Is Cheating a National Pastime? Experimental Evidence.

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

March 9, 2018

Nuffield College Centre of Experimental Social Science Working Paper

*Replication material can be found on https://github.com/deniselaroze/Is-cheating-a-national-pastime-Experimental-Evidence

Abstract

The decision to cheat is a frequent and relatively mundane economic decision that individuals make on a regular basis in their everyday lives. We observe individuals from the U.K., Russia and Chile making multiple cheating decisions in a public goods game. The majority of subjects in each country exhibit stable cheating behaviors: they either cheat maximally all the time; never cheat; or cheat partially all the time. The distribution of these behaviors varies across countries. Some correlates of cheating exhibit considerable stability across three countries: Both ability at a real effort task and selfish behavior in the Dictator Game are strong and consistent predictors of maximal, but not partial, cheating. Those exhibiting a proclivity to cheat in the public goods game are also more likely to cheat in a classic die-rolling game. Treatments aimed at moderating the extrinsic and intrinsic costs of cheating had little, if any, effect on subject behavior.

And again I say to you, it is easier for a camel to go through the eye of a needle, than for a rich man to enter into the kingdom of God. (Gospel of Matthew 19:24)

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).

Cheating has been widely studied. Most cheating and lying occurs in mundane, day-to-day decisions (DePaulo et al., 1996), as health services, tax authorities, banks, store owners, university professors, or public transportation firms are all well aware. At the same time, people often behave honestly even when it is materially rewarding to cheat (Gibson et al., 2013; Gneezy et al., 2013; Rosenbaum et al., 2014; Jacobsen et al., 2017), or limit the degree to which they distort the truth (Gino and Ariely, 2016), foregoing a part of material rewards. Any serious effort to manage cheating in the population requires an understanding of this fundamental heterogeneity in cheating behavior.

We study cheating by observing subjects in experiments making multiple decisions with earned income, where each choice presents opportunities to cheat and avoid deductions to their earned income. Our experiment involves over 1000 subjects in Chile, Russia, and the U.K.

We report four findings. First, throughout the experiment, a majority of individuals employ consistent strategies, either cheating maximally (or not reporting any income), behaving honestly (reporting full income), and engaging in partial cheating (or reporting a fraction of the earned income). Both maximal cheating and honest reporting are quick decisions, implying that both lying and honest behavior may be heuristic, intuitive processes. Decisions that involve partial cheating, on the other hand, take significantly longer to execute, suggesting that such decisions involve deliberation and/or decision conflict. Second, we find that the distribution of the cheating strategies is different in the three countries where the experiment is replicated. Third, we gain insights into who prefers these different cheating repertoires. In particular, the ability to earn income is correlated with maximal cheating, and this relationship is present in every country where the experiment was run; thus it is a refinement (and a replication) of earlier results (Duch and Solaz, 2017) that associated individual ability with cheating in the

U.K. Finally, we find that the prevalence of maximal and limited cheating, as well as of honest behavior, is not significantly correlated with the economic benefits conferred by cheating, or with whether the subject's income was partly comprised of an unearned bonus.

We employ an experimental design where subjects earn income through a real effort task and then are asked to state the amount that was earned. A fixed percentage is then deducted from the declared amount, and redistributed among the subject's four-player group. The subjects can cheat maximally, declaring zero income, be completely honest, or declare some intermediate amount of income. The interaction is repeated for 10 rounds, and performance at the real effort task is used as a measure of subject's ability. As a robustness test, we also give subjects an opportunity to cheat by privately rolling a die, reporting the value, and being rewarded proportional to the amount that they report.

To understand what determines the degree of cheating, we vary the percentage of income that is deducted from the subject's declared income. In some treatments, we also let the subjects receive windfall income, and vary the amount that can be earned through the real effort task. These variations do not alter the results. Subjects also participate in a standard Dictator Game and we elicit their risk preferences.

Motivation

Maximal and Partial Cheating. The classic parsimonious and simple "Beckerian" model of cheating is grounded in a self-interested cost-benefit calculation — cheating behavior is affected only by externally imposed costs and benefits (Becker, 1968). There is evidence that at least some members of the public indeed act as *maximal cheaters*, distorting the truth to the extent that maximizes the material gains (Abeler et al., 2014; Cohn et al., 2014).

However, we know that many individuals do not take full advantage of lying (Abeler et al., 2014, 2017). Some individuals choose to behave *honestly* when it is in their clear interest to distort the truth Gneezy (2005), and may refuse to lie even when doing so would benefit other people as well (Erat and Gneezy, 2012). Such individuals may have high internalized costs of cheating (Gibson et al., 2013).

Finally, many individuals are *partial cheaters* — they lie, but not to the fullest extent possible (Fischbacher and Follmi-Heusi, 2013). This can be a Beckerian decision if the person values not being exposed as a liar (Kajackaite and Gneezy, 2017; Khalmetski and Sliwka, 2017; Gneezy et al., 2017). At the same time, a widely accepted perspective in the psychological literature is that the decisions whether (and how much) to cheat are driven by the need to maintain a positive self-image (Shalvi et al., 2015). Thus, cheating (as well as other forms of unethical behavior) may depend on whether the decision can be undeniably classified as cheating (Mazar et al., 2008), if the individual recently had an opportunity to act ethically or unethically (Monin and T. Miller, 2001; Mazar and Zhong, 2010) or recollect their good or bad deeds (Sachdeva et al., 2009), or if cheating benefits others (Gino et al., 2013). Peer effects (Fosgaard et al., 2013), moral reminders (Pruckner and Sausgruber, 2013) or reminders about one's professional identity (Cohn et al., 2014) can all be relevant to the decision whether to cheat or not.

Repeated decisions. As part of their daily routine individuals will make lots of decisions; many of them will offer opportunities to lie. And in the course of the day the incidence of individuals lying or cheating is quite high. DePaulo et al. (1996), for example, find that lying by their different subject pools occurred during one-fifth to two-thirds of their social interactions. Given the volume and the mundane nature of most cheating decisions, many individuals may employ "rules of thumb" when they are confronted with an opportunity to cheat.

Experimental evidence suggests that these decisions may not respond to extrinsic incentives (Mazar et al., 2008; Fischbacher and Follmi-Heusi, 2013; Duch and Solaz, 2017). As long as there are net gains to be realized, regardless of how trivial, many individuals cheat (although they will not pay to do so (Duch and Solaz, 2017)). A possible explanation to this puzzle is that perceived costs of being caught are higher if the stakes are high (Kajackaite and Gneezy, 2017).[1] And in games that resemble deception games, where lying is an explicit rule of the game, there is in fact a correlation between incentives and lying (Gibson et al., 2013; Gneezy et al., 2013).

Some of the evidence on decision making reaction times is consistent with this notion that decisions to cheat, or not to cheat, can be more or less routine. The preponderance of evidence

[1] In a "mind game", where the subject reports whether the die roll was equal to a number that he guessed in advance, the probability of cheating increased with the stakes.

suggests that the cheating decision is context specific and reflective and therefore takes more time than honest decision-making. 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 cheating options. And there is related evidence that the social consequences of decisions affect response times such that pro-social decisions are quicker (Rand et al., 2014). At the same time, both pro-social and anti-social behavior can result in an intuitive response, depending on prior social experience (Peysakhovich and Rand, 2015).

Stable Heterogeneity. In an experiment where subjects make repeated decisions as to whether or not to cheat, and the subject has a range of options with respect to the degree of cheating, we expect to observe four outcomes.

First, subjects will exhibit stable cheating behavior. A subject will either cheat maximally, cheat partially, or be honest across the multiple rounds. There is a considerable body of experimental work suggesting stability of within-subject preferences over time and across different games (Andreoni and Miller, 2002). A number of subsequent experiments find that subjects make reasonably stable choices in identical replications of experimental games within a session (Fischbacher and Gachter, 2010), over time (Volk et al., 2012) and also in different games measuring similar preferences (Blanco et al., 2011). Significant percentages of the subjects in these experiments exhibit stable choices.

Cheating decisions should also be stable for any particular individual across quite different cheating opportunities; our experimental design explores this stability. At the end of the experimental session, subjects play an entirely unrelated cheating game — the classic die-rolling game that ensures cheating anonymity — as a robustness check on the cheating repertoires. The expectation is that the cheating behavior of the subjects in the die game will be consistent with their cheating repertoire identified in the initial cheating experiment.

Second, these strategies, as well as the magnitude or degree of partial cheating, will be robust with respect to the extrinsic costs of cheating, especially if decisions to distort the truth are guided by a stable cheating "rule of thumb" rather than the characteristics of the cheating opportunities. We implement treatments that vary the benefits of cheating both within and between subjects. Our expectation is that subjects will not abandon their cheating repertoire even when the benefits of cheating vary. Also we expect to observe similar distributions of cheating strategies irrespective of the extrinsic benefits of cheating.

Third, we expect these strategies to be affected by some individual-level characteristics. Recent research finds a strong correlation between ability and cheating proclivities (Duch and Solaz, 2017; Gill et al., 2013). Our expectation is that ability, as measured by performance on the addition real effort task, will be correlated with cheating heuristics — high ability subjects will favor the maximum cheating heuristic.

Finally, decisions that involve partial cheating will be more deliberative and will have a higher response time (RT). Recent experimental evidence from Lohse et al. (2018) suggests that the cheating decision is relatively complex and demanding and they find that time pressure in effect promotes more honesty. We suggest a somewhat different argument — for the honest and maximal cheaters in the population we suspect the cheating decision is more a reflex rather than a reflection. On the other hand, for partial cheaters the cheating decision is reflective; resembling the potential cheaters described by Lohse et al. (2018). Or, partial cheating can reflect decision conflict — people are slow if they have to choose between alternatives that they value equally (Konovalov and Krajbich, 2017). But these more reflective or conflicted partial cheating decisions would likely result in "slower" decisions in the Rubinstein (2007) framework.

We conducted these cheating experiments in three very different national contexts: Chile, Russia and the U.K. Our expectation is that our basic conjectures will be robust to national context: 1) cheating will be pervasive regardless of national or cultural context; 2) all three countries will exhibit similar distributions of cheating strategies; 3) cheating will be correlated with ability in all three countries; and 4) the cheating decision in all the countries will be insensitive to manipulations of the extrinsic costs and benefits of cheating.

Experimental Design

We employ a computer-based experimental design where subjects earn income by performing a real effort task. Over the space of one minute, the subject performs a cognitive task, adding pairs of two-digit numbers and earns 150 ECU for each successful addition. After one minute expires, the subject is asked to state the amount that was earned. A fixed percentage is then deducted from the declared amount, and redistributed among the subject's four-player group. The subject is then informed about the amount that is redistributed from other subjects in the group. The interaction is repeated for 10 rounds.[2]

This design has several advantages. First, the moral costs associated with lying and stealing are lower when earned income is at stake (Gravert, 2013). Second, performance in the real effort task is used as a measure of the subject's ability, which is a potential correlate of dishonest behavior. Third, both the true and the declared levels of income are observed by the experimenter, so we are able to differentiate between honest behavior, as well as maximal and limited cheating. This is not the case in other experimental research that compares cheating to ability in real-effort tasks, such as Gill et al. (2013). Finally, each subject is given multiple opportunities to cheat.

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 no relationship between the two has also been reported (Kerschbamer et al., 2016).

To alleviate this concern, our subjects participate in two additional tasks. First, at the beginning of the experiment, the subjects play a standard Dictator Game. Each subject is asked to allocate an endowment of 1000 ECUs between himself and another randomly selected subject in the room; participants are informed that only one in each pair will receive the endowment. This allows us to control for other-regarding preferences while looking at the correlates and causes of cheating behavior.

Second, in some sessions the subjects play the "die roll game" that has been extensively used to analyze both the extent and correlates of cheating (Fischbacher and Follmi-Heusi, 2013; Abeler et al., 2014; Gächter and Schulz, 2016). Before completing the final questionnaire, each subject is asked to roll a six-sided die in private and report its value. The reward for the completion of the questionnaire is equal to 100 ECU times the value reported. In this setting,

[2]Figures A1-A9 in Appendix A show the screenshots from the experiment.

the subject's payoffs are maximized by reporting six, regardless of the actual amount rolled, and lying does not affect other subjects' payoffs. This provides a robustness check on our results; we expect the people who cheat more often in the main part of the experiment to report higher values in the die roll game. In addition, we are also able to test the association between honesty and altruism across three different cultural contexts in a controlled experiment.

We implement two sets of treatments. First, we impose different extrinsic benefits of cheating by varying the percentage of income (either 10%, 20%, or 30%) that is deducted from the subject's declared income.

Second, we sometimes change the rules of the game to test other conjectures regarding the stability of cheating behavior. In the "Shock" treatment, in each round two subjects in each group are randomly selected to receive a 1300 ECU bonus (they are told whether they receive the bonus after the real effort task, but prior to declaring income). Thus, we are able see if cheating is affected by whether income is earned through effort or not.

In the "Status" treatment, we vary the amount of income that subjects earn 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 are assigned at the beginning of the experiment, and are fixed throughout the 10 rounds).

Finally, in the "Non-fixed" treatment, the subjects are rematched every round to avoid strategic interaction.[3]

After the main part of the experiment, we also elicit subjects' risk preferences with a standard 10-choice task (Holt and Laury, 2002) and have them answer a post-experiment questionnaire. On average, a session lasts 90 minutes, including instructions and payment.[4] The experiment is computerized using ZTREE (Fischbacher, 2007).

We implemented 64 experimental sessions at the Centre for Experimental Social Sciences

[3]In the U.K., several more sessions are run under slightly different rules. In two "Deadweight loss" sessions, only 30% of the deducted income is redistributed to the subjects, which reduces the other-regarding motives for honest behavior. In four "Redistribution" sessions, the two worst performers each receive 35% of the public good and two top performers receive 15%, increasing the potential impact of other-regarding preferences. A total of three sessions also include higher deduction rates (40% or 50%). Including or excluding these sessions does not affect the overall results.

[4]ECU earnings are 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 varies between 7 ECU and 9 ECU per Russian Rouble to keep the real value of total earnings relatively constant (the exchange rate for Rouble was between 35 and 60 Roubles per USD, depending on when the session took place).

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 are 1080 subjects (508 in the U.K., 316 in Chile, and 256 in Russia). Slightly over half of all subjects are male (52.1% in U.K., 49.1% in Chile, and 52% in Russia). The majority of subjects are 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.

Results

We analyze over 10,000 cheating decisions in 64 sessions in three different national contexts. Our findings suggest that individuals have stable cheating repertoires that they deploy when they have an opportunity to cheat. We first present the distribution of cheating strategies; evidence of their robustness and stability; and insights into who cheats. This is followed by our multi-variate estimation of cheating repertoires. The results section concludes with a discussion of model fit.

Cheating Behavior. The majority of individuals employ relatively stable cheating strategies over the course of the experiment. Almost 26.9% of the participants declared 0% of their income in all 10 rounds; a further 14.6% declared their entire income in every round, and 13.8% of the subjects always declared above 0% but below 100% of their income. A total of 70.3% of the subjects followed one of these three strategies in at least 9 rounds, and 78% followed the same strategy for at least 8 rounds. We will refer to the latter group of subjects as using one of three cheating behaviors: consistent maximal cheating, consistent partial cheating, or consistently honest behavior.

Context Matters. As we point out earlier, of particular interest is whether cheating behavior is similar across different national contexts. In Table 1, we see that all three types of behavior are present in each country, but their distribution clearly differs.

Table 1: Distribution of Cheating Behavior

	Chile	Russia	U.K.	Total
Always declare 0%	7.14	20.3	42.1	26.9
Declare 0% in at least 8 rounds	12.3	28.1	52.0	34.9
Always declare above 0%, but below 100%	11.7	27.7	8.1	13.8
Declare above 0%, but below 100% in at least 8 rounds	25.0	41.4	13.8	23.6
Always declare 100%	31.2	3.1	10.2	14.6
Declare 100% in a least 8 rounds	39.3	7.0	13.8	19.5

In Chile the modal behavior is predominantly honest — 39 percent of subjects report 100 percent of their earnings. In Russia honest behavior is least common, while in the U.K. we see the highest concentration of maximal cheaters. In each country, the share of subjects who do not follow any of the three behaviors defined above is relatively small: 23.4% in Chile, 23.4% in Russia, and 19.8% in the U.K. The share of subjects who have chosen all three cheating strategies at least once is even smaller, they amount to 11.8% in Chile, 8.6% in Russia, and 6.7% in the U.K. The differences in the distribution of the three types of behavior between the countries are highly significant (pairwise comparisons between countries using the Wilcoxon-Mann-Whithney ranksum test yielded Prob>$|z|$ no greater than 0.0002). Figure C1 in Appendix C shows the frequency with which subjects in each country cheated partially, cheated maximally, or were honest.

Do Chileans cheat less? These are large samples but they are based on student subject pools in each country. The higher overall level of honesty among Chilean subjects may be 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. [5] However, the distribution of cheating behaviors among 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. (Wilcoxon-Mann-Whithney ranksum text Prob> $|z| = 0.8808$, Univ. de Santiago $n = 224$, Univ. del Desarrollo $n = 84$).

Individuals have regular opportunities to cheat and our expectation is that they respond

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

to these opportunities with one of three stable decision-making strategies: maximal cheating, partial cheating and honesty. Table 1 summarizes how we categorized our subjects based on their choices in the cheating game. At the end of the experimental sessions, we present out subjects with an additional opportunity to cheat at a standard die-rolling game. Our expectation is that the subject's favored cheating strategy, estimated in the initial cheating game, should predict their behavior in the die-tolling game. Figure 1 presents the die results for each repertoire.

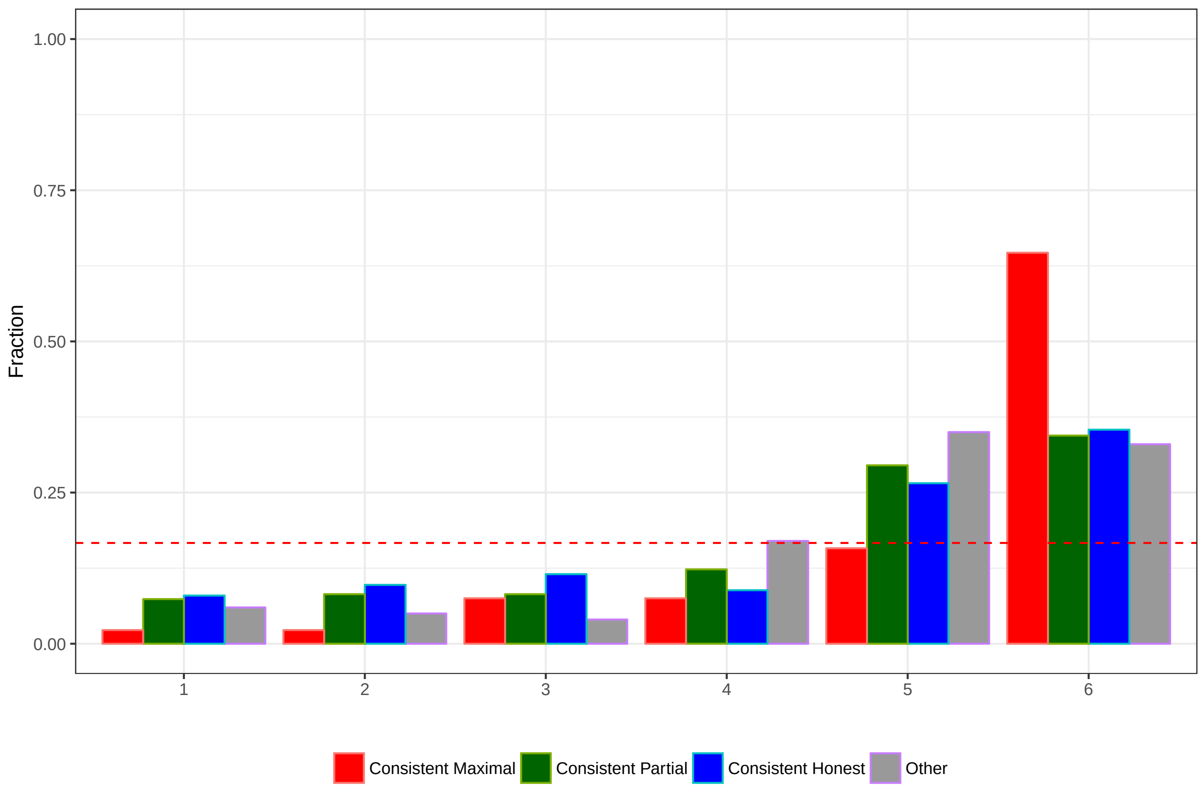

Figure 1: Cheating Behavior and Die Roll Result. The graph shows relative frequencies of reported die rolls for different behavior types. The horizontal dashed line corresponds to $0.1666 = 1/6$.

Our expectation is that maximal cheaters would be more likely than other behavioral types to report 6; partial cheaters more likely to report 5; while the decisions by honest subjects would reflect the expected unbiased distribution. Our results for consistent maximal cheaters are as expected — they have a 64.7% probability of reporting 6 on the die roll, compared with 35.4% for consistently honest subjects ($p < 0.0001$ on the two-tailed Fischer's exact test). Consistent maximal cheaters are also less likely to report 2 or 5 ($p = 0.0135$ and $p = 0.0415$ on the two-sided Fischer's exact test) than consistently honest subjects.

We do less well predicting partial cheating and honesty. There is cheating in the die roll game even by the subjects who are consistently honest in the main part of the experiment. The 113 honest subjects from the cheating game report 5 and 6 as much as 30 and 40 times, respectively, which is significantly more often than 16.6% of the time which corresponds to truthful reporting ($p = 0.0053$ and $p < 0.00001$, one-side binomial test). The results do not change much if we consider the 83 subjects who are honest in every round of the experiment; they report 5 and 6 after the die roll 20 and 27 times, respectively ($p = 0.0524$ and $p = 0.0003$, one-side binomial test).

The distribution of numbers reported by the consistent partial cheaters is not different from consistently honest subjects (Wilcoxon-Mann-Withney ranksum test Prob$> |z| = 0.8090$, consistently honest subjects $n = 113$, consistent partial cheaters $n = 122$). There is also no difference between subjects who are completely honest in every round, and those who partially cheat in every round (Wilcoxon-Mann-Withney ranksum test Prob$> |z| = 0.9563$, completely honest subjects $n = 83$, partial cheaters in every round $n = 63$).

One of our core expectations is confirmed here: we see high levels of cheating in the die-rolling game by subjects we classify as maximal cheaters in the cheating game. The subjects classified as honest lie more than we expect in the die rolling game. There are, at least, two possible explanations. One might simply be that honest behavior is less stable than we expected. In effect there may be no stable honest strategy – honest behavior may be contingent on the decision making context. A second explanation might be measurement: our cheating game may overstate the extent to which subjects are unconditionally honest. This might simply result from concerns, by subjects in our cheating game, that their cheating can be detected by the experimenter or that their cheating is costly for other participants. Also unexpected is the fact that partial cheaters from our cheating game do not favor the partial cheating strategy in the die-rolling game. In particular, they are no more likely than honest subjects to report 5 ($p = 0.3993$ on the two-tailed Fisher's exact test). Partial cheaters may in fact condition their cheating behavior on context and the nature of the cheating decision – hence in some contexts, it might be impossible to differentiate the cheating decisions of partial cheaters from either honest or maximal cheater types.[6]

Who Cheats? Our intuition is that many individuals — although as we saw above clearly not all — consistently deploy the same strategies in response to an opportunity to cheat. It's probably not the case that these strategies are uniformly distributed amongst the population. In order to determine why different strategies are favored over others ultimately requires an understanding of heterogeneity in cheating behavior. Our experiments provide some insights into this heterogeneity.

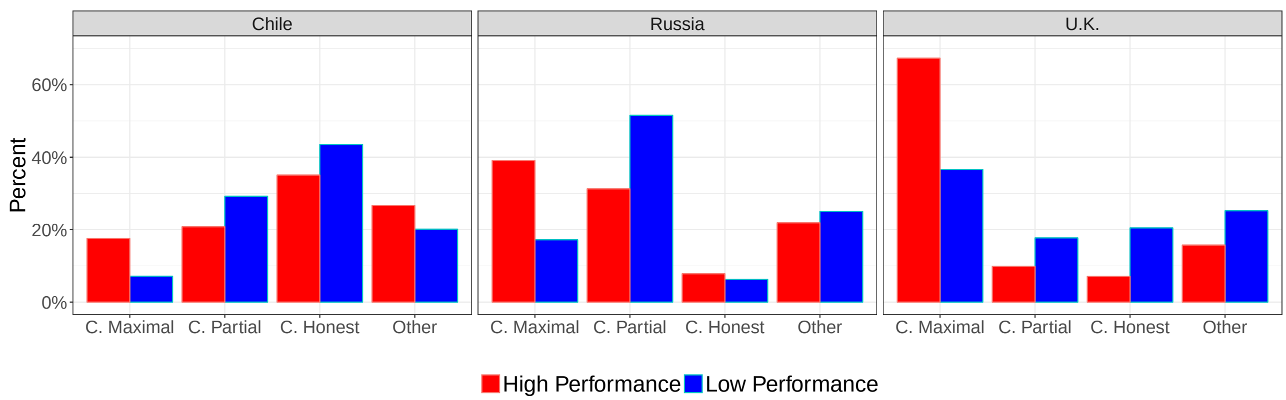

Figure 2: Cheating strategies and subject performance: Frequency of behavior types by subject performance across countries

Maximal cheating is clearly favored by successful, high ability individuals. This is consistent with previous research (Schurr and Ritov, 2016; Vincent and Kouchaki, 2016; Duch and Solaz, 2017) demonstrating a correlation between ability, or success, and cheating. We find that subject's ability correlates specifically with maximal cheating. Figure 2 reports the frequencies of different cheating behaviors among high-performance subjects (those with average RET scores above their national median) and low-performance subjects (with RET scores below the national median). In each country, maximal cheating was more prevalent among the first group ($p = 0.0086$ for two-sided Fisher's exact test in Chile, $p = 0.0002$ in Russia, and $p < 0.0001$ in the U.K.). At the same time, high-performance subjects were less likely to be consistent

[6]In Table C2 we report the results of the logistic regressions for the six reported die roll values. The dependent variables are dummy variables for individual types (with the baseline category being honest subjects). For consistent partial cheaters, we also account for the average fraction of income declared. We find that maximal cheaters are more likely, than honest subjects, to report 6 and are also less likely to report 1. Partial cheaters are no more or less likely to report any of the values than honest subjects, regardless of the average amount that they declared.

partial cheaters ($p = 0.0015$ for two-sided Fischer's exact test in Russia, and $p = 0.0140$ in the U.K.), and were not more or less likely to be consistently honest. The negative relationship between ability and partial cheating is even more evident as very small, but positive, declarations are also more prevalent among low-performance subjects than among their high-performance counterparts (see Appendix B2).

An individual's cheating behavior is also linked to her expected performance ahead of the experiment. In the Non-Fixed treatment, before the beginning of the first round, each subject is asked to rank her performance in the round relative to the other three group members, receiving 100 ECU if the prediction is correct. As much as 47.3% of subjects who expect to rank first are consistent maximal cheaters, compared with 26.6% of the subjects expecting to rank second, 16.5% of the subjects expecting to rank third, and only 13.8% of those who expect to rank last (see Table C1). Subjects expecting to rank first or second are more likely to be consistent maximal cheaters than subjects expecting to rank third or fourth ($p = 0.0001$ on Fisher's exact test). But consistent partial cheaters or consistently honest subjects are equally likely to expect first or second ranking versus third or fourth ranking.[7]

Maximal cheating is also favored by those with selfish preferences as measured by a standard Dictator Game. In particular, 80.3% of subjects who donate 0 are also consistent maximal cheaters, compared with only 22.2% of subjects who donate more than 0. The difference is significant for each country ($p < 0.0001$ for two-sided Fisher's exact test in all three countries, see Figure 2).

Our initial results suggest that most subjects, when facing an opportunity to misrepresent information, consistently follow one of three strategies: honesty, partial cheating, and maximal cheating. Their distribution in the population can vary, apparently depending on the national or cultural context. Some contexts have a lower density of maximal cheaters. Maximal cheating is favored by the high ability subjects; these high performance subjects are self-aware and anticipate their success at the RET; and maybe less surprising, maximal cheating is favored by

[7]In Table C1 we also report the average actual rank in Period 1. The subjects were able to predict their rank with some accuracy; subjects who expected to rank better had higher average rank.

[7]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).

less other-regarding subjects.

Multivariate Model of Cheating. Each subject in the main part of the experiment makes a total of 10 decisions. We categorize subjects into consistent maximal cheaters, consistent partial cheaters, consistently honest subjects, and the residual "Other" category. These distributions are summarized in Table 1. As a result we have 1,072 observed outcomes that we model as multinomial logit with a tetrachotomous dependent variable. The context of these decisions varies quite significantly and will affect cheating strategies: there is country variation but also treatments varied by experimental session and within session. And as we pointed out above, individual characteristics, ability in particular, should predict one's favored cheating strategy. We leverage the individual and contextual variation, and in Table 2, report the estimation of a multinomial logit model where the dependent variable is the subject's cheating behavior. For ease of interpretation, all multinomial logit tables present the average marginal effects of variables on the probability of being a certain type, keeping other variables for each observation at their observed values.

	Consistent maximal		Consistent partial		Consistently honest		Other	
RET rank	0.269***	(0.0395)	-0.129***	(0.0436)	-0.119***	(0.0410)	-0.0206	(0.0456)
Male	0.0585**	(0.0238)	-0.107***	(0.0246)	0.0180	(0.0234)	0.0306	(0.0258)
Age	-0.00585**	(0.00232)	0.00161	(0.00210)	0.00248	(0.00199)	0.00176	(0.00218)
DG=0	0.375***	(0.0602)	-0.206***	(0.0303)	-0.0595	(0.0494)	-0.110***	(0.0415)
DG above 0	-0.000133	(0.0000896)	-0.000135*	(0.0000726)	0.000296***	(0.0000767)	-0.0000280	(0.0000817)
Deduction 20%	-0.0454	(0.0281)	0.00344	(0.0284)	0.0299	(0.0269)	0.0121	(0.0312)
Deduction 30%	0.0232	(0.0310)	-0.0461	(0.0300)	-0.00281	(0.0288)	0.0257	(0.0333)
Deduction 40%	-0.0410	(0.0604)	0.0316	(0.0773)	-0.0693	(0.0606)	0.0786	(0.0829)
Deduction 50%	0.0971	(0.0919)	-0.0539	(0.105)	-0.116	(0.0734)	0.0726	(0.114)
Deadweight loss	-0.0474	(0.0549)	-0.0202	(0.0697)	0.0774	(0.0674)	-0.00974	(0.0711)
Redistribution	0.0351	(0.0511)	-0.0419	(0.0564)	-0.0259	(0.0550)	0.0327	(0.0623)
Shock	-0.00348	(0.0407)	-0.00522	(0.0395)	-0.00758	(0.0415)	0.0163	(0.0432)
Status	0.0890*	(0.0479)	0.0319	(0.0507)	-0.0711	(0.0449)	-0.0499	(0.0484)
Status, 200 ECU	-0.101**	(0.0460)	-0.0683	(0.0499)	0.133*	(0.0807)	0.0357	(0.0740)
Non-fixed	0.0374	(0.0349)	-0.0376	(0.0338)	0.0213	(0.0337)	-0.0211	(0.0355)
Russia	0.0742*	(0.0400)	0.125***	(0.0378)	-0.193***	(0.0230)	-0.00635	(0.0372)
Oxford	0.288***	(0.0355)	-0.112***	(0.0330)	-0.140***	(0.0281)	-0.0350	(0.0342)
Observations	1072		1072		1072		1072	

Average marginal effects for multinomial logistic regression. Dependent variable is whether the subject is a consistent maximal cheater, consistent partial cheater, is consistently honest, or neither of those. Robust standard errors. 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.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 2: Average marginal effects for subject behavior

The estimation confirms that subject ability matters for the choice of the cheating strategy. The effects are large. The average marginal effect of RET rank on the probability of being a consistent cheater is .27 and precisely estimated. And a top performing subject is less likely to be either a consistent partial cheater or consistently honest. People who made a 0 donation on the Dictator Game (compared with a small, but positive donation) are more likely to be consistent maximal cheaters, less likely to be consistent partial cheaters, and no more or less likely to be consistently honest.

Context matters. In particular there are strong country effects, with consistent maximal cheating (even controlling for Dictator Game donation and RET performance) more likely in Russia and, especially, in the U.K. At the same time, partial cheating is more likely in Chile than in the U.K. (and overall most likely in Russia).

Other features of the decision making context — hypothesized to affect either extrinsic or intrinsic considerations — have little impact on cheating. There are fewer maximal cheaters if the deduction rate increases from 20% to 30% ($p = 0.0257$ on the Wald test), but the deduction rate has no significant effect on either partial cheating or honest behavior.[8] In the status treatment, subjects who earn 100 ECU (rather than 200 ECU) per round are more likely to be consistent maximal cheaters, and less likely to be consistently honest.

Country-Specific Robustness. Our next goal is to assess the robustness of these results for each country and to explore what affects the likelihood of transitioning between the three different cheating strategies. In Table 3 we estimate a series of multinomial logit models with a trichtonomous dependent variable: where the subject in each round declared 0% of income, declared 100%, or declared some intermediate amount. The "Others" category does not exist, as these models estimate movement from one strategy to another. Every model is estimated for the combined dataset, as well as for each country separately. In Table 3 the model is estimated for periods 1-10.[9]

[8]Almost all pairwise comparisons between deduction treatments do not yield significant results with respect to any type of behavior; however, the 40% and 50% treatments had a much smaller number of subjects than 10%, 20%, or 30% treatments.

[9]In the Appendix we estimate further robustness checks on model specification in C3, C4, and C5.

	Maximal cheating		Partial cheating		Honest	
All						
RET rank	0.283***	(0.0358)	-0.111***	(0.0383)	-0.173***	(0.0380)
RET deviation	-0.00112	(0.00150)	0.00402**	(0.00180)	-0.00289*	(0.00155)
Male	0.0643***	(0.0214)	-0.0906***	(0.0220)	0.0263	(0.0215)
Age	-0.00591***	(0.00192)	0.00274	(0.00193)	0.00317*	(0.00176)
Period	0.0172***	(0.00131)	-0.0102***	(0.00139)	-0.00700***	(0.00119)
DG=0	0.331***	(0.0484)	-0.253***	(0.0305)	-0.0785*	(0.0425)
DG above 0	-0.000181**	(0.0000759)	-0.000144**	(0.0000680)	0.000325***	(0.0000704)
Deduction 20%	-0.0420*	(0.0251)	0.0195	(0.0262)	0.0224	(0.0247)
Deduction 30%	0.0287	(0.0279)	-0.0317	(0.0272)	0.00301	(0.0264)
Deduction 40%	-0.0209	(0.0544)	0.0666	(0.0598)	-0.0457	(0.0532)
Deduction 50%	0.0947	(0.0740)	0.00801	(0.0850)	-0.103	(0.0694)
Deadweight loss	-0.0601	(0.0507)	-0.0336	(0.0597)	0.0937	(0.0592)
Redistribution	0.0633	(0.0471)	-0.0330	(0.0477)	-0.0302	(0.0479)
Russia	0.109***	(0.0329)	0.114***	(0.0329)	-0.223***	(0.0228)
Oxford	0.301***	(0.0300)	-0.136***	(0.0301)	-0.165***	(0.0260)
Shock	0.00981	(0.0370)	-0.00158	(0.0379)	-0.00823	(0.0394)
Shock, yes	-0.0103	(0.0216)	0.0338	(0.0255)	-0.0235	(0.0233)
Status	0.0652	(0.0438)	-0.00150	(0.0459)	-0.0637	(0.0410)
Status, 200 ECU	-0.0740	(0.0472)	-0.0397	(0.0531)	0.114*	(0.0624)
Non-fixed	0.0221	(0.0309)	-0.0482	(0.0314)	0.0261	(0.0304)
Observations	10718		10718		10718	
Chile						
	Maximal cheating		Partial cheating		Honest	
RET rank	0.214***	(0.0664)	-0.127	(0.0792)	-0.0866	(0.0876)
RET deviation	-0.00261	(0.00235)	0.00421	(0.00359)	-0.00160	(0.00354)
Male	0.0563	(0.0380)	-0.0163	(0.0477)	-0.0400	(0.0512)
Age	0.00188	(0.00254)	-0.00680*	(0.00388)	0.00492	(0.00460)
Period	0.00929***	(0.00185)	0.000908	(0.00258)	-0.0102***	(0.00262)
DG=0	0.406***	(0.146)	-0.215**	(0.0876)	-0.191	(0.141)
DG above 0	-0.0000695	(0.000126)	-0.000276**	(0.000132)	0.000346**	(0.000160)
Deduction 20%	-0.0839**	(0.0378)	-0.0770	(0.0512)	0.161***	(0.0561)
Deduction 30%	0.0230	(0.0397)	-0.0903*	(0.0477)	0.0673	(0.0550)
Shock	0.105	(0.127)	0.0413	(0.103)	-0.146	(0.0931)
Shock, yes	0.0111	(0.0277)	0.00132	(0.0441)	-0.0124	(0.0427)
Status	0.161	(0.153)	0.0183	(0.114)	-0.179*	(0.108)
Status, 200 ECU	-0.0607	(0.0664)	-0.0816	(0.0910)	0.142	(0.110)
Non-fixed	0.155*	(0.0826)	-0.129	(0.0798)	-0.0258	(0.0771)
Observations	3078		3078		3078	
Russia						
	Maximal cheating		Partial cheating		Honest	
RET rank	0.178**	(0.0780)	-0.0893	(0.0812)	-0.0883	(0.0643)
RET deviation	0.000818	(0.00364)	0.00711*	(0.00384)	-0.00793***	(0.00296)
Male	0.0402	(0.0453)	-0.149***	(0.0464)	0.108***	(0.0345)
Age	-0.0187	(0.0129)	0.0165	(0.0106)	0.00220	(0.00497)
Period	0.0189***	(0.00287)	-0.0225***	(0.00295)	0.00361*	(0.00205)
DG=0	0.305***	(0.103)	-0.357***	(0.0744)	0.0524	(0.0753)
DG above 0	-0.000280	(0.000187)	0.0000635	(0.000155)	0.000216**	(0.000100)
Deduction 20%	-0.0801	(0.0493)	0.115**	(0.0510)	-0.0349	(0.0338)
Deduction 30%	-0.00589	(0.0637)	0.0407	(0.0633)	-0.0348	(0.0381)
Shock	0.00668	(0.0719)	-0.0617	(0.0638)	0.0550	(0.0640)
Shock, yes	-0.0151	(0.0430)	0.0318	(0.0414)	-0.0167	(0.0325)
Status	-0.0282	(0.0879)	-0.0304	(0.0943)	0.0586	(0.0700)
Status, 200 ECU	0.0206	(0.104)	-0.0538	(0.111)	0.0332	(0.0906)
Non-fixed	0.0305	(0.0714)	-0.127*	(0.0656)	0.0962*	(0.0578)
Observations	2560		2560		2560	
UK						
	Maximal cheating		Partial cheating		Honest	
RET rank	0.368***	(0.0493)	-0.0665	(0.0475)	-0.301***	(0.0522)
RET deviation	-0.00114	(0.00212)	0.00223	(0.00239)	-0.00109	(0.00189)
Male	0.0857***	(0.0319)	-0.120***	(0.0276)	0.0343	(0.0286)
Age	-0.00729***	(0.00236)	0.00474**	(0.00208)	0.00255	(0.00205)
Period	0.0210***	(0.00206)	-0.0106***	(0.00195)	-0.0104***	(0.00162)
DG=0	0.348***	(0.0511)	-0.233***	(0.0332)	-0.115***	(0.0426)
DG above 0	-0.000134	(0.000102)	-0.000207**	(0.0000883)	0.000340***	(0.0000982)
Deduction 20%	0.0150	(0.0393)	0.0306	(0.0358)	-0.0456	(0.0303)
Deduction 30%	0.0699*	(0.0406)	-0.0469	(0.0343)	-0.0230	(0.0357)
Deduction 40%	-0.000970	(0.0645)	0.0634	(0.0594)	-0.0625	(0.0457)
Deduction 50%	0.100	(0.0771)	0.0118	(0.0741)	-0.112**	(0.0472)
Deadweight loss	-0.0937	(0.0631)	0.00492	(0.0560)	0.0887	(0.0569)
Redistribution	0.0491	(0.0520)	-0.0148	(0.0440)	-0.0342	(0.0440)
Shock	0.00231	(0.0604)	-0.0262	(0.0550)	0.0239	(0.0567)
Shock, yes	-0.0351	(0.0390)	0.0823*	(0.0452)	-0.0472	(0.0287)
Status	0.140**	(0.0658)	-0.0589	(0.0635)	-0.0807	(0.0549)
Status, 200 ECU	-0.151*	(0.0820)	0.000806	(0.0958)	0.150	(0.115)
Non-fixed	-0.0326	(0.0474)	0.0529	(0.0437)	-0.0203	(0.0378)
Observations	5080		5080		5080	

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. 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.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 3: Average marginal effects for subject choice, periods 1-10

Experimental treatments are not found to have any effect that is consistent across national contexts. The positive effect of increasing the deduction rate from 20% to 30% on maximal cheating reported in Table 2 is driven by results in only one country — Chile (under the Wald test, the equality of marginal coefficients was rejected at $p = 0.0140$ in Table 3). In Chile, likelihood of maximal cheating was actually higher for 10% deduction date, compared with 20% deduction rate. In the UK, the likelihood of maximal cheating was slightly higher for 30% deduction rate, compared with 10% deduction rate (the coefficient was significant at $p = 0.085$). The effect of earning 200ECU in the status treatment on maximal cheating is also confined to only one country — the UK.

As the coefficient on *Period*, suggests, the probability of maximal cheating is higher in later periods. However, if one controls for the previous period's strategy as we do in Table C3 in the Appendix, the period effect on maximal cheating is insignificant both for the combined sample, as well as in Chile and Russia (in the U.K., maximal cheating is actually less likely in later periods). The probabilities of either partial cheating or a 100% declaration, conditional on previous period's strategy, do not change with time in Russia and the U.K., and increase in Chile and in the combined sample.

Subject strategies are highly dependent on past actions, and if a subject declared 0% in the previous round, he is 60.0% to 81.1% more likely, depending on country, to make a zero declaration this round (compared with a 100% declaration in the previous round), and is 35.9%-58.5% less likely to declare 100%. The effect of partial cheating in the previous round depends on how much income was declared, with lower declarations leading to higher probability of maximal cheating and lower probability of honest behavior in the following round.

All estimated models strongly confirm, in all countries, the positive association between subject ability and maximal cheating. The average marginal effect of RET rank (which varies between 0 and 1) on the probability of maximal cheating in a given period is between 0.178 and 0.368. The association becomes much smaller if one takes into account previous period's strategy, but is large, between 0.146 and 0.331, in period 1 (these coefficients are reported in Table C4 in the Appendix). Moreover, what is important, is that this relationship is not driven by unexpectedly high or low levels of performance in a given round, but by the subject's average ability across all rounds.[10] Subjects effort in the RET appears to be supplied inelastically, as RET performance is independent from experimental conditions (see Appendix B1).

Similarly, zero donations are strongly and positively associated with maximal cheating (in all countries and all specifications), negatively associated with partial cheating (in Russia and the U.K., in all specifications), and are never associated with honest behavior. An increase in Dictator Game donations from one positive amount to another is predicted to increase the probability of a 100% declaration in every country, is never associated with more or less maximal cheating, and is predicted to lead to less partial cheating in Chile and the U.K.

Males are less likely than females to be partial cheaters in both Russia and the U.K. However, the effect of gender on maximal cheating is present in the U.K. only. The effect of age on either type of cheating is only observed in the U.K.

The effect of observing other group members declare income in the previous round is also significant in Russia, the U.K., and the combined sample. In Russia, the average marginal effect corresponded to a 3.8% decrease in the probability of maximal cheating for a one standard deviation increase in declared income, and a 3.3% decrease in the probability of partial cheating. For the U.K., the figures are similar with a 0.6% decrease and a 0.6% increase, respectively (C3).

We gain three important insights about cheating from the initial experimental results: many individuals have stable cheating strategies for responding to cheating opportunities; the distribution of cheating behavior varies significantly across national contexts; and high ability individuals are more likely to be maximal cheaters. The robustness estimations in this section confirm these results: the correlation between ability and cheating is robust to our alternative country model specifications; cheating decisions in any period are dependent on past actions which is consistent with our argument that cheating strategies are stable; and these effects are seen in all three countries although overall levels of cheating vary by country.[11]

[10] In each round, 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 is largely not significant.

[11] We did not find that self-professed left-right ideology, trust, or risk preferences had any effect that is consistent across national contexts (Table C5). The index measuring the subject's adherence to social norms is negatively associated with maximal cheating in the combined sample, but not in individual countries (the index is constructed based on subject's answers to post-experiment questionnaire measuring attitudes toward various forms of opportunistic behaviors, Table C6).

Partial Cheating. While it is true that many individuals exhibit stable preferences for partial cheating, the cheating decisions of partial cheaters can exhibit variation both across and within subjects. In our case each partial cheater makes 10 decisions and in each of them can cheat between 0 and 100 percent. From the experiment we identify 253 consistent partial cheaters. Of particular interest is the extent to which, and how, partial cheating distinguishes itself from the maximal and honest cheating strategies. The distribution of average cheating decisions for these 253 partial cheaters is informative in this respect.

The magnitude of partial cheating varies across countries. The average fraction of income declared by a consistent partial cheater (over all decisions excluding 0% and 100% declarations) was 40.2% in Chile (sd=26.5%), 33.7% in Russia (sd=24.1%), and 30.0% in the U.K. (sd=28.0%). The difference between average declared fractions in Chile and the U.K. is significant ($p = 0.0252$ for two-tailed Welch t-test).[12] Figure 3 shows the distribution of these values for the three countries where our experiment was conducted.

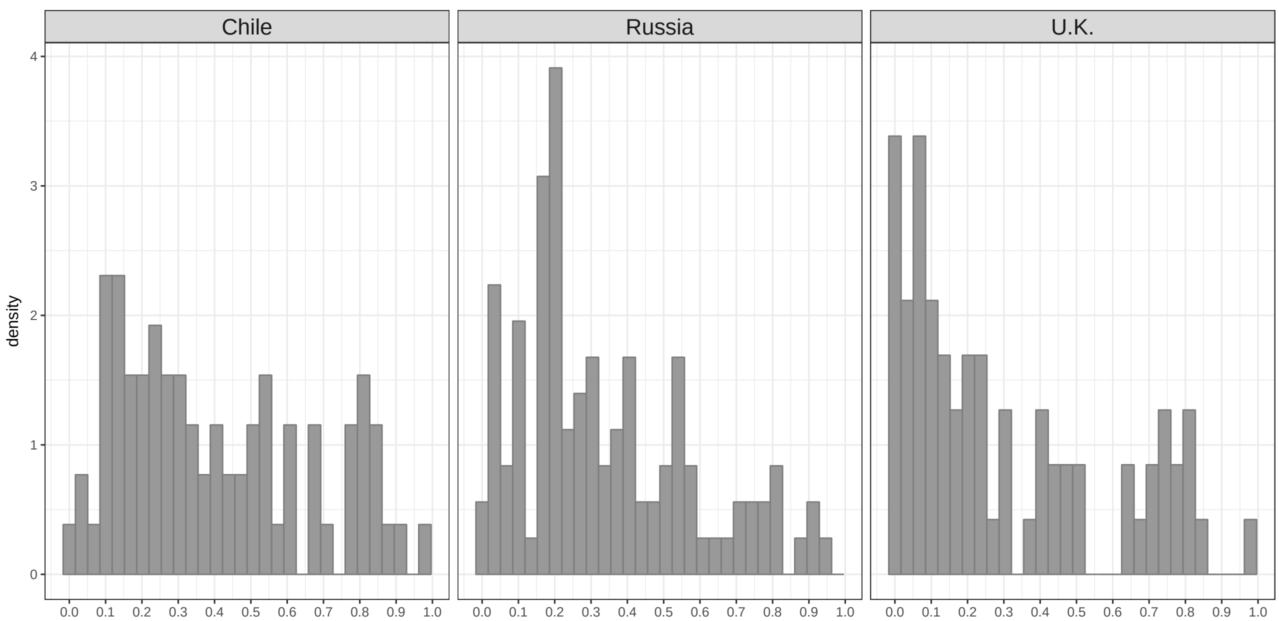

Figure 3: Distribution of average fraction of income declared, excluding 0% and 100% declarations, for consistent partial cheaters

In all three countries, the average fraction of income declared by consistent partial cheaters

[12]If we only consider subjects who never declared 0% or 100% of their income, the figures are 33.6% for Chile (sd=23.7%), 34.8% for Russia (sd=23.5%), and 19.7% for the U.K. (sd=21.4%). The difference between Chile and Russia on one hand, and U.K. on the other is significant ($p = 0.0008$ and $p = 0.0091$ for two-tailed Welch t-test, respectively).

is below 0.5. In Russia and the U.K., where the fraction of consistently honest subjects is small, these distributions are skewed in the direction of maximal cheating (with skewness equal to 0.76 and 0.78, respectively). The corresponding value for Chile, where honest behavior is more common, is much smaller at 0.48.

Our priors for partial cheating are similar to those articulated earlier for cheating in general. We expect that those individual characteristics that distinguish maximal cheaters from the rest of the population will similarly distinguish consistent partial cheaters who declare a high fraction of their income from those who declare a low fraction. In particular ability and other-regarding preferences should be correlated with average partial cheating. We test these hypotheses in in Table 4, where we regress the average fraction of income declared. The results in this regard are mixed at best.

	Chile		Russia		UK		All	
RET rank	0.0190	(0.143)	0.185*	(0.0980)	-0.00847	(0.135)	0.0674	(0.0654)
Male	0.120*	(0.0663)	0.0311	(0.0561)	0.0117	(0.0884)	0.0562	(0.0376)
Age	0.00620	(0.00574)	-0.000527	(0.00407)	0.00187	(0.00481)	0.00245	(0.00323)
DG=0	-0.131	(0.0927)	-0.0515	(0.0832)	-0.000932	(0.140)	-0.0624	(0.0603)
DG above 0	0.000198	(0.000239)	0.000272*	(0.000149)	0.000523*	(0.000278)	0.000302***	(0.000103)
Deduction 20%	-0.0175	(0.0743)	-0.00250	(0.0550)	0.0311	(0.0852)	-0.00452	(0.0373)
Deduction 30%	0.0843	(0.0820)	-0.0751	(0.0701)	0.0426	(0.118)	-0.00603	(0.0450)
Status	-0.0347	(0.111)	-0.0189	(0.0558)	-0.0114	(0.142)	-0.0348	(0.0503)
Status, 200 ECU	0.113	(0.130)	-0.00217	(0.0872)	-0.0181	(0.151)	0.0499	(0.0662)
Non-fixed	0.0686	(0.0835)	0.0140	(0.0864)	0.0460	(0.107)	0.0450	(0.0481)
Deduction 40%					0.222*	(0.127)	0.194*	(0.103)
Deduction 50%					-0.245**	(0.105)	-0.281***	(0.0688)
Deadweight loss					0.0176	(0.137)	-0.00658	(0.124)
Redistribution					-0.0484	(0.120)	-0.0227	(0.0932)
Russia							-0.0142	(0.0431)
Oxford							-0.0675	(0.0516)
Constant	0.0687	(0.220)	0.191	(0.122)	0.0497	(0.172)	0.158	(0.106)
Observations	77		106		70		253	
R^2	0.100		0.109		0.191		0.111	

OLS regressions for consistent partial cheaters. Robust standard errors. Dependent variable is the average fraction of income declared, excluding 0% and 100% declarations. RET rank is the national rank, between 0 and 1, of subject's national performance at the real effort task.

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

Table 4: Average fraction of income declared.

In Chile and the U.K., there is no correlation between ability and the magnitude of partial cheating, while in Russia the correlation is actually negative — subjects with higher RET rank declare a higher fraction of income. At the same time, in the U.K. the amount donated in the Dictator Game is positively related to the fraction of income declared, it is also marginally significant in Russia at $p = 0.080$). There is no correlation between the magnitude of partial cheating and different experimental treatments. At the same time, there is significant within-subject variation in the magnitude of partial cheating. If a consistent partial cheater declared a positive amount (but less then 100%) of income, he or she is only 24.5% likely to declare the same amount of income in the next period (this figure increases to 42.1% if the subject's performance in the RET task is the same in the two periods).[13]

Our experiments provide some limited insight into partial cheaters. The magnitude of partial cheating is higher in Russia and, especially, in the U.K. — countries where the subjects are also more likely to consistently declare 0% of their income. However, while the partial cheaters subjects are heterogeneous in the fraction of income they declare, efforts to explain this heterogeneity were not successful. In particular, subject ability, which is a strong correlate of maximal cheating, has no effect on the magnitude of partial cheating.

Reaction Time The cheating behavior of partial cheaters exhibits considerable variation. Partial cheaters entertain a range of cheating responses when confronted with an opportunity to cheat. This suggests considerable more reflection on the part of partial cheaters than is the case for maximal or honest types. Recent studies suggest that reaction time is correlated with cheating. Deviations from self-interested cheating 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). Our conjecture regarding cheating builds on these insights but makes a somewhat different claim. We focus on the cheating decisions of individuals who exhibit one of our three stable cheating strategies. Our expectation is that reflection, and hence reaction time, will be lower for those individuals with stable maximal, or stable honest, cheating strategies. Reflection occurs, and hence reaction time is higher, for partial cheating.

The experiments measured the time subjects took to make their income declaration decisions. The distributions of reaction times (RT) are consistent with our initial conjectures. Partial cheating is associated with much greater reaction time ($t = 12.27$, sd=19.15, $n = 2786$)

[13]In the Appendix, Tables C7-C9 report the results of regressing, for consistent partial cheaters, the fraction of income declared in a given round and arrive at similar findings. In both Russia and the U.K., the fraction of income declared is decreasing with each period, and is larger if the individual declared 100% in the previous period. If subject fixed effects are included, the root mean squared error in the regression is equal to .1814 for Chile, .1546 for Russia, and .1507 for the U.K.

than either honest declarations ($t = 9.34$, sd=20.84, $n = 2080$) or maximal cheating ($t = 3.74$, sd=7.73, $n = 3527$). The empirical distributions of RT for 100% declarations dominates the distribution for 0% declarations, but is dominated by the distribution of response times for intermediate declarations (Figure 4; this is also true for each individual country, see Figure C3 in the Appendix).

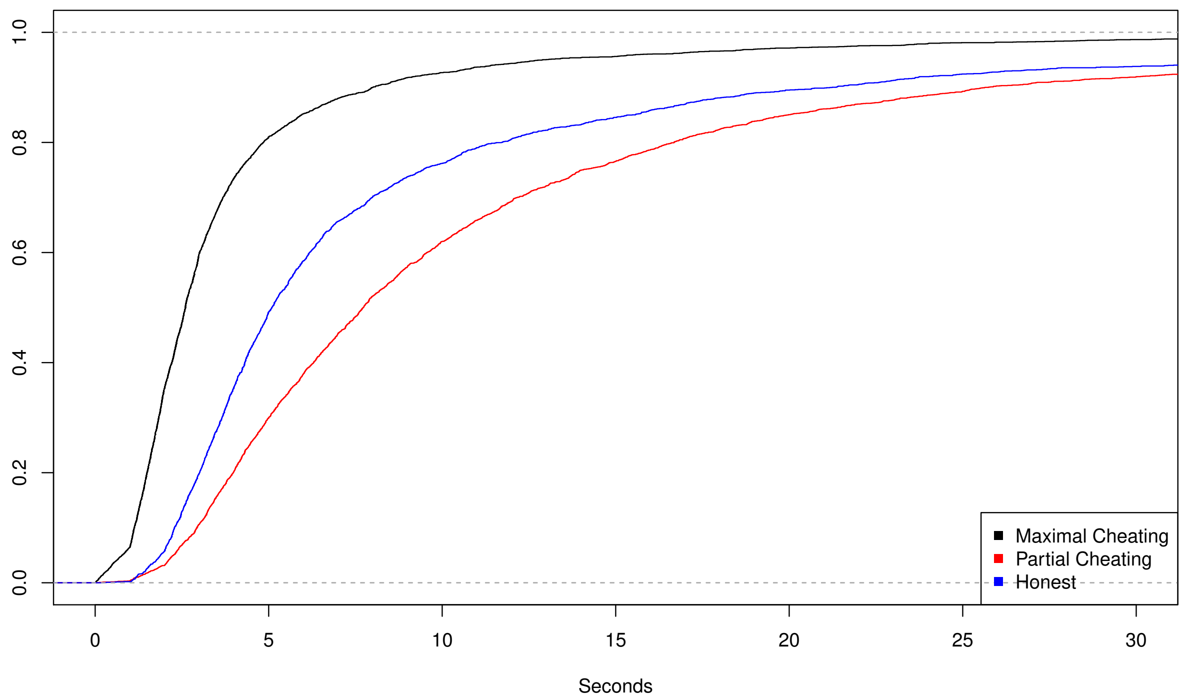

Figure 4: Cumulative distributions for reaction times for different decisions

We have identified individuals in the population who favor three quite stable cheating strategies. As we would expect the two strategies that result in honesty and maximal cheating demand little reflection and have very fast reactions times. As we observe in the data, partial cheaters do not rely on a stable level of partial cheating – the magnitude of their cheating decisions varies considerably. Their cheating decisions demand more reflection which is evidenced by the significantly higher reaction times associated with their decisions.

Discussion and Conclusion

The decision to cheat is a frequent and relatively mundane economic decision that individuals make on a regular basis in their everyday lives. And when confronted with an opportunity to cheat most individuals do not engage in careful reflection. For many individuals the response is to implement a simple cheating strategy. In order to identify these strategies we observe individuals from the U.K., Russia and Chile making multiple cheating decisions in a public goods game. We observe about a thousand subjects from these three quite diverse national contexts making over 10,000 decisions.

We identify three distinct types of behavior across these diverse subject pools. As much as 34.9% of individuals cheated maximally in at least 8 rounds out of 10, maximizing their monetary payoffs. Another 23.6% were partial cheaters who consistently distorted information for private gain, but stopped short of maximizing their payoffs. Finally, some 19.5% were honest types who cheated in no more than 2 rounds of the experiment.

Our experimental evidence suggests these cheating strategies are stable. We implemented treatments aimed at moderating cheating behavior: random assignment to exogenous shocks in income and sessions that varied the redistributive character of the public good. These had no effect on the observed cheating strategies of treated subjects. Those identified as maximal cheaters in the public goods cheating game were also more likely to cheat in a classic die-rolling game.

Cheating behavior is not responsive to externally imposed costs. This is consistent with some people — the maximal cheaters — having very low intrinsic costs of cheating, and with honest individuals having intrinsic costs that are high enough for honest behavior to be equally prevalent among all deduction rates in our experiment.

As has been pointed out elsewhere (Duch and Solaz, 2017), ability is correlated with cheating. Our findings are more nuanced. High-ability individuals are indeed more likely to be maximal cheaters. However, low ability is positively associated not only with honest behavior, but with partial cheating as well. This is true even if we consider near-maximal cheating — declarations that are very small but positive.[14] 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 cheaters and less likely to be partial cheaters, while the likelihood that the individual is an honest type increased with the DG donation.

We demonstrate that partial cheaters are distinct from maximal cheaters and honest types. Simply observing subjects making multiple potential cheating decisions suggests setting partial cheaters apart from maximal cheating and honesty. There clearly are individuals in the population who regularly cheat but shy away from consistent maximal cheating. Moreover, these individuals do have characteristics that distinguish them from maximal cheaters and honest subjects.

While it is true that many individuals have one of three cheating "reflexes" partial cheating distinguishes itself by being more deliberative. Accordingly, partial cheaters require significantly higher reaction times in order to arrive at partial cheating decisions. Both honest choices and, especially, maximal cheating involve relatively short reaction times, while partial cheating decisions take much longer and may involve more deliberation and/or decision conflict. Also interesting to note is that there is no evidence here that the social consequences of these decisions has any bearing on response times (Rand et al., 2014): maximal cheating is just as "intuitive" as honesty (Verschuere and Shalvi, 2014).

Partial cheating is consistent with self-deception; the notion elaborated by Gino and Ariely (2016), that individuals have thresholds of cheating. When the magnitude of cheating falls below this threshold individuals are able to maintain a positive self-image and therefore avoid any intrinsic costs of cheating. Our experiments suggest that such thresholds are heterogeneous both across individuals and across individual decisions, but are unaffected by extrinsic costs

[14] In Table C10 we look at 'partial cheating 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 cheating.

and other experimental conditions.[15] Arriving at a "comfortable" thresholds for any cheating decision likely contributes to more reflection and the higher reaction times we observe for partial cheaters.

Finally, the cheating decisions we observe partial cheaters making are quite variable both within and between subjects. Efforts to account for this variation were not particularly successful. Of particular interest is the fact that variables that account for cheating strategies (maximal, partial and honest) do not explain variations in the cheating tendencies of partial cheaters. So a partial cheater who typically has a low cheating threshold (and hence approximates maximal cheating) does not share the same characteristics of our maximal cheaters.

Cheating is a national past-time. The three types of subject behavior occur in all three of the different national subject pools — the U.K. Chile and Russia. Moreover, several of the patterns that characterize cheating are present in all three countries: response time is low for maximal cheaters and honest types; ability is positively correlated with maximal cheating and negatively — with partial cheating and honesty; maximal cheaters in the public goods game behave similarly in the die tossing game.

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 is predominantly honest — 40 percent of subjects report 100 percent of their earnings! In Russia honest behavior is least common. While in the U.K. we see the highest concentration of maximal cheaters. Why they differ is an important 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 cheating are enormous. An important challenge then is simply designing mechanisms for reducing cheating both in the public and private sectors. The point of departure should be a good understanding of the cheating mechanism. We make some modest contributions in this respect. Our experimental results suggest that modifying the extrinsic costs of not cheating may have little effect on cheating behavior – this

[15] This finding is contrary to Gibson et al. (2013) who conclude that the likelihood of cheating will vary continuously with the costs and benefits. However, our experiment is different in several important respects. First, we explicitly vary the costs and benefits of cheating 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 cheating. Second, the cheating decisions are made with respect to the individual's earned income. Finally, our design involves subjects making repeated decisions.

is simply the case because many in the population will cheat maximally regardless of the stakes and others are always honest.

Are there appeals to intrinsic motivations that might resonate with the cheating types 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 cheating behavior. We find some evidence that subjects who observed their group members declare a large amount of incomes were less likely to cheat maximally. Nevertheless, the effect was weak and its effect was to increase the likelihood of partial cheating (rather than honest behavior).

Our findings imply that a strategy to contain cheating must anticipate that there are individuals in the populations of interest with quite stable cheating strategies. As our experimental results illustrate the distribution of these cheating strategies can vary quite significantly across contexts. Efforts to address cheating must begin by estimating the distribution of cheating strategies in the population of interest. Policies, and the investments necessary, for addressing cheating in contexts dominated by honest types will differ significantly from those for contexts populated primarily with maximal cheaters. Our contribution in this essay is to demonstrate that, on one level, many individuals in the population have quite stable cheating strategies and that we can recover their cheating type with experimental methods. For maximal cheaters and honest types this is sufficient for predicting cheating behavior. We can also identify stable partial cheaters but this is not sufficient for explaining the magnitude of their partial cheating decisions. The challenge for future research will be to build on our insights into heterogeneous cheating behavior in order to understand what moderates cheating in the population.

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. (2017). Preferences for truth-telling. Manuscript.

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.

Andreoni, J. and Miller, J. (2002). Giving according to garp: An experimental test of the consistency of preferences for altruism. *Econometrica*, 70(2):737–753.

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.

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.

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

Blanco, M., Engelmann, D., and Normann, H. T. (2011). A within-subject analysis of other-regarding preferences. *Games and Economic Behavior*, 72(2):321 – 338.

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.

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

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

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

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.

Fischbacher, U. and Gachter, S. (2010). Social preferences, beliefs, and the dynamics of free riding in public goods experiments. *American Economic Review*, 100(1):541–56.

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 immorallye.* 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.

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

Gneezy, U., Kajackaite, A., and Sobel, J. (2017). Lying aversion and the size of the lie. *Working Paper*.

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.

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

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

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*.

Konovalov, A. and Krajbich, I. (2017). Revealed indifference: Using response times to infer preferences. *working paper*.

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.

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. 81:33–43.

Peysakhovich, A. and Rand, D. G. (2015). Habits of virtue: Creating norms of cooperation and defection in the laboratory. *Management Science*, 62(3):631–647.

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 –.

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*, 113(7):1754–1759.

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. (2016). Creative, rare, entitled, and dishonest: How commonality of creativity in one's group decreases an individual's entitlement and dishonesty. *Academy of Management Journal*, 59(4):1451–1473.

Volk, S., Thoni, C., and Ruigrok, W. (2012). Temporal stability and psychological foundations of cooperation preferences. *Journal of Economic Behavior & Organization*, 81(2):664 – 676.

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	
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

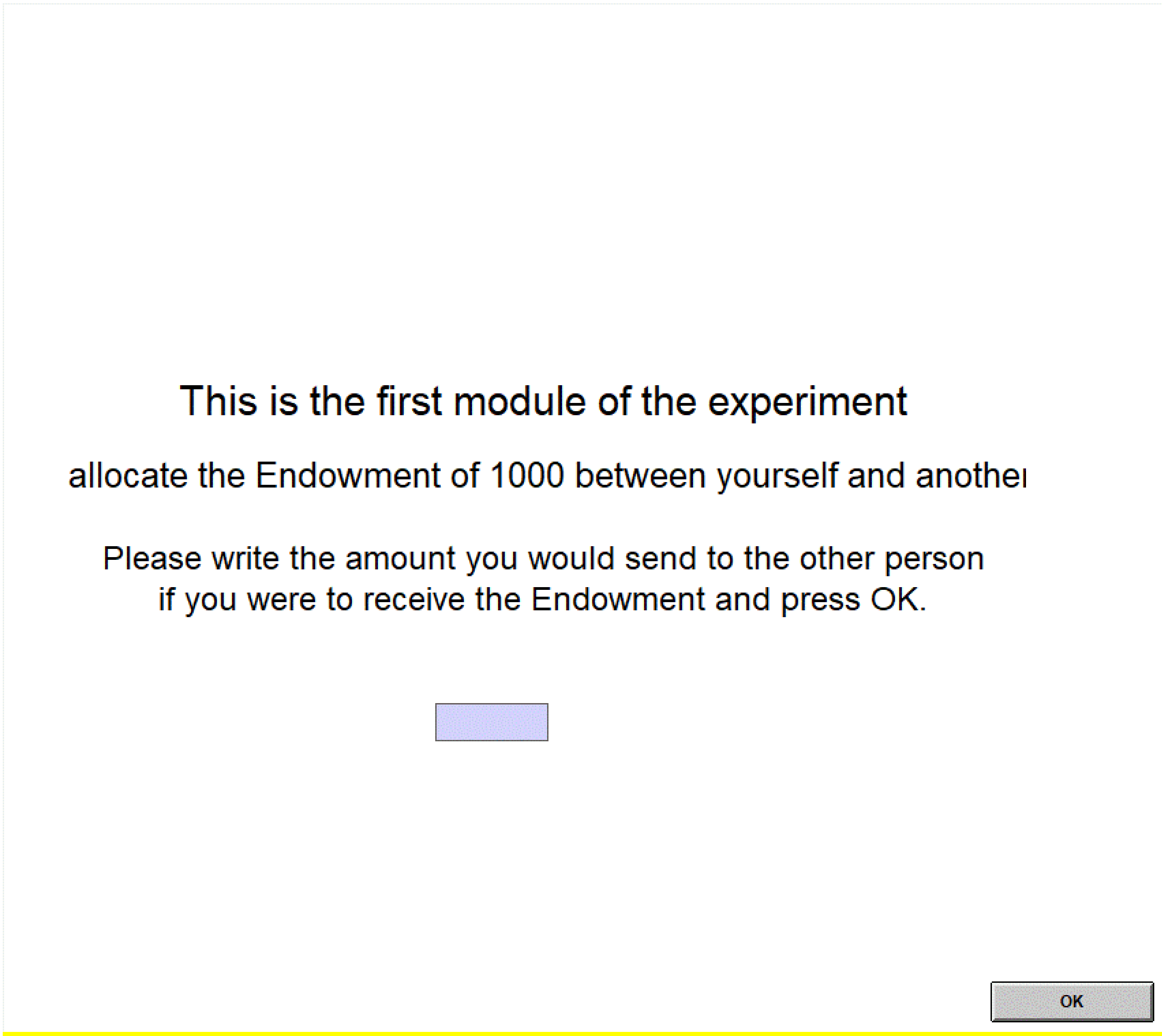

Figure A1: Module 1: Dictator Game

Figure A2: On-screen instructions for real effort task, U.K.

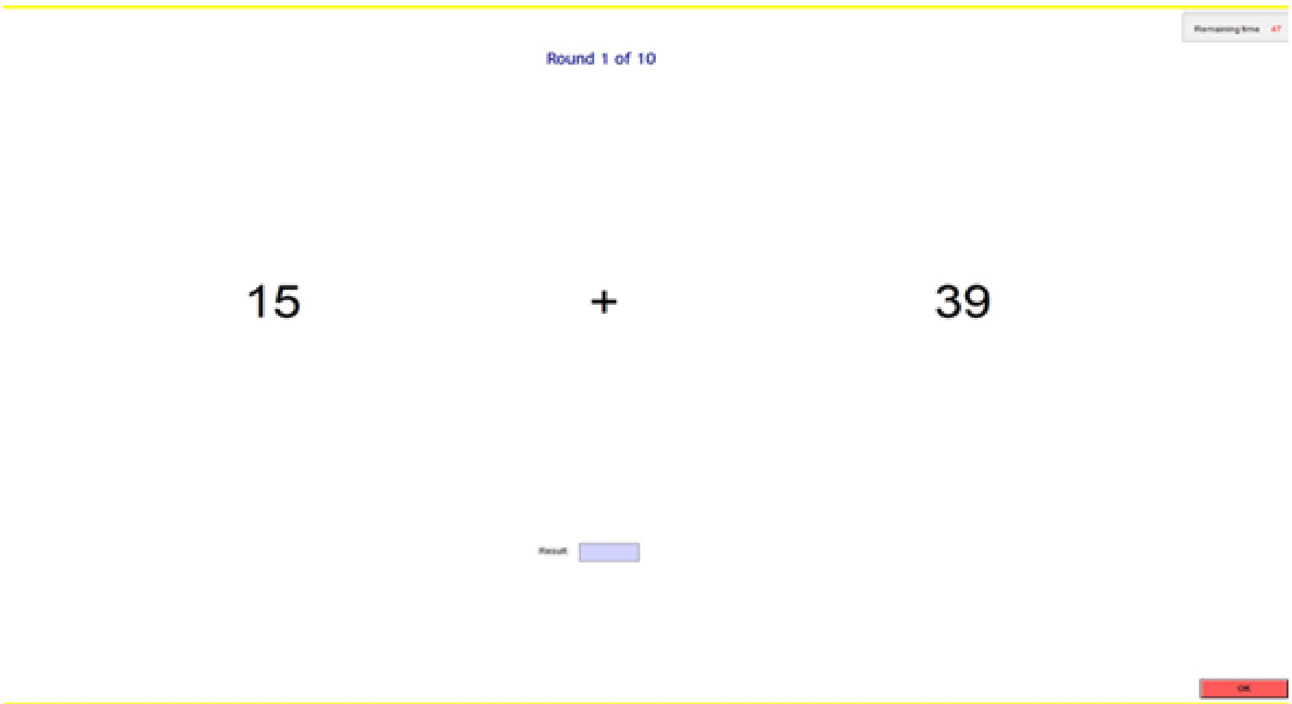

Figure A3: Real effort task screen, U.K.

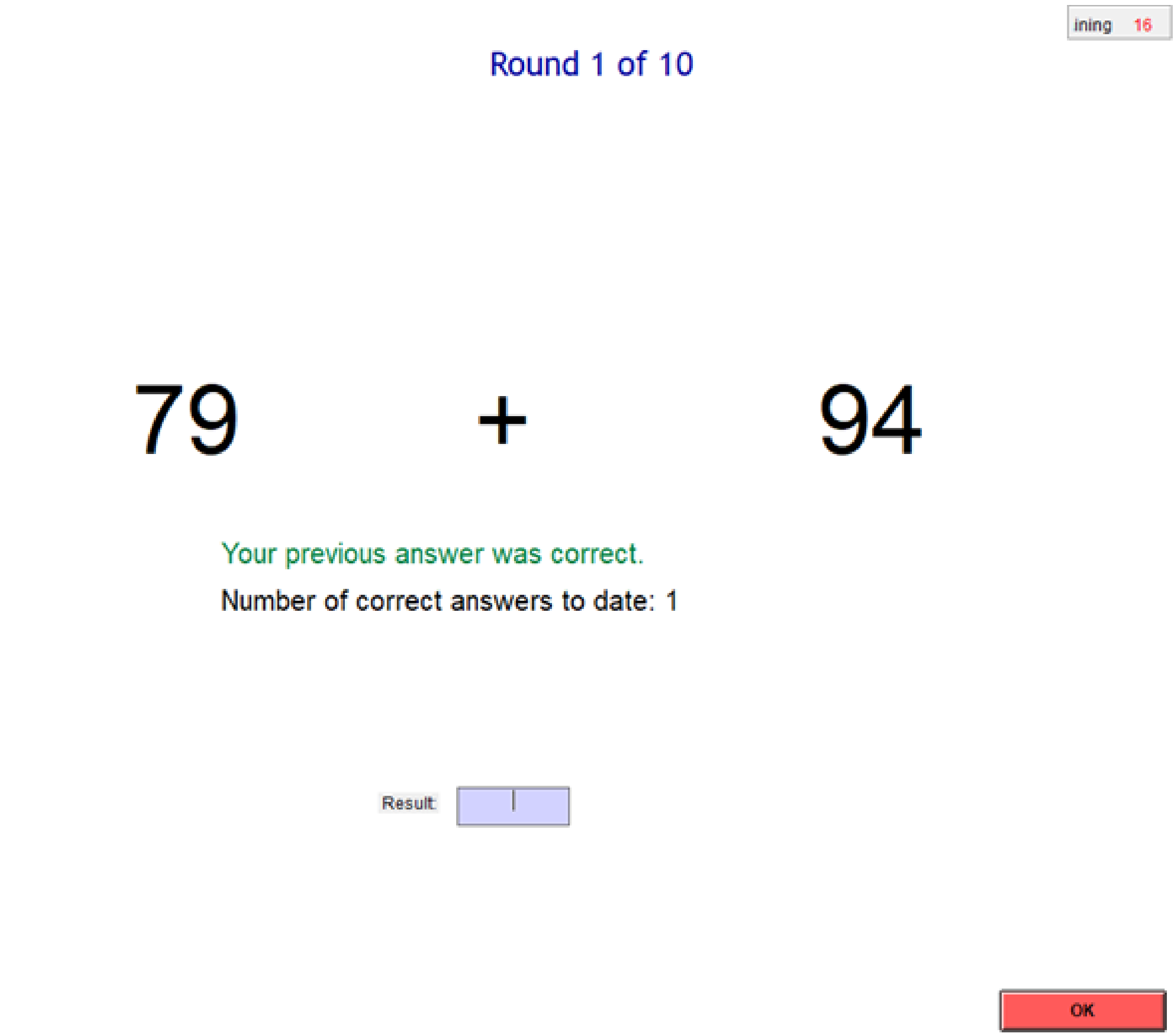

Figure A4: Real effort task screen with correct answer, U.K.

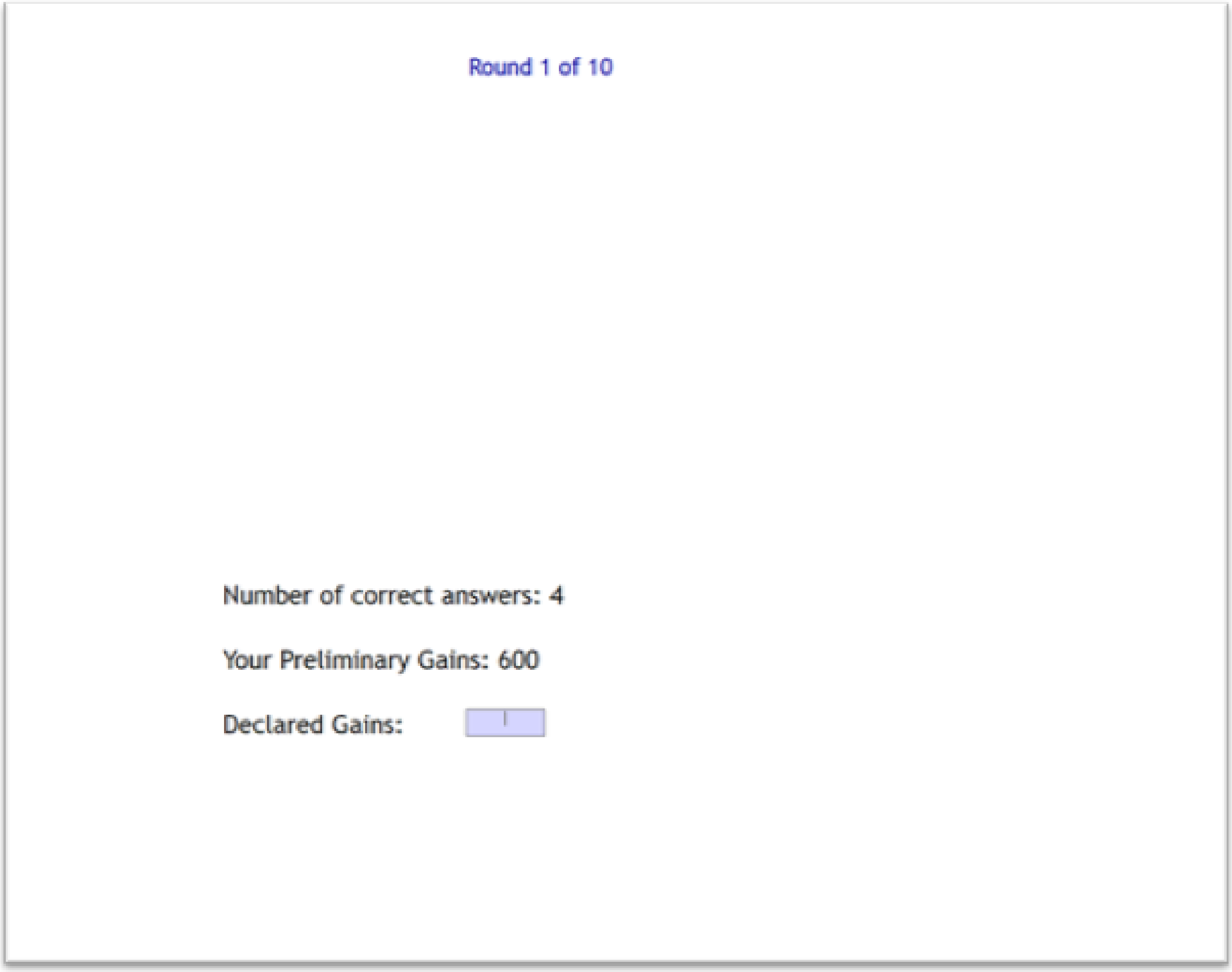

Figure A5: Declaration of gains screen (non-fixed treatment), U.K.

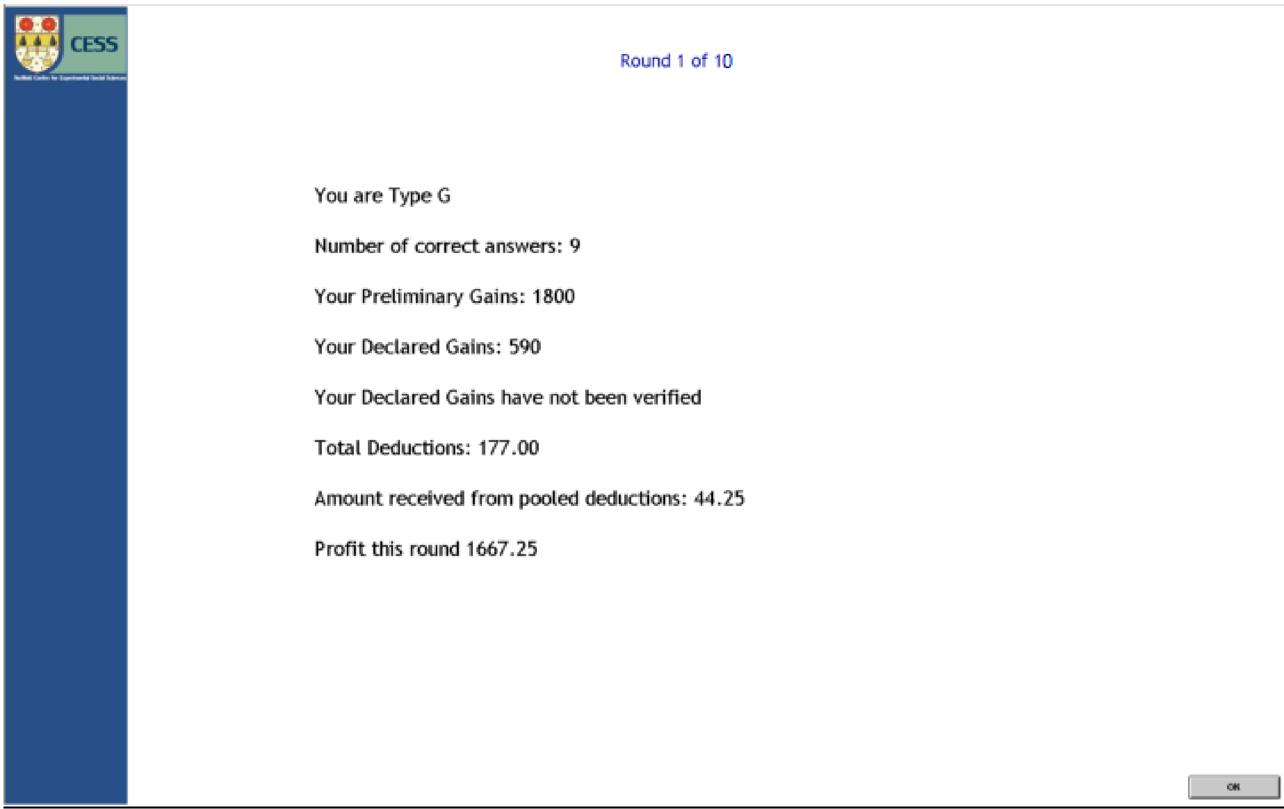

Figure A6: Real effort task results screen (status treatment), U.K.

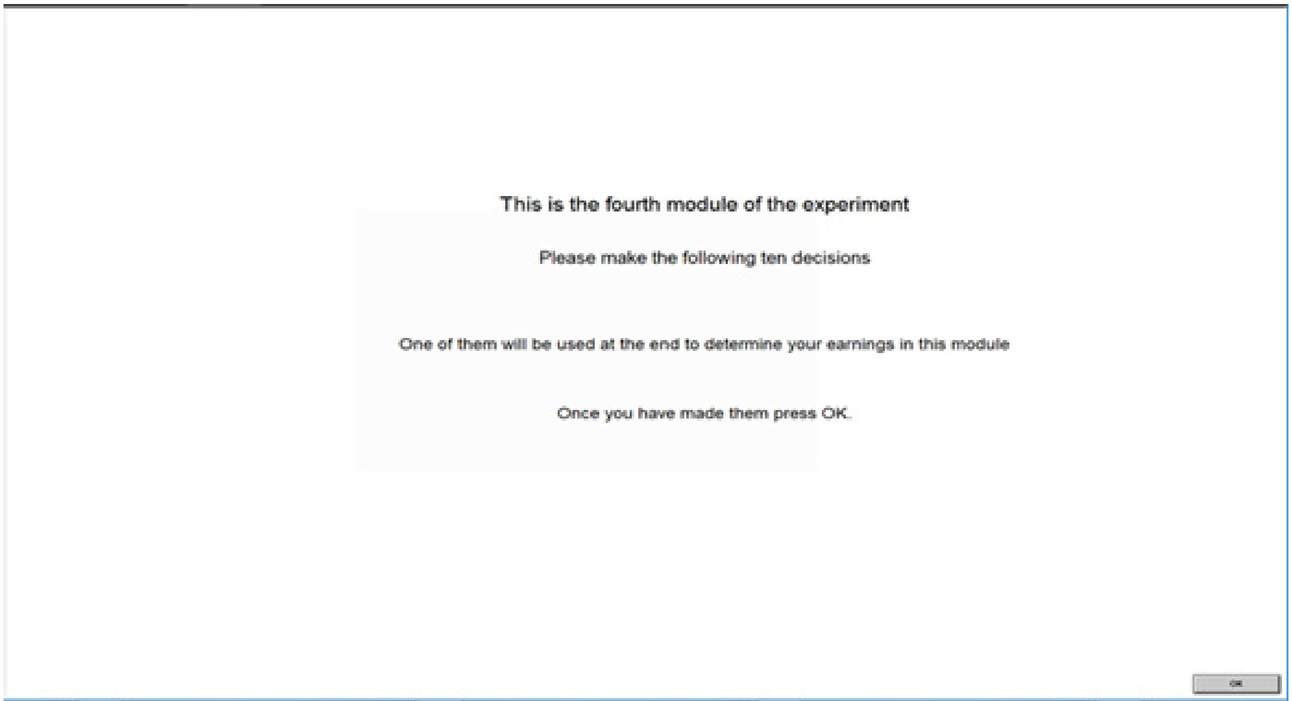

Figure A7: On-screen instructions Risk Aversion questions

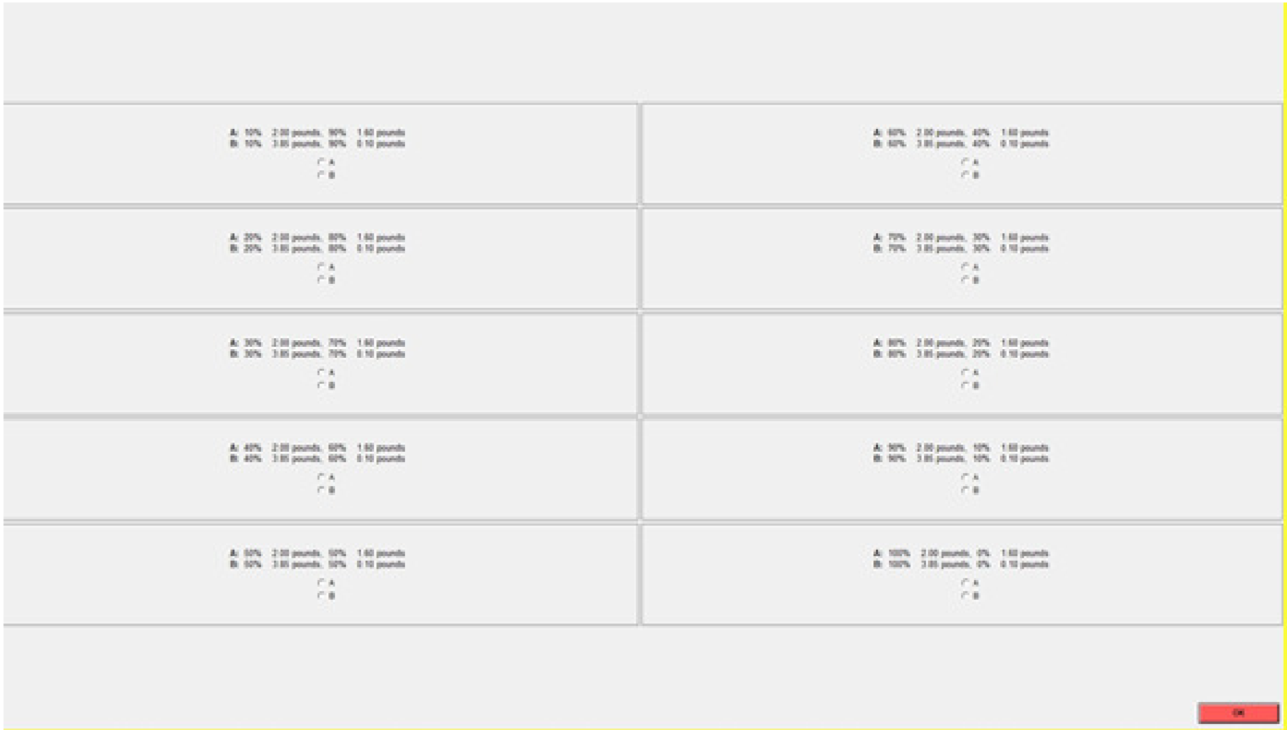

Figure A8: Risk Aversion questions

Figure A9: On-screen instructions, Die Game

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).

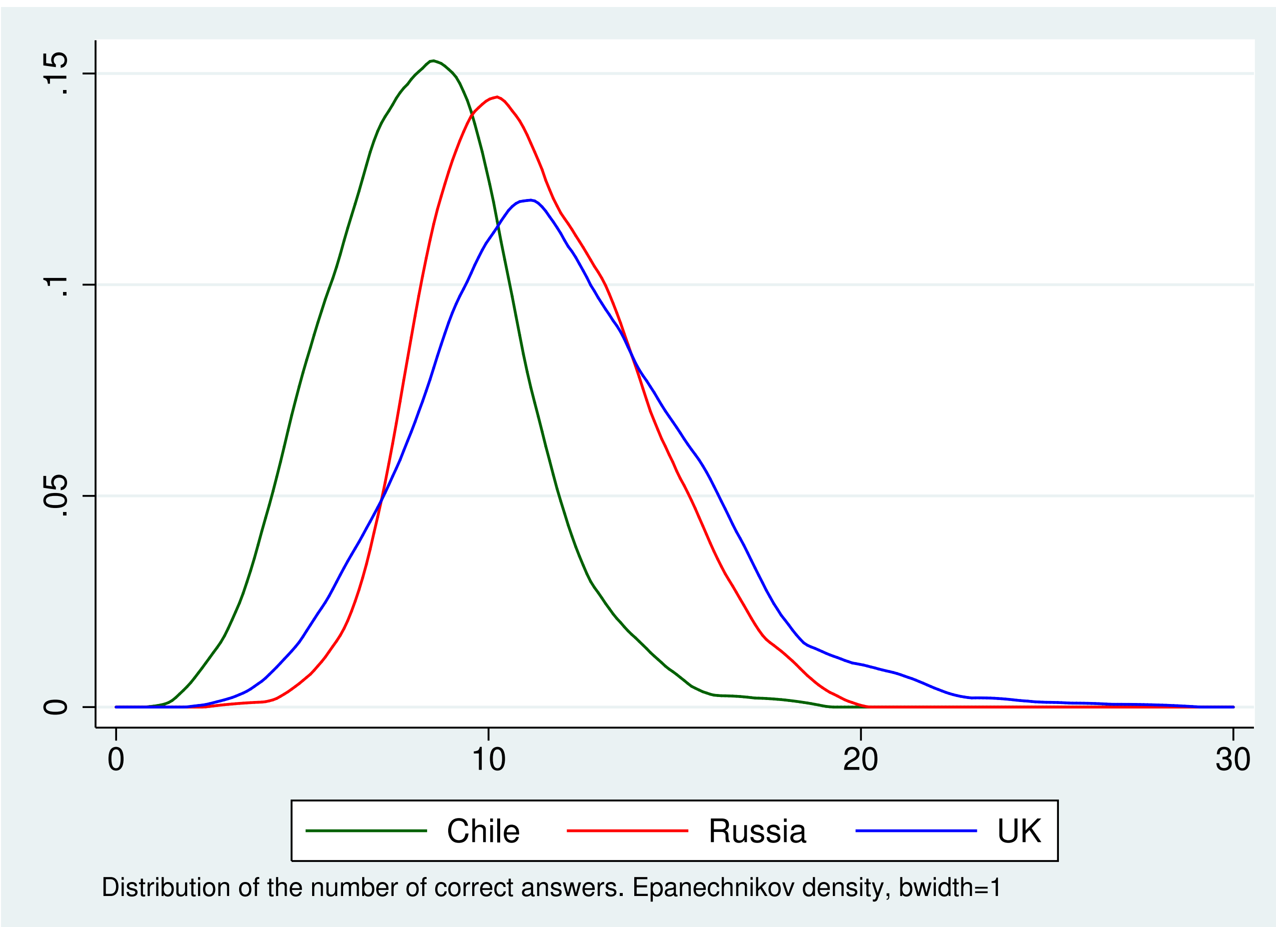

Figure B1: Distribution of average performance by country

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

The regression include control variables for Norms, 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 C6 has specific question word). 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. The full questionnaire is available in replication code.

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	1.597***	(0.313)	1.457***	(0.309)	1.096***	(0.345)	1.302***	(0.195)
Age	-0.0478	(0.0304)	-0.0246	(0.0404)	-0.102***	(0.0186)	-0.0981***	(0.0146)
DG=0	0.153	(0.817)	0.218	(0.462)	0.222	(0.629)	0.472	(0.356)
DG above 0	0.000176	(0.000955)	-0.00214**	(0.000952)	-0.00290**	(0.00127)	-0.00188***	(0.000633)
Deduction 20%	0.620*	(0.343)	0.435	(0.323)	-0.267	(0.418)	0.267	(0.222)
Deduction 30%	0.290	(0.378)	0.0145	(0.465)	-0.209	(0.444)	0.0569	(0.246)
Deduction 40%					0.334	(0.738)	0.685	(0.669)
Deduction 50%					0.502	(0.759)	0.843	(0.662)
Deadweight loss					1.916***	(0.683)	2.019***	(0.615)
Redistribution					0.449	(0.585)	0.650	(0.531)
Russia							2.461***	(0.270)
Oxford							3.231***	(0.295)
Shock	0.553	(0.550)	0.385	(0.467)	1.100*	(0.612)	0.680**	(0.302)
Status	0.961*	(0.567)	0.644	(0.587)	0.762	(0.624)	0.667*	(0.347)
Status, 200 ECU	-0.704	(0.620)	0.0542	(0.775)	0.736	(0.829)	0.125	(0.462)
Non-fixed	1.488***	(0.485)	1.152***	(0.431)	-0.498	(0.511)	0.478*	(0.265)
Norms	-0.162	(0.166)	0.230	(0.147)	0.358**	(0.172)	0.217**	(0.0940)
Trust	0.329	(0.318)	-0.478	(0.319)	-0.431	(0.347)	-0.255	(0.199)
SafeChoices	-0.0292	(0.0867)	0.0677	(0.0820)	-0.0307	(0.0864)	-0.00340	(0.0506)
Ideology	0.0575	(0.0727)	-0.0975	(0.0772)	0.125*	(0.0730)	0.0635	(0.0434)
Income	-0.342	(0.525)	-0.523	(0.805)	-0.127	(0.492)	-0.176	(0.335)
Constant	7.350***	(1.221)	11.59***	(1.211)	14.12***	(1.079)	9.962***	(0.713)
Observations	255		256		385		896	
R^2	0.184		0.178		0.191		0.327	

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 cheating.

In Table B2 we regress the number of correct answers in a given round 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 round.

	Chile		Russia		UK		All	
Male	1.539***	(0.307)	1.489***	(0.304)	1.117***	(0.343)	1.286***	(0.195)
Age	-0.0454	(0.0303)	-0.0236	(0.0414)	-0.102***	(0.0185)	-0.0974***	(0.0146)
Period	0.152***	(0.0147)	0.164***	(0.0165)	0.112***	(0.0142)	0.138***	(0.00836)
DG=0	0.168	(0.785)	0.229	(0.449)	0.245	(0.622)	0.506	(0.355)
DG above 0	0.000159	(0.000939)	-0.00221**	(0.000933)	-0.00286**	(0.00126)	-0.00185***	(0.000632)
Deadweight loss					1.767***	(0.678)	1.960***	(0.614)
Redistribution					0.433	(0.577)	0.606	(0.529)
Russia							2.481***	(0.280)
Oxford							3.206***	(0.308)
Shock	0.510	(0.567)	0.606	(0.494)	1.236*	(0.656)	0.812**	(0.323)
L.Shock=Yes	-0.177	(0.298)	-0.452*	(0.264)	-0.378	(0.314)	-0.347**	(0.176)
Status	0.926	(0.570)	0.752	(0.557)	0.794	(0.617)	0.680*	(0.347)
Status, 200 ECU	-0.673	(0.622)	-0.0390	(0.748)	0.737	(0.816)	0.102	(0.463)
Non-fixed	1.416***	(0.479)	1.231***	(0.424)	-0.556	(0.504)	0.455*	(0.264)
L.Declared by others	0.0000889	(0.0000828)	-0.000213*	(0.000112)	0.000118	(0.000109)	0.0000147	(0.0000646)
Norms	-0.153	(0.166)	0.241*	(0.142)	0.361**	(0.171)	0.222**	(0.0942)
Trust	0.317	(0.314)	-0.516	(0.322)	-0.466	(0.342)	-0.257	(0.199)
SafeChoices	-0.0385	(0.0852)	0.0525	(0.0791)	-0.0358	(0.0849)	-0.0107	(0.0500)
Ideology	0.0623	(0.0708)	-0.0853	(0.0738)	0.136*	(0.0718)	0.0706	(0.0433)
Income	-0.319	(0.513)	-0.607	(0.783)	-0.234	(0.486)	-0.216	(0.334)
Constant	6.394***	(1.214)	11.08***	(1.209)	13.41***	(1.094)	9.228***	(0.743)
Observations	2295		2304		3465		8064	
R^2	0.145		0.158		0.163		0.273	

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

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

B2 Near-maximal cheating

In our experiments, subjects sometimes declared positive, but very small amounts of income. We believe that most of such "near-maximal" cheating is not a chance variation from maximal cheating, but driven by the same concerns as partial cheating 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 cheating among different population groups. Of interest here is whether near-maximal cheaters tend to share population characteristics with maximal cheaters or, alternatively, resemble partial cheaters. The former case would suggest near-maximal cheating is just chance variation from maximal cheating, Our take on the latter outcome is that near-maximal cheating is a form of partial cheating – and that stopping short of maximal cheating provides subjects with a self-serving justification for their behavior.

Previously, we found that subject ability is positively correlated with maximal cheating. In Figure B2 we report the fraction of declarations that were classified as maximal cheating, limited cheating, and near-maximal, defined as being above 0% and at or below 20% of the earnings. In all three countries, near-maximal cheating was more prevalent among subjects with below-median performance ($p < 0.0001$, $p = 0.0003$, and $p = 0.0271$ on the Fisher's exact test in Chile, Russia, and the U.K.).

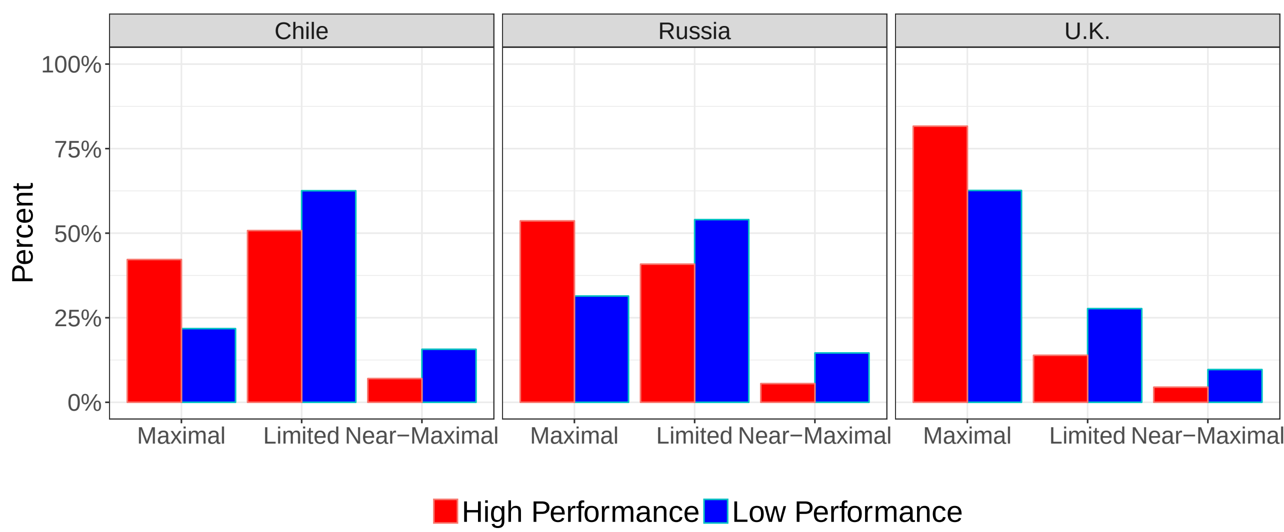

Figure B2: Prevalence of cheating depending on subject performance

This result persists if we consider increasingly strict definitions of near-maximal cheating. In Table C10 in Appendix A, 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 find that in all three countries high performers are less likely to engage in near-maximal cheating, even if we only consider the declarations as small as between 1 and 30 ECU. In Russia, 1 ECU was declared on 26 occasions, 19 of them by low performers — a difference significant at $p = 0.0282$. Looking at other correlates of cheating yields similar results: Near-maximal cheating is more prevalent among females (Table C11) and those who made positive donations in the Dictator game (Table C12).

Appendix C Supplemental tables and figures.

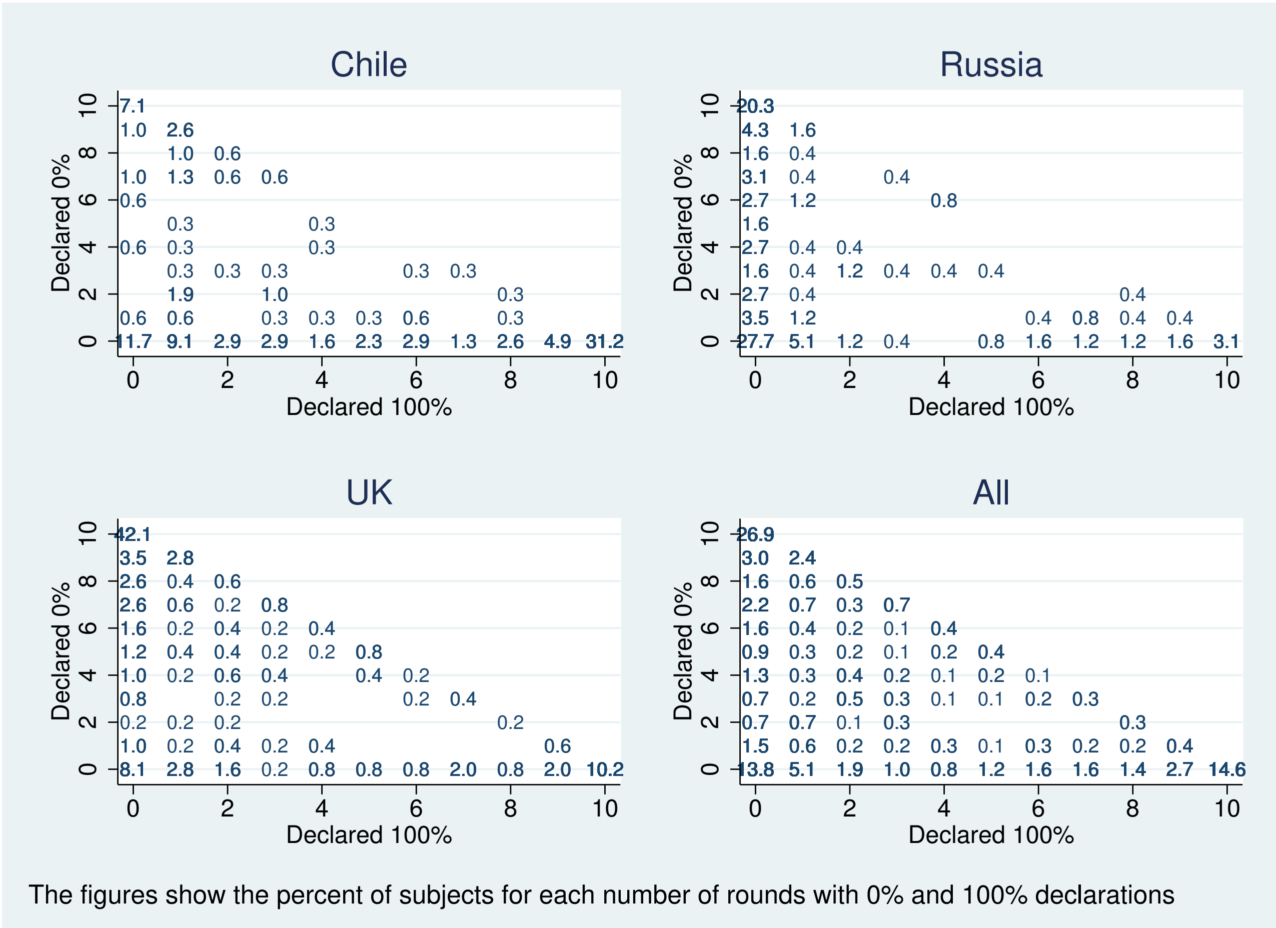

Figure C1: Frequency of cheating decisions by country. Axis show number of rounds.

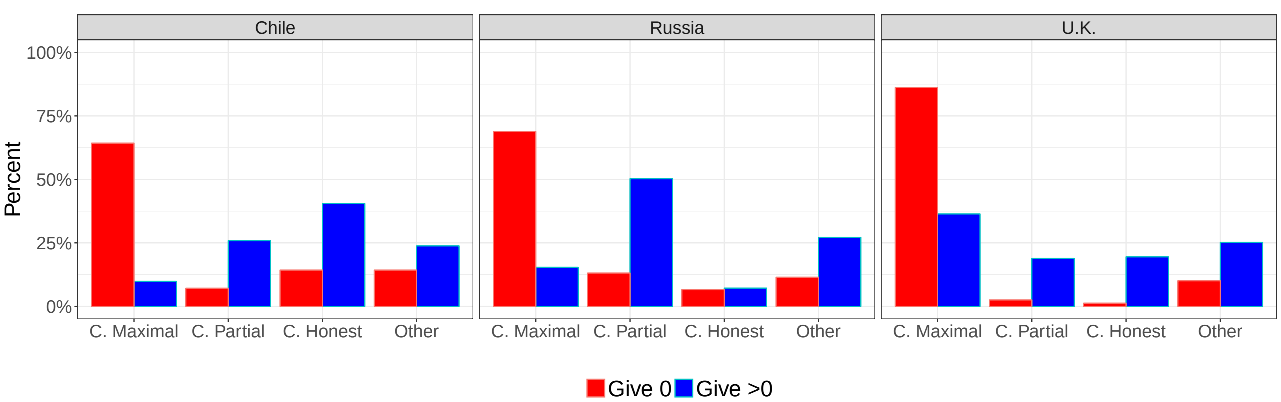

Figure C2: Distributions of behavior by Dictator Game donations.

	Predicted rank in Period 1			
	1	2	3	4
Consistent maximal	43	37	16	4
	47.3%	26.6%	16.5%	13.8%
Consistent partial	13	30	26	7
	14.3%	21.6%	26.8%	24.1%
Consistent honest	21	42	32	9
	23.1%	30.2%	32.0%	31.0%
Other	14	30	23	9
	15.4%	21.6%	23.7%	31.0%
Total	91	139	97	29
Mean rank within one's group, period 1 (sd)	2.10 (1.13)	2.45 (1.06)	2.74 (1.07)	3.16 (1.00)
p-value for two-tailed Welch t-test	0.0181	0.0386	0.0640	

Table C1: Predicted rank and actual rank in the first round and prevalence of cheating behaviors. 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 $p < 0.001$.

	Die Roll					
	1	2	3	4	5	6
Consistent maximal	-1.500*	-1.270	-0.336	0.142	-0.671	0.985***
	(-2.04)	(-1.78)	(-0.67)	(0.28)	(-1.94)	(3.34)
Consistent partial	0.431	-0.0649	-0.491	0.105	0.0605	0.0263
	(0.74)	(-0.12)	(-0.95)	(0.22)	(0.18)	(0.08)
Average part. cheating	-0.933	0.435	-0.0511	0.888	0.345	-0.625
	(-1.10)	(0.61)	(-0.07)	(1.62)	(0.84)	(-1.55)
Type: Other	0.0203	-0.655	-1.121	0.582	0.292	-0.0492
	(0.03)	(-1.07)	(-1.77)	(1.26)	(0.90)	(-0.16)
Russia	-0.477	-1.136*	-0.0708	-0.146	0.117	0.349
	(-0.87)	(-2.12)	(-0.16)	(-0.40)	(0.44)	(1.39)
Oxford	0.411	-0.702	-0.198	-0.779	-0.186	0.619*
	(0.78)	(-1.26)	(-0.42)	(-1.79)	(-0.63)	(2.35)
Constant	-3.900***	1.765	-0.261	-1.419	-1.639*	-0.985
	(-3.58)	(0.83)	(-0.18)	(-1.16)	(-2.35)	(-1.52)
Observations	468	468	468	468	468	468

Logistic regression, marginal coefficients. Individual controls not shown.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table C2: Logit regression of die roll values

All	Maximal cheating		Partial cheating		Honest	
RET rank	0.0510***	(0.00989)	-0.0251*	(0.0133)	-0.0259**	(0.0117)
RET deviation	-0.00299*	(0.00160)	0.00426**	(0.00213)	-0.00127	(0.00178)
Male	0.0152***	(0.00542)	-0.0266***	(0.00751)	0.0114*	(0.00652)
Age	-0.00168***	(0.000579)	0.000557	(0.000658)	0.00113**	(0.000505)
Period	-0.00131*	(0.000708)	-0.00168*	(0.000880)	0.00299***	(0.000743)
DG=0	0.0534***	(0.0135)	-0.0674***	(0.0184)	0.0140	(0.0161)
DG above 0	-0.0000393**	(0.0000166)	-0.0000375	(0.0000231)	0.0000768***	(0.0000222)
Deadweight loss	-0.0107	(0.0147)	-0.0136	(0.0219)	0.0243	(0.0166)
Redistribution	0.0197	(0.0122)	-0.0224	(0.0184)	0.00267	(0.0158)
Russia	0.0121	(0.00853)	0.0261**	(0.0117)	-0.0382***	(0.0107)
Oxford	0.0497***	(0.00918)	-0.0269**	(0.0108)	-0.0227***	(0.00856)
Shock	0.00610	(0.0122)	-0.0149	(0.0154)	0.00884	(0.0145)
Shock, yes	-0.0178	(0.0156)	0.0456**	(0.0210)	-0.0278	(0.0179)
Status	0.0134	(0.0113)	0.000847	(0.0156)	-0.0143	(0.0138)
Status, 200 ECU	-0.0228*	(0.0127)	-0.00623	(0.0183)	0.0291*	(0.0167)
Non-fixed	0.0122	(0.00760)	-0.0177*	(0.0102)	0.00550	(0.00883)
L.Declared 0%	0.770***	(0.0207)	-0.232***	(0.0165)	-0.538***	(0.0132)
L.Declared 1-99%	0.0279***	(0.00984)	0.447***	(0.0125)	-0.475***	(0.00775)
L.Partial cheat	-0.107***	(0.0167)	-0.0539***	(0.0192)	0.161***	(0.0174)
L.Declared by others	-0.00000859***	(0.00000202)	0.00000719***	(0.00000257)	0.00000140	(0.00000212)
Observations	9647		9647		9647	

Chile	Maximal cheating		Partial cheating		Honest	
RET rank	0.0381**	(0.0167)	-0.0412	(0.0282)	0.00317	(0.0265)
RET deviation	-0.00139	(0.00285)	0.00482	(0.00471)	-0.00343	(0.00405)
Male	0.0177*	(0.00940)	0.00452	(0.0157)	-0.0222	(0.0151)
Age	-0.0000183	(0.000749)	-0.00180	(0.00142)	0.00182	(0.00134)
Period	-0.00167	(0.00120)	-0.00419**	(0.00190)	0.00586***	(0.00177)
DG=0	0.0598**	(0.0297)	-0.0549	(0.0559)	-0.00488	(0.0544)
DG above 0	-0.0000256	(0.0000283)	-0.0000611	(0.0000509)	0.0000867*	(0.0000506)
Deduction 20%	-0.0214*	(0.0112)	-0.0196	(0.0187)	0.0410**	(0.0180)
Deduction 30%	0.00815	(0.0106)	-0.0379**	(0.0184)	0.0297*	(0.0173)
Shock	0.0207	(0.0271)	-0.00440	(0.0336)	-0.0163	(0.0340)
Shock, yes	0.00501	(0.0233)	0.0393	(0.0397)	-0.0443	(0.0392)
Status	0.0373	(0.0313)	0.00390	(0.0354)	-0.0412	(0.0345)
Status, 200 ECU	-0.0222	(0.0208)	-0.0139	(0.0347)	0.0361	(0.0358)
Non-fixed	0.0490**	(0.0223)	-0.0382	(0.0246)	-0.0108	(0.0212)
L.Declared 0%	0.740***	(0.0398)	-0.182***	(0.0329)	-0.557***	(0.0175)
L.Declared 1-99%	0.0610***	(0.0160)	0.621***	(0.0224)	-0.682***	(0.0154)
L.Partial cheat	-0.122***	(0.0263)	-0.0990**	(0.0399)	0.221***	(0.0414)
L.Declared by others	0.00000192	(0.00000300)	0.000000194	(0.00000561)	-0.00000212	(0.00000547)
Observations	2771		2771		2771	

Russia	Maximal cheating		Partial cheating		Honest	
RET rank	0.0468*	(0.0265)	-0.00923	(0.0299)	-0.0376	(0.0232)
RET deviation	-0.00470	(0.00406)	0.00959**	(0.00429)	-0.00489	(0.00325)
Male	0.0169	(0.0147)	-0.0642***	(0.0176)	0.0474***	(0.0141)
Age	-0.00391	(0.00350)	0.00426	(0.00345)	-0.000350	(0.00228)
Period	0.000359	(0.00172)	-0.00199	(0.00182)	0.00163	(0.00124)
DG=0	0.0599**	(0.0296)	-0.107***	(0.0395)	0.0471	(0.0329)
DG above 0	-0.000107**	(0.0000483)	0.0000327	(0.0000522)	0.0000745*	(0.0000448)
Deduction 20%	-0.0184	(0.0151)	0.0325*	(0.0178)	-0.0141	(0.0142)
Deduction 30%	-0.00759	(0.0187)	0.0178	(0.0223)	-0.0102	(0.0166)
Shock	0.0108	(0.0294)	-0.0287	(0.0303)	0.0179	(0.0257)
Shock, yes	-0.0342	(0.0376)	0.0422	(0.0354)	-0.00795	(0.0244)
Status	-0.00270	(0.0255)	-0.00963	(0.0318)	0.0123	(0.0212)
Status, 200 ECU	-0.00696	(0.0324)	-0.0194	(0.0396)	0.0263	(0.0295)
Non-fixed	0.0191	(0.0204)	-0.0473**	(0.0239)	0.0282	(0.0200)
L.Declared 0%	0.600***	(0.0628)	-0.241***	(0.0528)	-0.359***	(0.0276)
L.Declared 1-99%	-0.00942	(0.0287)	0.495***	(0.0339)	-0.486***	(0.0234)
L.Partial cheat	-0.165***	(0.0431)	0.0166	(0.0441)	0.149***	(0.0337)
L.Declared by others	-0.0000294***	(0.00000690)	0.0000260***	(0.00000691)	0.00000340	(0.00000437)
Observations	2304		2304		2304	

UK	Maximal cheating		Partial cheating		Honest	
RET rank	0.0525***	(0.0130)	-0.00963	(0.0170)	-0.0428***	(0.0154)
RET deviation	-0.00306	(0.00208)	0.00126	(0.00274)	0.00180	(0.00227)
Male	0.0136*	(0.00732)	-0.0311***	(0.00985)	0.0175**	(0.00844)
Age	-0.00160**	(0.000648)	0.000790	(0.000675)	0.000805	(0.000523)
Period	-0.00240**	(0.00101)	0.000674	(0.00114)	0.00173*	(0.00100)
DG=0	0.0611***	(0.0184)	-0.0529***	(0.0198)	-0.00828	(0.0168)
DG above 0	-0.0000137	(0.0000226)	-0.0000582**	(0.0000275)	0.0000719***	(0.0000269)
Deadweight loss	-0.0154	(0.0136)	-0.00792	(0.0184)	0.0234	(0.0144)
Redistribution	0.0116	(0.0113)	-0.0138	(0.0160)	0.00220	(0.0140)
Shock	-0.00357	(0.0139)	-0.0262	(0.0227)	0.0298	(0.0205)
Shock, yes	-0.0210	(0.0174)	0.0591	(0.0391)	-0.0380	(0.0319)
Status	0.0229	(0.0173)	-0.0157	(0.0234)	-0.00720	(0.0215)
Status, 200 ECU	-0.0298	(0.0182)	0.00699	(0.0273)	0.0228	(0.0247)
Non-fixed	-0.00201	(0.0106)	0.00583	(0.0140)	-0.00382	(0.0121)
L.Declared 0%	0.811***	(0.0243)	-0.226***	(0.0194)	-0.585***	(0.0227)
L.Declared 1-99%	0.0182	(0.0138)	0.312***	(0.0165)	-0.330***	(0.00958)
L.Partial cheat	-0.0744***	(0.0216)	-0.0620***	(0.0239)	0.136***	(0.0211)
L.Declared by others	-0.00000539**	(0.00000245)	0.00000567*	(0.00000303)	-0.000000274	(0.00000250)
Observations	4572		4572		4572	

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. 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. Deduction controls not shown.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C3: Average marginal effects for subject choice, periods 2-10, previous action

	All					
	Maximal cheating		Partial cheating		Honest	
RET rank	0.238***	(0.0396)	-0.0667	(0.0490)	-0.171***	(0.0457)
RET deviation	0.0114*	(0.00670)	0.00768	(0.00802)	-0.0191**	(0.00777)
Male	0.0620***	(0.0239)	-0.0740***	(0.0281)	0.0120	(0.0262)
Age	-0.00257	(0.00225)	0.00307	(0.00264)	-0.000504	(0.00225)
DG=0	0.390***	(0.0600)	-0.265***	(0.0434)	-0.124**	(0.0493)
DG above 0	-0.0000237	(0.0000898)	-0.000182*	(0.0000952)	0.000206**	(0.0000827)
Deduction 20%	-0.0351	(0.0278)	0.0482	(0.0335)	-0.0131	(0.0299)
Deduction 30%	0.00161	(0.0303)	0.0387	(0.0362)	-0.0403	(0.0316)
Deduction 40%	-0.0458	(0.0585)	0.0947	(0.0791)	-0.0489	(0.0707)
Deduction 50%	-0.0188	(0.0632)	0.107	(0.102)	-0.0886	(0.0861)
Deadweight loss	-0.0610	(0.0545)	-0.0504	(0.0691)	0.111*	(0.0668)
Redistribution	0.0124	(0.0464)	0.0326	(0.0595)	-0.0451	(0.0558)
Russia	0.0962**	(0.0424)	0.259***	(0.0456)	-0.355***	(0.0254)
Oxford	0.254***	(0.0353)	-0.0735*	(0.0405)	-0.180***	(0.0319)
Shock	0.00856	(0.0513)	-0.0472	(0.0582)	0.0386	(0.0573)
Shock, yes	0.0241	(0.0640)	-0.00229	(0.0749)	-0.0219	(0.0677)
Status	0.0574	(0.0494)	-0.0338	(0.0556)	-0.0235	(0.0556)
Status, 200 ECU	-0.0161	(0.0532)	-0.0430	(0.0655)	0.0591	(0.0728)
Non-fixed	-0.00252	(0.0348)	-0.0602	(0.0402)	0.0627*	(0.0381)
Observations	1071		1071		1071	
	Chile					
	Maximal cheating		Partial cheating		Honest	
RET rank	0.159***	(0.0609)	-0.0790	(0.100)	-0.0801	(0.106)
RET deviation	0.0133	(0.0105)	-0.0163	(0.0161)	0.00304	(0.0180)
Male	0.00247	(0.0321)	-0.0400	(0.0576)	0.0376	(0.0599)
Age	0.00405	(0.00288)	-0.00270	(0.00506)	-0.00135	(0.00590)
DG=0	0.656***	(0.120)	-0.213***	(0.0705)	-0.444***	(0.109)
DG above 0	0.000224*	(0.000119)	-0.000255	(0.000174)	0.0000308	(0.000187)
Deduction 20%	-0.0146	(0.0356)	-0.0767	(0.0602)	0.0913	(0.0657)
Deduction 30%	0.0279	(0.0365)	-0.0107	(0.0603)	-0.0172	(0.0651)
Shock	-0.149***	(0.0152)	0.112	(0.122)	0.0364	(0.122)
Shock, yes	0.787***	(0.0157)	-0.255***	(0.0316)	-0.532***	(0.0332)
Status	0.107	(0.175)	-0.0333	(0.109)	-0.0733	(0.165)
Status, 200 ECU	-0.000515	(0.0783)	0.0639	(0.128)	-0.0634	(0.141)
Non-fixed	0.0794	(0.0711)	-0.122	(0.0848)	0.0427	(0.0936)
Observations	307		307		307	
	Russia					
	Maximal cheating		Partial cheating		Honest	
RET rank	0.146*	(0.0867)	-0.155	(0.0973)	0.00921	(0.0650)
RET deviation	0.0116	(0.0142)	0.00920	(0.0154)	-0.0208**	(0.00951)
Male	0.0282	(0.0516)	-0.0398	(0.0568)	0.0117	(0.0388)
Age	-0.00642	(0.00920)	0.00413	(0.00924)	0.00228	(0.00409)
DG=0	0.380***	(0.130)	-0.369***	(0.118)	-0.0110	(0.0573)
DG above 0	-0.0000851	(0.000233)	-0.0000116	(0.000221)	0.0000967	(0.000103)
Deduction 20%	-0.0975*	(0.0524)	0.0837	(0.0601)	0.0138	(0.0396)
Deduction 30%	-0.0814	(0.0609)	0.0939	(0.0704)	-0.0125	(0.0420)
Shock	0.0778	(0.0928)	-0.201*	(0.105)	0.123	(0.101)
Shock, yes	0.00299	(0.0977)	-0.00187	(0.112)	-0.00112	(0.0650)
Status	-0.0197	(0.0834)	-0.109	(0.108)	0.129	(0.100)
Status, 200 ECU	0.0521	(0.110)	-0.0564	(0.121)	0.00421	(0.0704)
Non-fixed	0.0300	(0.0826)	-0.129	(0.0915)	0.0994	(0.0782)
Observations	256		256		256	
	UK					
	Maximal cheating		Partial cheating		Honest	
RET rank	0.331***	(0.0593)	0.0419	(0.0661)	-0.373***	(0.0627)
RET deviation	0.00752	(0.0106)	0.0179	(0.0110)	-0.0255**	(0.0107)
Male	0.117***	(0.0381)	-0.115***	(0.0382)	-0.00142	(0.0371)
Age	-0.00497	(0.00342)	0.00528	(0.00338)	-0.000313	(0.00292)
DG=0	0.394***	(0.0705)	-0.285***	(0.0482)	-0.109*	(0.0633)
DG above 0	-0.0000645	(0.000127)	-0.000270**	(0.000133)	0.000335***	(0.000125)
Deduction 20%	-0.00400	(0.0484)	0.107**	(0.0502)	-0.103**	(0.0403)
Deduction 30%	0.0357	(0.0512)	0.0268	(0.0533)	-0.0624	(0.0435)
Deduction 40%	-0.0544	(0.0794)	0.149*	(0.0881)	-0.0951	(0.0657)
Deduction 50%	-0.0300	(0.0848)	0.167	(0.103)	-0.137**	(0.0667)
Deadweight loss	-0.101	(0.0747)	-0.00887	(0.0766)	0.110	(0.0773)
Redistribution	-0.00450	(0.0605)	0.0757	(0.0660)	-0.0712	(0.0549)
Shock	-0.0145	(0.0955)	-0.00985	(0.0959)	0.0244	(0.0796)
Shock, yes	-0.0322	(0.118)	0.0492	(0.127)	-0.0170	(0.0956)
Status	0.110	(0.0903)	0.00272	(0.0919)	-0.113	(0.0726)
Status, 200 ECU	-0.0791	(0.0982)	-0.137*	(0.0811)	0.216*	(0.127)
Non-fixed	-0.0648	(0.0553)	0.0939	(0.0611)	-0.0291	(0.0492)
Observations	508		508		508	

Average marginal effects for multinomial logistic regression. Dependent variable is whether the subject declared 0%, 100%, or something in between, in a given round. 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.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C4: Average marginal effects for subject choice, period 1

	Maximal cheating		Partial cheating		Honest	
All						
RET rank	0.260***	(0.0393)	-0.0778*	(0.0415)	-0.182***	(0.0405)
RET deviation	-0.000346	(0.00168)	0.00371*	(0.00202)	-0.00336**	(0.00171)
Male	0.0572**	(0.0229)	-0.0871***	(0.0242)	0.0299	(0.0229)
Age	-0.00563***	(0.00207)	0.00360*	(0.00203)	0.00204	(0.00184)
Period	0.0177***	(0.00145)	-0.0112***	(0.00158)	-0.00656***	(0.00131)
DG=0	0.305***	(0.0535)	-0.266***	(0.0327)	-0.0390	(0.0477)
DG above 0	-0.000166*	(0.0000853)	-0.000137*	(0.0000766)	0.000303***	(0.0000736)
Deadweight loss	-0.0640	(0.0606)	-0.0385	(0.0669)	0.102	(0.0660)
Redistribution	0.0869	(0.0560)	-0.0378	(0.0535)	-0.0491	(0.0497)
Russia	0.110***	(0.0342)	0.119***	(0.0376)	-0.229***	(0.0274)
Oxford	0.346***	(0.0351)	-0.147***	(0.0371)	-0.199***	(0.0333)
Shock	0.0404	(0.0405)	-0.0102	(0.0411)	-0.0302	(0.0411)
Shock, yes	-0.0178	(0.0224)	0.0350	(0.0273)	-0.0172	(0.0249)
Status	0.0722	(0.0462)	0.00518	(0.0497)	-0.0773*	(0.0416)
Status, 200 ECU	-0.0866*	(0.0513)	-0.0589	(0.0564)	0.146**	(0.0686)
Non-fixed	0.0200	(0.0322)	-0.0413	(0.0341)	0.0212	(0.0325)
Norms	-0.0327***	(0.0117)	0.000318	(0.0128)	0.0324**	(0.0140)
Trust	-0.0000671	(0.0232)	-0.000474	(0.0244)	0.000542	(0.0231)
SafeChoices	0.00123	(0.00603)	0.00339	(0.00612)	-0.00461	(0.00605)
Ideology	0.00413	(0.00521)	0.000870	(0.00536)	-0.00500	(0.00558)
Income	0.0966**	(0.0402)	-0.0299	(0.0438)	-0.0667*	(0.0399)
Observations	8958		8958		8958	
Chile						
	Maximal cheating		Partial cheating		Honest	
RET rank	0.218***	(0.0690)	-0.0856	(0.0854)	-0.133	(0.0935)
RET deviation	-0.00104	(0.00274)	0.00240	(0.00407)	-0.00136	(0.00392)
Male	0.0630	(0.0383)	-0.00691	(0.0548)	-0.0561	(0.0570)
Age	0.00246	(0.00272)	-0.00540	(0.00427)	0.00294	(0.00479)
Period	0.00983***	(0.00203)	0.00166	(0.00300)	-0.0115***	(0.00294)
DG=0	0.288*	(0.157)	-0.270***	(0.0614)	-0.0174	(0.168)
DG above 0	-0.0000896	(0.000127)	-0.000255*	(0.000150)	0.000345**	(0.000175)
Shock	0.271*	(0.163)	-0.0176	(0.117)	-0.253***	(0.0944)
Shock, yes	-0.00403	(0.0233)	-0.000518	(0.0477)	0.00455	(0.0446)
Status	0.364**	(0.165)	-0.0664	(0.119)	-0.298***	(0.0910)
Status, 200 ECU	-0.100*	(0.0593)	-0.0825	(0.102)	0.183	(0.113)
Non-fixed	0.246***	(0.0864)	-0.101	(0.0851)	-0.144*	(0.0829)
Norms	-0.0443*	(0.0236)	-0.0218	(0.0322)	0.0662*	(0.0358)
Trust	0.0219	(0.0372)	0.00224	(0.0519)	-0.0241	(0.0554)
SafeChoices	0.00188	(0.0108)	-0.00565	(0.0133)	0.00377	(0.0144)
Ideology	0.000413	(0.00863)	-0.00391	(0.0124)	0.00350	(0.0125)
Income	0.175**	(0.0681)	-0.0163	(0.0896)	-0.158	(0.101)
Observations	2548		2548		2548	
Russia						
	Maximal cheating		Partial cheating		Honest	
RET rank	0.215***	(0.0748)	-0.118	(0.0799)	-0.0964	(0.0622)
RET deviation	0.000698	(0.00366)	0.00718*	(0.00384)	-0.00788***	(0.00297)
Male	0.0163	(0.0451)	-0.121**	(0.0475)	0.105***	(0.0335)
Age	-0.0199	(0.0129)	0.0184*	(0.0107)	0.00149	(0.00478)
Period	0.0189***	(0.00288)	-0.0225***	(0.00295)	0.00362*	(0.00205)
DG=0	0.316***	(0.0985)	-0.370***	(0.0741)	0.0541	(0.0723)
DG above 0	-0.000187	(0.000181)	-0.00000927	(0.000160)	0.000196*	(0.000103)
Shock	0.00408	(0.0751)	-0.0408	(0.0640)	0.0368	(0.0627)
Shock, yes	-0.0120	(0.0464)	0.0289	(0.0420)	-0.0169	(0.0336)
Status	-0.00144	(0.0889)	-0.0385	(0.0942)	0.0399	(0.0671)
Status, 200 ECU	0.000697	(0.103)	-0.0141	(0.116)	0.0134	(0.0837)
Non-fixed	0.0181	(0.0649)	-0.107*	(0.0634)	0.0885	(0.0539)
Norms	-0.0407*	(0.0211)	0.0349	(0.0213)	0.00577	(0.0127)
Trust	0.0449	(0.0473)	-0.0817*	(0.0483)	0.0367	(0.0343)
SafeChoices	-0.00474	(0.0120)	0.00701	(0.0119)	-0.00227	(0.00867)
Ideology	0.0192*	(0.0108)	-0.00521	(0.0108)	-0.0140	(0.00926)
Income	0.0758	(0.102)	0.0172	(0.105)	-0.0930	(0.0680)
Observations	2560		2560		2560	
UK						
	Maximal cheating		Partial cheating		Honest	
RET rank	0.312***	(0.0602)	-0.0116	(0.0526)	-0.300***	(0.0603)
RET deviation	-0.000626	(0.00247)	0.00211	(0.00284)	-0.00148	(0.00218)
Male	0.0825**	(0.0361)	-0.124***	(0.0310)	0.0414	(0.0316)
Age	-0.00716***	(0.00258)	0.00575***	(0.00219)	0.00141	(0.00221)
Period	0.0221***	(0.00243)	-0.0121***	(0.00233)	-0.00999***	(0.00185)
DG=0	0.311***	(0.0605)	-0.209***	(0.0407)	-0.102**	(0.0466)
DG above 0	-0.000175	(0.000123)	-0.000126	(0.000107)	0.000300***	(0.000104)
Deadweight loss	-0.109	(0.0766)	0.00137	(0.0660)	0.108*	(0.0650)
Redistribution	0.0669	(0.0592)	-0.0176	(0.0476)	-0.0493	(0.0463)
Shock	0.0747	(0.0741)	-0.0458	(0.0665)	-0.0289	(0.0584)
Shock, yes	-0.0700*	(0.0422)	0.105*	(0.0539)	-0.0346	(0.0340)
Status	0.106	(0.0731)	0.0175	(0.0712)	-0.123**	(0.0526)
Status, 200 ECU	-0.169	(0.107)	-0.102	(0.0652)	0.271**	(0.136)
Non-fixed	-0.0551	(0.0536)	0.0737	(0.0510)	-0.0187	(0.0416)
Norms	-0.0174	(0.0198)	-0.0187	(0.0172)	0.0361*	(0.0188)
Trust	-0.0497	(0.0353)	0.0632**	(0.0304)	-0.0134	(0.0308)
SafeChoices	0.00890	(0.0105)	0.00188	(0.00851)	-0.0108	(0.00868)
Ideology	-0.0105	(0.00783)	0.0157**	(0.00654)	-0.00519	(0.00657)
Income	0.0564	(0.0583)	-0.0333	(0.0508)	-0.0231	(0.0484)
Observations	3850		3850		3850	

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. 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. Deduction controls not shown.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C5: Average marginal effects for subject choice, periods 1-10, more controls

Questions	
Avoid paying a fee on public transport	0.328
Cheating on taxes if you have a chance	0.371
Driving faster then the speed limit	0.225
Keeping money you found on the street	0.266
Lying in your own interests	0.313
Not reporting accidental damage you have done to a parked car	0.331
Throwing away litter in a public place	0.297
Driving under the influence of alcohol	0.304
Making up a job application	0.331
Buying something you know is stolen	0.373

"Please consider the following and indicate if you think they are justified or not. [$\cdots$] Never/Rarely/Sometimes/Always justified." The index was calculated as the normalized first principle component (explaining 28% of variation).

Table C6: Components of the social norms index.

	Periods 1-10		Periods 2-10		Period 1		Periods 1-10		Periods 1-10, FE	
RET rank	0.0176	(0.136)	-0.000701	(0.0459)	0.00259	(0.165)	-0.00725	(0.159)		
RET deviation	0.0132**	(0.00637)	0.00920	(0.00675)	-0.0565*	(0.0326)	0.0129*	(0.00741)	0.0137**	(0.00651)
Male	0.112*	(0.0615)	0.0345	(0.0229)	-0.0235	(0.0785)	0.116	(0.0699)		
Age	0.00204	(0.00549)	0.00180	(0.00209)	-0.00766	(0.00596)	0.0101*	(0.00595)		
Period	-0.00311	(0.00394)	0.000421	(0.00240)			-0.00360	(0.00488)	-0.00359	(0.00412)
DG=0	-0.00608	(0.105)	0.0130	(0.0403)	-0.205	(0.194)				
DG above 0	0.000268	(0.000228)	0.0000500	(0.0000774)	0.000446	(0.000329)				
Deduction 20%	-0.0173	(0.0706)	0.00274	(0.0250)	-0.0912	(0.102)	0.0220	(0.0849)		
Deduction 30%	0.0680	(0.0747)	0.00844	(0.0288)	0.186*	(0.104)	0.147	(0.0888)		
Shock	0.172*	(0.0932)	0.0500	(0.0437)	0.153	(0.0964)	0.0698	(0.0994)		
Shock, yes	-0.0118	(0.0603)	-0.0456	(0.0357)	0.0435	(0.147)	0.00754	(0.0599)	0.0121	(0.0416)
Status	0.0263	(0.118)	0.0123	(0.0414)	-0.214	(0.131)	-0.0510	(0.127)		
Status, 200 ECU	0.137	(0.123)	0.0362	(0.0427)	0.417***	(0.152)	0.168	(0.132)		
Non-fixed	0.139	(0.0952)	0.0296	(0.0358)	0.0813	(0.106)	0.163	(0.125)		
L.Declared 0%			-0.404***	(0.0877)						
L.Declared 1-99%			-0.443***	(0.0533)						
L.Partial cheat			0.768***	(0.0441)						
L.Declared by others			0.00000815	(0.00000789)			0.0000108	(0.0000141)		
Norms							0.00638	(0.0424)		
Trust							-0.0161	(0.0642)		
SafeChoices							-0.0276	(0.0190)		
Ideology							0.00751	(0.0122)		
Income							-0.398***	(0.140)		
Constant	0.0821	(0.210)	0.400***	(0.0853)	0.343	(0.240)	0.406*	(0.208)	0.409***	(0.0225)
Observations	718		659		59		597		718	
R^2	0.089		0.598		0.265		0.176		0.698	

OLS regressions for consistent partial cheaters. Standard errors are clustered by subject. Consistent partial cheaters. Dependent variable is the fraction of income declared in a given round, excluding 0% and 100% declarations. t-values in parenthesis. 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.

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

Table C7: The magnitude of limited cheating, Chile

	Periods 1-10		Periods 2-10		Period 1		Periods 1-10		Periods 1-10, FE	
RET rank	0.207^{**}	(0.0896)	0.0482^{*}	(0.0278)	0.241^{**}	(0.118)	0.187^{**}	(0.0898)		
RET deviation	0.00179	(0.00382)	-0.000478	(0.00404)	0.00423	(0.0171)	0.00199	(0.00381)	0.00222	(0.00389)
Male	0.0133	(0.0507)	-0.00399	(0.0147)	0.0261	(0.0668)	0.00311	(0.0456)		
Age	0.00205	(0.00395)	0.000874	(0.00103)	-0.00626	(0.00796)	0.00691^{*}	(0.00414)		
Period	-0.0233^{***}	(0.00302)	0.00114	(0.00192)			-0.0238^{***}	(0.00319)	-0.0226^{***}	(0.00317)
DG=0	-0.0620	(0.0812)	-0.0132	(0.0238)	-0.0583	(0.132)				
DG above 0	0.000235	(0.000147)	0.0000594	(0.0000520)	0.000224	(0.000193)				
Deduction 20%	0.00202	(0.0530)	-0.0101	(0.0160)	0.0391	(0.0631)	0.0160	(0.0508)		
Deduction 30%	-0.0670	(0.0646)	-0.0196	(0.0198)	-0.0348	(0.0918)	-0.0597	(0.0604)		
Shock	-0.0982^{*}	(0.0557)	-0.0247	(0.0200)	-0.0790	(0.0948)	-0.104^{**}	(0.0502)		
Shock, yes	0.0112	(0.0434)	-0.0157	(0.0300)	0.194	(0.125)	-0.0104	(0.0459)	0.0147	(0.0235)
Status	-0.0448	(0.0593)	-0.0246	(0.0168)	-0.0392	(0.0963)	-0.0723	(0.0595)		
Status, 200 ECU	0.00608	(0.0852)	0.00967	(0.0203)	0.0487	(0.149)	0.0193	(0.0946)		
Non-fixed	0.00157	(0.0835)	-0.0205	(0.0241)	0.0581	(0.105)	-0.00861	(0.0780)		
L.Declared 0%			-0.311^{***}	(0.0885)						
L.Declared 1-99%			-0.413^{***}	(0.0751)						
L.Partial cheat			0.779^{***}	(0.0396)						
L.Declared by others			0.0000123^{**}	(0.00000545)			0.00000328	(0.0000119)		
Norms							0.0231	(0.0249)		
Trust							-0.0478	(0.0530)		
SafeChoices							0.00226	(0.0122)		
Ideology							-0.0316^{***}	(0.0110)		
Income							0.191	(0.132)		
Constant	0.296^{***}	(0.113)	0.404^{***}	(0.0868)	0.426^{**}	(0.183)	0.348^{**}	(0.149)	0.154^{***}	(0.0174)
Observations	1012		912		100		1012		1012	
R^2	0.141		0.644		0.110		0.178		0.743	

OLS regressions for consistent partial cheaters. Standard errors are clustered by subject. Consistent partial cheaters. Dependent variable is the fraction of income declared in a given round, excluding 0% and 100% declarations. t-values in parenthesis. 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.

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

Table C8: The magnitude of limited cheating, Russia

	Periods 1-10		Periods 2-10		Period 1		Periods 1-10		Periods 1-10, FE	
RET rank	0.0118	(0.124)	0.0164	(0.0275)	0.0385	(0.194)	-0.156	(0.120)		
RET deviation	-0.00425	(0.00523)	0.00152	(0.00594)	-0.0381	(0.0347)	-0.00309	(0.00519)	-0.00430	(0.00520)
Male	-0.0165	(0.0707)	-0.00442	(0.0147)	0.0170	(0.116)	-0.0990	(0.121)		
Age	0.00154	(0.00415)	0.000890	(0.000985)	-0.000703	(0.00725)	-0.000840	(0.00404)		
Period	-0.0157***	(0.00323)	0.00250	(0.00159)			-0.0153***	(0.00378)	-0.0169***	(0.00317)
DG=0	0.0303	(0.111)	0.00923	(0.0233)	-0.135	(0.150)				
DG above 0	0.000481*	(0.000250)	0.000107*	(0.0000613)	0.000366	(0.000326)				
Deduction 20%	0.0535	(0.0768)	-0.00433	(0.0188)	0.0862	(0.116)	-0.0909	(0.0795)		
Deduction 30%	0.0871	(0.105)	-0.000167	(0.0248)	0.0776	(0.138)	0.0942	(0.124)		
Deduction 40%	0.202*	(0.108)	-0.00144	(0.0311)	0.497***	(0.135)	0.137	(0.222)		
Deduction 50%	-0.307***	(0.104)	-0.0742***	(0.0274)	-0.0565	(0.206)	-0.358**	(0.140)		
Deadweight loss	-0.0983	(0.133)	-0.0240	(0.0305)	0.0445	(0.219)	-0.238	(0.190)		
Redistribution	-0.130	(0.108)	-0.00523	(0.0249)	-0.214	(0.142)	-0.0368	(0.139)		
Shock	-0.200**	(0.0904)	-0.0207	(0.0196)	-0.0768	(0.152)	-0.365**	(0.144)		
Shock, yes	-0.0442**	(0.0220)	-0.0117	(0.0158)	-0.113	(0.129)	-0.0527	(0.0381)	-0.0268	(0.0188)
Status	-0.0969	(0.149)	-0.00206	(0.0293)	-0.0628	(0.259)	-0.236*	(0.121)		
Status, 200 ECU	-0.0369	(0.138)	-0.0286	(0.0368)	0.0177	(0.268)	0.107	(0.148)		
Non-fixed	-0.0452	(0.106)	-0.0155	(0.0242)	0.0348	(0.144)	-0.269**	(0.119)		
L.Declared 0%			-0.569***	(0.0765)						
L.Declared 1-99%			-0.656***	(0.0578)						
L.Partial cheat			0.803***	(0.0416)						
L.Declared by others			0.00000591	(0.00000582)			0.00000587	(0.0000150)		
Norms							-0.00471	(0.0380)		
Trust							-0.0811	(0.111)		
SafeChoices							0.0195	(0.0177)		
Ideology							-0.0689***	(0.0241)		
Income							0.00441	(0.150)		
Constant	0.224	(0.152)	0.624***	(0.0645)	0.232	(0.230)	0.932***	(0.239)	0.396***	(0.0174)
Observations	661		602		59		463		661	
R^2	0.192		0.729		0.326		0.295		0.792	

OLS regressions for consistent partial cheaters. Standard errors are clustered by subject. Consistent partial cheaters. Dependent variable is the fraction of income declared in a given round, excluding 0% and 100% declarations. t-values in parenthesis. 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.

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

Table C9: The magnitude of limited cheating, the U.K.

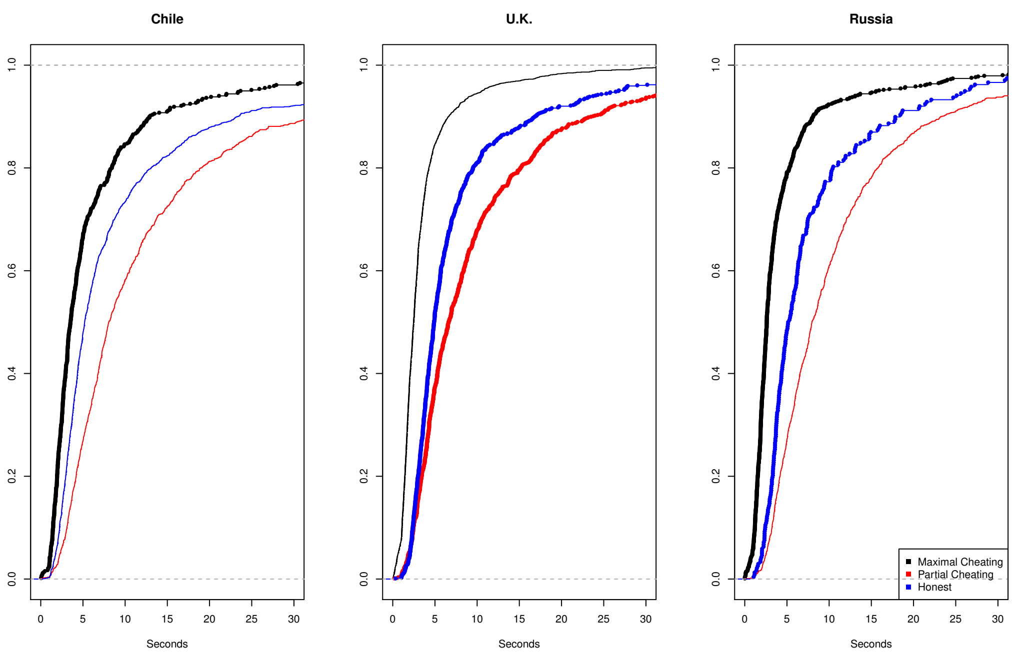

Figure C3: Distribution of reaction time by country. Figures present the cumulative distributions functions of TR for different decisions

		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	0.013636	0.029870	0.034416	0.042208	0.045455	0.061688	0.070779	0.070779	0.074675	0.076623
Chile	High	0.006494	0.023377	0.024026	0.025325	0.025974	0.033117	0.033766	0.034416	0.037013	0.038312
	p	0.069348	0.313751	0.108061	0.012285	0.004657	0.000242	0.000005	0.000007	0.000006	0.000006
	Low	0.014844	0.063281	0.078906	0.082812	0.084375	0.115625	0.120313	0.121875	0.123438	0.126562
Russia	High	0.005469	0.027344	0.031250	0.032031	0.032031	0.049219	0.049219	0.049219	0.049219	0.049219
	p	0.028163	0.000015	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Low	0.008268	0.037008	0.050394	0.056693	0.058268	0.070472	0.071260	0.071654	0.072441	0.073622
UK	High	0.009449	0.029134	0.036614	0.040157	0.042520	0.045669	0.046063	0.046063	0.046457	0.046457
	p	0.764972	0.135809	0.019173	0.007255	0.012237	0.000190	0.000161	0.000129	0.000109	0.000056

Table C10: Near-maximal cheating depending on performance (p-values for two-sided Fisher's exact test). 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 Fisher's exact test comparing these two frequencies.

		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	0.010256	0.030128	0.032692	0.039103	0.042308	0.058974	0.067308	0.067308	0.069872	0.070513
Chile	Male	0.009868	0.023026	0.025658	0.028289	0.028947	0.035526	0.036842	0.037500	0.041447	0.044079
	p	1.000000	0.262871	0.284682	0.110243	0.051868	0.002229	0.000179	0.000259	0.000700	0.001885
	Female	0.013821	0.061789	0.079675	0.083740	0.083740	0.113008	0.113008	0.114634	0.116260	0.117886
Russia	Male	0.006767	0.030075	0.032331	0.033083	0.034586	0.054135	0.058647	0.058647	0.058647	0.060150
	p	0.079462	0.000127	0.000000	0.000000	0.000000	0.000000	0.000001	0.000000	0.000000	0.000000
	Female	0.009465	0.038683	0.053909	0.062963	0.064198	0.076543	0.076955	0.076955	0.077778	0.078189
UK	Male	0.008302	0.027925	0.033962	0.035094	0.037736	0.041132	0.041887	0.042264	0.042642	0.043396
	p	0.764755	0.033986	0.000555	0.000004	0.000021	0.000000	0.000000	0.000000	0.000000	0.000000

Table C11: Near-maximal cheating depending on gender (p-values for two-sided Fisher's exact test). 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 Fisher's exact test comparing these two frequencies.

		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	0.010544	0.027211	0.029932	0.034694	0.036735	0.048980	0.054082	0.054422	0.057823	0.059524
Chile	DG=0	0.000000	0.014286	0.014286	0.014286	0.014286	0.014286	0.014286	0.014286	0.014286	0.014286
	p	0.399202	0.586206	0.437506	0.330682	0.238977	0.064292	0.032065	0.032060	0.022563	0.023279
	DG>0	0.013333	0.053333	0.065641	0.068205	0.068718	0.098462	0.101538	0.102564	0.103590	0.105641
Russia	DG=0	0.000000	0.019672	0.021311	0.022951	0.024590	0.031148	0.031148	0.031148	0.031148	0.031148
	p	0.001678	0.000212	0.000009	0.000009	0.000016	0.000000	0.000000	0.000000	0.000000	0.000000
	DG>0	0.010315	0.041547	0.055874	0.062751	0.065616	0.076218	0.077077	0.077364	0.078223	0.079083
UK	DG=0	0.005660	0.014465	0.016352	0.016981	0.016981	0.018239	0.018239	0.018239	0.018239	0.018239
	p	0.108379	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Table C12: Near-maximal cheating depending on DG donation (p-values for two-sided Fisher's exact test). 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 Fisher's exact test comparing these two frequencies.