.000900)	-0.332	(1.679)
Period	-0.00150**	(0.000698)	-0.00150*	(0.000873)	0.00300***	(0.000741)	-0.00181	(0.00116)	8.724***	(2.484)
DG frac	-0.0974***	(0.0148)	0.0265	(0.0200)	0.0710***	(0.0185)	-0.105***	(0.0262)	-199.1***	(61.68)
Deduction 20%=1	-0.00818	(0.00608)	0.00183	(0.00847)	0.00635	(0.00751)	-0.000474	(0.0103)	-16.06	(24.34)
Deduction 30%=1	0.00608	(0.00683)	-0.0145	(0.00944)	0.00845	(0.00823)	0.00506	(0.0120)	-16.40	(27.91)
Deduction 40%=1	-0.00184	(0.0130)	0.0149	(0.0213)	-0.0131	(0.0187)	0.0133	(0.0234)	30.34	(49.44)
Deduction 50%=1	0.0342	(0.0234)	-0.0113	(0.0338)	-0.0230	(0.0265)	0.0741***	(0.0198)	95.80**	(43.38)
Deadweight loss=1	-0.00695	(0.0136)	-0.0166	(0.0210)	0.0235	(0.0166)	0.00454	(0.0292)	29.68	(89.25)
Redistribution=1	0.0222**	(0.0110)	-0.0206	(0.0163)	-0.00161	(0.0146)	0.00162	(0.0182)	-0.599	(36.22)
Russia=1	0.0142*	(0.00844)	0.0235**	(0.0115)	-0.0378***	(0.0108)	0.00879	(0.0118)	217.1***	(29.22)
UK=1	0.0517***	(0.00937)	-0.0296***	(0.0109)	-0.0221***	(0.00849)	0.00534	(0.0138)	284.8***	(30.24)
Shock=1	0.00485	(0.0120)	-0.0133	(0.0152)	0.00850	(0.0145)	-0.00115	(0.0148)	-283.0***	(39.24)
Shock, yes=1	-0.0177	(0.0152)	0.0460**	(0.0207)	-0.0283	(0.0178)	0.0215	(0.0181)	961.5***	(53.93)
Status=1	0.0122	(0.0115)	0.00271	(0.0157)	-0.0149	(0.0138)	0.00286	(0.0154)	-374.8***	(30.66)
Status, 200 ECU=1	-0.0236*	(0.0126)	-0.00524	(0.0183)	0.0288*	(0.0167)	-0.0181	(0.0203)	725.1***	(68.42)
Non-fixed=1	0.0128*	(0.00756)	-0.0178*	(0.0102)	0.00499	(0.00891)	0.00475	(0.0137)	-42.91	(29.65)
L.Declared 0%=1	0.780***	(0.0198)	-0.244***	(0.0161)	-0.536***	(0.0126)	0.372***	(0.0325)	620.7***	(61.20)
L.Declared 1-99%=1	0.0246**	(0.00981)	0.451***	(0.0123)	-0.476***	(0.00772)	0.509***	(0.0232)	764.2***	(38.97)
L.Partial cheat	-0.106***	(0.0166)	-0.0550***	(0.0191)	0.161***	(0.0174)	-0.782***	(0.0192)	-1199.4***	(44.39)
L.Dec. others, 1000	-0.00812***	(0.00197)	0.00673***	(0.00254)	0.00139	(0.00212)	-0.0119***	(0.00318)	-21.29***	(7.446)
Constant							0.506***	(0.0359)	206.2***	(62.81)
Observations	9647		9647		9647		3056		3056	
D20=D30	0.0385		0.0870		0.802		0.634		0.991	
D20=D40	0.624		0.539		0.302		0.540		0.331	
D20=D50	0.0694		0.699		0.271		0.0000638		0.00780	
D30=D40	0.555		0.176		0.260		0.727		0.367	
D30=D50	0.231		0.924		0.244		0.000461		0.0131	
D40=D50	0.145		0.484		0.742		0.0184		0.208	
Russia=UK	0.00000183		0.00000236		0.139		0.767		0.0275	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. Fourth and fifth columns report OLS regressions, the dependent variables are the fraction and the amount of income not declared in a given round; only partial lying decisions are considered. Standard errors are clustered by subject. RET rank is the national rank, between 0 and 1, of subject's national performance at the real effort task. RET Deviation is the difference between actual number of correct additions and one predicted from subject and period FE. DG frac is the fraction of the 1000 ECU donated in the dictator game.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 4: Determinants of lying in periods 2-10, previous action

(alternatively, the probability of maximal lying decreased by 1.12% for each standard deviation increase in declared income), and this increased the probability of partial lying by 0.67% (or 0.93% for each standard deviation increase). With respect to individual countries, this effect is strong in Russia, present in the UK, and not present in Chile. In Appendix B5, we get the same results using out-of-sample predictions to look at the peer effect of lying.

In Table 5 we only consider decisions made in the first period, when the subjects did not receive any feedback about lying decisions made by subjects in the previous periods; Table C5 repeats the estimation separately for each country. We do not find that the deduction rate affects either the probability of maximal lie, partial lie, or honest declaration, or the fraction/amount of undeclared income. The only exception is Chile, where the undeclared amount is once again lower for 30% deduction rate, compared with 10% deduction rate.

Generally, we do not find that lying is affected by whether the income is earned or is a result of a random shock. Receiving a positive income shock does have a positive effect on the probability of partial lying, but only when controlling for one's action in the previous period

(Table 4). If the effect within individual countries is analyzed, the evidence is mixed. In Period 1, income shocks positively affect partial lying at the expense of both honest behavior and partial lying in Chile (Table C5); however, in UK they have a positive effect on the probability of partial lying (Table C1). Income shocks affect its absolute amount of undeclared income, but not the relative amount, even though they are large - 1300 ECU - and comparable in size with the rest of the income obtained through the real effort task.

Differential wages had some effect on lying. The effect of earning 200 versus 100 ECU in the Status treatment was a smaller likelihood of maximal cheating, and a larger likelihood of declaring full income (Tables 3 and 4). Within individual countries, the effect was present in some specifications, increasing the probability of full declaration (UK in Tables C5 and C12), and reducing the probability of a maximal lie (UK in Table C1 and C6, Chile in Table C12). Subjects earning 200 ECU in the Status treatment had larger undeclared incomes, but the fraction of undeclared income was not different from subjects earning 100 ECU, or subjects in other treatments.

In all countries we observe a positive and significant association between subject ability and maximal lying. This is consistent with previous research (Schurr and Ritov, 2016; Vincent and Kouchaki, 2015; Duch and Solaz, 2017) demonstrating a correlation between ability or success, a sense of entitlement, and lying. We find that subject's ability is positively correlated specifically with maximal lying, and negatively correlated with both partial lying and honest choices. The average marginal effect of subject's rank on the RET task (which is calculated over 10 periods and varies between 0 and 1) on the probability of maximal lying in a given period is between 0.187 and 0.378. The association becomes smaller if one takes into account the previous period's decision, but is large, between 0.161 and 0.337, in period 1 (these coefficients are reported in Table 5 and Table C5 in Appendix C). Very small, but positive, declarations were also more prevalent among low-performance subjects than among their high-performance counterparts (see Appendix B2).

There are three pieces of evidence in favor of the conjecture that the association between maximal lying and performance is driven by a sense of entitlement among the better performing subjects. First, controlling for the subject's average ability over 10 rounds, we do not find

17

| | All countries | | | | | | All countries | | All countries | |
| | Mlogit, average marginal effects | | | | | | OLS | | OLS | |
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.249***	(0.0423)	-0.0750	(0.0511)	-0.174***	(0.0462)	0.0203	(0.0547)	902.8***	(101.2)
RET deviation	0.00889	(0.00692)	0.00941	(0.00815)	-0.0183**	(0.00780)	0.0189**	(0.00951)	118.2***	(17.06)
Male	0.0793***	(0.0254)	-0.0869***	(0.0292)	0.00764	(0.0263)	-0.0128	(0.0316)	-37.60	(53.81)
Age	-0.00293	(0.00244)	0.00331	(0.00275)	-0.000372	(0.00225)	0.00515**	(0.00221)	5.741	(3.804)
DG frac	-0.546***	(0.0561)	0.201***	(0.0663)	0.344***	(0.0599)	-0.152*	(0.0867)	-258.3*	(139.1)
Deduction 20%=1	-0.0441	(0.0287)	0.0524	(0.0343)	-0.00836	(0.0300)	0.0301	(0.0363)	51.54	(59.07)
Deduction 30%=1	-0.0193	(0.0311)	0.0522	(0.0370)	-0.0329	(0.0321)	-0.0125	(0.0397)	-13.07	(65.28)
Deduction 40%=1	-0.0733	(0.0535)	0.112	(0.0801)	-0.0385	(0.0722)	-0.135	(0.0925)	-153.3	(151.3)
Deduction 50%=1	0.00628	(0.0689)	0.0872	(0.103)	-0.0934	(0.0841)	0.0723	(0.0909)	140.4	(184.4)
Deadweight loss=1	-0.0520	(0.0601)	-0.0532	(0.0724)	0.105	(0.0662)	0.00521	(0.0997)	105.4	(207.6)
Redistribution=1	0.0359	(0.0460)	0.0268	(0.0566)	-0.0627	(0.0527)	0.0206	(0.0595)	-43.03	(101.0)
Russia=1	0.111**	(0.0432)	0.246***	(0.0462)	-0.357***	(0.0253)	-0.0491	(0.0406)	79.38	(64.40)
UK=1	0.278***	(0.0357)	-0.0907**	(0.0413)	-0.187***	(0.0318)	0.0282	(0.0435)	318.7***	(65.67)
Shock=1	-0.0125	(0.0515)	-0.0248	(0.0605)	0.0374	(0.0576)	0.0321	(0.0513)	-212.8***	(69.08)
Shock, yes=1	0.0392	(0.0684)	-0.0145	(0.0772)	-0.0247	(0.0667)	-0.0300	(0.0670)	741.7***	(138.5)
Status=1	0.0508	(0.0490)	-0.0255	(0.0566)	-0.0253	(0.0553)	0.00446	(0.0612)	-338.8***	(80.85)
Status, 200 ECU=1	-0.0287	(0.0551)	-0.0358	(0.0675)	0.0644	(0.0742)	-0.0398	(0.0755)	523.6***	(118.0)
Non-fixed=1	0.00148	(0.0358)	-0.0576	(0.0406)	0.0561	(0.0380)	-0.0461	(0.0441)	-123.8*	(70.50)
Constant							0.527***	(0.0810)	271.6**	(129.4)
Observations	1071		1071		1071		401		401	
D20=D30	0.445		0.995		0.466		0.251		0.301	
D20=D40	0.599		0.459		0.677		0.0599		0.159	
D20=D50	0.474		0.739		0.318		0.634		0.626	
D30=D40	0.334		0.468		0.939		0.180		0.352	
D30=D50	0.715		0.740		0.481		0.352		0.414	
D40=D50	0.312		0.839		0.597		0.0742		0.181	
Russia=UK	0.00000181		2.55e-18		6.27e-08		0.0547		0.000488	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. Fourth and fifth columns report OLS regressions, the dependent variables are the fraction and the amount of income not declared in a given round; only partial lying decisions are considered. We only include subjects who partially cheated in at least 8 rounds, and declarations strictly between 0% and 100%. Standard errors are clustered by subject. RET rank is the national rank, between 0 and 1, of subject's national performance at the real effort task. RET Deviation is the difference between actual number of correct additions and one predicted from subject and period FE. DG frac is the fraction of the 1000 ECU donated in the dictator game.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Determinants of lying in period 1

that performance in a given period has an effect on maximal lying.[24]   Second, in Appendix B3 we also report, using a subset of 76 Russian subjects, that maximal lying is positively correlated with subjective social status, or the perception of one's relative social position or rank. Subjects' effort in the RET appears to be supplied inelastically, as RET performance was independent from experimental conditions (see Appendix B1). At the same time, subject ability has a negative effect on the likelihood of partial lying, and no effect on the extent of partial lying.[25]   Finally, lying was also linked to expected performance on the RET. In the Non-Fixed treatment, we asked the subjects to rank their expected performance in the first period relative to their fellow group members; the subjects were able to predict their rank with some accuracy, with subjects who expected to rank higher were more likely to actually rank higher (Table C7). Subjects expecting to rank first or second in the first period were more likely to have lied maximally in that period ($p = 0.0007$ on two-sided Fisher's exact test), but

---

[24]In each period, we calculate the difference between the subject's actual performance at the RET task, and the performance predicted from subject and period fixed effects. We find that the coefficient for RET deviation was largely not significant.

[25]In Table C6 we replace the subject's RET rank and the period's deviation with the subject's performance in the nonpaying practice period, and find that performance in the practice period is predictive of maximal lying in later periods.

were not more or less likely to have lied partially ($p = 0.6318$).[26]   In Table C8 we repeat the estimation of the multinomial choice model, using the expected rank as the independent variable; subjects who expected to rank higher in the first round were also more likely to lie maximally in the subsequent periods.

People who donated more in the Dictator Game were less likely to lie maximally, and more likely either to lie partially or declare full income. The association between dictator game donation and maximal lying was present in all three countries either with or without controlling for the previous period's decision. Potentially, there are two caveats here. First, these estimates may be subject to the effect of moral licensing, since the dictator game preceded the lying game; individuals who have an opportunity to act ethically can be more prone to lying during an unrelated task (Blanken et al., 2015; Mazar and Zhong, 2010; Cojoc and Stoian, 2014; Shalvi et al., 2015). However, if moral licensing is present, then the correlation between dictator game donations and maximal lying should be even greater.[27] The payoffs in the dictator game were not reported separately and before the lying game stage, so lying due to unkind DG results was not a concern (Alempaki et al., 2016).   Second, not lying means making transfers to other group members. If the association between lying and donations in the dictator game is due to altruism, then it should be smaller in the deadweight loss treatment, where only 30% of deductions are redistributed among the four group members. In Table C9 we look at the UK data to see if it is the case. We find that the interaction term between the deadweight loss treatment and dictator game donation is not significant for the likelihood of maximal lying, partial lying, or full declaration. It is positive and significant for the fraction of income declared, which is contrary to what we should expect when lying decisions are driven by altruistic concerns.

Males were less likely than females to be partial liars in both Russia and the U.K. Our main results — that deduction rates have no effect on lying, and that subject performance is associated with more maximal lying — hold if we consider males and females separately (Table C10). However, the effect of gender on maximal lying was present in the U.K. only. The

---

[26]Similarly, subjects who expected to rank first or second prior to one of the other 9 periods were more likely to have lied maximally in that period ($p = 0.0711$ on two-sided Fisher's exact test), but were not more or less likely to have lied partially in the same period ($p = 0.1874$).

[27]Suppose that there is no first-stage dictator game. Then the choice of individuals who would have otherwise made a zero donation would not be affected. At the same time, the individuals who would have made a positive donations will not not be subject to moral licensing, and will be even less likely to lie.

effect of age on either type of lying was only observed in the U.K. In Tables C11 and C12 we introduce additional individual-level controls. We find that interpersonal trust, risk preferences, and income have no effect on lying that would be consistent across national contexts; at the same time, individuals who expressed less support for various forms of opportunistic behavior were less likely to be maximal liars.[28]

There was no correlation between the fraction of income declared, conditional on lying partially, and different experimental treatments. At the same time, there was significant within-subject variation in this value. If an individual declared a positive amount, but less then 100% of income, he or she was only 21.6% likely to have declared the same amount of income in the next period (this figure increased to 39.1% if the subject's performance in the RET task was the same in the two periods). Lower fractions of income were declared in Russia and, especially, in the U.K. — countries where the subjects were also more likely to repeatedly declare 0% of their income. However, efforts to explain between and within subject heterogeneity in partial lying were not successful.[29]

4 Discussion

Individuals lie on a regular basis in their everyday lives and its widely accepted that the moral costs of these lies increase with the degree to which the truth is distorted (Gneezy et al., 2018). This work provides insights into the functional form of this relationship between the intrinsic moral costs of lying and the size of the lie. Our study involved over 1,000 individuals from the U.K., Russia and Chile making over 10,000 lying decisions in a public goods game with earned income; we observed the subject's decision how much to lie. We implemented treatments aimed at varying the benefit of lying, as well as several other characteristics of the game, such as whether there was earned as well as unearned income.

We find that both maximal lying (when the subjects maximized their monetary gain) and partial lying were common, as well as honest behavior, and lying was not responsive to externally imposed benefits, at least if the benefits do not vary by a large amount. This implies that,

---

[28]See Table C13 for the composition of the civicness index used in the regression.

[29]The only individual-level covariate that was significant in more than one country was self-reported ideology: In Russia and the U.K., subjects who reported to be leftist declared a larger share of income.

at least for a significant fraction of individuals, the cost function is not a smooth one with increasing marginal costs; otherwise, one would expect that, as the benefits of lying increase, individuals would lie more often and/or more intensely.

Our results suggest there is partial lying because some subjects have lying thresholds; the moral costs of lying for such individuals are low when the size of the lie is below the threshold. We find that such thresholds are heterogeneous both across individuals and across individual decisions, but are unaffected by extrinsic benefits and other experimental conditions.[30]

These thresholds may be shaped by the concerns about one's social identity; social identity theory argues that people derive intrinsic payoffs from belonging to one or another social category (Akerlof and Kranton, 2000; Bénabou and Tirole, 2011). When the lie is below the threshold value an individual is able to maintain a positive self-image and therefore avoid the moral costs of lying (Gino and Ariely, 2016). Individuals may also care about whether their actions are perceived by other people as dishonest, which may cause partial lying (Gneezy et al., 2018); it is a goal of future studies to differentiate between these and other potential explanations.

There are individual characteristics that distinguish between maximal liars on one hand, and partial liars and honest individuals on the other. As has been pointed out by others (Gill et al., 2013; Duch and Solaz, 2017; Alan et al., 2019), ability is correlated with lying. We find that high-ability individuals are indeed more likely to be maximal liars. We speculate, and provide some suggestive initial evidence, that it might be associated with a sense of entitlement. High ability individuals might have a general sense that they are entitled to lie because of their self-perceived ability or success in life (Piff, 2014), or lying entitlement might be directly related to the effort and earnings associated with the real effort task they perform. High ability individuals might have a sense of entitlement to their deserved and hard-earned earnings. This finding is problematic from a policy perspective. Successful and high ability individuals are most likely to be making decisions where the monetary stakes are significant. Our results suggest that

---

[30]This finding is contrary to Gibson et al. (2013) who conclude that the likelihood of lying will vary continuously with the costs and benefits. However, our experiment is different in several important respects. First, we explicitly vary the benefits of lying by assigning subjects to treatments with different deduction rates. In the Status treatment, we also manipulate the amount of income that individuals earn through the real effort task, while in the Shock treatment subjects who receive the bonus have high exogenous costs of not lying. Second, the lying decisions are made with respect to the individual's earned income. Finally, our design involves subjects making repeated decisions.

these individuals have a high proclivity to lie and they do not seem to incur particularly high intrinsic moral costs associated with big lies.

At the same time, low ability is positively associated not only with honest behavior, but with partial lying as well.[31] This result suggests that partial and maximal lying are distinct phenomena, with individuals generally following one of these two lying strategies. While making multiple potential lying decisions, individuals either lie maximally most of the time, or lie partially most of the time, with relatively few individuals doing a lot of both, although maximal lying becomes somewhat more likely in the later periods.[32] Partial lying also involves significantly larger decision times compared with either maximal lying or honest behavior.

Our experiments were conducted in three very different national contexts simply as a robustness check on the treatment effects. Reassuringly, both partial and maximal lying occurred in all three of the different national subject pools — the U.K. Chile and Russia. Moreover, the incidence of partial and maximal lying in all three countries was insensitive to the extrinsic benefits of lying. Moreover, several of the patterns that characterize lying are present in all three countries: reaction time is lower for maximal lies and honest decisions than for partial lies; and ability is positively correlated with maximal lying and negatively with partial lies and honesty.

National context, though, is not irrelevant. All three countries in our study exhibit these same three distinct behaviors although their distribution within each country is quite different. In Chile the modal behavior was predominantly honest — 40 percent of subjects reported 100 percent of their earnings. In Russia honest behavior was least common, while in the U.K. we saw the highest concentration of maximal liars. The high level of maximal cheating in the U.K. is especially surprising, given the fact that the U.K. is a high-income country with highly developed institutions to control corruption, which were reported in cross-national studies to be negatively correlated with cheating (Gächter and Schulz, 2016).[33] This may be due to the

---

[31]In Table C10 we look at partial lying involving very small declarations of earnings (such as between 1 and 50 ECUs). Even at these extremes we observe that low ability subjects are more likely to engage in partial lying. A similar pattern is present when we look at other-regarding preferences. Individuals who made zero donations in the Dictator Game were more likely to be maximal liars and less likely to be partial liars, compared with individuals who donated some positive amount.

[32]In two countries out of three, the individual's choice whether to lie maximally, lie partially, or be honest was not conditional, or was only weakly conditional, on the lying of other individuals in the four-member group.

[33]In Figure C6 we report the distributions of die rolls on the real die task across the countries. As much as 54.6% of subjects in the U.K. reported 6, which was significantly higher than the 32.1% of subjects in Chile

fact that Oxford students are uncharacteristic of the general U.K. population and come from high status background; in that case, the effect of social status on lying would be stronger than that of the country's institutional quality. This puzzle that is beyond the scope of these data but is the focus of our ongoing research.

As we pointed out earlier, the economic costs of lying are enormous. An important challenge then is simply designing mechanisms for reducing lying both in the public and private sectors. The point of departure should be a good understanding of the lying mechanism. We make some modest contributions in this respect. Our experimental results suggest that reducing the extrinsic costs of not lying may have little effect. This is simply the case because many in the population will lie maximally regardless of the stakes; at the same time, the threshold for partial lying is also not likely to be affected by the extrinsic costs of lying.

Are there appeals to intrinsic motivations that might resonate with the types of lying be-havior that we identify in the population? Possibly, although our efforts were not particularly successful in this regard. Treatments that manipulated the relationship between effort and income, how income is redistributed and deadweight loss had little effect on lying behavior. We find some evidence that subjects who observed their group members declare a large amount of incomes were less likely to lie maximally. Nevertheless, the effect was present and strong only in one country — Russia.

($p = 0.0001$ on the two-sided Fisher's exact test, Chile $n = 156$, U.K. $n = 132$); in Russia, 44.2% of subjects reported 6, which was also higher than in Chile ($p = 0.0357$ on the two-sided Fisher's exact test, Russia $n = 156$). The average amount rolled was higher in the U.K. than in Chile (Wilcoxon-Man-Witheney ranksum test $p = 0.0005$), and higher in Russia than in Chile (Wilcoxon-Man-Witheney ranksum test $p = 0.0080$, Russia $n = 156$). Chi-squared test also reports different distributions of die rolls for Chile and the U.K. ($p = 0.0028$), but not between Chile and Russia ($p = 0.1251$).

References

Abeler, J., Becker, A., and Falk, A. (2014). Representative evidence on lying costs. *Journal of Public Economics*, 113(Supplement C):96 – 104.

Abeler, J., Nosenzo, D., and Raymond, C. (2019). Preferences for truth-telling. *Econometrica*, 87(4):1115–1153.

Achtziger, A., Alós-Ferrer, C., and Wagner, A. K. (2015). Money, depletion, and prosociality in the dictator game. *Journal of Neuroscience, Psychology, and Economics*, 8(1):1.

Achtziger, A., Alós-Ferrer, C., and Wagner, A. K. (2018). Social preferences and self-control. *Journal of behavioral and experimental economics*, 74:161–166.

Adler, N. E., Epel, E. S., Castellazzo, G., and Ickovics, J. R. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy, white women. *Health psychology*, 19(6):586.

Agosta, S., Pezzoli, P., and Sartori, G. (2013). How to detect deception in everyday life and the reasons underlying it. *Applied Cognitive Psychology*, 27(2):256–262.

Ainsworth, S. E., Baumeister, R. F., Ariely, D., and Vohs, K. D. (2014). Ego depletion decreases trust in economic decision making. *Journal of Experimental Social Psychology*, 54:40–49.

Akerlof, G. A. and Kranton, R. E. (2000). Economics and identity. *The Quarterly Journal of Economics*, 115(3):715–753.

Alan, S., Ertac, S., and Gumren, M. (2019). Cheating and incentives in a performance context: Evidence from a field experiment on children. *Journal of Economic Behavior & Organization*.

Alempaki, D., Doğan, G., and Saccardo, S. (2016). Deception and reciprocity. *Experimental Economics*, pages 1–22.

Alesina, A. and Angeletos, G.-M. (2005). Fairness and redistribution. *American Economic Review*, 95(4):960–980.

Algan, Y., Cahuc, P., and Sangnier, M. (2016). Trust and the welfare state: The twin peaks curve. *The Economic Journal*, 126(593):861–883.

Association of Certified Fraud Examiners (2016). Report to the nations: On occupational fraud and abuse. `https://www.acfe.com/rttn2016/docs/2016-report-to-the-nations.pdf`.

Atkinson, A. B. and Piketty, T. (2007). *Top incomes over the twentieth century: a contrast between continental european and english-speaking countries*. OUP Oxford.

Becker, G. S. (1968). Crime and Punishment: An Economic Approach. *Journal of Political Economy*, 76(2):169–217.

Belot, M., Duch, R., and Miller, L. (2015). A comprehensive comparison of students and non-students in classic experimental games. *Journal of Economic Behavior and Organization*, 113:26–33.

Bénabou, R. and Tirole, J. (2011). Identity, morals, and taboos: Beliefs as assets. *The Quarterly Journal of Economics*, 126(2):805–855.

Bérgolo, M. L., Ceni, R., Cruces, G., Giaccobasso, M., and Perez-Truglia, R. (2017). Tax audits as scarecrows: Evidence from a large-scale field experiment. Technical report, National Bureau of Economic Research.

Berwick, D. and Hackbarth, A. (2012). Eliminating waste in us health care. *JAMA*, 307(14):1513–1516.

Blanken, I., van de Ven, N., and Zeelenberg, M. (2015). A meta-analytic review of moral licensing. *Personality and Social Psychology Bulletin*, 41(4):540–558.

Cappelen, A. W., Konow, J., Sorensen, E. O., and Tungodden, B. (2013). Just luck: An experimental study of risk-taking and fairness. *American Economic Review*, 103(4):1398–1413.

Charness, G., Blanco-Jimenez, C., Ezquerra, L., and Rodriguez-Lara, I. (2019). Cheating, incentives, and money manipulation. *Experimental Economics*, 22(1):155–177.

Cohn, A., Fehr, E., and Marechal, M. A. (2014). Business culture and dishonesty in the banking industry. *Nature*, 516:86–89.

Cohn, A., Maréchal, M. A., Tannenbaum, D., and Zünd, C. L. (2019). Civic honesty around the globe. *Science*, page eaau8712.

Cojoc, D. and Stoian, A. (2014). Dishonesty and charitable behavior. *Experimental Economics*, 17(4):717–732.

Duch, R. and Solaz, H. (2017). Who is cheating and why? Working Paper. Nuffield College Centre for Experimental Social Sciences, University of Oxford.

Dufwenberg, M. and Dufwenberg, M. A. (2018). Lies in disguise–a theoretical analysis of cheating. *Journal of Economic Theory*, 175:248–264.

Dwenger, N., Kleven, H., Rasul, I., and Rincke, J. (2016). Extrinsic and intrinsic motivations for tax compliance: Evidence from a field experiment in germany. *American Economic Journal: Economic Policy*, 8(3):203–32.

Erat, S. and Gneezy, U. (2012). White lies. *Management Science*, 58(4):723–733.

Fischbacher, U. (2007). z-tree: Zurich toolbox for ready-made economic experiments. *Experimental Economics*, 10:171–78.

Fischbacher, U. and Follmi-Heusi, F. (2013). Lies in disguise: An experimental study of cheating. *Journal of the European Economic Association*, 11(3):525–547.

Foerster, A., Pfister, R., Schmidts, C., Dignath, D., and Kunde, W. (2013). Honesty saves time (and justifications). *Frontiers in psychology*, 4:473.

Fosgaard, T. R., Hansen, L. G., and Piovesan, M. (2013). Separating will from grace: An experiment on conformity and awareness in cheating. *Journal of Economic Behavior & Organization*, 93:279 – 284.

Gächter, S. and Schulz, J. F. (2016). Intrinsic honesty and the prevalence of rule violations across societies. *Nature*, 531:496–499.

Gibson, R., Tanner, C., and Wagner, A. F. (2013). Preferences for truthfulness: Heterogeneity among and within individuals. *American Economic Review*, 103(1):532–548.

Gill, D., Prowse, V., and Vlassopoulos, M. (2013). Cheating in the workplace: An experimental study of the impact of bonuses and productivity. *Journal of Economic Behavior & Organization*, 96:120 – 134.

Gino, F. and Ariely, D. (2016). Dishonesty explained: What leads moral people to act immorally. In Miller, A. G., editor, *The Social Psychology of Good and Evil.* Guilford Publications.

Gino, F., Krupka, E. L., and Weber, R. A. (2013). License to cheat: Voluntary regulation and ethical behavior. *Management Science*, 59(10):2187–2203.

Gino, F., Schweitzer, M. E., Mead, N. L., and Ariely, D. (2011). Unable to resist temptation: How self-control depletion promotes unethical behavior. *Organizational Behavior and Human Decision Processes*, 115(2):191 – 203.

Glaeser, E. L., Laibson, D. I., Scheinkman, J. A., and Soutter, C. L. (2000). Measuring trust. *The Quarterly Journal of Economics*, 115(3):811–846.

Gneezy, U. (2005). Deception: The role of consequences. *American Economic Review*, 95(1):384–394.

Gneezy, U., Kajackaite, A., and Sobel, J. (2018). Lying aversion and the size of the lie. *American Economic Review*, 108(2):419–53.

Gneezy, U., Rockenback, B., and Serra-Garcia, M. (2013). Measuring lying aversion. *Journal of Economic Behavior & Organization*, 93:293–300.

Gravert, C. (2013). How luck and performance affect stealing. *Journal of Economic Behavior & Organization*, 93:301 – 304.

Hilbig, B. E. and Hessler, C. M. (2013). What lies beneath: How the distance between truth and lie drives dishonesty. *Journal of Experimental Social Psychology*, 49(2):263 – 266.

Holt, C. A. and Laury, S. K. (2002). Risk aversion and incentive effects. *American Economic Review*, 92:1644–1655.

Jacobsen, C., gaard, T. R., and Pascual-Ezama, D. (2017). Why do we lie? a practical guide to the dishonesty literature. *Journal of Economic Surveys*, pages n/a–n/a.

Kajackaite, A. and Gneezy, U. (2017). Incentives and cheating. *Games and Economic Behavior*, 102:433–444.

Kerschbamer, R., Neururer, D., and Sutter, M. (2016). Insurance coverage of customers induces dishonesty of sellers in markets for credence goods. *Proceedings of the National Academy of Sciences*, 113(27):7454–7458.

Khalmetski, K. and Sliwka, D. (2017). Disguising lies-image concerns and partial lying in cheating games. *Working Paper*.

Kleven, H. J. (2014). How can scandinavians tax so much? *Journal of Economic Perspectives*, 28(4):77–98.

Konovalov, A. and Krajbich, I. (2017). Revealed indifference: Using response times to infer preferences. https://ssrn.com/abstract=3024233.

Levine, T. R. (2014). Truth-default theory (tdt): A theory of human deception and deception detection. *Journal of Language and Social Psychology*, 33(4):378–392.

Lohse, T., Simon, S. A., and Konrad, K. A. (2018). Deception under time pressure: Conscious decision or a problem of awareness? *Journal of Economic Behavior & Organization*, 146:31 – 42.

M. DePaulo, B., A. Kashy, D., E. Kirkendol, S., M. Wyer, M., and Epstein, J. (1996). Lying in everyday life. *Journal of personality and social psychology*, 70:979–95.

Maggian, V. and Villeval, M. C. (2016). Social preferences and lying aversion in children. *Experimental Economics*, 19(3):663–685.

Mazar, N., Amir, O., and Ariely, D. (2008). The dishonesty of honest people: A theory of self-concept maintenance. *Journal of Marketing Research*, 45(6):633–644.

Mazar, N. and Zhong, C.-B. (2010). Do green products make us better people? *Psychological Science*, 21(4):494–498.

Monin, B. and T. Miller, D. (2001). Moral credentials and the expression of prejudice. *Journal of personality and social psychology*, 81:33–43.

Neville, L. (2012). Do economic equality and generalized trust inhibit academic dishonesty? evidence from state-level search-engine queries. *Psychological Science*, 23(4):339–345.

Piff, P. K. (2014). Wealth and the inflated self: Class, entitlement, and narcissism. *Personality and Social Psychology Bulletin*, 40(1):34–43.

Pruckner, G. J. and Sausgruber, R. (2013). Honesty on the streets: A field study on newspaper purchasing. *Journal of the European Economic Association*, 11(3):661–679.

Rand, D. G., Peysakhovich, A., Kraft-Todd, G. T., Newman, G. E., Wurzbacher, O., Nowak, M. A., and Greene, J. D. (2014). Social heuristics shape intuitive cooperation. *Nature Communications*, 5:3677 EP –.

Ridgeway, C. L., Boyle, E. H., Kuipers, K. J., and Robinson, D. T. (1998). How do status beliefs develop? the role of resources and interactional experience. *American Sociological Review*, pages 331–350.

Rosenbaum, S., Billinger, S., and Stieglitz, N. (2014). Lets be honest: A review of experimental evidence of honesty and truth-telling. *Journal of Economic Psychology*, 45:181–196.

Rubinstein, A. (2007). Instinctive and cognitive reasoning: A study of response times. *The Economic Journal*, 117(523):1243–1259.

Sachdeva, S., Iliev, R., and Medin, D. L. (2009). Sinning saints and saintly sinners: The paradox of moral self-regulation. *Psychological Science*, 20(4):523–528.

Schurr, A. and Ritov, I. (2016). Winning a competition predicts dishonest behavior. *Proceedings of the National Academy of Sciences*.

Shalvi, S., Dana, J., Handgraaf, M. J., and De Dreu, C. K. (2011). Justified ethicality: Observing desired counterfactuals modifies ethical perceptions and behavior. *Organizational Behavior and Human Decision Processes*, 115(2):181–190.

Shalvi, S., Eldar, O., and Bereby-Meyer, Y. (2012). Honesty requires time (and lack of justifications). *Psychological Science*, 23(10):1264–1270. PMID: 22972904.

Shalvi, S., Gino, F., Barkan, R., and Ayal, S. (2015). Self-serving justifications: Doing wrong and feeling moral. *Current Directions in Psychological Science*, 24(2):125–130.

Sheremeta, R. M. and Shields, T. W. (2013). Do liars believe? beliefs and other-regarding preferences in sender???receiver games. *Journal of Economic Behavior & Organization*, 94:268 – 277.

Tabatabaeian, M., Dale, R., and Duran, N. D. (2015). Self-serving dishonest decisions can show facilitated cognitive dynamics. *Cognitive Processing*, 16(3):291–300.

Verschuere, B. and Shalvi, S. (2014). The truth comes naturally! does it? *Journal of Language and Social Psychology*, 33(4):417–423.

Vincent, L. and Kouchaki, M. (2015). Creative, rare, entitled, and dishonest: How commonality of creativity in one's group decreases an individual's entitlement and dishonesty. *Academy of Management Journal*.

Vranceanu, R. and Dubart, D. (2019). Deceitful communication in a sender-receiver experiment: Does everyone have a price? *Journal of Behavioral and Experimental Economics*, 79:43–52.

Appendix A   Experiment design

#	Country	Treatment	Tax rate	Subjects	Risk	Die	Note
1	U.K.	Baseline	10	24	Yes	No	
2	U.K.	Baseline	20	24	Yes	No	
3	U.K.	Baseline	30	24	Yes	No	
4	U.K.	Baseline	40	24	Yes	No	
5	U.K.	Baseline	50	24	Yes	No	
6	U.K.	Status	10	24	Yes	No	
7	U.K.	Status	20	12	Yes	No	
8	U.K.	Status	20	16	Yes	No	
9	U.K.	Status	30	20	Yes	No	
10	U.K.	Baseline	10	24	Yes	No	30% of deductions go to two top performers
11	U.K.	Baseline	20	20	Yes	No	30% of deductions go to two top performers
12	U.K.	Baseline	30	20	Yes	No	30% of deductions go to two top performers
13	U.K.	Baseline	40	20	Yes	No	30% of deductions go to two top performers
14	U.K.	Baseline	10	24	Yes	No	Only 30% of deductions are redistributed
15	U.K.	Baseline	20	20	Yes	No	Only 30% of deductions are redistributed
16	U.K.	Shock	10	16	Yes	No	100 ECU per answer+1300 ECU bonus
17	U.K.	Shock	20	20	Yes	No	100 ECU per answer+1300 ECU bonus
18	U.K.	Shock	30	20	Yes	No	100 ECU per answer+1300 ECU bonus
19	Chile	Shock	10	16	Yes	No	150 ECU per answer+1300 ECU bonus
20	Chile	Shock	20	20	Yes	No	150 ECU per answer+1300 ECU bonus, 8 observations invalid
21	Chile	Shock	30	16	Yes	No	150 ECU per answer+1300 ECU bonus
22	Chile	Status	10	16	Yes	No	
23	Chile	Status	20	16	Yes	No	
24	Chile	Status	30	16	Yes	No	
25	Chile	Baseline	10	12	Yes	No	
26	Chile	Baseline	20	12	Yes	No	
27	Chile	Baseline	30	12	Yes	No	
28	U.K.	Non-fixed	10	16	Yes	Yes	
29	U.K.	Non-fixed	10	16	Yes	Yes	
30	U.K.	Non-fixed	10	16	Yes	Yes	
31	U.K.	Non-fixed	10	12	Yes	Yes	
32	U.K.	Non-fixed	20	12	Yes	Yes	
33	U.K.	Non-fixed	30	16	Yes	Yes	
34	Chile	Non-fixed	10	20	Yes	Yes	
35	Chile	Non-fixed	20	20	Yes	Yes	
36	Chile	Non-fixed	30	20	Yes	Yes	
37	Chile	Non-fixed	10	16	Yes	Yes	
38	Chile	Non-fixed	20	12	Yes	Yes	
39	Chile	Non-fixed	30	8	Yes	Yes	
40	U.K.	Baseline	10	16	Yes	Yes	
41	U.K.	Non-fixed	20	16	Yes	Yes	
42	U.K.	Non-fixed	30	12	Yes	Yes	
43	Chile	Non-fixed	10	20	Yes	Yes	Universidad del Desarrollo
44	Chile	Non-fixed	10	24	Yes	Yes	Universidad del Desarrollo
45	Chile	Non-fixed	20	20	Yes	Yes	Universidad del Desarrollo
46	Chile	Non-fixed	30	20	Yes	Yes	Universidad del Desarrollo
47	Russia	Baseline	10	8	Yes	No	
48	Russia	Baseline	10	8	Yes	No	
49	Russia	Baseline	10	16	Yes	No	
50	Russia	Baseline	10	16	Yes	No	
51	Russia	Baseline	20	16	Yes	No	
52	Russia	Baseline	20	16	Yes	No	
53	Russia	Baseline	20	8	Yes	No	
54	Russia	Baseline	20	12	Yes	No	30% of deductions go to two top performers
55	Russia	Shock	10	16	Yes	Yes	100 ECU per answer+1300 ECU bonus
56	Russia	Shock	20	16	Yes	Yes	100 ECU per answer+1300 ECU bonus
57	Russia	Status	10	16	Yes	Yes	
58	Russia	Status	20	16	Yes	Yes	
59	Russia	Status	30	16	Yes	Yes	
60	Russia	Baseline	30	16	Yes	Yes	
61	Russia	Shock	30	16	Yes	Yes	100 ECU per answer+1300 ECU bonus
62	Russia	Non-fixed	10	16	Yes	Yes	
63	Russia	Non-fixed	20	16	Yes	Yes	
64	Russia	Non-fixed	30	12	Yes	Yes	

Table A1: List of sessions
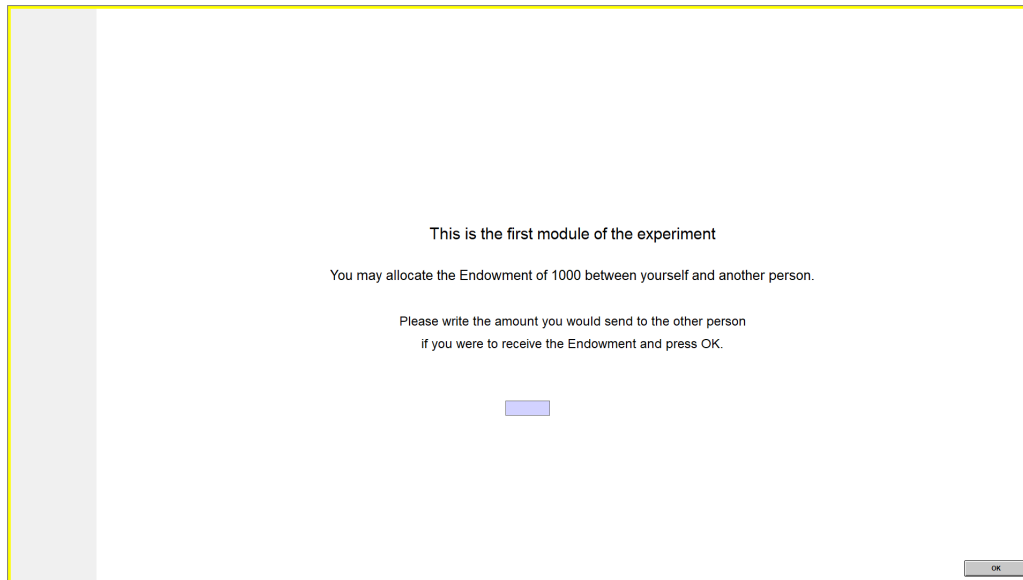
Figure A1: Dictator Game
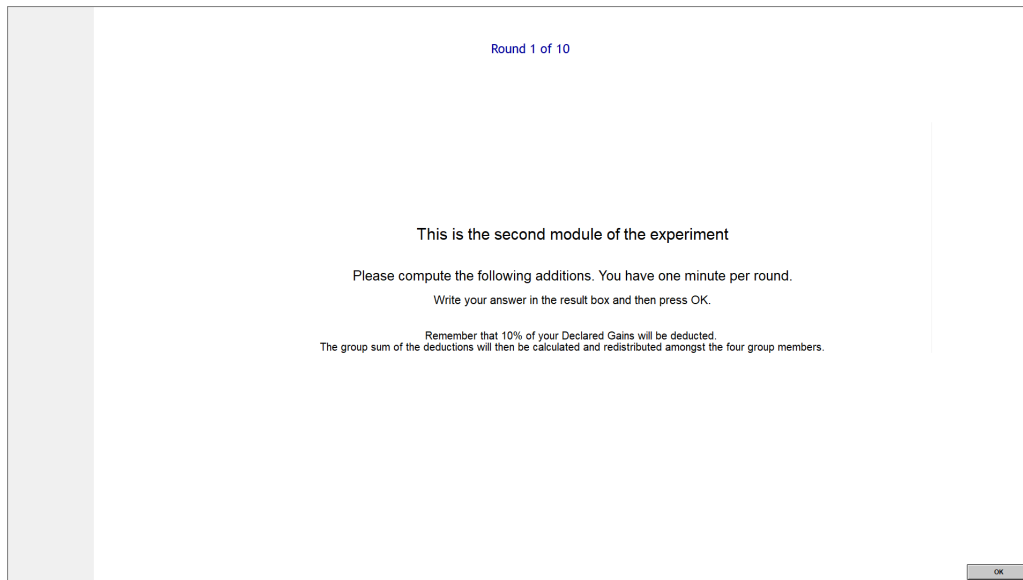
Figure A2: On-screen instructions for real effort task, U.K.

15   +   39

Result

OK

Figure A3: Real effort task, U.K.

34

Number of correct answers: 6

Your Preliminary Gains: 900

Declared Gains: 900

OK

Figure A4: Declaration of gains following real effort task, U.K.

Number of correct answers: 6

Your Preliminary Gains: 900

Your Declared Gains: 900

Your Declared Gains have not been verified

Total Deductions: 90

Amount received from pooled deductions: 38

Profit this round 847.50

OK

Figure A5: Results following declaration of gains, U.K.

NUFFIELD CENTER FOR EXPERIMENTAL SOCIAL SCIENCES

Module 2:

a) This module consists of 10 rounds. At the beginning of the module participants are randomly assigned to groups of four. You won't know the identity of the other group members. The composition of each group will remain unchanged.

b) In each one-minute round you will be asked to compute a series of additions. Your *Preliminary Gains* depend on how many correct answers you provide. You will get **150 ECUs** for each correct answer.

c) At the end of each round, once you have received information concerning your *Preliminary Gains*, you will be asked to declare these gains. In this module **10%** of these *Declared Gains* will then be deducted from your *Preliminary Gains*.

d) In each round there is a certain probability that your *Declared Gains* will be compared with your actual *Preliminary Gains* in order to verify these two amounts correspond. In this module this probability is **0%.**

e) If this verification finds a discrepancy between the *Preliminary* and *Declared* gains an extra amount will be deducted from your *Preliminary Gains*. In this module this amount will correspond to **50%** of the observed discrepancy. In addition, the regular deduction of **10%** will apply to the *Preliminary Gains* and not to the declared amount.

f) Deductions applying to the four group members will then be pooled and equally distributed amongst those members.

g) Your profits are calculated and displayed at the end of each round in the following manner:

Profit = Preliminary Gains – Deduction from the Declared Gains – Potential deductions due to discrepancy + Group amount

h) At the end of the module one round will be chosen at random, and your earnings will be based on your profit of that round at the exchange rate **300ECUs = 1 £**

i) You will be informed of your earnings for this module at the end of the experiment.

Figure A6: Printed instructions, RET and declaration stage

Figure A7: On-screen instructions Risk Aversion questions

Figure A8: Risk aversion questions

Instructions:

For the following questionnaire you will receive a small payment. The first part of your payment will be determined through the following procedure: On your desk there is a die. Once you are ready, please click the "Ready" button below. You will be asked to roll the die one time and report the value showing on the die. You will earn 100 x the number you report in ECU. You may roll the die as many time as you would like after that, to confirm that it is a fair die.

Please roll the die and report the value shown on the die into the box below. Your award for this stage depends on the value you report.

Value on the die: [   ]

Submit

Figure A9: The real die game

Instructions:

You will now determine the second part of your payment for the questionnaire. You will now use a virtual die and repeat the last payment task. Once you are ready, please click the "Ready" button below. You will be asked to roll the die one time and report the value showing on the die. You will earn 100 x the number you report in ECU. You may roll the die as many times as you would like after that, to confirm that it is a fair die.

Roll the die

Please roll the virtual die and report the value shown on the die into the box below. Your award for this stage depends on the value you report.

Value on the die: [   ]

Submit

Figure A10: The virtual die game

Figure A11: Post-experiment questionnaire, civicness questions

Figure A12: Post-experiment questionnaire, age and gender questions

Figure A13: Post-experiment questionnaire, trust and political self-identification questions

Figure A14: Post-experiment questionnaire, income question

You are Type G

Number of correct answers: 7

Your Preliminary Gains: 1400

Your Declared Gains: 1400

Your Declared Gains have not been verified

Total Deductions: 140.00

Amount received from pooled deductions: 35.00

Profit this round 1295.00

OK
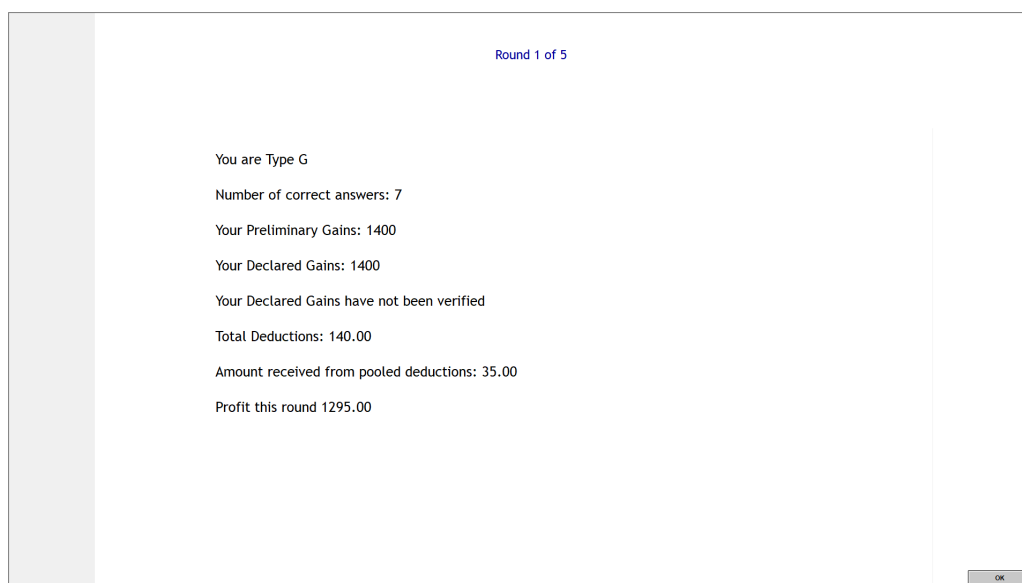
Figure A15: Results following declaration of gains, status treatment, U.K.

This round you received a Bonus of 1300

Number of correct answers: 7

Your Preliminary Gains: 2000

Your Declared Gains: 2000

Your Declared Gains have not been verified

Total Deductions: 200.00

Amount received from pooled deductions: 50.00

Profit this round 1850.00

OK
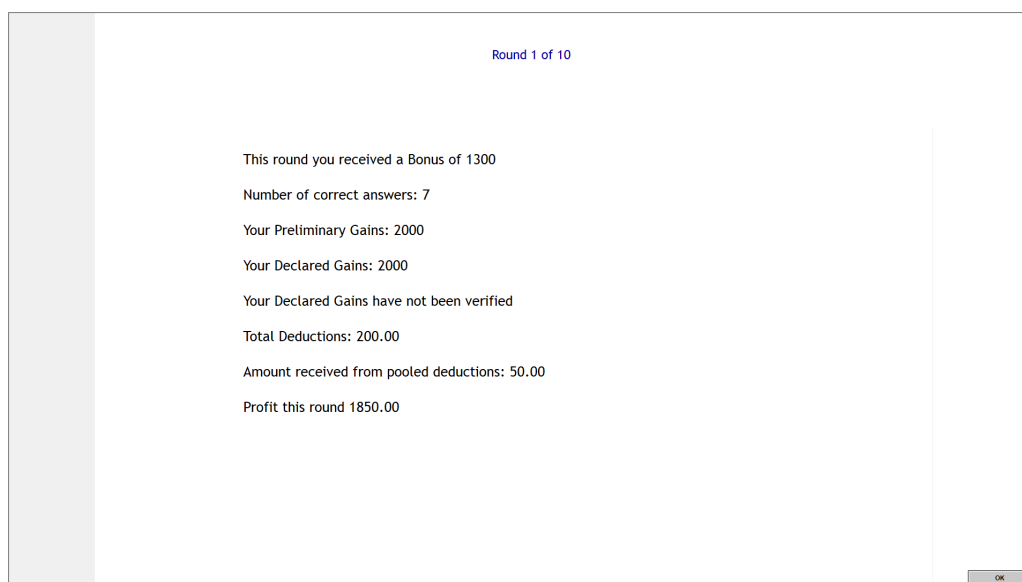
Figure A16: Results following declaration of gains, shock treatment, U.K.

Before the first round begins, please indicate how well you think you will
do in this round relative to other members of your group. You will earn
an additional 100 ECUs for this stage if you are correct.

I think I will answer the

Most Correct

Second Most Correct

Third Most Correct

Fourth Most Correct

Figure A17: Performance prediction before the real effort task, non-fixed treatment, U.K.

Appendix B   Supplemental analysis.

B1   Performance at the real-effort task.

Here, we look at the determinants of performance at the real effort task. In both Russia and the U.K., the experiment was carried out at elite universities (Higher School of Economics and Oxford, respectively), while in Chile 15/19 sessions were held at the more inclusive Universidad de Santiago and the remaining 4 sessions were held at the elite Universidad del Desarrollo. This is reflected in performance: subjects, on average, complete 8.29 (sd=2.43) additions in Chile, 11.25 (sd=2.59) in Russia, and 11.85 (sd=3.89) in the U.K. All differences between countries are significant ($p = 0.0069$ for two-tailed Welch t-test comparing average performance in Russia and the U.K., and $p < 0.0001$ for all other pairwise comparisons; the distributions of subject performance are plotted on Figure B1).
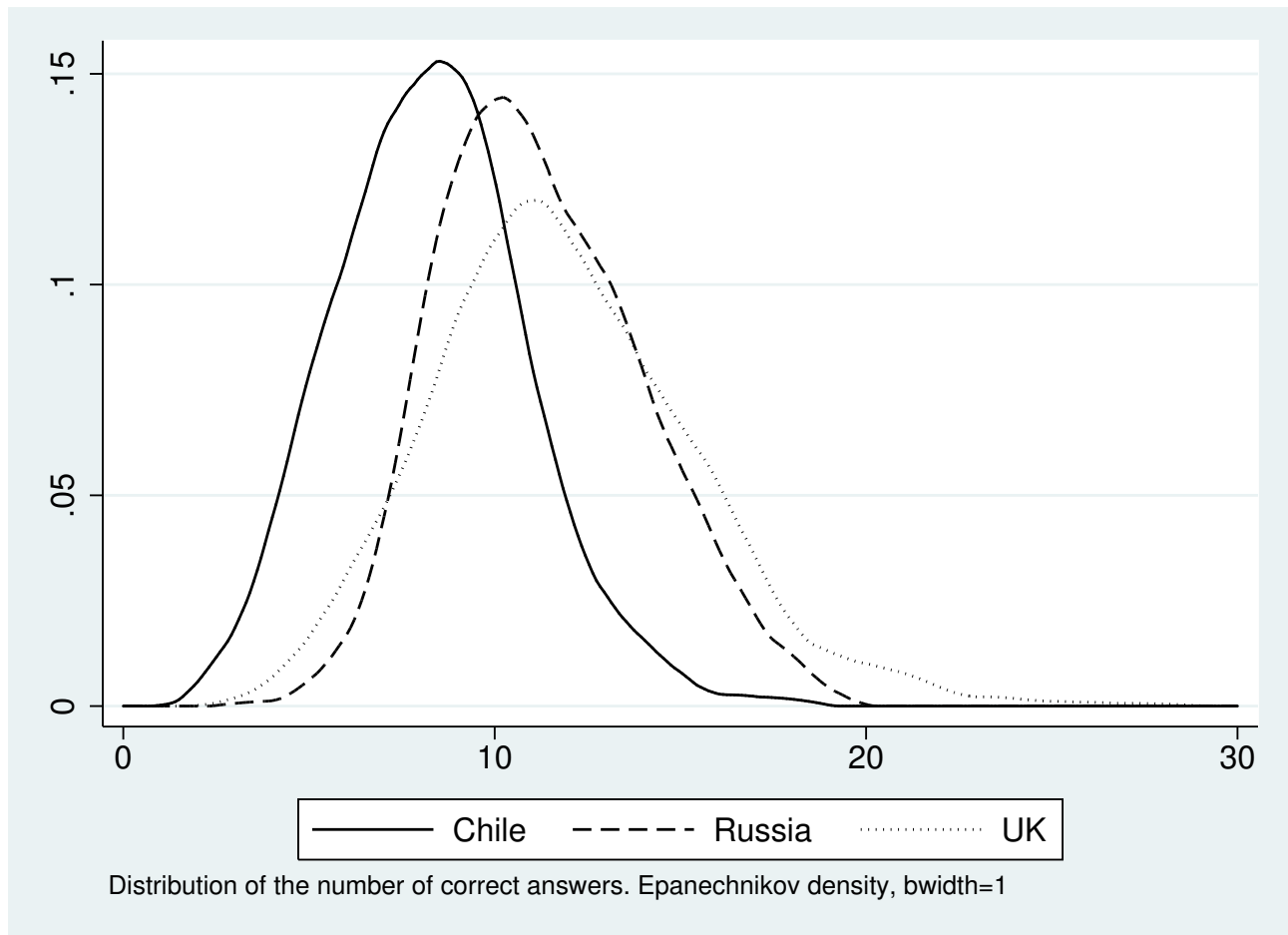
Figure B1: Distribution of average performance by country

In Table B1 we provide the results of OLS regressions of subject's average performance. The

regression include control variables for Civicness (see Algan et al. (2016)), calculated as the normalized first principle component based on ten survey questions regarding the justifiability of certain types of unethical behaviors, such as not paying for public transport (Table C13 has specific question wording). Trust is measured using a standard social capital question on how much a person can trust others. Following Holt and Laury (2002), the Safe choices variable is an additive index of ten lottery choices (selecting between two payment options) with increasing probabilities of earning the largest payment options. Ideology is measured using an 11-point Left-Right self-placement scale. Income is a self reported survey question on family income, where higher categories reflect higher income levels, and categories are country specific (see Figures A11-A14 in Appendix A).

In Russia and the U.K., the Dictator Game donations are negatively associated with the subsequent RET performance, while male subjects rank significantly higher in every country, other individual-level covariates are generally not significant.

	Chile		Russia		UK		All	
Male	1.649***	(0.320)	1.477***	(0.304)	1.200***	(0.359)	1.386***	(0.201)
Age	-0.0542*	(0.0290)	-0.0256	(0.0401)	-0.0978***	(0.0198)	-0.0966***	(0.0151)
DG frac	0.318	(0.925)	-2.454***	(0.709)	-3.223***	(0.823)	-2.428***	(0.479)
Deduction 20%	0.270	(0.358)	0.441	(0.322)	-0.462	(0.470)	0.138	(0.233)
Deduction 30%	-0.0447	(0.385)	0.0122	(0.465)	-0.133	(0.458)	-0.000425	(0.255)
Deduction 40%					0.0672	(1.180)	0.440	(1.029)
Deduction 50%					1.181	(0.864)	1.088	(0.677)
Deadweight loss					2.650***	(0.798)	2.245***	(0.627)
Redistribution					1.176	(0.757)	0.870*	(0.501)
Russia							2.441***	(0.278)
UK							3.135***	(0.311)
Shock	0.543	(0.551)	0.363	(0.460)	1.843***	(0.707)	0.817***	(0.307)
Status	1.108**	(0.562)	0.640	(0.587)	1.429*	(0.744)	0.833**	(0.357)
Status, 200 ECU	-0.821	(0.610)	0.0572	(0.776)	0.739	(0.834)	0.105	(0.465)
Non-fixed	1.727***	(0.494)	1.145***	(0.431)	0.172	(0.635)	0.697**	(0.275)
Civicness	0.140	(0.166)	-0.236	(0.147)	-0.348*	(0.189)	-0.208**	(0.0983)
Trust	0.664**	(0.324)	-0.478	(0.318)	-0.635*	(0.368)	-0.266	(0.206)
SafeChoices	-0.0591	(0.0859)	0.0685	(0.0815)	-0.0312	(0.0903)	0.0136	(0.0526)
Ideology	0.0861	(0.0749)	-0.0959	(0.0771)	0.153*	(0.0816)	0.0774*	(0.0463)
Income	-0.235	(0.558)	-0.531	(0.803)	-0.128	(0.528)	-0.113	(0.356)
Constant	7.472***	(1.255)	11.73***	(1.170)	13.49***	(1.113)	9.905***	(0.732)
Observations	234		256		332		822	
R^2	0.219		0.177		0.212		0.325	

OLS regression. Robust standard errors. Dependent variable is subject's average performance over 10 rounds.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B1: Determinants of subject's average performance.

Experimental treatments generally did not have any effect on average performance of the subjects. Importantly, in the Status treatment, subjects earning 200 ECU per correct answer performed no better than subjects who earned only 100 ECU; this would not have been the

case if the subjects were facing an increased marginal cost of effort. Similarly, the deduction rate did not have any effect on performance at the real-effort task — despite the fact that it did not affect the amount of lying.

In Table B2 we regress the number of correct answers in a given period on a set of treatment, individual, and period-level covariates. Performance increases with time, improving every period by an average of 0.14 correct answers over periods 2-10 indicating some potential learning effects. Performance is largely unaffected by either previous period's windfall income in the shock treatment (although the coefficient is negative and significant in the combined dataset), or by the income declared by the group members in the previous period.

	Chile		Russia		UK		All	
Male	1.603***	(0.315)	1.511***	(0.300)	1.228***	(0.354)	1.376***	(0.200)
Age	-0.0519*	(0.0290)	-0.0245	(0.0412)	-0.0972***	(0.0198)	-0.0959***	(0.0151)
Period	0.155***	(0.0155)	0.164***	(0.0165)	0.107***	(0.0151)	0.138***	(0.00868)
DG frac	0.287	(0.899)	-2.534***	(0.693)	-3.214***	(0.810)	-2.447***	(0.479)
Deadweight loss					2.384***	(0.790)	2.165***	(0.626)
Redistribution					1.119	(0.741)	0.818	(0.499)
Russia							2.465***	(0.288)
UK							3.121***	(0.327)
Shock	0.512	(0.570)	0.581	(0.489)	1.944***	(0.740)	0.942***	(0.328)
L.Shock=Yes	-0.182	(0.290)	-0.449*	(0.264)	-0.403	(0.318)	-0.347**	(0.177)
Status	1.072*	(0.564)	0.748	(0.558)	1.399*	(0.731)	0.835**	(0.357)
Status, 200 ECU	-0.791	(0.612)	-0.0364	(0.750)	0.765	(0.816)	0.0840	(0.466)
Non-fixed	1.659***	(0.488)	1.224***	(0.424)	0.0254	(0.627)	0.663**	(0.275)
L.Dec. others, 1000	0.0817	(0.0846)	-0.215*	(0.112)	0.172	(0.111)	0.0199	(0.0672)
Civicness	0.136	(0.165)	-0.247*	(0.142)	-0.348*	(0.188)	-0.215**	(0.0988)
Trust	0.648**	(0.320)	-0.517	(0.322)	-0.673*	(0.363)	-0.265	(0.206)
SafeChoices	-0.0677	(0.0848)	0.0534	(0.0788)	-0.0427	(0.0888)	0.00506	(0.0520)
Ideology	0.0903	(0.0729)	-0.0836	(0.0739)	0.168**	(0.0803)	0.0848*	(0.0462)
Income	-0.235	(0.544)	-0.616	(0.782)	-0.246	(0.520)	-0.159	(0.356)
Constant	6.528***	(1.248)	11.22***	(1.173)	12.83***	(1.117)	9.195***	(0.761)
Observations	2106		2304		2988		7398	
R^2	0.173		0.157		0.181		0.270	

OLS regressions. Dependent variable is performance in a round. Standard errors are clustered by subject. DG frac is the fraction of the 1000 ECU donated in the dictator game. Norms is the social norms index (see Table C13). SafeChoices if the number (0-10) of safe choices on the lottery task. Income is the number of the individual's income bracket, rescaled between 0 and 1 (for Chile and the UK), and the individual's perceived income decile, rescaled between 0 and 1 (for Russia).
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B2: Determinants of subject's performance, periods 2-10.

Importantly, performance is not negatively associated with civicness. In fact, in Russia and the U.K. this association is positive. This makes it less likely that the observed association between maximal lying and performance is due to the fact that some subjects participate in the experiment only to earn money, and are more willing to both cheat and exert effort at the real-effort task. In Russia, in the post-experiment survey we also asked a number of questions about trusting behavior — whether the person lends money or belongings or keeps the door open; in Glaeser et al. (2000) this was a significant predictor of trustworthy behavior in experiments,

but in our study these questions ware not associated with either higher or lower performance at the real effort task (Table C15). Maximal lying was also positively associated with performance in a non-incentivized practice period (Table C6).

B2 Near-maximal lying

In our experiments, subjects sometimes declared positive, but very small amounts of income. We believe that most of such "near-maximal" lying is not a chance variation from maximal lying, but driven by the same concerns as partial lying in general — such as finding justification for self-serving behavior (Gino and Ariely, 2016). This conjecture can be analyzed by comparing the prevalence of partial, maximal, and near-maximal lying among different population groups. Of interest here is whether the individuals who made small but positive declarations differed from those who made zero declarations. If this is the case, then near-maximal lying is less likely to be a chance variation from maximal lying, and is more likely to provide subjects with a self-serving justification for their behavior.

Previously, we found that subject ability is positively correlated with maximal lying. In Table C16, we compare the prevalence of small but positive declarations (such as 1-90 ECU, 1-80 ECU, all the way down to 1 ECU) among high and low performance subjects. We report the frequency of near-maximal cheating for individuals with average performance above and below median. We also report the p-values for the OLS regressions where the dependent variable is the dummy for near-maximal cheating, the independent variable is the dummy for above median performance, and standard errors are clustered by subject.[34] We find that in Russia and Chile, high performers are less likely to engage in near-maximal lying, even if we only consider declarations as small as between 1 and 50 ECU. In Russia, declarations between 1 and 10 ECU were made on 116 occasions, 81 of them by low performers — a difference significant at $p = 0.0422$; at the same time, high performance are more likely to declare exactly zero income. Looking at other correlates yields similar results: Near-maximal lying is more prevalent among females (Table C17, while maximal lying is more prevalent among males) and those who made positive donations in the Dictator game (Table C18, while zero donations were associated with

---

[34]These estimates are more conservative than those for the two-tailed t-test, which corresponds to the regression with unclustered standard errors.

maximal lying).

B3 The effects of additional covariates in Russia

In Russia, the participants of the experiment answered several additional survey questions. For all sessions, we included 6 questions related to preferences for redistributive government policies. In particular, we asked whether the subjects believed that incomes should be made more equal; whether private or government ownership of industry should be increased; whether government should take care of people; if competition is good or harmful; whether the income is mainly due to effort or to luck; and whether people can only gen rich at the expense of others. We calculate the index of redistributive preferences by taking the first principal component of these questions; the factor weights are reported on Table C19. The first principal component can be interpreted as the general magnitude of redistributive preferences: is negatively correlated with beliefs in private ownership, income differences, competition, and income being earned through effort, and personal (vs. government) responsibility.

We also included several questions regarding the individual's perspective and retrospective evaluations of one's economic conditions and the condition of the country's economy, as well as whether the individual or her immediate household had adverse experiences during the past year, such as not feeling secure from criminals or (in Sessions 55-64) losing a job. We calculate the index of economic security based on these questions, reported in Table C20. Larger values of the index correspond to a more optimistic economic outlook (both for self and for the country), and no adverse experiences in the past year.

In sessions 60–64, additional eight questions were asked to elicit the individual's subjective social status or the perception of one's relative standing in the society. A set of 7 questions measured subject's confidence and the beliefs with regard to one's power and status.[35] The eighth question, known as the McArthur 10-step ladder, is a widely used measure that captures the common sense of social status across several different socioeconomic indicators (Adler et al., 2000). The subjective social status index, based on these questions, is reported in Table C21.

We next estimate the effects of redistributive preferences, economic security, and subjective social status on lying. In Table C22 we look at redistributive preferences and trusting behav-

---

[35]A similar scale was used in Ridgeway et al. (1998).

ior. While the former had no significant effect, individuals who reported engaging in trusting behavior more often were less likely to lie partially, and declared a higher fraction of income conditional on lying partially. In Table C23, we add the index of economic security. That index is not statistically significant, although, with the smaller set of observations, higher preferences for redistribution are now associated with less maximal lying, and more partial lying. Finally, it Table C24 we look at the effect of subjective social status. We find that higher subjective social status is associated with more maximal lying, and less partial lying.

B4 Lying and the die roll game

At the end of the experimental sessions, we presented our subjects with an additional opportunity to lie at a standard die-rolling game.[36] Our expectation was lying in the main part of the experiment should predict behavior in the die-rolling game.

We adopt two ways to classify subjects based on their lying decisions over the 10 periods of the main part of the experiment. First, we define *maximal liars* as those who declared 0% in 8 or more periods; *partial liars* who lied partially in 8 or more periods, and *honest* as those who declared full income in at least 8 periods. In all, 78% of subjects belong into one of these three categories, with the rest falling into the residual fourth category. Second, we define maximal liars, partial liars, and honest subjects as those who made that type of decision over all 10 periods; 55.3% of subjects fell into one of these three categories.[37]

Figure B2 reports die rolls, depending on the individual's behavior in the main part of the experiment according to our first classification.

Our expectation was that the maximal liars would be more likely than other behavioral types to report 6; partial liars more likely to report 5; while the decisions by honest subjects would reflect the expected unbiased distribution. Our results for maximal liars are as expected — they had a 64.4% probability of reporting 6 on the die roll, compared with 36.2% for consistently honest subjects ($p < 0.0001$ on the two-tailed Fischer's exact test). Maximal liars were also less likely to report 2 or 5 ($p = 0.0344$ and $p = 0.0359$ on the two-sided Fischer's exact test) than consistently honest subjects. If we use the second classification, maximal liars have a higher

---

[36]A total of 444 subjects played the die roll game; the sessions where the die roll game was included in the experiment are given in Table A1.

[37]See Figure C3 for the distribution of subject choices across 10 periods.

The graph shows the relative frequencies of reported die rolls for different types of individuals. The horizontal line corresponds to 0.1666=1/6.
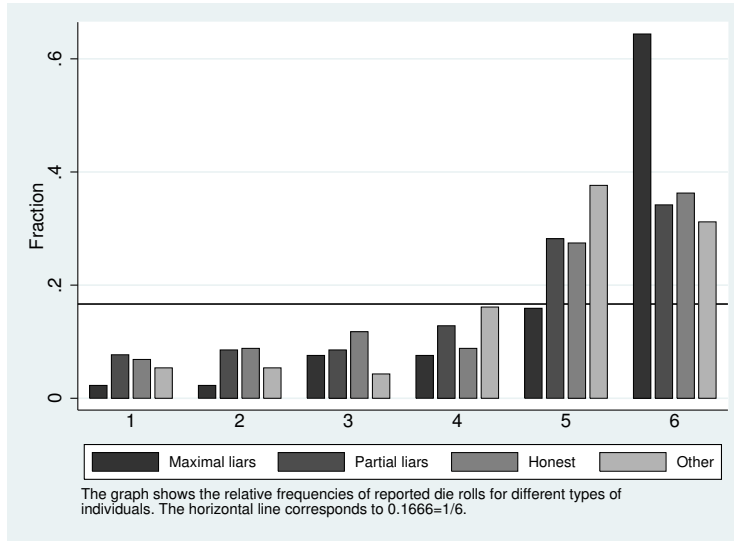
Figure B2: Lying and the Die Roll Result.

probability of reporting 6 ($p = 0.0001$), and lower probabilities of reporting 1 and 2 ($p = 0.0745$ and $p = 0.0104$, respectively).

At the same time, honest behavior in the main part of the experiment is not strongly associated honesty in the die roll game. There was lying in the die roll game even by those who declared full income in 8 or more periods. The 102 honest subjects from the lying game reported 5 and 6 as much as 30 and 40 times, respectively. That was significantly more often than 16.6% of the time which corresponds to truthful reporting ($p = 0.0042$ and $p < 0.0001$, one-side binomial test). The results did not change much if we consider the 73 subjects who were honest in every period of the experiment; they reported 5 and 6 after the die roll 20 and 27 times, respectively ($p = 0.0281$ and $p = 0.0005$, one-side binomial test).

Numbers reported by the partial liars were not lower or higher than those reported by honest subjects (Wilcoxon-Mann-Withney ranksum test $p = 0.8420$, honest subjects $n = 102$, partial liars $n = 117$). Similar results were present for the second classification (Wilcoxon-Mann-Withney ranksum test $p = 0.8202$, honest subjects $n = 73$, partial liars $n = 62$).[38] Partial liars were no more likely than honest subjects to report 5 — the choice associated with partial lying in the die roll game ($p = 1.0000$ and $p = 0.2632$ on the two-tailed Fisher's exact test for the two classifications).[39]

---

[38]Chi-squared tests also fail to reject the hypothesis that the distributions of reported numbers are different, with $p = 0.89$ and $p = 0.4102$, respectively.

[39]In Table C25 we report the results of the logistic regressions for the six reported die roll values. The

We obtain similar results for the digital version of the die game, when the die was rolled on the screen and the actual as well as reported die rolls were recorded.[40] The digital die roll game allowed us to record the instances of maximal lying, when the subject rolled the value between 1 and 4, and reported 6, and partial lying (not reporting either 6 or the actual value, if the latter was between 1 and 4; the frequencies of these behaviors are recorded in Table C26). Maximal liars were more likely to lie maximally on the digital die task than either partial liars or honest subjects ($p = 0.0007$ and $p = 0.0026$ on the respective two-sided Fisher's exact tests), and not more or less likely to lie partially ($p = 0.5894$ and $p = 1.000$ the respective two-sided Fisher's exact tests). At the same time, partial liars and honest subjects were not more or less likely to either lie maximally or lie partially at the digital die game ($p = 0.7835$ and $p = 0.7696$ on the respective two-sided Fisher's exact tests).[41]

One of our core expectations is confirmed here: we see high levels of maximal lying in the die-rolling game by subjects we classify as maximal liars in the main part of the experiment. However, the subjects we classified as consistently honest lied more than we expected in the die-rolling game, and the numbers that they reported were not different from those reported by consistent partial lying.

This may be true for two reasons. First, the lying costs in the main part of the experiment may potentially have been higher than in the die roll game. This might be true because the subjects who lied may have experienced additional discomfort as their decisions were observed by the experimenter.[42] One's maximal lying was also evident to a member of one's group if the other three group members also lied maximally. Hence, a subject who was honest or lied

---

dependent variables are the numbers of periods that the subject lied maximally and lied partially. We find that maximal lying is associated with a higher likelihood of reporting 6, and a lower likelihood of reporting 5 and 1, than either honest declaration or partial lying. The difference between the number of periods the subject lied partially and the number of periods with full declared income is not associated with a higher or lower likelihood of reporting any number in the die roll game.

[40]The distribution of reported rolls for this part of the experiment is shown on Figure C4 in Appendix C. Predictably, a smaller share of subjects, 29.1%, reported 6 on the digital die game, compared with 43% of the subjects who reported 6 when the actual die was rolled and the outcome was not observed by the experimenter.

[41]The subjects who lied maximally in every period were more likely to lie maximally at the digital die task than those who either lied partially in every period, or were honest in every period ($p = 0.0002$ and $p < 0.0001$ on the respective two-sided Fisher's exact tests), and not more or less likely to lie partially ($p = 0.3036$ and $p = 0.4857$, respectively). There was no difference in the incidence of either non-maximal lying ($p = 0.1474$) or maximal lying ($p = 1.0000$) on the digital die task between those who lied partially in every period in the main part of the experiment, and those who were honest in every period.

[42]In Gneezy et al. (2018) experiment, subjects lied more when their choices were not observed by the experimenter.

partially in the main part of the experiment may have lied maximally in the die roll game. This could also be true due to altruistic concerns, as lying in the main game was costly for other participants.[43] Second, lying thresholds can be contingent on the context and the nature of the cheating decision. Hence, in one game an individual may have had a zero lying threshold and behaved honestly, while in another she had a positive lying threshold and chose to lie partially, and vice versa. This is consistent with the findings that the size of the lying threshold is sensitive to context and framing (Mazar et al., 2008; Gino and Ariely, 2016).

B5 Out-of-sample predictions of the peer effect

In order to estimate the effect of group member declarations over 10 periods, we predict whether the subject lied maximally, lied partially, or was honest for periods 2-10.[44] When predicting the individual's choice for each of periods 3-10, we use the predicted choice in the previous period as lagged own choice. We make two extreme counterfactual assumptions about the declarations of the other group members. First, we assume that they declare nothing in each period. Second, we assume that the other group members declared 100% of their income in each period. We also make the prediction using actual declarations of each subject's group members. Table B3 reports the aggregate outcome of these estimations, repeated over 1,000 iterations (the distributions of these frequencies for 50 iterations are also reported in Appendix C, Figure C2).

We see that for Chile, lying behavior is stable in the sense that it is not conditional on the behavior of other group members. The estimated shares of maximal liars, partial liars, and honest subjects in period 10 change by less than 4% if the other group members always report zero incomes, compared with them always reporting their entire incomes. This is less true with respect to the U.K.; there, the probability that a given individual will be a maximal liar in period 10 is estimated to drop by just under 16% if all other individuals in his group always behave honestly, compared with lying maximally in every period. Finally, in Russia lying is

---

[43]In our game, honest decisions involve more redistribution to the subject's group members. However, Dictator Game behavior is also predictive of lying in the die roll game, where altruistic concerns are absent. Subjects who donated 0 in the Dictator Game have, on average, reported 6 after the die roll 65.8% of the time, compared with 38.5% of the time for subjects who donated more than 0. This difference was significant in Russia and the U.K. ($p = 0.0407$ and $p = 0.0029$ for two-sided Fisher's exact test).

[44]We use models identical to ones in Appendix C Table C4, with the exception that we do not include the coefficient for the fraction of income declared in the past period.

	Assumption about declarations of other group members	Maximal lying	Partial lying	Honest
Chile	Actual declarations	.203 (.019)	.325 (.025)	.471 (.025)
	Declared 0% in each period	.189 (.019)	.328 (.029)	.483 (.025)
	Declared 100% in each period	.216 (.017)	.321 (.024)	.464 (.025)
	Actual behavior in period 10	.211	.328	.461
Russia	Actual declarations	.458 (.028)	.413 (.027)	.129 (.021)
	Declared 0% in each period	.619 (.027)	.284 (.024)	.098 (.021)
	Declared 100% in each period	.11 (.019)	.693 (.024)	.198 (.021)
	Actual behavior in period 10	.469	.395	.137
UK	Actual declarations	.652 (.018)	.18 (.015)	.167 (.014)
	Declared 0% in each period	.689 (.015)	.158 (.016)	.153 (.013)
	Declared 100% in each period	.531 (.017)	.259 (.02)	.211 (.019)
	Actual behavior in period 10	.657	.177	.165

For each country, each of the rows 1-3 corresponds to the result of 1000 estimations, and reports the mean and standard deviation of the prevalence of maximal lying, partial lying, and honest behavior in Period 10. The fourth row reports the actual frequencies in Period 10.

Table B3: Predicted and actual behavior in Period 10

strongly conditional on the behavior of other group members; having honest group members makes one much more likely to be a partial liar, and much less likely to be a maximal liar, compared with the group members declaring zero income.

B6 Reaction Time

In our experiment, we measured the time subjects took to make their income declaration decisions. Recent studies have found that reaction time is correlated with lying, but both positive and negative relationships were reported.[45] We find that partial lying was associated with much greater reaction time ($t = 12.73$, sd=18.63, $n = 3455$) than either honest declarations ($t = 10.52$, sd=22.21, $n = 2793$) or maximal lying ($t = 4.31$, sd=7.72, $n = 4464$). The empirical distributions of reaction time for 100% declarations dominated the distribution for 0% declarations, but was dominated by the distribution of response times for intermediate declarations (Figure B3; this is also true for each individual country, see Figure C5 in Appendix C).

In Table C27 in Appendix C, we regress the log reaction time for each decision on individual

---

[45]Deviations from self-interested lying have been shown to require reflection and hence higher reaction times (Shalvi et al., 2012; Gino et al., 2011; Tabatabaeian et al., 2015). However, other experiments have found that honesty is a quick natural response (Foerster et al., 2013; Verschuere and Shalvi, 2014; Levine, 2014).
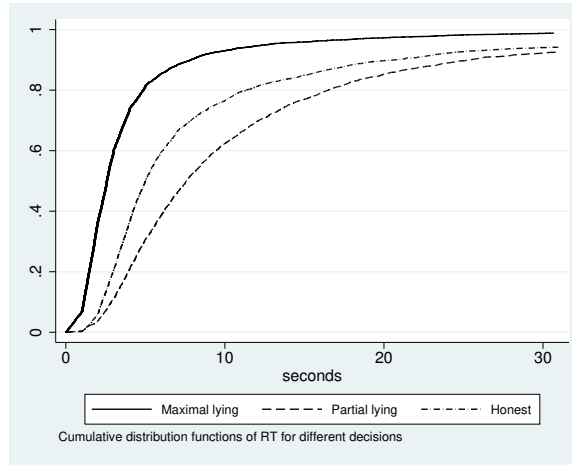
Figure B3: Cumulative distributions of reaction times for different declarations

and treatment controls. In Model 1 we control for the individual's choice, while in Model 2 we also control for the choice made in the previous period, and find that an honest declaration is a much quicker decision than a partial lie. In Model 3 we control for all possible combinations of decisions made in this and previous periods, as well as for decisions made in Period 1. We find that in Period 1, it took more time to declare 100% of the income than to lie maximally, but less time than to lie partially ($p < 0.0001$ on both comparisons); a similar nonlinear relationship between the size of the lie and reaction time was present if the subject was honest in the previous period, while a repeated maximal lie took less time than any other type of decision.[46] We obtain similar results by estimating parametric survival-time models, assuming exponential (Table C28) and Weibull (Table C29) distributions of reaction time.

The U-shaped relationship between lying size and reaction time suggests two possibilities. First, partial lying necessarily involves a choice from a broad range of alternatives, and hence involves more reflection than either a honest choice or a maximal lie. Second, both noncooperation and honesty can be heuristic responses (Rand et al., 2014; Verschuere and Shalvi, 2014), while partial lie involves decision conflict and is slower.

---

[46]The experimental conditions had some effect on the reaction time. Once the individual's choices are controlled for, the deduction rates and the benefit of lying had no effect; however, the reaction time was higher in the Shock treatment, especially if the subject received unearned income it that period. The reaction time decreased with periods, was shorter for individuals with higher ability at the RET task, and was longer for males and subjects who made higher donations in the dictator game.

Appendix C Supplemental tables and figures.

Chile

| | Mlogit, average marginal effects | | | | | | OLS | | OLS | |
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.221***	(0.0699)	-0.130	(0.0803)	-0.0915	(0.0879)	0.0782	(0.0971)	752.7***	(140.7)
RET deviation	-0.00260	(0.00236)	0.00420	(0.00358)	-0.00160	(0.00356)	-0.0133**	(0.00565)	63.70***	(11.50)
Male	0.0623	(0.0402)	-0.0214	(0.0482)	-0.0410	(0.0516)	-0.0657	(0.0463)	-72.34	(64.74)
Age	0.00276	(0.00276)	-0.00759*	(0.00412)	0.00483	(0.00473)	-0.00182	(0.00471)	-6.798	(7.402)
Period	0.00928***	(0.00186)	0.000923	(0.00258)	-0.0102***	(0.00262)	0.00550	(0.00365)	19.23***	(5.581)
DG frac	-0.324***	(0.110)	-0.134	(0.119)	0.458***	(0.141)	-0.297**	(0.137)	-434.7**	(206.1)
Deduction 20%=1	-0.0870**	(0.0383)	-0.0758	(0.0517)	0.163***	(0.0562)	-0.0648	(0.0570)	-107.2	(81.14)
Deduction 30%=1	0.0253	(0.0417)	-0.0923*	(0.0480)	0.0671	(0.0554)	-0.0657	(0.0560)	-135.2*	(79.70)
Shock=1	0.113	(0.116)	0.0371	(0.0964)	-0.150	(0.0914)	-0.0957	(0.0763)	-69.17	(96.12)
Shock, yes=1	0.00356	(0.0272)	0.00658	(0.0446)	-0.0101	(0.0425)	-0.0190	(0.0464)	709.9***	(109.8)
Status=1	0.182	(0.134)	0.00480	(0.104)	-0.187*	(0.102)	0.00288	(0.0908)	-231.8**	(103.8)
Status, 200 ECU=1	-0.0667	(0.0684)	-0.0780	(0.0939)	0.145	(0.109)	-0.208**	(0.100)	211.1	(136.0)
Non-fixed=1	0.172**	(0.0731)	-0.140*	(0.0747)	-0.0318	(0.0758)	-0.0864	(0.0740)	-68.15	(96.76)
Constant							0.827***	(0.152)	737.8***	(220.0)
Observations	3078		3078		3078		1075		1075	
D20=D30	0.00831		0.766		0.120		0.987		0.721	

Russia

| | Mlogit, average marginal effects | | | | | | OLS | | OLS | |
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.187**	(0.0803)	-0.0974	(0.0848)	-0.0895	(0.0646)	-0.104	(0.0721)	629.1***	(136.6)
RET deviation	0.000813	(0.00364)	0.00719*	(0.00383)	-0.00801***	(0.00296)	0.00353	(0.00383)	99.61***	(8.363)
Male	0.0649	(0.0480)	-0.176***	(0.0493)	0.112***	(0.0346)	0.00653	(0.0406)	8.620	(72.97)
Age	-0.0209	(0.0148)	0.0186	(0.0124)	0.00235	(0.00513)	-0.000313	(0.00320)	-1.565	(6.008)
Period	0.0189***	(0.00287)	-0.0225***	(0.00290)	0.00361*	(0.00204)	0.0206***	(0.00290)	50.10***	(5.328)
DG frac	-0.715***	(0.118)	0.542***	(0.114)	0.173**	(0.0743)	-0.263***	(0.0946)	-440.5***	(152.2)
Deduction 20%=1	-0.0802	(0.0536)	0.112**	(0.0557)	-0.0321	(0.0352)	0.0167	(0.0461)	11.71	(80.76)
Deduction 30%=1	-0.00609	(0.0644)	0.0430	(0.0644)	-0.0369	(0.0380)	0.0587	(0.0501)	133.5	(88.17)
Redistribution=1	0.0975	(0.0877)	-0.0713	(0.0921)	-0.0262	(0.0766)	0.00250	(0.0991)	37.32	(146.9)
Shock=1	-0.0131	(0.0733)	-0.0361	(0.0707)	0.0493	(0.0607)	0.0718	(0.0469)	-315.1***	(74.58)
Shock, yes=1	-0.00986	(0.0472)	0.0250	(0.0467)	-0.0152	(0.0328)	0.0190	(0.0377)	1015.2***	(89.25)
Status=1	-0.0250	(0.0914)	-0.0299	(0.0945)	0.0549	(0.0693)	0.0258	(0.0554)	-383.1***	(85.59)
Status, 200 ECU=1	0.0193	(0.108)	-0.0511	(0.113)	0.0318	(0.0903)	0.0126	(0.0717)	781.6***	(155.2)
Non-fixed=1	0.0246	(0.0714)	-0.116*	(0.0667)	0.0913	(0.0563)	0.0160	(0.0660)	-5.635	(115.9)
Constant							0.655***	(0.0828)	648.3***	(149.0)
Observations	2560		2560		2560		1291		1291	
D20=D30	0.244		0.285		0.913		0.407		0.190	

UK

| | Mlogit, average marginal effects | | | | | | OLS | | OLS | |
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.378***	(0.0560)	-0.0727	(0.0532)	-0.305***	(0.0542)	0.0777	(0.0756)	1328.4***	(134.2)
RET deviation	-0.00121	(0.00210)	0.00220	(0.00236)	-0.000988	(0.00188)	0.00578	(0.00462)	108.7***	(7.660)
Male	0.0985***	(0.0343)	-0.130***	(0.0302)	0.0318	(0.0288)	-0.0422	(0.0457)	-111.4	(76.90)
Age	-0.00766***	(0.00265)	0.00501**	(0.00222)	0.00265	(0.00206)	0.00136	(0.00261)	2.838	(4.059)
Period	0.0210***	(0.00206)	-0.0106***	(0.00196)	-0.0104***	(0.00161)	0.00871***	(0.00331)	26.37***	(5.498)
DG frac	-0.657***	(0.0645)	0.177***	(0.0583)	0.481***	(0.0654)	-0.315**	(0.124)	-536.9**	(213.3)
Deduction 20%=1	-0.00889	(0.0408)	0.0496	(0.0376)	-0.0407	(0.0306)	0.00574	(0.0521)	5.770	(84.21)
Deduction 30%=1	0.0337	(0.0427)	-0.0196	(0.0379)	-0.0142	(0.0362)	-0.0436	(0.0659)	-94.60	(103.5)
Deduction 40%=1	-0.0380	(0.0672)	0.0929	(0.0651)	-0.0549	(0.0466)	-0.0508	(0.0731)	-19.61	(110.1)
Deduction 50%=1	0.125	(0.0769)	-0.0102	(0.0719)	-0.115**	(0.0463)	0.181**	(0.0837)	253.2*	(149.4)
Deadweight loss=1	-0.0779	(0.0692)	-0.00641	(0.0585)	0.0843	(0.0568)	0.0327	(0.0935)	20.22	(184.1)
Redistribution=1	0.0811	(0.0516)	-0.0396	(0.0429)	-0.0415	(0.0424)	0.0417	(0.0701)	24.79	(119.8)
Shock=1	0.0107	(0.0659)	-0.0313	(0.0563)	0.0206	(0.0573)	0.115*	(0.0655)	-321.6***	(110.7)
Shock, yes=1	-0.0498	(0.0416)	0.0952**	(0.0479)	-0.0454	(0.0297)	0.0465	(0.0400)	1200.2***	(79.66)
Status=1	0.132*	(0.0702)	-0.0532	(0.0664)	-0.0784	(0.0566)	-0.0269	(0.103)	-492.9***	(127.1)
Status, 200 ECU=1	-0.174*	(0.0930)	0.0163	(0.101)	0.157	(0.121)	0.132	(0.107)	1186.0***	(144.1)
Non-fixed=1	-0.0184	(0.0486)	0.0423	(0.0446)	-0.0239	(0.0374)	-0.00186	(0.0702)	-23.68	(117.4)
Constant							0.671***	(0.101)	574.4***	(156.6)
Observations	5080		5080		5080		1091		1091	
D20=D30	0.360		0.0934		0.498		0.385		0.259	
D20=D40	0.679		0.505		0.768		0.389		0.797	
D20=D50	0.0989		0.418		0.139		0.0274		0.0776	
D30=D40	0.305		0.0929		0.423		0.927		0.535	
D30=D50	0.256		0.901		0.0648		0.0132		0.0247	
D40=D50	0.0630		0.211		0.296		0.00492		0.0366	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. Fourth and fifth columns report OLS regressions, the dependent variables are the fraction and the amount of income not declared in a given round; only partial lying decisions are considered. Standard errors are clustered by subject. RET rank is the national rank, between 0 and 1, of subject's national performance at the real effort task. RET Deviation is the difference between actual number of correct additions and one predicted from subject and period FE. DG frac is the fraction of the 1000 ECU donated in the dictator game.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C1: Determinants of lying in each period, by country
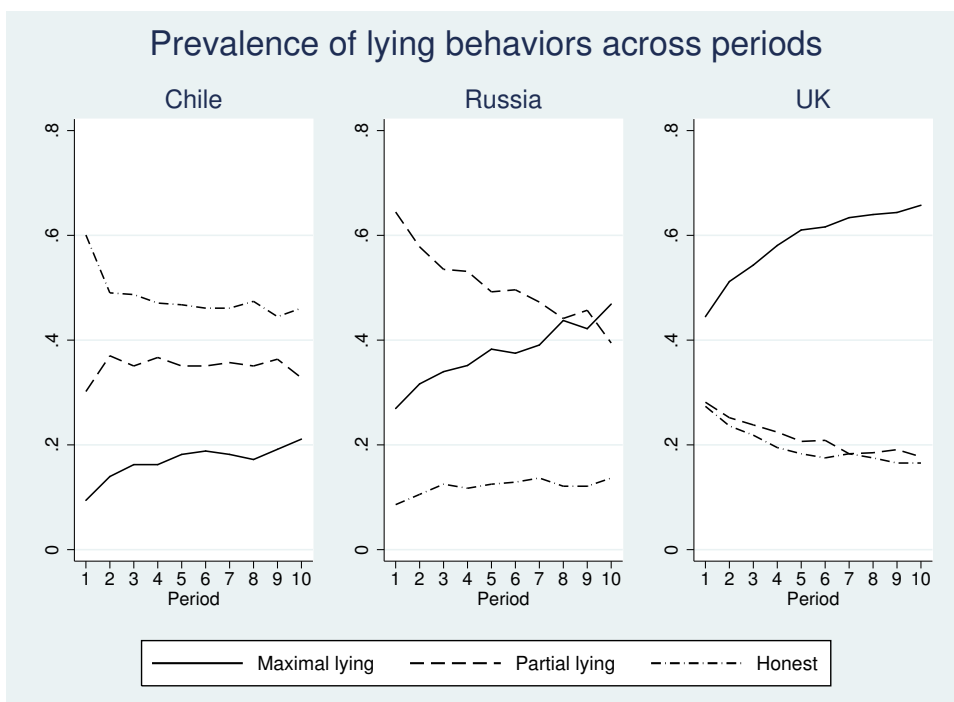
Figure C1: Lying behaviors in each period

	All countries						All countries		All countries	
	Mlogit, average marginal effects						OLS		OLS	
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
ProfitRET	0.000139***	(0.0000292)	-0.0000754**	(0.0000297)	-0.0000640**	(0.0000266)	-0.0000199	(0.0000357)	0.582***	(0.0672)
Period	0.0142***	(0.00141)	-0.00923***	(0.00151)	-0.00501***	(0.00128)	0.0124***	(0.00203)	17.18***	(3.255)
Deduction 20%=1	-0.0553	(0.0626)	-0.0785	(0.0595)	0.134**	(0.0611)	-0.0105	(0.0663)	-120.9	(103.4)
Deduction 30%=1	0.0843	(0.0735)	-0.102	(0.0633)	0.0182	(0.0642)	-0.00589	(0.0708)	-61.36	(108.8)
Deduction 40%=1	-0.205	(0.127)	0.340**	(0.141)	-0.135	(0.107)	-0.503***	(0.136)	-681.9***	(191.9)
Deduction 50%=1	0.134	(0.193)	-0.133	(0.132)	-0.000887	(0.169)	-0.0445	(0.149)	-297.7	(238.4)
D20%xE	0.00000222	(0.0000349)	0.0000693*	(0.0000379)	-0.0000716**	(0.0000351)	0.00000590	(0.0000393)	0.0745	(0.0799)
D30%xE	-0.0000430	(0.0000413)	0.0000540	(0.0000421)	-0.0000110	(0.0000397)	0.00000442	(0.0000412)	0.0406	(0.0849)
D40%xE	0.0000932	(0.000100)	-0.000151*	(0.0000823)	0.0000574	(0.000106)	0.000303***	(0.0000761)	0.439***	(0.124)
D50%xE	0.00000133	(0.0000954)	0.0000887	(0.000101)	-0.0000900	(0.0000927)	0.000130	(0.0000879)	0.347**	(0.169)
Russia=1	0.0721**	(0.0348)	0.128***	(0.0348)	-0.200***	(0.0241)	0.0657**	(0.0327)	107.7**	(54.05)
UK=1	0.259***	(0.0330)	-0.133***	(0.0325)	-0.126***	(0.0269)	0.0862**	(0.0374)	167.1***	(58.23)
Constant							0.668***	(0.0826)	116.2	(130.0)
Observations	10718		10718		10718		3457		3457	
D20=D30	0.0496		0.711		0.0873		0.943		0.574	
D20=D40	0.250		0.00288		0.0185		0.000226		0.00361	
D20=D50	0.325		0.687		0.427		0.817		0.459	
D30=D40	0.0337		0.00205		0.191		0.000261		0.00126	
D30=D50	0.802		0.825		0.912		0.797		0.334	
D40=D50	0.128		0.00894		0.484		0.0105		0.160	
D20xE=D30xE	0.256		0.718		0.146		0.969		0.681	
D20xE=D40xE	0.361		0.00762		0.224		0.0000676		0.00345	
D20xE=D50xE	0.992		0.848		0.842		0.147		0.103	
D30xE=D40xE	0.184		0.0166		0.528		0.0000848		0.00185	
D30xE=D50xE	0.650		0.736		0.408		0.152		0.0759	
D40xE=D50xE	0.485		0.0493		0.271		0.0963		0.622	
Russia=UK	7.06e-10		2.31e-18		0.00695		0.554		0.316	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. Fourth and fifth columns report OLS regressions, the dependent variables are the fraction and the amount of income not declared in a given round; only partial lying decisions are considered. Standard errors are clustered by subject. RET earnings are the earnings in the real effort task, plus possible windfall income. Other controls are age, gender, fraction donated in the dictator game, and other experimental conditions (not shown).
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C2: Determinants of lying in each period

Chile — Mlogit, average marginal effects | Chile OLS | Chile OLS

	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
ProfitRET	0.000127**	(0.0000508)	-0.0000771	(0.0000548)	-0.0000496	(0.0000612)	0.0000532	(0.0000766)	0.654***	(0.137)
Period	0.00663***	(0.00212)	0.00219	(0.00285)	-0.00882***	(0.00291)	0.00556	(0.00406)	6.892	(6.028)
Deduction 20%=1	-0.0549	(0.0921)	-0.160	(0.107)	0.215*	(0.124)	0.0724	(0.113)	191.0	(180.7)
Deduction 30%=1	0.114	(0.105)	-0.124	(0.0899)	0.0105	(0.119)	0.0772	(0.113)	245.1	(149.4)
D20%xE	-0.0000264	(0.0000668)	0.0000688	(0.0000830)	-0.0000423	(0.0000867)	-0.0000996	(0.0000788)	-0.231	(0.162)
D30%xE	-0.0000565	(0.0000597)	0.0000217	(0.0000658)	0.0000348	(0.0000789)	-0.000107	(0.0000808)	-0.284*	(0.146)
Constant							0.821***	(0.166)	447.0*	(261.0)
Observations	3078		3078		3078		1075		1075	
D20=D30	0.100		0.728		0.107		0.967		0.775	
D20xE=D30xE	0.635		0.555		0.374		0.925		0.756	

Russia — Mlogit, average marginal effects | Russia OLS | Russia OLS

	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
ProfitRET	0.0000454	(0.0000642)	0.0000368	(0.0000689)	-0.0000490	(0.0000409)	-0.0000731	(0.0000518)	0.478***	(0.108)
Period	0.0165***	(0.00314)	-0.0212***	(0.00330)	0.00475**	(0.00230)	0.0219***	(0.00312)	32.75***	(5.293)
Deduction 20%=1	-0.189	(0.127)	0.233*	(0.124)	-0.0445	(0.0723)	0.0158	(0.109)	-145.6	(189.4)
Deduction 30%=1	-0.0871	(0.140)	0.164	(0.140)	-0.0769	(0.106)	-0.127	(0.111)	-421.0**	(185.0)
D20%xE	0.0000696	(0.0000762)	-0.0000782	(0.0000779)	0.00000864	(0.0000474)	-9.89e-08	(0.0000650)	0.0972	(0.136)
D30%xE	0.0000456	(0.0000786)	-0.0000783	(0.0000844)	0.0000328	(0.0000855)	0.000111*	(0.0000584)	0.337***	(0.122)
Redistribution=1	0.101	(0.0892)	-0.0737	(0.0918)	-0.0273	(0.0766)	0.00546	(0.0975)	59.25	(136.8)
Constant							0.700***	(0.108)	223.9	(197.4)
Observations	2560		2560		2560		1291		1291	
D20=D30	0.460		0.605		0.774		0.209		0.136	
D20xE=D30xE	0.756		0.999		0.785		0.0836		0.0649	

UK — Mlogit, average marginal effects | UK OLS | UK OLS

	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
ProfitRET	0.000187***	(0.0000415)	-0.0000703*	(0.0000393)	-0.000116***	(0.0000365)	-0.00000986	(0.0000656)	0.662***	(0.119)
Period	0.0181***	(0.00215)	-0.0100***	(0.00204)	-0.00807***	(0.00168)	0.00855**	(0.00332)	12.79**	(5.394)
Deduction 20%=1	0.0173	(0.0993)	-0.0893	(0.0784)	0.0720	(0.0897)	-0.0573	(0.133)	-210.2	(193.4)
Deduction 30%=1	0.156	(0.105)	-0.156*	(0.0839)	0.0000993	(0.0844)	0.0426	(0.148)	61.94	(214.0)
Deduction 40%=1	-0.196	(0.204)	0.345*	(0.190)	-0.149**	(0.0716)	-0.497***	(0.171)	-567.5**	(239.1)
Deduction 50%=1	0.206	(0.157)	-0.103	(0.108)	-0.103	(0.103)	-0.0474	(0.189)	-261.9	(297.7)
D20%xE	-0.0000164	(0.0000538)	0.0000909*	(0.0000503)	-0.0000745	(0.0000487)	0.0000334	(0.0000689)	0.135	(0.126)
D30%xE	-0.0000804	(0.0000675)	0.0000966	(0.0000673)	-0.0000163	(0.0000514)	-0.0000509	(0.0000729)	-0.101	(0.141)
D40%xE	0.0000505	(0.000114)	-0.000131*	(0.0000762)	0.0000801	(0.0000972)	0.000297***	(0.0000945)	0.369*	(0.156)
D50%xE	-0.0000423	(0.000106)	0.0000648	(0.0000907)	-0.0000225	(0.0000883)	0.000138	(0.000109)	0.331	(0.202)
Deadweight loss=1	-0.0647	(0.0687)	-0.0132	(0.0568)	0.0779	(0.0566)	0.0479	(0.0938)	37.83	(183.4)
Redistribution=1	0.0859	(0.0522)	-0.0440	(0.0427)	-0.0419	(0.0421)	0.0493	(0.0642)	25.39	(112.9)
Constant							0.717***	(0.143)	64.34	(221.9)
Observations	5080		5080		5080		1091		1091	
D20=D30	0.211		0.445		0.444		0.367		0.0805	
D20=D40	0.300		0.0161		0.0249		0.00290		0.0674	
D20=D50	0.252		0.907		0.127		0.952		0.840	
D30=D40	0.0958		0.00835		0.124		0.000663		0.00354	
D30=D50	0.770		0.667		0.383		0.615		0.257	
D40=D50	0.0933		0.0238		0.685		0.0190		0.288	
D20xE=D30xE	0.338		0.929		0.296		0.0830		0.0147	
D20xE=D40xE	0.558		0.00275		0.113		0.00110		0.0609	
D20xE=D50xE	0.805		0.770		0.548		0.266		0.250	
D30xE=D40xE	0.283		0.0103		0.337		0.0000395		0.00119	
D30xE=D50xE	0.738		0.754		0.945		0.0539		0.0241	
D40xE=D50xE	0.516		0.0582		0.384		0.150		0.840	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. Fourth and fifth columns report OLS regressions, the dependent variables are the fraction and the amount of income not declared in a given round; only partial lying decisions are considered. Standard errors are clustered by subject. RET earnings are the earnings in the real effort task, plus possible windfall income. Other controls are age, gender, fraction donated in the dictator game, and other experimental conditions (not shown).
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C3: Determinants of lying in each period, by country

| | Chile | | Chile | Chile |
| | Mlogit, average marginal effects | | OLS | OLS |
	Maximal lying	Partial lying	Honest	Fraction undeclared	Amount undeclared
RET rank	0.0374** (0.0165)	-0.0410 (0.0282)	0.00358 (0.0266)	0.0347 (0.0388)	683.5*** (69.23)
RET deviation	-0.00128 (0.00282)	0.00476 (0.00469)	-0.00348 (0.00406)	-0.0122** (0.00574)	65.06*** (11.52)
Male	0.0190** (0.00934)	0.00317 (0.0157)	-0.0222 (0.0150)	-0.0191 (0.0178)	-11.16 (30.64)
Age	0.000206 (0.000726)	-0.00197 (0.00143)	0.00176 (0.00134)	-0.000465 (0.00200)	-4.597 (3.976)
Period	-0.00177 (0.00117)	-0.00409** (0.00189)	0.00587*** (0.00177)	-0.0000223 (0.00235)	10.96*** (4.508)
DG frac	-0.0566** (0.0246)	-0.0358 (0.0466)	0.0924** (0.0463)	-0.139** (0.0604)	-214.3** (106.4)
Deduction 20%=1	-0.0213* (0.0110)	-0.0200 (0.0187)	0.0413** (0.0181)	-0.0493** (0.0240)	-87.63** (40.78)
Deduction 30%=1	0.00759 (0.0104)	-0.0379* (0.0184)	0.0303* (0.0173)	-0.0192 (0.0234)	-72.54* (42.13)
Shock=1	0.0196 (0.0268)	-0.00354 (0.0335)	-0.0161 (0.0340)	-0.0354 (0.0348)	7.178 (55.47)
Shock, yes=1	0.00260 (0.0223)	0.0417 (0.0395)	-0.0443 (0.0392)	0.00892 (0.0336)	744.0*** (96.58)
Status=1	0.0364 (0.0303)	0.00495 (0.0351)	-0.0413 (0.0344)	-0.00513 (0.0366)	-248.1*** (52.98)
Status, 200 ECU=1	-0.0221 (0.0204)	-0.0135 (0.0348)	0.0355 (0.0356)	-0.0856** (0.0426)	375.7*** (70.90)
Non-fixed=1	0.0478** (0.0219)	-0.0370 (0.0243)	-0.0109 (0.0212)	-0.00975 (0.0280)	31.15 (46.63)
L.Declared 0%=1	0.752*** (0.0389)	-0.193*** (0.0322)	-0.559*** (0.0168)	0.279*** (0.0624)	390.8*** (104.2)
L.Declared 1-99%=1	0.0588*** (0.0158)	0.623*** (0.0221)	-0.682*** (0.0153)	0.495*** (0.0362)	656.0*** (57.02)
L.Partial cheat	-0.120*** (0.0266)	-0.100** (0.0398)	0.221*** (0.0414)	-0.789*** (0.0340)	-1087.6*** (65.25)
L.Dec. others, 1000	0.00156 (0.00299)	0.000624 (0.00556)	-0.00218 (0.00546)	-0.00343 (0.00677)	-3.373 (13.16)
Constant				0.539*** (0.0678)	368.6*** (120.7)
Observations	2771	2771	2771	982	982
D20=D30	0.0106	0.353	0.543	0.213	0.727

| | Russia | | Russia | Russia |
| | Mlogit, average marginal effects | | OLS | OLS |
	Maximal lying	Partial lying	Honest	Fraction undeclared	Amount undeclared
RET rank	0.0457* (0.0258)	-0.00720 (0.0290)	-0.0385* (0.0232)	-0.0320 (0.0240)	754.5*** (63.79)
RET deviation	-0.00482 (0.00408)	0.00965** (0.00430)	-0.00483 (0.00327)	0.000345 (0.00360)	96.01*** (7.928)
Male	0.0216 (0.0145)	-0.0718*** (0.0178)	0.0502*** (0.0145)	0.00449 (0.0133)	7.439 (30.93)
Age	-0.00422 (0.00370)	0.00477 (0.00365)	-0.000559 (0.00245)	-0.000518 (0.00103)	-1.458 (2.408)
Period	0.000155 (0.00172)	-0.00175 (0.00180)	0.00159 (0.00124)	-0.000747 (0.00174)	11.53*** (4.122)
DG frac	-0.174*** (0.0424)	0.143*** (0.0453)	0.0313 (0.0327)	-0.0622 (0.0381)	-118.5* (67.82)
Deduction 20%=1	-0.0169 (0.0158)	0.0328* (0.0181)	-0.0159 (0.0146)	0.0222 (0.0147)	19.79 (33.64)
Deduction 30%=1	-0.00528 (0.0183)	0.0187 (0.0215)	-0.0135 (0.0165)	0.0254 (0.0170)	71.20* (36.41)
Redistribution=1	0.00762 (0.0305)	-0.0198 (0.0441)	0.0122 (0.0407)	-0.0211 (0.0354)	3.851 (35.70)
Shock=1	0.00211 (0.0287)	-0.0215 (0.0296)	0.0194 (0.0256)	0.0203 (0.0172)	-417.9*** (30.76)
Shock, yes=1	-0.0310 (0.0367)	0.0400 (0.0342)	-0.00898 (0.0233)	0.0230 (0.0249)	1052.5*** (72.99)
Status=1	-0.00634 (0.0262)	-0.00705 (0.0314)	0.0134 (0.0213)	0.0222 (0.0172)	-401.3*** (39.93)
Status, 200 ECU=1	-0.00990 (0.0323)	-0.0148 (0.0389)	0.0247 (0.0291)	-0.0143 (0.0212)	767.0*** (87.98)
Non-fixed=1	0.0139 (0.0205)	-0.0454* (0.0233)	0.0315 (0.0202)	0.0196 (0.0224)	2.102 (45.82)
L.Declared 0%=1	0.610*** (0.0629)	-0.257*** (0.0531)	-0.353*** (0.0280)	0.377*** (0.0566)	630.8*** (97.30)
L.Declared 1-99%=1	-0.0143 (0.0295)	0.504*** (0.0335)	-0.489*** (0.0228)	0.475*** (0.0519)	768.9*** (87.64)
L.Partial cheat	-0.163*** (0.0422)	0.0159 (0.0430)	0.147*** (0.0331)	-0.766*** (0.0360)	-1297.6*** (75.50)
L.Dec. others, 1000	-0.0284*** (0.00663)	0.0248*** (0.00672)	0.00362 (0.00441)	-0.0153*** (0.00537)	-30.60*** (11.42)
Constant				0.516*** (0.0627)	465.7*** (104.9)
Observations	2304	2304	2304	1126	1126
D20=D30	0.546	0.535	0.893	0.854	0.209

| | UK | | UK | UK |
| | Mlogit, average marginal effects | | OLS | OLS |
	Maximal lying	Partial lying	Honest	Fraction undeclared	Amount undeclared
RET rank	0.0534*** (0.0130)	-0.00964 (0.0170)	-0.0437*** (0.0152)	-0.0156 (0.0257)	1198.2*** (85.09)
RET deviation	-0.00295 (0.00207)	0.00116 (0.00273)	0.00180 (0.00227)	-0.00206 (0.00501)	98.93*** (8.406)
Male	0.0172** (0.00752)	-0.0349*** (0.0100)	0.0176** (0.00849)	-0.0167 (0.0191)	-66.37* (40.01)
Age	-0.00165** (0.000660)	0.000841 (0.000676)	0.000805 (0.000524)	-0.000443 (0.00115)	0.501 (1.954)
Period	-0.00270** (0.000988)	0.000887 (0.00113)	0.00181* (0.000997)	-0.00421** (0.00204)	3.858 (4.125)
DG frac	-0.0860*** (0.0190)	0.00296 (0.0234)	0.0830*** (0.0209)	-0.135*** (0.0469)	-259.6** (108.4)
Deduction 20%=1	0.00175 (0.00851)	0.00233 (0.0117)	-0.00409 (0.0101)	0.00434 (0.0191)	-6.829 (43.00)
Deduction 30%=1	0.0112 (0.00971)	-0.0172 (0.0126)	0.00598 (0.0107)	-0.0107 (0.0218)	-44.96 (46.44)
Deduction 40%=1	0.00217 (0.0132)	0.0140 (0.0191)	-0.0162 (0.0168)	0.00139 (0.0276)	61.96 (49.81)
Deduction 50%=1	0.0385* (0.0233)	-0.0119 (0.0283)	-0.0266 (0.0221)	0.0729*** (0.0259)	87.59 (63.25)
Deadweight loss=1	-0.00973 (0.0127)	-0.0129 (0.0176)	0.0226 (0.0143)	-0.00169 (0.0323)	-28.76 (93.43)
Redistribution=1	0.0181 (0.0113)	-0.0198 (0.0156)	0.00173 (0.0139)	0.00420 (0.0239)	-5.844 (50.77)
Shock=1	0.000786 (0.0143)	-0.0304 (0.0227)	0.0296 (0.0205)	-0.0140 (0.0448)	-506.4*** (73.90)
Shock, yes=1	-0.0219 (0.0172)	0.0604 (0.0392)	-0.0385 (0.0320)	0.0567 (0.0505)	1226.4*** (74.19)
Status=1	0.0218 (0.0187)	-0.0152 (0.0238)	-0.00665 (0.0218)	-0.0268 (0.0362)	-499.9*** (70.77)
Status, 200 ECU=1	-0.0299 (0.0192)	0.00604 (0.0273)	0.0239 (0.0250)	0.0648* (0.0389)	1116.1*** (111.8)
Non-fixed=1	0.00286 (0.0105)	0.00150 (0.0138)	-0.00436 (0.0120)	-0.0206 (0.0292)	-38.03 (64.10)
L.Declared 0%=1	0.826*** (0.0231)	-0.235*** (0.0189)	-0.590*** (0.0230)	0.409*** (0.0590)	681.3*** (113.3)
L.Declared 1-99%=1	0.0136 (0.0142)	0.316*** (0.0167)	-0.330*** (0.00954)	0.543*** (0.0364)	810.0*** (65.49)
L.Partial cheat	-0.0731*** (0.0217)	-0.0632*** (0.0239)	0.136*** (0.0211)	-0.760*** (0.0353)	-1139.6*** (85.56)
L.Dec. others, 1000	-0.00487** (0.00247)	0.00522* (0.00306)	-0.000347 (0.00251)	-0.0104* (0.00566)	-31.78*** (11.64)
Constant				0.516*** (0.0532)	360.3*** (83.44)
Observations	4572	4572	4572	948	948
D20=D30	0.327	0.140	0.392	0.422	0.415
D20=D40	0.974	0.531	0.468	0.911	0.159
D20=D50	0.104	0.607	0.309	0.00857	0.120
D30=D40	0.506	0.109	0.202	0.663	0.0483
D30=D50	0.235	0.854	0.162	0.00212	0.0347
D40=D50	0.115	0.531	0.664	0.0126	0.632

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. Fourth and fifth columns report OLS regressions, the dependent variables are the fraction and the amount of income not declared in a given round; only partial lying decisions are considered. Standard errors are clustered by subject. RET rank is the national rank, between 0 and 1, of subject's national performance at the real effort task. RET Deviation is the difference between actual number of correct additions and one predicted from subject and period FE. DG frac is the fraction of the 1000 ECU donated in the dictator game.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C4: Determinants of lying in periods 2-10, previous action, by country

Figure C2: Predicted and actual behavior in Period 10.

Chile

| | Mlogit, average marginal effects | | | | | | OLS | | OLS | |
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.169**	(0.0677)	-0.0804	(0.100)	-0.0889	(0.108)	0.0406	(0.115)	775.0***	(168.9)
RET deviation	0.0131	(0.00973)	-0.0166	(0.0162)	0.00351	(0.0177)	0.0274	(0.0218)	124.7***	(29.16)
Male	0.0127	(0.0365)	-0.0449	(0.0582)	0.0322	(0.0609)	-0.0152	(0.0662)	4.483	(86.45)
Age	0.00518*	(0.00275)	-0.00340	(0.00520)	-0.00178	(0.00622)	0.00533	(0.00633)	-1.706	(9.559)
DG frac	-0.182	(0.111)	-0.111	(0.149)	0.294*	(0.169)	-0.138	(0.215)	-208.3	(283.1)
Deduction 20%=1	-0.0208	(0.0355)	-0.0756	(0.0607)	0.0964	(0.0658)	0.0277	(0.0770)	34.69	(102.2)
Deduction 30%=1	0.0245	(0.0408)	-0.0103	(0.0607)	-0.0142	(0.0662)	-0.124	(0.0782)	-204.9*	(110.2)
Shock=1	-0.150***	(0.0166)	0.116	(0.122)	0.0336	(0.123)	-0.140	(0.103)	-48.68	(120.9)
Shock, yes=1	0.791***	(0.0179)	-0.257***	(0.0317)	-0.534***	(0.0331)	0.0515	(0.119)	803.3***	(230.9)
Status=1	0.119	(0.160)	-0.0372	(0.107)	-0.0816	(0.156)	0.0626	(0.115)	-121.2	(105.9)
Status, 200 ECU=1	-0.00320	(0.0771)	0.0657	(0.130)	-0.0625	(0.139)	-0.279**	(0.120)	172.5	(163.4)
Non-fixed=1	0.0938	(0.0727)	-0.128	(0.0836)	0.0342	(0.0945)	-0.138	(0.0939)	-104.0	(104.7)
Constant							0.631***	(0.207)	482.5*	(277.3)
Observations	307		307		307		93		93	
D20=D30	0.280		0.325		0.118		0.0318		0.0104	

Russia

| | Mlogit, average marginal effects | | | | | | OLS | | OLS | |
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.161*	(0.0870)	-0.170*	(0.0992)	0.00911	(0.0648)	-0.0866	(0.0867)	625.0***	(166.9)
RET deviation	0.00820	(0.0153)	0.0121	(0.0161)	-0.0203**	(0.00969)	0.0119	(0.0144)	103.9***	(27.86)
Male	0.0559	(0.0540)	-0.0662	(0.0587)	0.0103	(0.0370)	0.0342	(0.0530)	39.47	(88.94)
Age	-0.00846	(0.0119)	0.00580	(0.0115)	0.00265	(0.00403)	0.00496	(0.00601)	13.06	(11.48)
DG frac	-0.627***	(0.143)	0.514***	(0.144)	0.113	(0.0803)	-0.272**	(0.136)	-422.8**	(213.7)
Deduction 20%=1	-0.0921	(0.0563)	0.0731	(0.0644)	0.0189	(0.0402)	0.0954	(0.0565)	29.02	(91.79)
Deduction 30%=1	-0.0763	(0.0610)	0.0885	(0.0703)	-0.0122	(0.0421)	0.0280	(0.0616)	99.93	(109.3)
Redistribution=1	0.0396	(0.124)	0.0484	(0.125)	-0.0880***	(0.0175)	0.114	(0.0709)	178.4	(125.2)
Shock=1	0.0400	(0.0940)	-0.154	(0.109)	0.114	(0.0984)	0.0632	(0.0746)	-233.7**	(102.7)
Shock, yes=1	0.0157	(0.116)	-0.0139	(0.129)	-0.00175	(0.0648)	-0.108	(0.105)	516.3**	(216.7)
Status=1	-0.0186	(0.0853)	-0.0944	(0.107)	0.113	(0.0953)	0.00596	(0.0824)	-311.5***	(107.1)
Status, 200 ECU=1	0.0488	(0.112)	-0.0533	(0.124)	0.00445	(0.0700)	0.0274	(0.113)	570.3***	(181.2)
Non-fixed=1	0.0143	(0.0809)	-0.101	(0.0891)	0.0868	(0.0761)	-0.00935	(0.0737)	-67.11	(124.7)
Constant							0.529***	(0.124)	319.6	(222.1)
Observations	256		256		256		165		165	
D20=D30	0.806		0.831		0.454		0.773		0.534	

UK

| | Mlogit, average marginal effects | | | | | | OLS | | OLS | |
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.337***	(0.0657)	0.0398	(0.0724)	-0.376***	(0.0643)	0.124	(0.101)	1346.7***	(180.2)
RET deviation	0.00441	(0.0110)	0.0203*	(0.0111)	-0.0248**	(0.0109)	0.0256	(0.0167)	131.0***	(28.63)
Male	0.133***	(0.0405)	-0.129***	(0.0405)	-0.00430	(0.0373)	-0.0709	(0.0551)	-172.8*	(96.46)
Age	-0.00558	(0.00367)	0.00557	(0.00348)	0.00000924	(0.00289)	0.00686**	(0.00312)	8.501	(5.291)
DG frac	-0.698***	(0.0761)	0.223***	(0.0848)	0.475***	(0.0763)	0.00259	(0.133)	-92.25	(208.2)
Deduction 20%=1	-0.0315	(0.0502)	0.130**	(0.0526)	-0.0990**	(0.0404)	0.0432	(0.0699)	74.52	(112.4)
Deduction 30%=1	-0.0118	(0.0529)	0.0673	(0.0573)	-0.0554	(0.0440)	0.0346	(0.0829)	11.82	(134.4)
Deduction 40%=1	-0.103	(0.0765)	0.191**	(0.0908)	-0.0882	(0.0668)	-0.115	(0.106)	-124.9	(172.9)
Deduction 50%=1	-0.00365	(0.0917)	0.141	(0.107)	-0.137**	(0.0666)	0.0467	(0.111)	26.00	(211.8)
Deadweight loss=1	-0.0884	(0.0836)	-0.0201	(0.0796)	0.109	(0.0782)	-0.0174	(0.119)	-23.21	(232.7)
Redistribution=1	0.0314	(0.0638)	0.0425	(0.0666)	-0.0739	(0.0546)	-0.0197	(0.0888)	-160.4	(151.2)
Shock=1	-0.0111	(0.0965)	-0.0109	(0.0970)	0.0220	(0.0797)	0.0985	(0.111)	-381.2**	(185.6)
Shock, yes=1	-0.0313	(0.117)	0.0434	(0.127)	-0.0121	(0.0964)	0.0129	(0.118)	1064.3***	(223.9)
Status=1	0.0973	(0.0915)	0.0135	(0.0946)	-0.111	(0.0738)	-0.0867	(0.130)	-557.4***	(180.4)
Status, 200 ECU=1	-0.103	(0.104)	-0.126	(0.0856)	0.229*	(0.132)	0.0483	(0.156)	751.0***	(228.5)
Non-fixed=1	-0.0504	(0.0592)	0.0818	(0.0633)	-0.0313	(0.0494)	-0.0709	(0.0840)	-148.2	(140.7)
Constant							0.439***	(0.132)	361.1*	(210.3)
Observations	508		508		508		143		143	
D20=D30	0.730		0.293		0.371		0.903		0.593	
D20=D40	0.388		0.513		0.879		0.0975		0.212	
D20=D50	0.776		0.927		0.596		0.974		0.811	
D30=D40	0.262		0.194		0.655		0.132		0.407	
D30=D50	0.932		0.513		0.268		0.910		0.944	
D40=D50	0.333		0.677		0.574		0.165		0.467	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. Fourth and fifth columns report OLS regressions, the dependent variables are the fraction and the amount of income not declared in a given round; only partial lying decisions are considered. We only include subjects who partially cheated in at least 8 rounds, and declarations strictly between 0% and 100%. Standard errors are clustered by subject. RET rank is the national rank, between 0 and 1, of subject's national performance at the real effort task. RET Deviation is the difference between actual number of correct additions and one predicted from subject and period FE. DG frac is the fraction of the 1000 ECU donated in the dictator game.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C5: Determinants of lying in period 1, by country

Chile

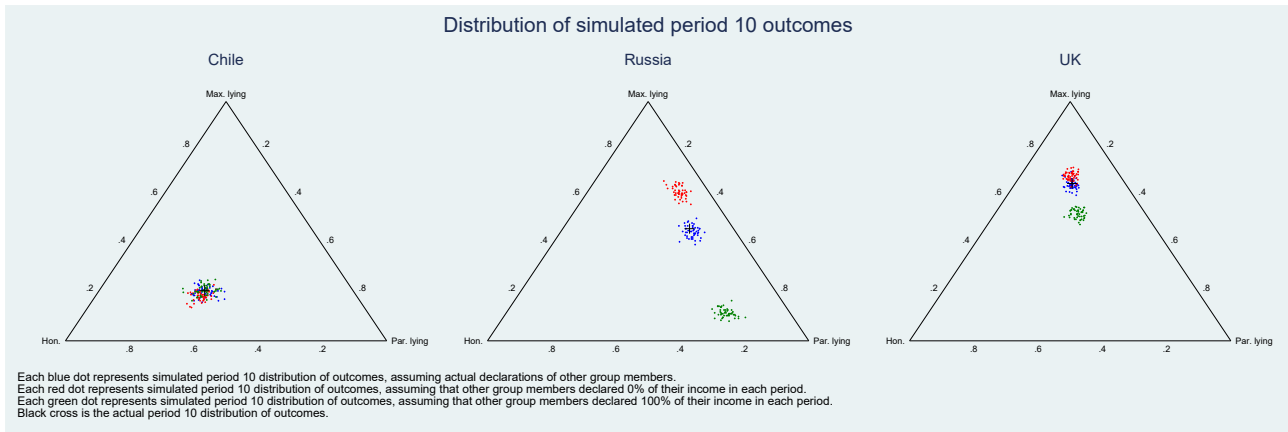|	Mlogit, average marginal effects						Chile OLS Fraction undeclared		Chile OLS Amount undeclared	
	Maximal lying		Partial lying		Honest					
Test period performance	0.0159**	(0.00779)	-0.0100	(0.00928)	-0.00585	(0.0102)	0.0189*	(0.0114)	79.72***	(17.70)
Male	0.0812**	(0.0403)	-0.0317	(0.0466)	-0.0496	(0.0513)	-0.0863*	(0.0456)	-100.6	(66.48)
Age	0.00126	(0.00275)	-0.00675	(0.00418)	0.00549	(0.00462)	-0.00132	(0.00470)	-10.70	(7.730)
Period	0.00926***	(0.00184)	0.000942	(0.00258)	-0.0102***	(0.00261)	0.00530	(0.00364)	21.38***	(5.756)
DG frac	-0.332***	(0.111)	-0.128	(0.119)	0.460***	(0.140)	-0.286**	(0.132)	-548.5***	(191.5)
Deduction 20%=1	-0.0805**	(0.0387)	-0.0818	(0.0514)	0.162***	(0.0559)	-0.0507	(0.0561)	-2.036	(80.45)
Deduction 30%=1	0.0177	(0.0415)	-0.0902*	(0.0483)	0.0725	(0.0555)	-0.0635	(0.0539)	-94.18	(81.01)
Shock=1	0.133	(0.120)	0.0241	(0.0952)	-0.157*	(0.0917)	-0.0871	(0.0728)	-16.11	(93.63)
Shock, yes=1	0.000213	(0.0265)	0.00910	(0.0445)	-0.00931	(0.0421)	-0.0253	(0.0465)	718.7***	(108.3)
Status=1	0.225	(0.138)	-0.0230	(0.102)	-0.202**	(0.103)	0.0248	(0.0873)	-109.9	(93.53)
Status, 200 ECU=1	-0.0851	(0.0609)	-0.0681	(0.0947)	0.153	(0.108)	-0.211**	(0.0986)	167.9	(137.1)
Non-fixed=1	0.186***	(0.0710)	-0.150**	(0.0726)	-0.0360	(0.0756)	-0.0871	(0.0703)	-27.69	(90.97)
Constant							0.760***	(0.162)	761.6***	(245.7)
Observations	3078		3078		3078		1075		1075	
D20=D30	0.0229		0.879		0.146		0.814		0.282	

Russia

	Mlogit, average marginal effects						Russia OLS Fraction undeclared		Russia OLS Amount undeclared	
	Maximal lying		Partial lying		Honest					
Test period performance	0.0174**	(0.00828)	-0.0114	(0.00842)	-0.00598	(0.00622)	0.00865	(0.00784)	68.64***	(14.30)
Male	0.0712	(0.0482)	-0.179***	(0.0498)	0.108***	(0.0343)	-0.0193	(0.0392)	19.65	(66.93)
Age	-0.0202	(0.0149)	0.0178	(0.0123)	0.00239	(0.00515)	0.000743	(0.00317)	-1.349	(5.054)
Period	0.0189***	(0.00288)	-0.0225***	(0.00296)	0.00365*	(0.00204)	0.0208***	(0.00296)	49.66***	(5.357)
DG frac	-0.725***	(0.116)	0.535***	(0.113)	0.190**	(0.0739)	-0.238**	(0.0952)	-400.3***	(141.5)
Deduction 20%=1	-0.0729	(0.0536)	0.107*	(0.0558)	-0.0343	(0.0352)	0.0159	(0.0473)	38.48	(77.78)
Deduction 30%=1	-0.00173	(0.0640)	0.0363	(0.0639)	-0.0345	(0.0382)	0.0587	(0.0497)	178.9**	(86.66)
Redistribution=1	0.0685	(0.0904)	-0.0496	(0.0968)	-0.0189	(0.0827)	-0.000462	(0.0954)	-95.75	(176.4)
Shock=1	-0.0190	(0.0747)	-0.0286	(0.0709)	0.0476	(0.0605)	0.0517	(0.0512)	-325.6***	(72.97)
Shock, yes=1	-0.00983	(0.0481)	0.0236	(0.0467)	-0.0137	(0.0342)	0.0189	(0.0373)	1000.9***	(74.14)
Status=1	-0.0247	(0.0885)	-0.0281	(0.0939)	0.0528	(0.0695)	0.000760	(0.0603)	-374.3***	(81.05)
Status, 200 ECU=1	0.0190	(0.105)	-0.0539	(0.111)	0.0350	(0.0901)	0.0300	(0.0738)	773.0***	(155.1)
Non-fixed=1	0.0362	(0.0713)	-0.121*	(0.0666)	0.0848	(0.0549)	-0.00423	(0.0694)	-14.80	(108.3)
Constant							0.535***	(0.0866)	408.6***	(144.8)
Observations	2560		2560		2560		1291		1291	
D20=D30	0.266		0.273		0.995		0.395		0.103	

UK

	Mlogit, average marginal effects						UK OLS Fraction undeclared		UK OLS Amount undeclared	
	Maximal lying		Partial lying		Honest					
Test period performance	0.0284***	(0.00567)	-0.00538	(0.00479)	-0.0230***	(0.00517)	0.00159	(0.00664)	94.00***	(12.67)
Male	0.118***	(0.0341)	-0.135***	(0.0295)	0.0178	(0.0288)	-0.0372	(0.0463)	-111.2	(89.29)
Age	-0.00816***	(0.00264)	0.00519**	(0.00220)	0.00297	(0.00220)	0.000979	(0.00258)	2.637	(4.515)
Period	0.0210***	(0.00206)	-0.0106***	(0.00196)	-0.0104***	(0.00161)	0.00812**	(0.00330)	19.98***	(6.050)
DG frac	-0.708***	(0.0646)	0.182***	(0.0578)	0.525***	(0.0662)	-0.329***	(0.126)	-549.4**	(251.5)
Deduction 20%=1	-0.00610	(0.0415)	0.0474	(0.0372)	-0.0413	(0.0318)	0.00214	(0.0522)	21.12	(97.54)
Deduction 30%=1	0.0357	(0.0433)	-0.0200	(0.0378)	-0.0157	(0.0360)	-0.0451	(0.0651)	-84.42	(115.2)
Deduction 40%=1	-0.0159	(0.0710)	0.0877	(0.0659)	-0.0718	(0.0455)	-0.0571	(0.0739)	14.51	(144.7)
Deduction 50%=1	0.148**	(0.0712)	-0.0213	(0.0685)	-0.126***	(0.0408)	0.184**	(0.0842)	289.0*	(167.2)
Deadweight loss=1	-0.112	(0.0708)	-0.00130	(0.0599)	0.114*	(0.0645)	0.0414	(0.0956)	-56.67	(187.5)
Redistribution=1	0.0879	(0.0536)	-0.0386	(0.0429)	-0.0493	(0.0428)	0.0398	(0.0708)	-79.77	(140.9)
Shock=1	-0.000871	(0.0656)	-0.0281	(0.0560)	0.0290	(0.0585)	0.118*	(0.0700)	-463.8***	(137.5)
Shock, yes=1	-0.0413	(0.0397)	0.0923**	(0.0469)	-0.0510*	(0.0281)	0.0469	(0.0417)	1308.4***	(84.76)
Status=1	0.158**	(0.0684)	-0.0584	(0.0643)	-0.0997*	(0.0539)	-0.0154	(0.107)	-400.6**	(176.7)
Status, 200 ECU=1	-0.177*	(0.0911)	0.0117	(0.100)	0.165	(0.122)	0.134	(0.109)	1161.7***	(213.6)
Non-fixed=1	-0.0278	(0.0494)	0.0487	(0.0449)	-0.0209	(0.0386)	-0.0109	(0.0706)	-137.0	(140.4)
Constant							0.709***	(0.105)	507.9***	(194.0)
Observations	5080		5080		5080		1091		1091	
D20=D30	0.371		0.0983		0.521		0.398		0.301	
D20=D40	0.895		0.537		0.524		0.379		0.962	
D20=D50	0.0420		0.326		0.0683		0.0240		0.115	
D30=D40	0.483		0.109		0.258		0.878		0.514	
D30=D50	0.135		0.985		0.0274		0.0113		0.0365	
D40=D50	0.0582		0.179		0.306		0.00419		0.108	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. Fourth and fifth columns report OLS regressions, the dependent variables are the fraction and the amount of income not declared in a given round; only partial lying decisions are considered. Standard errors are clustered by subject. Practice period performance is the number of correct additions in the first practice period (in Russia, the only practice period). DG frac is the fraction of the 1000 ECU donated in the dictator game.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C6: Determinants of lying in each period, by country. Performance data from training period

	Predicted rank in Period 1			
	1	2	3	4
Mean rank within one's group, period 1 (sd)	2.03 (1.06)	2.49 (1.01)	2.74 (1.07)	3.21 (1.01)
p-value for two-tailed Welch t-test	0.0016	0.0681	0.0350	
Total	90	138	99	29

Comparisons are of average group rank of subjects with a given predicted rank, and the average group rank of subjects with the next predicted rank. All other pairwise comparisons are significant at $p < 0.001$.

Table C7: Predicted rank and actual rank in the first period.

	All countries, females						All countries, females		All countries, females	
	Mlogit, average marginal effects						OLS		OLS	
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
Expected RET rank	0.140**	(0.0607)	-0.0284	(0.0631)	-0.111	(0.0685)	0.0140	(0.0918)	303.0**	(138.5)
Male	0.176***	(0.0393)	-0.137***	(0.0393)	-0.0392	(0.0438)	-0.0384	(0.0580)	7.587	(90.85)
Age	-0.00935**	(0.00400)	-0.000855	(0.00454)	0.0102*	(0.00525)	0.00729	(0.00552)	15.33*	(8.665)
Period	0.0150***	(0.00202)	-0.00313	(0.00242)	-0.0119***	(0.00228)	0.0102***	(0.00374)	27.98***	(6.118)
DG frac	-0.699***	(0.0873)	0.265***	(0.0907)	0.433***	(0.107)	-0.176	(0.163)	-278.1	(253.2)
Deduction 20%=1	-0.0342	(0.0421)	-0.0354	(0.0459)	0.0696	(0.0477)	-0.0168	(0.0619)	-80.89	(95.63)
Deduction 30%=1	0.0137	(0.0472)	-0.0630	(0.0423)	0.0493	(0.0529)	-0.0436	(0.0592)	-83.11	(89.45)
Russia=1	0.0563	(0.0639)	0.179***	(0.0651)	-0.236***	(0.0543)	0.0642	(0.0725)	326.2***	(121.0)
UK=1	0.199***	(0.0433)	-0.0146	(0.0412)	-0.184***	(0.0419)	-0.0112	(0.0612)	67.69	(93.74)
Constant							0.466***	(0.155)	238.6	(258.3)
Observations	3559		3559		3559		1049		1049	
D20=D30	0.348		0.579		0.729		0.704		0.983	
Russia=UK	0.0274		0.00359		0.410		0.364		0.0739	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. Fourth and fifth columns report OLS regressions, the dependent variables are the fraction and the amount of income not declared in a given round; only partial lying decisions are considered. Standard errors are clustered by subject. Practice period performance is the number of correct additions in the first practice period (in Russia, the only practice period). DG frac is the fraction of the 1000 ECU donated in the dictator game.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C8: Determinants of lying in each period. Expected rank in the first period.

	UK						UK		UK	
	Mlogit, average marginal effects						OLS		OLS	
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.375***	(0.0559)	-0.0737	(0.0533)	-0.301***	(0.0537)	0.0740	(0.0756)	1320.6***	(134.4)
RET deviation	-0.00124	(0.00210)	0.00220	(0.00236)	-0.000959	(0.00189)	0.00569	(0.00460)	108.5***	(7.630)
Male	0.102***	(0.0344)	-0.128***	(0.0305)	0.0257	(0.0290)	-0.0434	(0.0460)	-113.9	(76.84)
Age	-0.00768***	(0.00264)	0.00498**	(0.00222)	0.00269	(0.00203)	0.00132	(0.00260)	2.744	(4.047)
Period	0.0210***	(0.00206)	-0.0106***	(0.00195)	-0.0104***	(0.00161)	0.00877***	(0.00328)	26.48***	(5.448)
DG frac	-0.637***	(0.0689)	0.196***	(0.0617)	0.441***	(0.0688)	-0.287**	(0.127)	-477.4**	(209.9)
Deduction 20%=1	-0.0118	(0.0411)	0.0460	(0.0380)	-0.0342	(0.0309)	0.00565	(0.0520)	5.583	(83.39)
Deduction 30%=1	0.0333	(0.0425)	-0.0199	(0.0379)	-0.0133	(0.0358)	-0.0428	(0.0659)	-93.02	(103.2)
Deduction 40%=1	-0.0385	(0.0669)	0.0905	(0.0650)	-0.0520	(0.0464)	-0.0511	(0.0734)	-20.35	(110.5)
Deduction 50%=1	0.124	(0.0768)	-0.0116	(0.0717)	-0.112**	(0.0470)	0.177**	(0.0848)	245.9	(151.6)
Deadweight loss=1	0.00807	(0.119)	0.0919	(0.115)	-0.100	(0.0903)	0.131	(0.118)	229.7	(278.5)
Deadweight× DG frac	-0.257	(0.318)	-0.238	(0.246)	0.495	(0.327)	-0.354	(0.440)	-750.3	(915.6)
Redistribution=1	0.0813	(0.0513)	-0.0395	(0.0429)	-0.0418	(0.0416)	0.0386	(0.0703)	18.26	(120.1)
Shock=1	0.0118	(0.0654)	-0.0307	(0.0564)	0.0189	(0.0561)	0.116*	(0.0654)	-318.1***	(110.5)
Shock, yes=1	-0.0504	(0.0414)	0.0947**	(0.0479)	-0.0443	(0.0293)	0.0470	(0.0405)	1201.2***	(80.37)
Status=1	0.131*	(0.0696)	-0.0531	(0.0663)	-0.0781	(0.0556)	-0.0283	(0.104)	-496.0***	(127.6)
Status, 200 ECU=1	-0.169*	(0.0922)	0.0195	(0.101)	0.150	(0.117)	0.134	(0.107)	1190.2***	(146.5)
Non-fixed=1	-0.0198	(0.0483)	0.0408	(0.0445)	-0.0210	(0.0371)	-0.00734	(0.0710)	-35.31	(118.3)
Constant							0.667***	(0.0998)	565.8***	(154.9)
Observations	5080		5080		5080		1091		1091	
D20=D30	0.331		0.111		0.590		0.393		0.268	
D20=D40	0.704		0.493		0.708		0.388		0.792	
D20=D50	0.0944		0.434		0.124		0.0316		0.0878	
D30=D40	0.303		0.0986		0.442		0.916		0.548	
D30=D50	0.259		0.911		0.0704		0.0159		0.0300	
D40=D50	0.0637		0.214		0.295		0.00591		0.0429	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. Fourth and fifth columns report OLS regressions, the dependent variables are the fraction and the amount of income not declared in a given round; only partial lying decisions are considered. Standard errors are clustered by subject. RET rank is the national rank, between 0 and 1, of subject's national performance at the real effort task. RET Deviation is the difference between actual number of correct additions and one predicted from subject and period FE. DG frac is the fraction of the 1000 ECU donated in the dictator game.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C9: Determinants of lying in each period, UK

	All countries, females Mlogit, average marginal effects						All countries, females OLS		All countries, females OLS	
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.247***	(0.0549)	-0.123**	(0.0616)	-0.124**	(0.0575)	0.0144	(0.0611)	968.2***	(108.3)
RET deviation	-0.00427**	(0.00215)	0.00769***	(0.00275)	-0.00342	(0.00234)	0.00116	(0.00322)	98.37***	(5.795)
Age	-0.00899**	(0.00368)	0.00329	(0.00416)	0.00570**	(0.00287)	-0.00452	(0.00341)	-4.800	(5.965)
Period	0.0175***	(0.00191)	-0.00943***	(0.00210)	-0.00802***	(0.00177)	0.0123***	(0.00245)	31.63***	(4.060)
DG frac	-0.631***	(0.0675)	0.192**	(0.0873)	0.439***	(0.0917)	-0.304***	(0.0901)	-527.0***	(153.1)
Deduction 20%=1	-0.0205	(0.0367)	-0.0242	(0.0404)	0.0447	(0.0354)	-0.00397	(0.0383)	-46.93	(62.37)
Deduction 30%=1	0.0170	(0.0403)	-0.0534	(0.0423)	0.0364	(0.0389)	0.00937	(0.0412)	-44.22	(65.91)
Deduction 40%=1	-0.00173	(0.0698)	0.0261	(0.0871)	-0.0243	(0.0787)	-0.0898	(0.0797)	-133.8	(117.1)
Deduction 50%=1	0.169	(0.115)	0.0617	(0.120)	-0.231***	(0.0447)	0.151**	(0.0730)	187.8	(123.1)
Deadweight loss=1	-0.103	(0.0670)	0.0824	(0.106)	0.0205	(0.0885)	-0.00184	(0.102)	-35.77	(194.2)
Redistribution=1	0.0362	(0.0539)	0.0303	(0.0679)	-0.0665	(0.0619)	0.0159	(0.0586)	12.80	(85.25)
Russia=1	0.0704	(0.0521)	0.215***	(0.0537)	-0.285***	(0.0303)	0.0111	(0.0461)	223.5***	(77.42)
UK=1	0.242***	(0.0483)	-0.0844*	(0.0500)	-0.158***	(0.0365)	0.0730	(0.0456)	401.2***	(66.49)
Shock=1	-0.0423	(0.0525)	0.0999	(0.0671)	-0.0577	(0.0570)	0.0800**	(0.0405)	-208.0***	(67.62)
Shock, yes=1	-0.0366	(0.0292)	0.0271	(0.0416)	0.00950	(0.0348)	-0.0443	(0.0311)	900.9***	(87.50)
Status=1	-0.0461	(0.0616)	0.149**	(0.0759)	-0.103*	(0.0620)	0.0188	(0.0567)	-327.1***	(81.90)
Status, 200 ECU=1	-0.0644	(0.0671)	-0.0878	(0.0796)	0.152*	(0.0891)	-0.0450	(0.0653)	674.9***	(133.4)
Non-fixed=1	-0.0838*	(0.0443)	0.0679	(0.0523)	0.0160	(0.0452)	-0.0457	(0.0522)	-126.6	(84.17)
Constant							0.777***	(0.106)	551.0***	(180.2)
Observations	5220		5220		5220		2045		2045	
D20=D30	0.345		0.515		0.838		0.748		0.970	
D20=D40	0.788		0.563		0.365		0.253		0.426	
D20=D50	0.105		0.481		0.000000203		0.0249		0.0456	
D30=D40	0.793		0.374		0.446		0.217		0.455	
D30=D50	0.194		0.346		0.00000235		0.0558		0.0662	
D40=D50	0.169		0.795		0.0148		0.00655		0.0175	
Russia=UK	0.0000538		8.79e-11		0.000410		0.147		0.0158	

	All countries, males Mlogit, average marginal effects						All countries, males OLS		All countries, males OLS	
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.331***	(0.0523)	-0.109**	(0.0511)	-0.222***	(0.0516)	0.0409	(0.0734)	846.1***	(126.5)
RET deviation	0.00171	(0.00206)	0.000580	(0.00232)	-0.00229	(0.00208)	-0.00391	(0.00456)	82.16***	(9.608)
Age	-0.00366	(0.00262)	0.00203	(0.00221)	0.00163	(0.00215)	0.00295	(0.00256)	2.486	(3.933)
Period	0.0169***	(0.00180)	-0.0109***	(0.00184)	-0.00599***	(0.00159)	0.0121***	(0.00318)	32.91***	(5.551)
DG frac	-0.578***	(0.0745)	0.194***	(0.0613)	0.384***	(0.0632)	-0.263**	(0.102)	-437.3**	(175.8)
Deduction 20%=1	-0.0734**	(0.0369)	0.0688*	(0.0363)	0.00463	(0.0344)	-0.0101	(0.0478)	9.617	(81.46)
Deduction 30%=1	0.0314	(0.0411)	-0.00757	(0.0356)	-0.0239	(0.0359)	-0.00199	(0.0521)	10.59	(83.59)
Deduction 40%=1	-0.0786	(0.0826)	0.144*	(0.0857)	-0.0649	(0.0684)	-0.0213	(0.102)	-20.13	(180.3)
Deduction 50%=1	0.0602	(0.0927)	-0.0196	(0.107)	-0.0406	(0.0923)	0.159	(0.126)	298.2	(231.2)
Deadweight loss=1	-0.0117	(0.0785)	-0.122*	(0.0642)	0.133*	(0.0771)	0.101	(0.125)	351.3	(290.7)
Redistribution=1	0.104	(0.0670)	-0.0777	(0.0534)	-0.0260	(0.0645)	0.0144	(0.123)	49.77	(219.2)
Russia=1	0.168***	(0.0415)	-0.00587	(0.0372)	-0.162***	(0.0334)	0.112**	(0.0476)	362.4***	(77.05)
UK=1	0.401***	(0.0383)	-0.230***	(0.0365)	-0.171***	(0.0360)	0.0880	(0.0602)	392.1***	(98.66)
Shock=1	0.0232	(0.0530)	-0.0486	(0.0415)	0.0255	(0.0532)	-0.0161	(0.0565)	-245.2***	(90.14)
Shock, yes=1	0.00805	(0.0318)	0.0374	(0.0312)	-0.0454	(0.0288)	0.0743*	(0.0416)	971.2***	(96.79)
Status=1	0.152***	(0.0562)	-0.116**	(0.0483)	-0.0363	(0.0523)	0.0403	(0.0794)	-347.0***	(108.7)
Status, 200 ECU=1	-0.0889	(0.0791)	0.0315	(0.0804)	0.0574	(0.0882)	-0.0382	(0.106)	642.9***	(165.3)
Non-fixed=1	0.118***	(0.0401)	-0.138***	(0.0346)	0.0204	(0.0398)	0.0344	(0.0563)	18.88	(88.51)
Constant							0.485***	(0.103)	202.4	(160.6)
Observations	5498		5498		5498		1412		1412	
D20=D30	0.0109		0.0390		0.458		0.861		0.990	
D20=D40	0.951		0.380		0.327		0.910		0.864	
D20=D50	0.154		0.409		0.630		0.162		0.195	
D30=D40	0.196		0.0822		0.563		0.851		0.867	
D30=D50	0.761		0.911		0.860		0.200		0.214	
D40=D50	0.215		0.183		0.812		0.202		0.218	
Russia=UK	3.16e-08		6.96e-10		0.814		0.679		0.776	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. Fourth and fifth columns report OLS regressions, the dependent variables are the fraction and the amount of income not declared in a given round; only partial lying decisions are considered. We only include subjects who partially cheated in at least 8 rounds, and declarations strictly between 0% and 100%. Standard errors are clustered by subject. RET rank is the national rank, between 0 and 1, of subject's national performance at the real effort task. RET Deviation is the difference between actual number of correct additions and one predicted from subject and period FE. DG frac is the fraction of the 1000 ECU donated in the dictator game.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C10: Determinants of lying in each period, by gender

| | All countries | | | | | | All countries | | All countries | |
| | Mlogit, average marginal effects | | | | | | OLS | | OLS | |
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.271***	(0.0429)	-0.0796*	(0.0458)	-0.191***	(0.0425)	-0.0314	(0.0523)	801.4***	(94.17)
RET deviation	-0.0000276	(0.00176)	0.00268	(0.00210)	-0.00266	(0.00177)	-0.00403	(0.00302)	84.47***	(6.246)
Male	0.0868***	(0.0254)	-0.104***	(0.0270)	0.0167	(0.0243)	-0.0201	(0.0295)	-51.13	(49.97)
Age	-0.00580***	(0.00225)	0.00388*	(0.00223)	0.00192	(0.00191)	-0.00128	(0.00232)	-2.247	(3.457)
Period	0.0173***	(0.00150)	-0.0122***	(0.00165)	-0.00506***	(0.00133)	0.0123***	(0.00223)	33.81***	(3.920)
DG frac	-0.579***	(0.0604)	0.258***	(0.0603)	0.320***	(0.0571)	-0.291***	(0.0761)	-520.5***	(135.3)
Civicness	0.0301**	(0.0122)	-0.00254	(0.0130)	-0.0276*	(0.0141)	0.00548	(0.0141)	5.753	(23.33)
Trust=1	0.00444	(0.0249)	-0.0173	(0.0262)	0.0128	(0.0244)	0.0189	(0.0303)	23.99	(52.07)
SafeChoices	0.00625	(0.00686)	-0.000206	(0.00698)	-0.00604	(0.00638)	-0.000176	(0.00694)	-3.670	(10.63)
Ideology	0.00568	(0.00557)	-0.00141	(0.00584)	-0.00427	(0.00585)	0.0188***	(0.00638)	26.41**	(10.73)
Income	0.122***	(0.0423)	-0.0524	(0.0472)	-0.0701*	(0.0423)	-0.0934	(0.0646)	-156.5	(103.8)
Deduction 20%=1	-0.0702**	(0.0285)	0.0398	(0.0312)	0.0304	(0.0281)	0.0108	(0.0321)	15.06	(54.16)
Deduction 30%=1	0.00638	(0.0317)	-0.0254	(0.0317)	0.0190	(0.0295)	-0.00681	(0.0349)	-5.342	(57.55)
Deduction 40%=1	-0.108	(0.0901)	0.00843	(0.112)	0.0999	(0.119)	0.0439	(0.134)	73.50	(195.4)
Deduction 50%=1	0.174*	(0.0969)	-0.0524	(0.101)	-0.122*	(0.0730)	0.170*	(0.0921)	269.7	(173.2)
Deadweight loss=1	-0.0574	(0.0660)	-0.0471	(0.0722)	0.105	(0.0707)	0.0441	(0.110)	134.3	(221.9)
Redistribution=1	0.123**	(0.0552)	-0.0426	(0.0529)	-0.0801	(0.0514)	-0.00110	(0.0649)	-15.25	(105.6)
Russia=1	0.124***	(0.0353)	0.109***	(0.0393)	-0.232***	(0.0295)	0.0185	(0.0418)	235.8***	(67.84)
UK=1	0.366***	(0.0362)	-0.168***	(0.0388)	-0.198***	(0.0328)	0.0190	(0.0567)	323.9***	(92.21)
Shock=1	0.0261	(0.0424)	0.000719	(0.0445)	-0.0268	(0.0431)	0.0359	(0.0404)	-225.2***	(63.78)
Shock, yes=1	-0.0177	(0.0233)	0.0352	(0.0284)	-0.0175	(0.0245)	0.0158	(0.0285)	924.5***	(69.56)
Status=1	0.0707	(0.0483)	0.00404	(0.0523)	-0.0747*	(0.0431)	0.0502	(0.0498)	-298.1***	(71.41)
Status, 200 ECU=1	-0.0973*	(0.0542)	-0.0443	(0.0602)	0.142**	(0.0686)	-0.0452	(0.0625)	687.3***	(115.7)
Non-fixed=1	0.0258	(0.0359)	-0.0462	(0.0376)	0.0205	(0.0354)	0.00816	(0.0437)	-46.60	(72.03)
Constant							0.658***	(0.111)	460.9***	(174.2)
Observations	8218		8218		8218		2812		2812	
D20=D30	0.0133		0.0450		0.710		0.590		0.719	
D20=D40	0.669		0.777		0.555		0.801		0.759	
D20=D50	0.0122		0.368		0.0456		0.0751		0.132	
D30=D40	0.210		0.763		0.491		0.704		0.687	
D30=D50	0.0887		0.793		0.0622		0.0510		0.109	
D40=D50	0.0292		0.677		0.102		0.412		0.417	
Russia=UK	6.35e-12		7.36e-15		0.298		0.992		0.289	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. Fourth and fifth columns report OLS regressions, the dependent variables are the fraction and the amount of income not declared in a given round; only partial lying decisions are considered. We only include subjects who partially cheated in at least 8 rounds, and declarations strictly between 0% and 100%. Standard errors are clustered by subject. RET rank is the national rank, between 0 and 1, of subject's national performance at the real effort task. RET Deviation is the difference between actual number of correct additions and one predicted from subject and period FE. DG frac is the fraction of the 1000 ECU donated in the dictator game. Norms is the social norms index (see Table C13). SafeChoices if the number (0-10) of safe choices on the lottery task. Trust is whether the individual answered (versus '). Income is the number of the individual's income bracket, rescaled between 0 and 1 (for Chile and the UK), and the individual's perceived income decile, rescaled between 0 and 1 (for Russia).
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C11: Determinants of lying, periods 1-10, more controls

Chile

	Mlogit, average marginal effects						OLS		OLS	
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.210***	(0.0753)	-0.0796	(0.0923)	-0.130	(0.0983)	0.0240	(0.116)	717.7***	(171.4)
RET deviation	-0.000968	(0.00305)	0.000603	(0.00410)	0.000365	(0.00392)	-0.0196***	(0.00646)	48.45***	(13.27)
Male	0.0731*	(0.0431)	0.00940	(0.0588)	-0.0825	(0.0602)	-0.0429	(0.0534)	-46.11	(76.68)
Age	0.00217	(0.00328)	-0.00704	(0.00459)	0.00487	(0.00476)	-0.00584	(0.00462)	-12.88*	(6.938)
Period	0.00918***	(0.00209)	0.000105	(0.00315)	-0.00929***	(0.00304)	0.00224	(0.00434)	16.31**	(6.729)
DG frac	-0.270**	(0.118)	-0.0762	(0.139)	0.346**	(0.160)	-0.394**	(0.164)	-560.0**	(244.6)
Civicness	0.0481**	(0.0237)	0.0120	(0.0318)	-0.0601*	(0.0345)	-0.00363	(0.0331)	1.206	(48.06)
Trust=1	0.0270	(0.0413)	-0.0159	(0.0550)	-0.0111	(0.0606)	0.0103	(0.0596)	22.61	(88.91)
SafeChoices	0.0113	(0.0115)	-0.00801	(0.0141)	-0.00324	(0.0151)	0.0108	(0.0161)	20.00	(20.43)
Ideology	0.00314	(0.00862)	-0.00697	(0.0131)	0.00383	(0.0133)	0.00494	(0.0120)	2.957	(16.80)
Income	0.197**	(0.0811)	-0.0175	(0.0974)	-0.180*	(0.106)	0.0928	(0.131)	85.48	(184.7)
Deduction 20%=1	-0.0950**	(0.0404)	-0.0550	(0.0609)	0.150**	(0.0650)	-0.0959	(0.0687)	-151.4	(102.7)
Deduction 30%=1	0.0171	(0.0456)	-0.105*	(0.0549)	0.0880	(0.0621)	-0.104	(0.0653)	-197.4*	(101.1)
Shock=1	0.298*	(0.160)	-0.0417	(0.113)	-0.256***	(0.0922)	-0.122	(0.0846)	-90.60	(106.6)
Shock, yes=1	-0.00629	(0.0238)	0.00623	(0.0486)	0.0000545	(0.0435)	-0.0131	(0.0526)	691.9***	(119.5)
Status=1	0.396***	(0.147)	-0.0990	(0.107)	-0.297***	(0.0870)	0.0394	(0.101)	-159.9	(119.2)
Status, 200 ECU=1	-0.119**	(0.0545)	-0.0630	(0.110)	0.182	(0.117)	-0.278**	(0.111)	98.11	(155.1)
Non-fixed=1	0.285***	(0.0911)	-0.129	(0.0853)	-0.155*	(0.0817)	-0.0827	(0.0957)	-65.17	(132.6)
Constant							0.862***	(0.196)	777.7***	(271.6)
Observations	2338		2338		2338		834		834	
D20=D30	0.0168		0.427		0.367		0.889		0.609	

Russia

	Mlogit, average marginal effects						OLS		OLS	
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.222***	(0.0785)	-0.127	(0.0850)	-0.0948	(0.0617)	-0.0920	(0.0700)	649.5***	(136.5)
RET deviation	0.000691	(0.00366)	0.00727*	(0.00383)	-0.00796***	(0.00298)	0.00335	(0.00389)	99.02***	(8.539)
Male	0.0440	(0.0484)	-0.152***	(0.0511)	0.108***	(0.0339)	-0.000577	(0.0388)	-4.106	(70.85)
Age	-0.0230	(0.0146)	0.0214*	(0.0123)	0.00162	(0.00491)	-0.00312	(0.00332)	-5.386	(6.072)
Period	0.0189***	(0.00289)	-0.0225***	(0.00297)	0.00361*	(0.00205)	0.0214***	(0.00292)	51.43***	(5.371)
DG frac	-0.644***	(0.128)	0.495***	(0.128)	0.149*	(0.0823)	-0.244***	(0.0912)	-400.8***	(151.8)
Civicness	0.0320	(0.0208)	-0.0263	(0.0209)	-0.00571	(0.0129)	0.00243	(0.0178)	10.97	(33.06)
Trust=1	0.0465	(0.0490)	-0.0825	(0.0503)	0.0360	(0.0345)	0.0301	(0.0412)	26.16	(70.60)
SafeChoices	-0.00407	(0.0126)	0.00654	(0.0127)	-0.00247	(0.00875)	-0.00184	(0.00956)	-2.358	(16.55)
Ideology	0.0213*	(0.0118)	-0.00869	(0.0119)	-0.0126	(0.00950)	0.0250**	(0.00962)	35.22**	(17.67)
Income	0.0676	(0.105)	0.0211	(0.109)	-0.0886	(0.0677)	-0.186*	(0.0965)	-308.7*	(170.3)
Deduction 20%=1	-0.0738	(0.0534)	0.107*	(0.0555)	-0.0335	(0.0341)	0.0135	(0.0437)	5.451	(77.82)
Deduction 30%=1	-0.00158	(0.0647)	0.0354	(0.0651)	-0.0338	(0.0385)	0.0396	(0.0486)	104.6	(88.08)
Redistribution=1	0.0752	(0.0894)	-0.0488	(0.0932)	-0.0265	(0.0778)	-0.00489	(0.0983)	24.81	(144.1)
Shock=1	-0.0211	(0.0760)	-0.0112	(0.0711)	0.0323	(0.0591)	0.0667	(0.0457)	-323.6***	(75.52)
Shock, yes=1	-0.00345	(0.0506)	0.0192	(0.0474)	-0.0158	(0.0334)	0.0255	(0.0381)	1023.6***	(91.07)
Status=1	-0.00463	(0.0925)	-0.0355	(0.0951)	0.0402	(0.0665)	0.0319	(0.0549)	-377.3***	(90.44)
Status, 200 ECU=1	0.00691	(0.109)	-0.0205	(0.119)	0.0136	(0.0834)	0.0161	(0.0752)	786.4***	(160.1)
Non-fixed=1	0.0140	(0.0672)	-0.101	(0.0654)	0.0872	(0.0538)	0.0115	(0.0632)	-17.10	(111.3)
Constant							0.672***	(0.121)	691.2***	(224.0)
Observations	2560		2560		2560		1291		1291	
D20=D30	0.249		0.271		0.995		0.589		0.276	

UK

	Mlogit, average marginal effects						OLS		OLS	
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.321***	(0.0701)	0.0110	(0.0607)	-0.332***	(0.0687)	-0.000592	(0.125)	1076.5***	(228.8)
RET deviation	0.000225	(0.00256)	0.000139	(0.00307)	-0.000364	(0.00231)	0.000518	(0.00603)	96.32***	(10.75)
Male	0.127***	(0.0398)	-0.160***	(0.0357)	0.0329	(0.0345)	0.00875	(0.0622)	-44.88	(110.0)
Age	-0.00639**	(0.00269)	0.00602***	(0.00228)	0.000365	(0.00233)	-0.00134	(0.00291)	-2.860	(4.709)
Period	0.0216***	(0.00256)	-0.0129***	(0.00252)	-0.00874***	(0.00190)	0.00774*	(0.00423)	23.27***	(7.461)
DG frac	-0.676***	(0.0806)	0.284***	(0.0736)	0.392***	(0.0727)	-0.326*	(0.187)	-607.8*	(319.7)
Civicness	0.0136	(0.0217)	0.0159	(0.0187)	-0.0295	(0.0200)	0.00643	(0.0310)	11.38	(48.54)
Trust=1	-0.0542	(0.0380)	0.0532	(0.0334)	0.00107	(0.0332)	0.0477	(0.0631)	89.64	(105.8)
SafeChoices	0.0161	(0.0113)	-0.00425	(0.00928)	-0.0118	(0.00917)	0.00386	(0.0114)	-12.23	(18.53)
Ideology	-0.0117	(0.00801)	0.0171**	(0.00677)	-0.00532	(0.00706)	0.0120	(0.0142)	8.979	(22.22)
Income	0.0852	(0.0587)	-0.0545	(0.0538)	-0.0307	(0.0512)	-0.115	(0.108)	-98.22	(157.4)
Deduction 20%=1	-0.0454	(0.0478)	0.0762*	(0.0448)	-0.0308	(0.0395)	0.0523	(0.0676)	39.52	(113.3)
Deduction 30%=1	0.0157	(0.0497)	-0.0231	(0.0432)	0.00740	(0.0428)	-0.0616	(0.0770)	-82.58	(128.6)
Deduction 40%=1	-0.0887	(0.126)	0.0298	(0.114)	0.0589	(0.110)	0.0356	(0.134)	128.7	(212.4)
Deduction 50%=1	0.111	(0.103)	-0.00809	(0.0990)	-0.103*	(0.0608)	0.301*	(0.169)	489.7	(328.7)
Deadweight loss=1	-0.143	(0.0984)	-0.0124	(0.0898)	0.155	(0.0950)	0.163	(0.192)	317.4	(369.1)
Redistribution=1	0.0599	(0.0823)	-0.0306	(0.0755)	-0.0293	(0.0708)	0.178	(0.173)	230.9	(339.8)
Shock=1	0.00883	(0.0851)	-0.0449	(0.0807)	0.0361	(0.0809)	0.283*	(0.168)	-83.82	(316.6)
Shock, yes=1	-0.0773*	(0.0401)	0.113**	(0.0522)	-0.0358	(0.0343)	0.0276	(0.0600)	1222.0***	(109.8)
Status=1	0.0498	(0.0893)	0.0436	(0.0978)	-0.0934	(0.0700)	0.131	(0.188)	-176.7	(329.7)
Status, 200 ECU=1	-0.186	(0.116)	-0.0921	(0.0679)	0.278**	(0.140)	0.141	(0.112)	1361.8***	(130.8)
Non-fixed=1	-0.0876	(0.0751)	0.0728	(0.0817)	0.0147	(0.0630)	0.151	(0.154)	212.4	(295.0)
Constant							0.528**	(0.231)	566.0	(392.5)
Observations	3320		3320		3320		687		687	
D20=D30	0.266		0.0383		0.429		0.112		0.324	
D20=D40	0.732		0.686		0.409		0.893		0.653	
D20=D50	0.154		0.424		0.312		0.174		0.196	
D30=D40	0.416		0.646		0.622		0.493		0.360	
D30=D50	0.363		0.880		0.104		0.0385		0.0829	
D40=D50	0.212		0.797		0.187		0.226		0.361	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. Fourth and fifth columns report OLS regressions, the dependent variables are the fraction and the amount of income not declared in a given round; only partial lying decisions are considered. We only include subjects who partially cheated in at least 8 rounds, and declarations strictly between 0% and 100%. Standard errors are clustered by subject. RET rank is the national rank, between 0 and 1, of subject's national performance at the real effort task. RET Deviation is the difference between actual number of correct additions and one predicted from subject and period FE. DG frac is the fraction of the 1000 ECU donated in the dictator game. Norms is the social norms index (see Table C13). SafeChoices if the number (0-10) of safe choices on the lottery task. Trust is whether the individual answered (versus '). Income is the number of the individual's income bracket, rescaled between 0 and 1 (for Chile and the UK), and the individual's perceived income decile, rescaled between 0 and 1 (for Russia).
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C12: Determinants of lying , periods 1-10, more controls, by countries

Questions	
Avoid paying a fee on public transport	0.340
Cheating on taxes if you have a chance	0.373
Driving faster then the speed limit	0.226
Keeping money you found on the street	0.260
Lying in your own interests	0.308
Not reporting accidental damage you have done to a parked car	0.330
Throwing away litter in a public place	0.298
Driving under the influence of alcohol	0.303
Making up a job application	0.325
Buying something you know is stolen	0.370

The civicness index is calculated as the normalized first principle component of 10 questions of the following form: "Please consider the following and indicate if you think they are justified or not. [···] Never (4)/Rarely (3)/Sometimes (2)/Always justified (1)." The first principle component explained 28% of variation.

Table C13: Components of the civicness index.

Questions	
"How often do you lend money to your friends. 0 - More often than once a week, 1 - Approximately once a week, 2 - Approximately once a month, 3 - Once a year or less often."	0.626
"How often do you lend your belongings to your friends. 0 - More often than once a week, 1 - Approximately once a week, 2 - Approximately once a month, 3 - Once a year or less often."	0.671
"How often do you leave your door open. 0 - Very often, 1 - Often, 3 - Sometimes, 4 - Rarely, 5 - Never."	0.396

The trusting behavior index is calculated as the normalized first principle component of 3 questions. The first principle component explained 44% of variation.

Table C14: Components of the trusting behavior index.

	Average		Per round	
Male	1.433***	(0.308)	1.453***	(0.301)
Age	-0.0301	(0.0412)	-0.0295	(0.0426)
Period			0.165***	(0.0165)
DG frac	-2.603***	(0.701)	-2.697***	(0.687)
Deduction 20%	0.426	(0.335)	0.498	(0.330)
Deduction 30%	0.00509	(0.468)	-0.0520	(0.455)
Shock	0.320	(0.451)	0.491	(0.478)
L.Shock=Yes			-0.407	(0.265)
Status	0.714	(0.602)	0.797	(0.572)
Status, 200 ECU	-0.0458	(0.799)	-0.139	(0.772)
Non-fixed	1.180***	(0.435)	1.234***	(0.428)
Redistribution	0.218	(0.787)	0.0205	(0.747)
L.Dec. others, 1000			-0.192*	(0.113)
Civicness	-0.252*	(0.150)	-0.263*	(0.146)
Trusting behavior index	0.0784	(0.164)	0.0805	(0.160)
SafeChoices	0.0761	(0.0838)	0.0617	(0.0807)
Ideology	-0.0952	(0.0770)	-0.0824	(0.0737)
Income	-0.566	(0.807)	-0.652	(0.788)
Constant	11.69***	(1.188)	11.16***	(1.197)
Observations	256		2304	
R^2	0.171		0.152	

OLS regressions. Dependent variable is average performance over 10 rounds in the first model, and performance in a round for the second model. Robust standard errors for first model, standard errors clustered by subject for the second model. DG frac is the fraction of the 1000 ECU donated in the dictator game. Norms is the social norms index (see Table C13). SafeChoices if the number (0-10) of safe choices on the lottery task. Trusting behavior is the trusting behavior index (see Table C14). Income is the number of the individual's income bracket, rescaled between 0 and 1 (for Chile and the UK), and the individual's perceived income decile, rescaled between 0 and 1 (for Russia).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table C15: Determinants of subject's performance, Russia.

		1-1 ECU	1-10 ECU	1-20 ECU	1-30 ECU	1-40 ECU	1-50 ECU	1-60 ECU	1-70 ECU	1-80 ECU	1-90 ECU
	Low	0.0136	0.0299	0.0344	0.0422	0.0455	0.0617	0.0708	0.0708	0.0747	0.0766
Chile	High	0.0065	0.0234	0.0240	0.0253	0.0260	0.0331	0.0338	0.0344	0.0370	0.0383
	p	0.2620	0.5864	0.4101	0.2110	0.1590	0.0851	0.0378	0.0414	0.0396	0.0401
	Low	0.0148	0.0633	0.0789	0.0828	0.0844	0.1156	0.1203	0.1219	0.1234	0.1266
Russia	High	0.0055	0.0273	0.0313	0.0320	0.0320	0.0492	0.0492	0.0492	0.0492	0.0492
	p	0.1070	0.0422	0.0172	0.0135	0.0110	0.0059	0.0038	0.0031	0.0028	0.0022
	Low	0.0083	0.0370	0.0504	0.0567	0.0583	0.0705	0.0713	0.0717	0.0724	0.0736
UK	High	0.0094	0.0291	0.0366	0.0402	0.0425	0.0457	0.0461	0.0461	0.0465	0.0465
	p	0.8343	0.5085	0.3256	0.2643	0.3017	0.1278	0.1233	0.1181	0.1144	0.1005

For each country, the first two rows report the frequencies of declarations for two groups of subjects. The third row reports the p-value for the OLS regression where the dependent variable is 0 or 1 (if there is near-maximal cheating), and the independent variable is the dummy the subject group, and standard errors are clustered by subject.

Table C16: Near-maximal cheating depending on performance.

		1-1 ECU	1-10 ECU	1-20 ECU	1-30 ECU	1-40 ECU	1-50 ECU	1-60 ECU	1-70 ECU	1-80 ECU	1-90 ECU
	Female	0.0103	0.0301	0.0327	0.0391	0.0423	0.0590	0.0673	0.0673	0.0699	0.0705
Chile	Male	0.0099	0.0230	0.0257	0.0283	0.0289	0.0355	0.0368	0.0375	0.0414	0.0441
	p	0.9512	0.5498	0.5752	0.4207	0.3315	0.1554	0.0856	0.0926	0.1185	0.1549
	Female	0.0138	0.0618	0.0797	0.0837	0.0837	0.1130	0.1130	0.1146	0.1163	0.1179
Russia	Male	0.0068	0.0301	0.0323	0.0331	0.0346	0.0541	0.0586	0.0586	0.0586	0.0602
	p	0.2327	0.0792	0.0208	0.0162	0.0198	0.0170	0.0304	0.0258	0.0232	0.0253
	Female	0.0095	0.0387	0.0539	0.0630	0.0642	0.0765	0.0770	0.0770	0.0778	0.0782
UK	Male	0.0083	0.0279	0.0340	0.0351	0.0377	0.0411	0.0419	0.0423	0.0426	0.0434
	p	0.8392	0.3686	0.1583	0.0628	0.0860	0.0318	0.0343	0.0365	0.0350	0.0377

For each country, the first two rows report the frequencies of declarations for two groups of subjects. The third row reports the p-value for the OLS regression where the dependent variable is 0 or 1 (if there is near-maximal cheating), and the independent variable is the dummy the subject group, and standard errors are clustered by subject.

Table C17: Near-maximal cheating depending on gender.

		1-1 ECU	1-10 ECU	1-20 ECU	1-30 ECU	1-40 ECU	1-50 ECU	1-60 ECU	1-70 ECU	1-80 ECU	1-90 ECU
	DG>0	0.0105	0.0272	0.0299	0.0347	0.0367	0.0490	0.0541	0.0544	0.0578	0.0595
Chile	DG=0	0.0000	0.0143	0.0143	0.0143	0.0143	0.0143	0.0143	0.0143	0.0143	0.0143
	p	0.0017	0.3935	0.3065	0.1884	0.1502	0.0340	0.0174	0.0165	0.0100	0.0078
	DG>0	0.0133	0.0533	0.0656	0.0682	0.0687	0.0985	0.1015	0.1026	0.1036	0.1056
Russia	DG=0	0.0000	0.0197	0.0213	0.0230	0.0246	0.0311	0.0311	0.0311	0.0311	0.0311
	p	0.0005	0.0396	0.0122	0.0120	0.0153	0.0014	0.0009	0.0008	0.0007	0.0006
	DG>0	0.0103	0.0415	0.0559	0.0628	0.0656	0.0762	0.0771	0.0774	0.0782	0.0791
UK	DG=0	0.0057	0.0145	0.0164	0.0170	0.0170	0.0182	0.0182	0.0182	0.0182	0.0182
	p	0.3416	0.0148	0.0015	0.0004	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000

For each country, the first two rows report the frequencies of declarations for two groups of subjects. The third row reports the p-value for the OLS regression where the dependent variable is 0 or 1 (if there is near-maximal cheating), and the independent variable is the dummy the subject group, and standard errors are clustered by subject.

Table C18: Near-maximal cheating depending on DG donation.

Questions	
For each pair of statements, please indicate the one with which you agree, or if you have an intermediate position	
Incomes should be made more equal — We need larger income differences as incentives	-0.398
Private ownership of business should be increased — Government ownership of business should be increased	0.440
The government should take more responsibility to ensure that everyone is provided for — People should take more responsibility to provide for themselves	-0.493
Competition is good. It stimulates people to work hard and develop new ideas — Competition is harmful. It brings the worst in people	0.363
Hard work doesn't generally bring success - it's more a matter of luck and connections — In the long run, hard work usually brings a better life	-0.412
Wealth can grow so there's enough for everyone — People can only get rich at the expense of others	0.316

The index of redistributive preferences is calculated as the normalized first principle component of the 6 questions. Possible answers are from 0 to 4. The first principle component explained 26% of variation.

Table C19: Components of the redistribution index

Questions	
In the past 12 months, your economic conditions improved, became worse, or remained the same? (0-Significantly improved, 3-Became much worse)	-0.526
In the past 12 months, did you or any of your family members ever not feel secure from criminals while at home? (0-Often, 3- Never)	0.291
Do you think that over the following 12 months, the country's economic conditions will improve, become worse, or remain the same? (0-Will improve significantly, 4-Will become much worse)	-0.498
Do you think that over the following 12 months, your economic conditions will improve, become worse, or remain the same? (0-Will improve significantly, 4-Will become much worse)	-0.471
In the past 12 months, did you or any of your family members ever lose a job? (0 or 1)	0.411

The index of economic security is calculated as the normalized first principle component of 5 the questions. The first principle component explained 34% of variation.

Table C20: Components of the economic security index

Questions	
Which of the following best describes you:	
Dominant — Subordinate	-0.381
Unconfident — Confident	0.379
High status — Low status	-0.359
Leader — Follower	0.398
Controls resources — Does not control resources	-0.367
Dependent — Independent	0.225
Passive — Active	0.341
In our society there are people who occupy higher social positions and people who occupy lower social positions. Please state where you stand on the ladder of 10 steps where 1 is the lowest step and 10 is the highest step	0.351

The subjective social status index is calculated as the normalized first principle component of the 8 questions. The first principle component explained 46% of variation.

Table C21: Components of the subjective social status index.

	All countries, females						All countries, females		All countries, females	
	Mlogit, average marginal effects						OLS		OLS	
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.184**	(0.0802)	-0.0888	(0.0827)	-0.0950	(0.0645)	-0.0994	(0.0686)	635.6***	(130.8)
RET deviation	0.000917	(0.00363)	0.00711*	(0.00383)	-0.00803***	(0.00296)	0.00297	(0.00376)	98.90***	(8.248)
Male	0.0643	(0.0473)	-0.176***	(0.0487)	0.112***	(0.0346)	0.0208	(0.0391)	27.85	(68.73)
Age	-0.0178	(0.0142)	0.0157	(0.0120)	0.00213	(0.00493)	-0.000517	(0.00301)	-1.563	(5.462)
Period	0.0189***	(0.00287)	-0.0225***	(0.00295)	0.00363*	(0.00204)	0.0212***	(0.00288)	51.04***	(5.195)
DG frac	-0.701***	(0.118)	0.530***	(0.117)	0.172**	(0.0745)	-0.236***	(0.0889)	-397.4***	(144.3)
Redistribution preferences	-0.0423	(0.0274)	0.0388	(0.0255)	0.00349	(0.0145)	-0.0339*	(0.0172)	-43.37	(29.27)
Trusting behavior index	0.0170	(0.0215)	-0.0330	(0.0216)	0.0160	(0.0132)	0.0421**	(0.0193)	76.05**	(32.85)
Deduction 20%=1	-0.0816	(0.0514)	0.116**	(0.0531)	-0.0341	(0.0341)	0.00148	(0.0435)	-7.076	(74.81)
Deduction 30%=1	-0.00993	(0.0627)	0.0485	(0.0624)	-0.0386	(0.0377)	0.0587	(0.0497)	138.8	(86.15)
Shock=1	-0.0309	(0.0715)	-0.0293	(0.0692)	0.0601	(0.0628)	0.0787*	(0.0441)	-301.3***	(69.82)
Shock, yes=1	-0.00938	(0.0465)	0.0255	(0.0448)	-0.0161	(0.0324)	0.0161	(0.0366)	1012.9***	(89.36)
Status=1	-0.0261	(0.0921)	-0.0452	(0.0952)	0.0713	(0.0723)	0.0409	(0.0554)	-356.1***	(83.42)
Status, 200 ECU=1	0.0204	(0.109)	-0.0487	(0.114)	0.0283	(0.0891)	0.0193	(0.0673)	787.6***	(148.1)
Non-fixed=1	0.00682	(0.0674)	-0.109*	(0.0648)	0.102*	(0.0573)	0.0299	(0.0643)	13.62	(112.1)
Constant							0.645***	(0.0789)	625.3***	(138.0)
Observations	2560		2560		2560		1291		1291	
D20=D30	0.241		0.277		0.919		0.240		0.108	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. The fourth column reports OLS regression, the dependent variable is the fraction of income not declared in a given round; only partial lying decisions are considered. Standard errors are clustered by subject. DG frac is the fraction of the 1000 ECU donated in the dictator game.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C22: Lying in periods 1-10, Russia, redistributive preferences and trusting behavior

	All countries, females						All countries, females		All countries, females	
	Mlogit, average marginal effects						OLS		OLS	
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	0.0930	(0.102)	-0.0179	(0.102)	-0.0751	(0.0900)	-0.140	(0.0855)	577.4***	(170.4)
RET deviation	0.00519	(0.00502)	0.00253	(0.00517)	-0.00772**	(0.00368)	0.000807	(0.00482)	96.02***	(11.58)
Male	0.0983	(0.0607)	-0.213***	(0.0621)	0.115***	(0.0421)	0.0598	(0.0469)	88.39	(90.62)
Age	-0.0361**	(0.0183)	0.0279*	(0.0146)	0.00823	(0.00630)	-0.00657	(0.00408)	-11.45	(7.375)
Period	0.0220***	(0.00379)	-0.0234***	(0.00404)	0.00137	(0.00249)	0.0247***	(0.00365)	55.37***	(7.029)
DG frac	-0.657***	(0.149)	0.457***	(0.151)	0.200**	(0.101)	-0.132	(0.110)	-230.2	(198.7)
Redistribution preferences	-0.0671**	(0.0320)	0.0547*	(0.0310)	0.0124	(0.0200)	-0.0376**	(0.0185)	-56.85	(36.35)
Economic security	-0.0218	(0.0285)	0.000133	(0.0301)	0.0216	(0.0232)	-0.0285	(0.0263)	-57.62	(50.34)
Trusting behavior index	0.00896	(0.0330)	-0.0414	(0.0321)	0.0325*	(0.0180)	0.0659**	(0.0265)	132.6**	(53.08)
Deduction 20%=1	0.00230	(0.0749)	0.0362	(0.0783)	-0.0385	(0.0486)	-0.00796	(0.0591)	-18.79	(117.8)
Deduction 30%=1	0.0283	(0.0784)	0.00347	(0.0726)	-0.0318	(0.0495)	0.0443	(0.0573)	116.2	(101.1)
Shock=1	-0.0451	(0.130)	-0.0560	(0.117)	0.101	(0.119)	0.0591	(0.0832)	-339.6**	(144.8)
Shock, yes=1	-0.00980	(0.0477)	0.0245	(0.0444)	-0.0147	(0.0349)	0.0180	(0.0369)	1015.7***	(91.88)
Status=1	-0.0567	(0.139)	-0.0761	(0.138)	0.133	(0.134)	-0.000978	(0.0957)	-432.5***	(164.8)
Status, 200 ECU=1	0.0445	(0.112)	-0.0562	(0.115)	0.0117	(0.0874)	0.0330	(0.0718)	820.2***	(159.6)
Non-fixed=1	-0.00652	(0.130)	-0.139	(0.117)	0.146	(0.126)	-0.0113	(0.102)	-60.42	(175.8)
Constant							0.773***	(0.127)	844.7***	(224.1)
Observations	1560		1560		1560		743		743	
D20=D30	0.728		0.659		0.909		0.405		0.271	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. The fourth column reports OLS regression, the dependent variable is the fraction of income not declared in a given round; only partial lying decisions are considered. Standard errors are clustered by subject. DG frac is the fraction of the 1000 ECU donated in the dictator game.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C23: Lying in periods 1-10, Russia, redistributive preferences, trusting behavior, and economic security

	All countries, females						All countries, females		All countries, females	
	Mlogit, average marginal effects						OLS		OLS	
	Maximal lying		Partial lying		Honest		Fraction undeclared		Amount undeclared	
RET rank	-0.00603	(0.132)	0.0434	(0.135)	-0.0374	(0.0900)	-0.142	(0.123)	521.0**	(220.6)
RET deviation	0.00877	(0.00819)	-0.00425	(0.00865)	-0.00452	(0.00503)	0.0117	(0.00732)	123.9***	(18.06)
Male	-0.0490	(0.0800)	-0.128*	(0.0765)	0.177***	(0.0598)	0.0369	(0.0732)	69.64	(134.0)
Age	-0.0445	(0.0282)	0.0398*	(0.0234)	0.00466	(0.00650)	-0.00409	(0.00411)	-7.168	(7.182)
Period	0.0293***	(0.00505)	-0.0316***	(0.00570)	0.00235	(0.00367)	0.0238***	(0.00564)	52.71***	(10.53)
DG frac	-0.680***	(0.213)	0.422**	(0.201)	0.258**	(0.124)	0.0560	(0.221)	111.4	(373.4)
Subjective status	0.0815**	(0.0415)	-0.0611*	(0.0367)	-0.0204	(0.0262)	0.0534	(0.0324)	85.31	(56.79)
Deduction 20%=1	0.225*	(0.119)	-0.123	(0.126)	-0.102	(0.0823)	-0.0256	(0.148)	-104.6	(278.9)
Deduction 30%=1	0.182	(0.136)	-0.119	(0.119)	-0.0626	(0.0735)	-0.167	(0.145)	-241.3	(229.8)
Shock=1	0.121	(0.137)	-0.126	(0.129)	0.00559	(0.0806)	0.0860	(0.0705)	-299.3**	(120.9)
Shock, yes=1	0.0270	(0.0775)	-0.0265	(0.0793)	-0.000498	(0.0461)	0.0446	(0.0299)	1045.0***	(64.44)
Non-fixed=1	0.0484	(0.151)	-0.149	(0.133)	0.100	(0.0976)	-0.158	(0.134)	-281.1	(215.4)
Constant							0.869***	(0.197)	1017.0***	(314.0)
Observations	760		760		760		344		344	
D20=D30	0.756		0.977		0.698		0.395		0.639	

The first three columns report average marginal effects for multinomial logistic regression (dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round). Standard errors are clustered by subject. The fourth column reports OLS regression, the dependent variable is the fraction of income not declared in a given round; only partial lying decisions are considered. Standard errors are clustered by subject. DG frac is the fraction of the 1000 ECU donated in the dictator game.
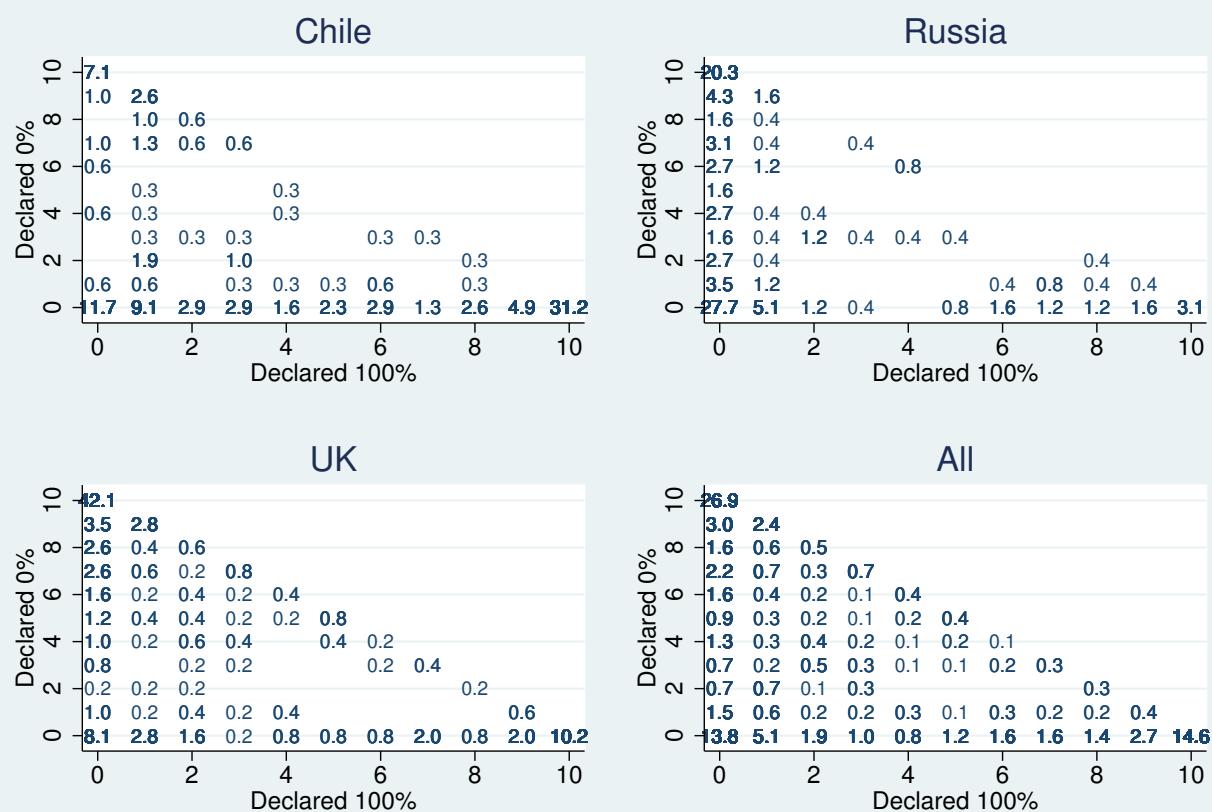* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C24: Lying in periods 1-10, Russia, subjective social status

Chile

Declared 0% (y-axis, 0 to 10) vs Declared 100% (x-axis, 0 to 10)

```
10 | 7.1
   | 1.0  2.6
 8 |      1.0  0.6
   | 1.0  1.3  0.6  0.6
 6 | 0.6
   |      0.3                 0.3
 4 | 0.6  0.3                 0.3
   |      0.3  0.3  0.3            0.3  0.3
 2 |      1.9       1.0                      0.3
   | 0.6  0.6       0.3  0.3  0.3  0.6       0.3
 0 | 11.7 9.1  2.9  2.9  1.6  2.3  2.9  1.3  2.6  4.9  31.2
     0         2         4         6         8         10
```

Russia

```
10 | 20.3
   | 4.3  1.6
 8 | 1.6  0.4
   | 3.1  0.4            0.4
 6 | 2.7  1.2                 0.8
   | 1.6
 4 | 2.7  0.4  0.4
   | 1.6  0.4  1.2  0.4  0.4  0.4
 2 | 2.7  0.4                                0.4
   | 3.5  1.2                 0.4  0.8  0.4  0.4
 0 | 27.7 5.1  1.2  0.4       0.8  1.6  1.2  1.2  1.6  3.1
     0         2         4         6         8         10
```

UK

```
10 | 42.1
   | 3.5  2.8
 8 | 2.6  0.4  0.6
   | 2.6  0.6  0.2  0.8
 6 | 1.6  0.2  0.4  0.2  0.4
   | 1.2  0.4  0.4  0.2  0.2  0.8
 4 | 1.0  0.2  0.6  0.4       0.4  0.2
   | 0.8       0.2  0.2            0.2  0.4
 2 | 0.2  0.2  0.2                      0.2
   | 1.0  0.2  0.4  0.2  0.4                 0.6
 0 | 8.1  2.8  1.6  0.2  0.8  0.8  0.8  2.0  0.8  2.0  10.2
     0         2         4         6         8         10
```

All

```
10 | 26.9
   | 3.0  2.4
 8 | 1.6  0.6  0.5
   | 2.2  0.7  0.3  0.7
 6 | 1.6  0.4  0.2  0.1  0.4
   | 0.9  0.3  0.2  0.1  0.2  0.4
 4 | 1.3  0.3  0.4  0.2  0.1  0.2  0.1
   | 0.7  0.2  0.5  0.3  0.1  0.1  0.2  0.3
 2 | 0.7  0.7  0.1  0.3                      0.3
   | 1.5  0.6  0.2  0.2  0.3  0.1  0.3  0.2  0.2  0.4
 0 | 13.8 5.1  1.9  1.0  0.8  1.2  1.6  1.6  1.4  2.7  14.6
     0         2         4         6         8         10
```

The figures show the percent of subjects for each number of rounds with 0% and 100% declarations

Figure C3: Frequency of cheating decisions by country. Axes show number of periods.

	1	2	3	4	5	6
Periods declared 0%	-0.00854**	-0.00768*	-0.00304	-0.000102	-0.0161**	0.0287***
	(0.00393)	(0.00425)	(0.00400)	(0.00481)	(0.00644)	(0.00635)
Periods declared 1-99%	0.000347	0.000977	-0.00329	0.00321	-0.000377	-0.000555
	(0.00301)	(0.00304)	(0.00399)	(0.00457)	(0.00632)	(0.00728)
Russia	-0.00594	-0.0631**	-0.0110	-0.0210	0.0271	0.0724
	(0.0295)	(0.0311)	(0.0340)	(0.0367)	(0.0529)	(0.0579)
UK	0.0367	-0.0424	-0.0175	-0.0776*	-0.0350	0.135**
	(0.0285)	(0.0316)	(0.0352)	(0.0433)	(0.0576)	(0.0588)
Observations	444	444	444	444	444	444
L	-87.50	-93.40	-122.4	-149.9	-250.2	-280.2
Declared 0%=Declared 1-99%	0.0612	0.116	0.657	0.689	0.0156	6.57e-08

Logistic regression, marginal coefficients. Individual controls are gender, age, and RET rank (not shown).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

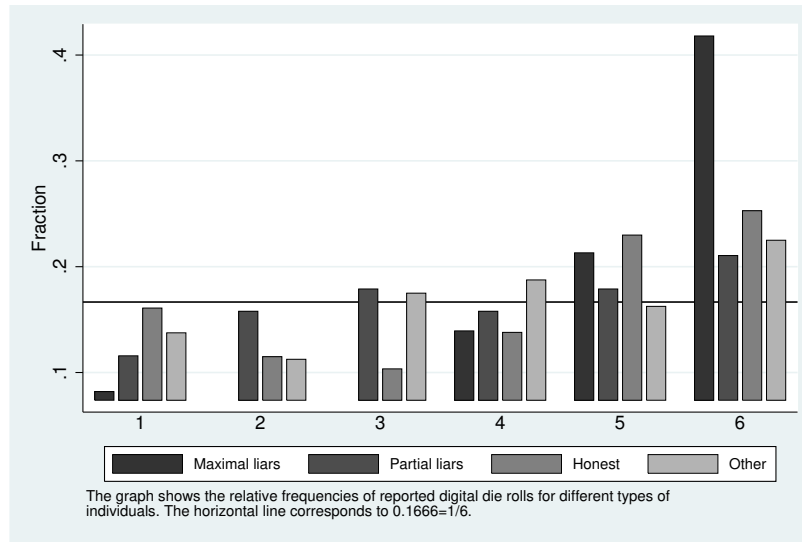Table C25: Logit regressions of die roll values

The graph shows the relative frequencies of reported digital die rolls for different types of
individuals. The horizontal line corresponds to 0.1666=1/6.

Figure C4: Lying and the digital die roll result.

	Maximal lie	Partial lie	Honest	Total
Always declare 0%	25	4	26	55
Declare 0% in at least 8 periods	28	7	43	78
Always declare above 0%, but below 100%	1	0	24	25
Declare above 0%, but below 100% in at least 8 periods	7	8	50	65
Always declare 100%	2	5	33	40
Declare 100% in a least 8 periods	7	5	44	56

The table shows the frequency actions on the digital die task when 1, 2, 3, or 4 was rolled, depending on the individual's behavior in
the main part of the experiment.

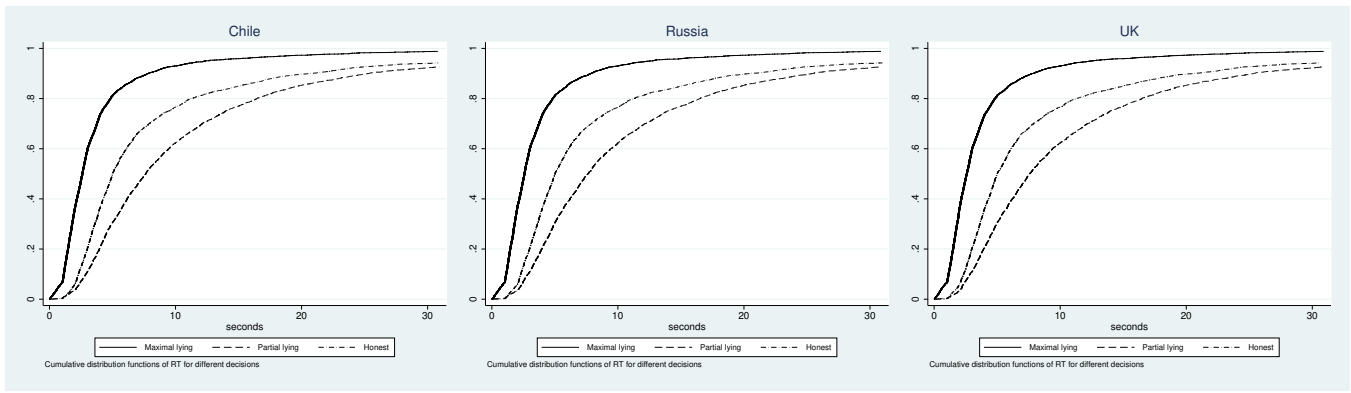Table C26: Lying on the digital die task

Figure C5: Distribution of reaction time by country. Figures present the cumulative distributions functions of TR for different decisions

	Model 1		Model 2		Model 3	
RET rank	-0.510***	(0.0591)	-0.314***	(0.0497)	-0.309***	(0.0492)
RET deviation	0.0279***	(0.00432)	0.0258***	(0.00428)	0.0277***	(0.00403)
Male	0.00712	(0.0328)	0.0830***	(0.0264)	0.0795***	(0.0260)
Age	0.00799***	(0.00264)	0.00421*	(0.00250)	0.00406	(0.00254)
Period	-0.158***	(0.00278)	-0.146***	(0.00274)	-0.0955***	(0.00276)
DG frac	0.582***	(0.0801)	0.167**	(0.0662)	0.146**	(0.0656)
Deduction 20%	0.108***	(0.0378)	0.0739**	(0.0310)	0.0738**	(0.0304)
Deduction 30%	-0.0443	(0.0402)	-0.0270	(0.0323)	-0.0296	(0.0317)
Deduction 40%	0.257**	(0.103)	0.215***	(0.0761)	0.205***	(0.0743)
Deduction 50%	-0.168*	(0.0960)	-0.0884	(0.0827)	-0.0985	(0.0792)
Redistribution	-0.0371	(0.0643)	0.0325	(0.0507)	0.0300	(0.0493)
Shock	0.163***	(0.0581)	0.162***	(0.0482)	0.150***	(0.0465)
Shock, yes	0.356***	(0.0465)	0.336***	(0.0441)	0.348***	(0.0398)
Status	-0.109	(0.0677)	-0.0744	(0.0538)	-0.0802	(0.0526)
Status, 200 ECU	0.132	(0.0862)	0.103	(0.0670)	0.113*	(0.0655)
Non-fixed	0.0887**	(0.0432)	0.118***	(0.0354)	0.117***	(0.0347)
Russia	-0.129***	(0.0501)	-0.134***	(0.0418)	-0.150***	(0.0413)
UK	-0.515***	(0.0417)	-0.323***	(0.0357)	-0.317***	(0.0351)
Maximal lie this period			0.486***	(0.0347)		
Partial lie this period			0.835***	(0.0323)		
Maximal lie in period 1					0.412***	(0.0597)
Partial lie in period 1					1.275***	(0.0481)
Honest in period 1					0.979***	(0.0561)
Max. lie this and previous period					-0.459***	(0.0376)
Max. lie prev. period, part. lie this period					0.510***	(0.0648)
Max. lie prev. period, honest this period					0.411***	(0.0936)
Part. lie prev. period, max. lie this period					-0.0159	(0.0564)
Part. lie this and previous period					0.401***	(0.0365)
Part. lie prev. period, honest this period					0.349***	(0.0498)
Honest prev. period, max. lie this period					-0.0422	(0.0709)
Honest prev. period, part. lie this period					0.499***	(0.0537)
Constant	2.507***	(0.0961)	2.014***	(0.0891)	2.087***	(0.0872)
Observations	10714		10714		10714	

OLS regression. Dependent variable is log reaction time. Standard errors are clustered by subject. Baseline category for subject decision in Model 2 is honest behavior in this period. Baseline category for subject decision in Model 3 is honest behavior in this and previous period.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table C27: Determinants of reaction time

	Model 1		Model 2		Model 3	
analysis time when record ends						
RET rank	0.378***	(0.0761)	0.246***	(0.0654)	0.273***	(0.0647)
RET deviation	-0.0300***	(0.00776)	-0.0269***	(0.00787)	-0.0269***	(0.00690)
Male	-0.0395	(0.0409)	-0.0990***	(0.0346)	-0.109***	(0.0337)
Age	-0.00657*	(0.00341)	-0.00468	(0.00303)	-0.00394	(0.00331)
Period	0.184***	(0.00402)	0.174***	(0.00406)	0.101***	(0.00420)
DG frac	-0.548***	(0.107)	-0.131	(0.0916)	-0.106	(0.0916)
Deduction 20%	-0.131***	(0.0472)	-0.111***	(0.0414)	-0.113***	(0.0400)
Deduction 30%	0.0171	(0.0501)	0.0109	(0.0417)	-0.00890	(0.0418)
Deduction 40%	-0.427***	(0.164)	-0.286**	(0.112)	-0.298***	(0.111)
Deduction 50%	0.138	(0.110)	0.0445	(0.101)	0.0882	(0.0911)
Redistribution	0.0518	(0.0868)	-0.0124	(0.0680)	0.00349	(0.0659)
Shock	-0.102	(0.0720)	-0.118*	(0.0646)	-0.123**	(0.0620)
Shock, yes	-0.363***	(0.0605)	-0.338***	(0.0597)	-0.337***	(0.0534)
Status	0.128	(0.0851)	0.0986	(0.0674)	0.0987	(0.0670)
Status, 200 ECU	-0.186*	(0.106)	-0.134	(0.0864)	-0.132	(0.0827)
Non-fixed	-0.0832	(0.0535)	-0.119***	(0.0450)	-0.116***	(0.0444)
Russia	0.289***	(0.0585)	0.325***	(0.0523)	0.289***	(0.0519)
UK	0.667***	(0.0507)	0.514***	(0.0465)	0.450***	(0.0471)
Maximal lie this period			-0.491***	(0.0487)		
Partial lie this period			-0.836***	(0.0436)		
Maximal lie in period 1					-0.631***	(0.0825)
Partial lie in period 1					-1.401***	(0.0595)
Honest in period 1					-1.262***	(0.0804)
Max. lie this and previous period					0.470***	(0.0553)
Max. lie prev. period, part. lie this period					-0.500***	(0.0749)
Max. lie prev. period, honest this period					-0.472***	(0.147)
Part. lie prev. period, max. lie this period					-0.0849	(0.0771)
Part. lie this and previous period					-0.449***	(0.0467)
Part. lie prev. period, honest this period					-0.373***	(0.0601)
Honest prev. period, max. lie this period					-0.0104	(0.113)
Honest prev. period, part. lie this period					-0.574***	(0.0628)
Constant	-3.004***	(0.123)	-2.490***	(0.112)	-2.335***	(0.119)
Observations	10392		10392		10392	
L	-14637.5		-14092.6		-13587.0	

Exponential distribution survival time model. Standard errors are clustered by subject. Baseline category for subject decision in Model 2 is honest behavior in this period. Baseline category for subject decision in Model 3 is honest behavior in this and previous period.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table C28: Parametric estimation of hazard rate, exponential distribution of reaction time

	Model 1		Model 2		Model 3	
analysis time when record ends						
RET rank	0.397***	(0.0838)	0.270***	(0.0779)	0.337***	(0.0845)
RET deviation	-0.0324***	(0.00881)	-0.0301***	(0.00995)	-0.0311***	(0.0101)
Male	-0.0445	(0.0448)	-0.110***	(0.0412)	-0.135***	(0.0441)
Age	-0.00681*	(0.00377)	-0.00519	(0.00355)	-0.00438	(0.00427)
Period	0.200***	(0.00502)	0.201***	(0.00548)	0.124***	(0.00620)
DG frac	-0.581***	(0.120)	-0.137	(0.110)	-0.113	(0.120)
Deduction 20%	-0.143***	(0.0520)	-0.134***	(0.0491)	-0.153***	(0.0520)
Deduction 30%	0.0203	(0.0550)	0.0154	(0.0496)	-0.0161	(0.0556)
Deduction 40%	-0.481***	(0.183)	-0.342**	(0.135)	-0.407***	(0.149)
Deduction 50%	0.147	(0.121)	0.0411	(0.121)	0.110	(0.120)
Redistribution	0.0558	(0.0955)	-0.0128	(0.0808)	0.0112	(0.0864)
Shock	-0.105	(0.0788)	-0.127	(0.0772)	-0.148*	(0.0824)
Shock, yes	-0.390***	(0.0674)	-0.377***	(0.0727)	-0.394***	(0.0744)
Status	0.144	(0.0939)	0.125	(0.0798)	0.137	(0.0881)
Status, 200 ECU	-0.208*	(0.117)	-0.164	(0.103)	-0.179	(0.109)
Non-fixed	-0.0922	(0.0588)	-0.137**	(0.0533)	-0.142**	(0.0581)
Russia	0.331***	(0.0632)	0.404***	(0.0611)	0.394***	(0.0668)
UK	0.735***	(0.0563)	0.619***	(0.0541)	0.590***	(0.0612)
Maximal lie this period			-0.552***	(0.0589)		
Partial lie this period			-0.931***	(0.0548)		
Maximal lie in period 1					-0.803***	(0.107)
Partial lie in period 1					-1.696***	(0.0821)
Honest in period 1					-1.582***	(0.109)
Max. lie this and previous period					0.568***	(0.0758)
Max. lie prev. period, part. lie this period					-0.580***	(0.0952)
Max. lie prev. period, honest this period					-0.581***	(0.193)
Part. lie prev. period, max. lie this period					-0.123	(0.101)
Part. lie this and previous period					-0.536***	(0.0612)
Part. lie prev. period, honest this period					-0.434***	(0.0774)
Honest prev. period, max. lie this period					-0.0341	(0.152)
Honest prev. period, part. lie this period					-0.684***	(0.0812)
Constant	-3.309***	(0.131)	-2.946***	(0.126)	-2.991***	(0.154)
ln_p						
Constant	0.0785***	(0.0124)	0.128***	(0.0134)	0.200***	(0.0147)
Observations	10392		10392		10392	
L	-14574.6		-13923.4		-13194.6	

Weibull distribution survival time model. Standard errors are clustered by subject. Baseline category for subject decision in Model 2 is honest behavior in this period. Baseline category for subject decision in Model 3 is honest behavior in this and previous period.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$
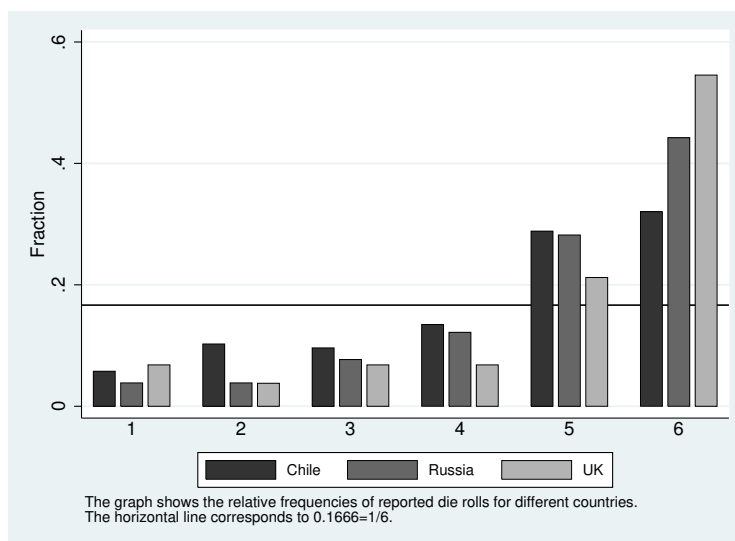
Table C29: Parametric estimation of hazard rate, Weibull distribution of reaction time

Figure C6: The Die Roll Result by Country.