

# Aspirational Rules\*

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## Abstract

An agent promises to do his duty in exchange for a fixed wage. The content of his duty is subsequently defined by a set of rules that specify the extent to which a multidimensional task needs to be performed. The agent then chooses his effort level on each dimension. His choice on each dimension affects the welfare of others. There is no third party enforcement of the agent's promise. In an experimental study, we find that requiring extreme as opposed to reasonable effort on one dimension not only reduces mean effort provision on that dimension, but may also have a negative spillover effect on rule compliance on other dimensions. This cautions against the setting of aspirational rules.

*Keywords:* aspirational rules, overpromising, legal design.

*JEL-Classification:* C90, D02, K23, K33, K37.

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# 1 Introduction

Employees promise to perform what is required of them. Their actions affect the stakeholders of the companies they work for. Civil servants, judges, ministers, and presidents take solemn oaths of office to faithfully execute the laws of their country. What they do affects public welfare. In many of these cases, third party enforcement of rules is not available. This is true for a country that has agreed to an international treaty but does not want to abide by its commitment. It is equally true for a president who is bound by the constitution but may choose to ignore the pronouncement of the constitutional court. And it is even true for employees, civil servants, and judges who can get away with breaking the law because of institutional protections or because their actions are not verifiable in court. In these settings, should rules be aspirational or realistic?

This is of interest to managers setting goals for their workers, to government agencies issuing regulation, to legislatures passing laws or ratifying international treaties, to supreme courts issuing rulings, or to the framers of a constitution. Setting aspirational goals could be inspiring for agents and make them work harder. On the other hand, being confronted with overly ambitious requirements might be discouraging. Similarly, if aspirational goals are part of a bundle of goals they could motivate agents to work harder on other tasks (positive spillovers), have negative effects on other tasks (negative spillovers), or have no impact on other tasks at all. We find that aspirational goals not only depress mean effort on the dimension on which the aspirational goal was set, but that it may also have negative spillover effects on other dimensions.

We conducted an online experiment asking participants to perform three tasks, and varying the level of performance they were requested to promise in one of the tasks. The tasks presented to participants included two real effort tasks and one no-effort task. The first real effort task asked participants to count how often the digit “1” occurred in a table with 200 digits between 1 and 9. The second real effort task asked participants to transcribe words from the Ancient Greek alphabet to the Latin alphabet, using a transcription table.

The third task consisted of a dictator game where participants were awarded 100 coins and had to decide how many coins to give to another participant.

We run three treatments. The baseline condition—“No Promise”—did not prescribe any targeted quantity, but simply asked participants if they want to participate and perform the tasks. In the “Aspirational Promise” condition, participants promised to perform tasks to the extent they would be required to, and were subsequently asked to count 50 tables, transcribe 20 words, and transfer between 60–80 coins.<sup>1</sup> In the “Realistic Promise” condition, participants could make the same promise and were subsequently asked to count 15 tables, transcribe 20 words, and transfer between 60–80 coins. Under each of the three conditions, participants’ payoff remained identical and included only a flat fee of \$3, regardless of performance levels. To remove any concern that participants might be trading-off performance levels across the different tasks, participants were informed that the proceeds from their performance will be paid to three different third parties—a charity, and two other players with whom they were randomly matched.

The basic results from our experiment indicate that setting the aspirational goal for the tables task, not only depressed mean effort on the tables task, but also had a negative spillover effect on performance in the words task. The results demonstrate how setting an aspirational goal can backfire in two separate ways: First, the aspirational goal led to decreased, rather than increased, performance of the relevant task. In addition, the aspirational goal created a spillover effect—decreasing performance in the other real-effort task, despite the fact that a completely realistic goal was set for that task. We conclude, that contrary to common wisdom, setting an aspirational goal might move us further from, not closer to, reaching that goal, and in the process it might also move us further from reaching other independent goals.

Our paper proceeds as follows: Section 2 presents our experimental design. Our results are presented in Section 3. Section 4 discusses results and explores policy implications.

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<sup>1</sup>In different runs of the experiment we tested different thresholds for the coins tasks—60, 70, and 80 coins. In each run, the same amount of coins was requested in both the realistic promise and the aspirational promise treatments. Results for all three tasks were similar regardless of the amount of coins promised, and we therefore present them together.

## 2 Design and Procedure

Participant were given an opportunity to perform three tasks. The first task—the tables task—consisted of counting how often the digit “1” occurred in a table containing 200 digits ranging from 1 to 9. Given that the task did not require any special skills, we assume that performance was a function only of effort (see Abeler et al, 2011). After scanning the table and counting the occurrences of the specified digit, participants entered the count into a dialog box on the screen. An answer was considered correct if it fell within a range of  $\pm 2$  of the true value. For example, if the correct number of 1s was 42 while the participant counted 40, the result was treated as correct. If participants gave an answer outside of this tolerated margin, they could retry counting the table as often as they wished but had to wait 15 seconds after each failed trial before they could make a new input.<sup>2</sup> Participants were required to enter some input at least every 90 seconds; failure to do so terminated the experiment. After each completed screen (whether successfully or unsuccessfully), participants were asked whether they wanted to continue to the next screen. If they decided to go on, a new table was displayed; if subjects chose to stop the task, they were directed to the next task.

The second task—the words task—consisted of transcribing words from the Ancient Greek alphabet to the Latin alphabet. Participants were presented with a transcription table displaying all the letters in the Ancient Greek alphabet and their equivalents in the Latin alphabet, and we assume here as well that performance was a function only of effort. On each screen one word was presented, and participants entered the transcription of the full word into a dialog box on the screen. An answer was considered correct only if the entire word was accurate. If participants gave a wrong answer, they could retry transcribing the word as often as they wished. After each completed screen (whether successfully or unsuccessfully), participants were asked whether they wanted to continue to the next screen. If they decided to go on, a new word was displayed; if subjects chose to stop the task, they

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<sup>2</sup>We introduced this waiting time after each failed trial in order to dissuade participants from guessing repeatedly without counting any digits. Counting one table takes between 45 seconds and 1 minute, so a wait time of 15 seconds seems sufficient to achieve this goal.

were directed to the next task.

The third task—the Coins task—was a dictator game. Participants were given 100 extra coins in addition to their pay and were asked to decide how many of the coins to transfer to another player.

As previously described, we implemented two treatments that varied the requested quantity to be performed in the tables task (the “aspirational goal” and the “realistic goal” conditions), and one baseline condition (the “no goal” condition) that did not express any target quantity. In both goals treatments, only the performance goal for the tables task is manipulated—15 tables in the realistic goal condition, and 50 tables in the aspirational goal condition. Performance goals for the other two tasks—20 words and between 60-80 coins—remain constant under both conditions. That enables us to test both for the direct effect of setting an aspirational goal on the performance in the tables task, and for the spillover effect of setting an aspirational goal in the tables task on performance in the words and coins tasks.

The payment scheme was set to ensure that participants have no direct monetary motivation to perform the tasks. Rather participants received a flat fee for participating in the experiment and beneficiaries for all three tasks were different third parties: a charity in the tables task, and two other participants with whom they are randomly matched in the words and coins tasks. By using different recipients for each task, we overcome the concern that participants might be trading-off performance across the tasks targeting some overall pay to transfer. Rather, all participants were informed in advance that they were already matched with the recipients, and that the recipient for each task is different.

Both active players and recipients were given an opportunity to practice all three task before the experiment began. But they were informed in advance of their roles, and of the fact that only players will actually perform the tasks. After practicing the tasks, players were asked to decide whether they want to participate in the experiment (in the no goal condition) or to make a promise to fulfill the set goal (in the goal conditions). Participants who chose to make a promise were then randomized between the realistic and aspirational

goal conditions.

All participants were also informed about the overall payment scheme for everyone. All participants (both active players and recipients) received 50 cents for reading the instructions and practicing one example of each task, and an additional 50 cents for completing an exit questionnaire. Players were paid an additional \$2 if they chose to promise to fulfil the goal (or to participate, in the no goal condition). To create a sense of higher stakes, we used “coins” for the payment transferred to recipients by the players, with each coin worth 1 cent. Participants were told in advance that for every table the players count ten coins will be donated to the Save the Children Foundation; for every word they transliterate ten coins will be given to one recipient with whom they were already randomly matched, and that the coins they choose to transfer will be paid to a second random recipient. Players and recipients were also asked about their first and second order beliefs regarding the players’ performance in the exit questionnaire, and could gain additional bonuses if their estimates were accurate.

We evaluated the effort that participants exerted under the different treatments along three dimensions: quantity, quality, and time spent. Quantity is measured by the number of completed tables, and the percentage of players who kept their promise to count at least 20 words or transfer at least 60-80 cents. Quality of performance is determined by the accuracy with which participants completed the task. We recorded each entry by participants in each task, and calculated the ratio between unsuccessful and successful entries in the tables and the words tasks. Time spent is the overall time participants invested in the experiment.

The experiment was conducted online using the Amazon Mechanical Turk platform. We decided to conduct the experiment online because we wanted participants to have real opportunity costs when deciding whether to continue with the task. We measured effort by eliciting the point at which participants prefer some other activity over continuing with the experiment. In a laboratory setting, participants have low opportunity costs because they cannot leave until the session is over. By contrast, at home, participants can easily stop and switch to a preferred activity.

Overall 369 participants were recruited: 48 in the no goal condition, 164 in the realistic goal condition, and 157 in the aspirational goal condition. Participants had to complete the stages of the experiment within strict time limits and were kept informed of this fact with recurring screen messages. If participants logged out or did not finish stages within these time limits, the experiment was automatically aborted, and participants were notified that they were excluded from the experiment. We set those time limits to force participants to focus on the task and block Internet distractions that can easily distort the results of online studies. Participants were informed up front about the amount of time they would need to complete the whole study, which thereby reduced the likelihood that they would have to break off the experiment because they ran out of time. The online instructions given to participants and screenshots of the experiment are presented in the appendix.

## 3 Results

### 3.1 Treatment Effect on Quantity and Promise Keeping

We first present how participants' mean performance differed across treatments (Figure 1). For the manipulated task (the tables task), the realistic goal leads to a mean effort of 8.5 screens (Median = 6), while the aspirational goal leads to a mean effort of only 5.3 screens (Median = 2). The treatment effect is statistically significant at the 1% level (Student's t-test  $p < .001$ , Wilcoxon rank sum  $p < .001$ ; Table A1 reports all p-values).<sup>3</sup>

Compared with the no goal condition, where the mean effort was 2.8 screens (Median = 2), while setting a realistic goal significantly improved performance in the tables task (Student's t-test  $p < .001$ , Wilcoxon rank sum  $p < .001$ ), setting an aspirational goal had a much more modest effect, driven mostly by performance of players in the top quartile (Student's t-test  $p = .04$ , Wilcoxon rank sum  $p = .98$ ).

In addition, the goal set for the tables task has also affected the likelihood that participants reach the goal (held constant) in the words task. Despite the fact that under

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<sup>3</sup>Note that Student's t-test is not appropriate for evaluating the significance of the differences in means involving the realistic goal condition, because, as can be seen from Figure 2, that distribution is bimodal. Wilcoxon rank sum test indicates that the difference between the two distributions is significant.

both conditions participants were requested to transcribe the same number of words, the frequency of fulfilling the goal was 48% under the realistic condition, but only 33% under the aspirational condition. This difference is statistically significant at the 1% level (Fisher’s exact test  $p < .001$ ).

Importantly, this spillover effect of the treatment is evident both for the likelihood of reaching the goal and for the mean quantity. It is not only that more people keep their promise and transcribe the requested number of words under the realistic condition. There was also a difference in mean performance levels: the realistic goal condition leads to a mean effort of 11.5 words (Median = 10.5), while the aspirational condition leads to a mean effort of 9.4 words (Median = 5). To evaluate the statistical significance of the difference, Student’s t-test is significant ( $p = .03$ ), but is again inappropriate because of the bimodal shape of the distributions. The results of Wilcoxon rank sum test are not statistically significant ( $p = .41$ ), but this is likely because the shape of the distributions remain similar under the two conditions (see Figure 2). However, there are substantial differences in the likelihood of keeping the promise, which is what our above analysis using the Fisher’s exact test enables to capture.

The spillover effect of setting an aspirational goal in the tables task for performance in the words task is evident not only when looking at performance on the aggregate, but also when comparing performance on the individual level. To test for consistency of individual performance we ranked all participants by their relative performance within each of the three experimental conditions. Participants’ relative output across tasks is highly and positively correlated ( $r = 0.74$ ) indicating that participants who perform less on the tables task also perform less on the words task, and vice versa.<sup>4</sup>

In both the realistic and the aspirational goals performance exceeded that of the no goal condition, where participants only transcribed 5.1 words on average (median = 2.5), which is expected given that the realistic goal for the words task itself set a benchmark for

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<sup>4</sup>The correlation in output across tasks is similar when looking at each condition separately:  $r = 0.8$  in the no goal condition,  $r = 0.73$  in the realistic goal condition, and  $r = 0.63$  in the aspirational goal condition.



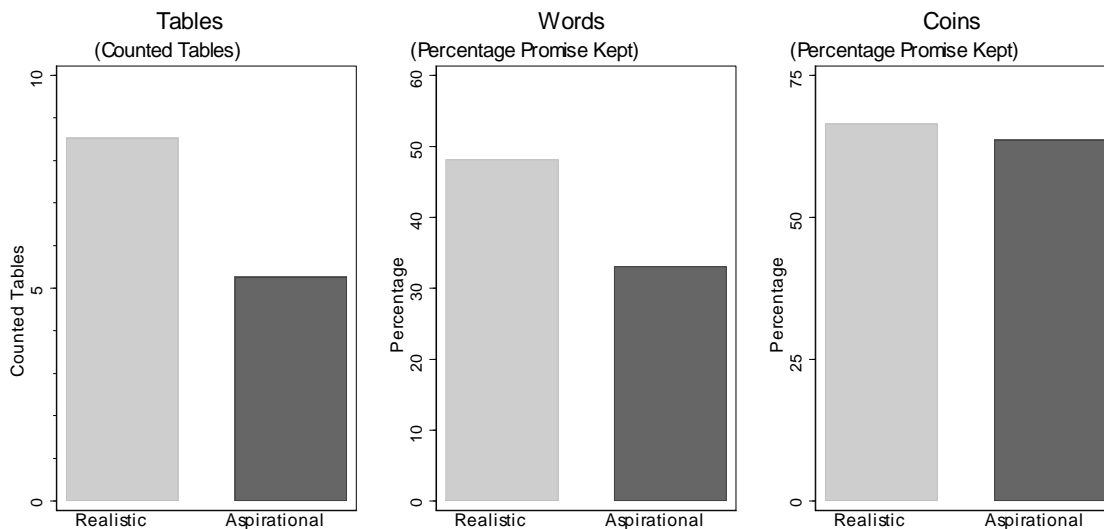


Figure 1: Mean Effort and Promises Kept Across Treatments

performance in this task.

We did not find a similarly significant difference for the coins task. 66% of participants kept their promise under the realistic condition, in comparison to 64% of participants under the aspirational condition (Fisher’s exact test  $p = .34$ ). They transferred 49.5 coins on average (Median = 60) under the realistic condition, in comparison to 48.4 coins (Median = 60) under the aspirational condition (Student’s  $t$ -test  $p = .74$ , Wilcoxon rank sum  $p = .64$ ). We cannot tell at this point whether these results are driven by a difference between tasks requiring real effort or payment, or whether the number of dimensions involved in the promise matters (for example, participants may wish to keep the promise in at least one task, and the coins task may be the easiest one to keep).

Again, in both the realistic and the aspirational conditions performance exceeded that of the no goal condition, where participants only transferred 23.3 coins on average (Median = 10), which is expected given that the realistic goal for the coins task itself set a benchmark for performance in this task.

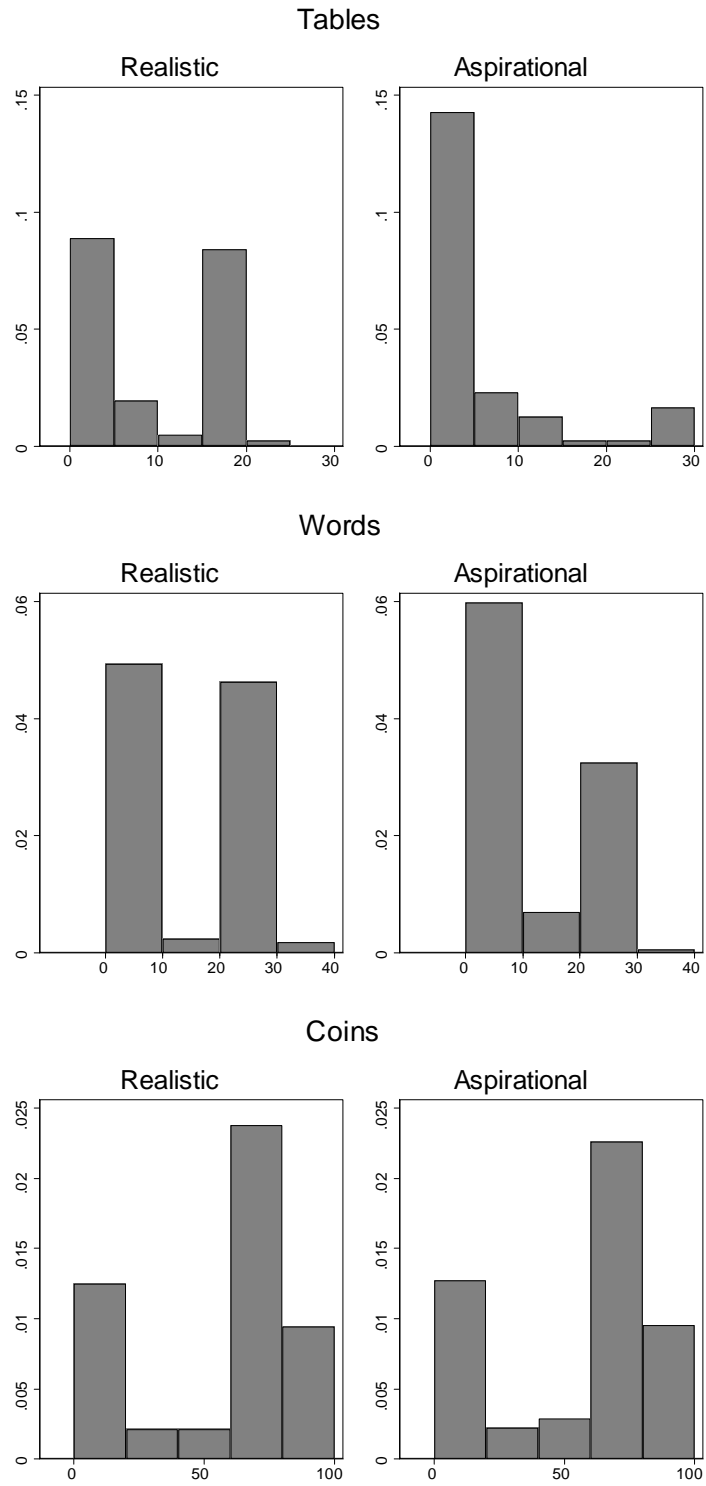


Figure 2: Distribution of Effort Levels Across Treatments

## 3.2 Treatment Effect on Quality

In addition to effort measured in terms of quantity, we also explore the quality of effort exerted, measured by the accuracy with which participants perform the tasks. One concern could be that quantity and quality may be in conflict. In other words, the aspirational goal may lead to lower quantity but higher quality (higher accuracy of performance). To test for accuracy of performance we form an inaccuracy score for each participant measuring the ratio between failed attempts and correct answers in each task. Figure 3 shows how the mean inaccuracy score differs across treatments.

For the tables task, we find that participants are significantly more accurate in the realistic goal condition than in the aspirational goal condition, with mean inaccuracy scores of 0.14 and 0.23 respectively (Student’s t-test  $p = .09$ ). For the words task, we find that participants exerted similar accuracy in both treatments, with a mean inaccuracy score of 0.129 in the realistic condition and of 0.131 in the aspirational condition.

The positive relationship between quality and quantity is in line with the findings of Brooks, Stremitzer, and Tontrup (2017), showing that contract frames that motivate participants make them exert more effort on both the quality and the quantity dimensions of effort. The relationship between quality and quantity also strengthen our results on the quantity dimension. For the manipulated task, setting an aspirational goal leads participants to perform less both in quality and in quantity, in comparison to when a realistic goal is set.

## 3.3 Treatment Effect on Time Investment

Another measure of agents’ devotion to the task is how much time they invest in it. Agents might slack through how diligently they work in a given amount of time, or in how much of their time they devote to fulfilling the set goals. Testing for the duration of time that participants spent on the experiment we find participants spent 24.1 minutes on average (Median = 23.6) in the realistic condition, in comparison to 20.6 minutes on average (Median = 18.8) in the aspirational condition. This difference is statistically significant at the 1%

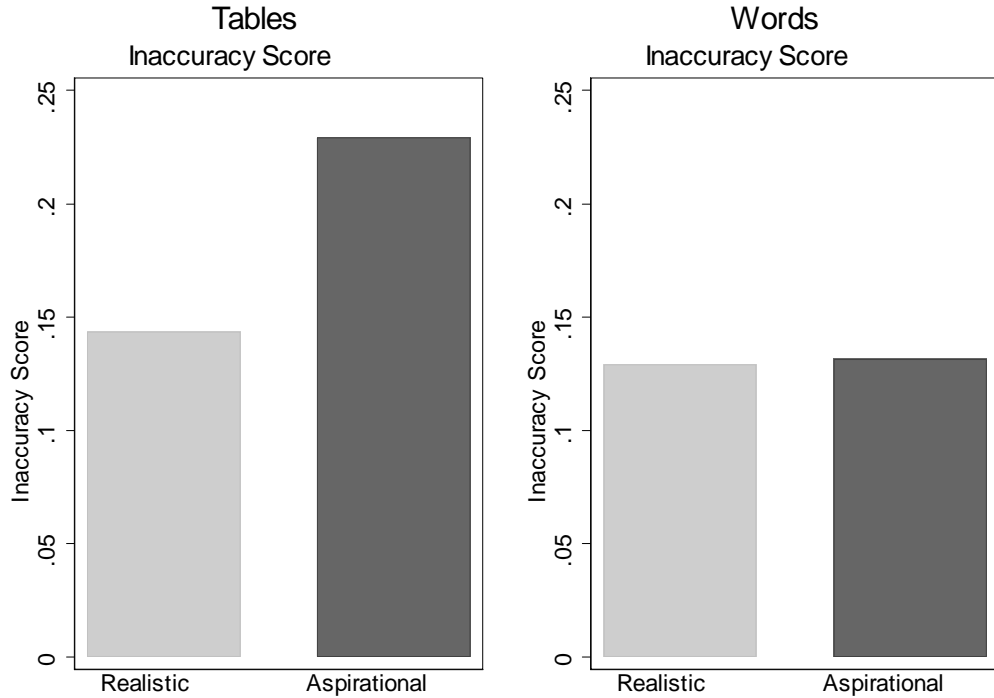


Figure 3: Inaccuracy Level Across Treatments

level (Student’s t-test  $p < 0.01$ ; Wilcoxon rank sum  $p < 0.01$ ).

We only have a measure for the duration of time spent on the overall experiment, not on each of the tasks. Because outside the tables and the words tasks the remainder of the experiment required a relatively constant time investment (in reading the instructions, transferring coins in the dictator game, answering the exit questionnaire etc.) it is likely that our estimates here understate the difference in time investment in the tasks directly. Our results indicate that setting the aspirational goal did not motivate participants to invest more time in performing the tasks, but rather less, in addition to the decreased quantity and quality of performance we observe above.

### 3.4 Believes and Expectations

In addition to testing players’ performance in the experiment, we also asked the recipients of the proceeds from the players’ performance in the tasks to predict how they think players

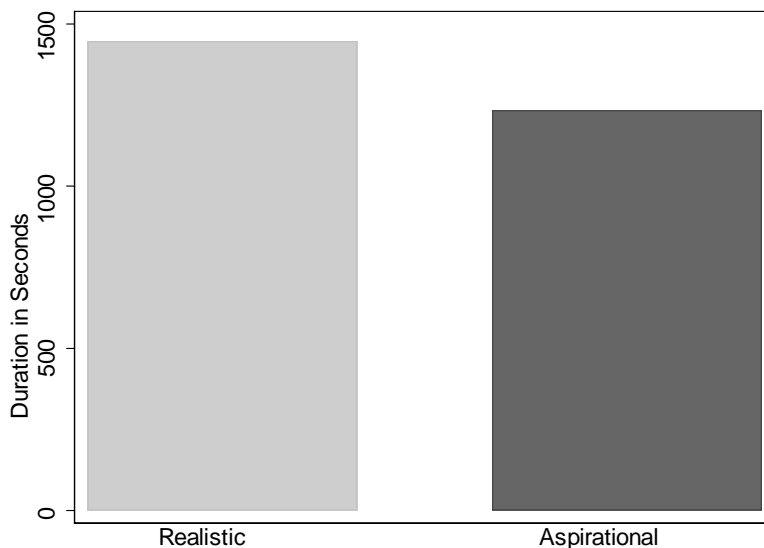


Figure 4: Mean Duration Across Treatments

behave. The recipients were notified of the goals set for players, and then asked to predict the players’ performance on each of the three tasks.

For the manipulated task (the tables task), recipients expected players to perform better the more ambitious the goal was. Recipients predicted that players will count 27.2 tables on average (Median = 25) under the aspirational goal, in comparison to 12.1 tables on average (Median = 13) under the realistic goal (Student’s t-test  $p < .001$ , Wilcoxon rank sum  $p < .001$ ; Table A2 reports all p-values), and 10.1 screens on average in the no goal condition (Median = 5). These prediction were overly optimistic on all realms, and extremely inaccurate as to the relationship across goals, as described above. Players performed less on all dimensions—counting a mean of 2.8 tables in the no goal condition, 8.5 tables in the realistic goal condition, and only 5.3 tables in the aspirational goal condition – and they performed worse, not better, on the aspirational goal in comparison to the realistic one.

As for the two unmanipulated tasks, recipients also did not predict any spillover effect, and their expectations were similar under both treatment conditions. For the words tasks, recipients predicted that players will reach the goal of counting 20 words 43% of the time, under both the realistic and the aspirational conditions. They predicted that on average

players will count 15.8 words in the realistic condition and 15 words in the aspirational one (Median = 17 for both). For the coins task, recipients predicted that players will transfer the set amount of coins 23% of the times, under both the realistic and the aspirational conditions. They predicted that on average players will transfer 42 coins in the realistic condition and 43.4 coins in the aspirational one (Median = 50 for both).

This kind of overoptimism regarding the effect of the aspirational goal on the manipulated task, and the lack of foresight of any spillover effect for the other real effort task, might explain why so many hold the view that setting aspirational goals can promote achievements. Despite the fact that recipients had the opportunity to practice each task themselves beforehand, they could not predict that the aspirational goal will have such an inverse effect on the players' performance.

## 4 Discussion

In many realms of private and public law setting aspirational goals is viewed as inspiring for agents to make them work harder. Our findings cast doubt on that common wisdom and practice. The findings demonstrate that setting overly ambitious goals can have the perverse effect of discouraging effort on all three dimensions: quantity of output, quality of output, and time investment. Further, the findings demonstrate that such disparaging effect is not limited only to the dimension in which the aspirational goal is set, but can also create negative spillover and discourage effort on other unrelated dimensions.

The insights from this study can be applied to multiple areas of law and public policy. One area is constitutional rights. One of the most salient trends in constitution-making worldwide is that constitutions include an ever-expanding catalogue of rights. Between World War II and today, the average number of rights in national constitutions more than doubled (Goderis and Versteeg, 2014). Today, numerous constitutions contain not only civil and political rights such as property rights and freedom of religion, but also a range of socio-economic rights—such as the right to education and the right to healthcare— environmental rights, consumer rights, and even rights for animals. Many of these rights obligations require government

officials perform certain tasks, such as increasing access to education, or guaranteeing basic healthcare.

Our findings suggest that, when it comes to constitutional rights, less might be more. That is, one possible take-away from our experimental study is that when a constitution includes a large number of rights, the document as a whole becomes aspirational. Specifically, those tasked with providing goods such as healthcare, education or ensuring animal health will view the many promises as unrealistic and scale down their efforts to fulfil them. And not only that, the aspirational nature of the bill of rights as a whole might also affect their behavior on constitutional duties that are more easily attainable: such as ensuring that the state does not torture. This possibility is consistent with observational data: studies have found a negative correlation between the number of rights in constitutions and overall rights performance (Law and Versteeg, 2013).

Another area is international human rights law. Since WWII, the number of international agreements dealing with human rights has increased dramatically. There are now nine “core” multilateral human rights treaties, as well as several optional protocols. These treaties cover a wide range of protections, including social rights, women’s rights, children’s rights, and rights for the disabled. Every state has committed itself to at least one of the core treaties, and the median state has ratified eight of them (Cope et al., 2019). In addition, most states have also joined one of several regional human rights mechanisms.

Like with constitutional rights, it is possible that the many different treaty commitments scale down the efforts of those who are supposed to fulfill them. Indeed, some commentators have raised this possibility. For example, Eric Posner has developed a version of this argument. According to Posner, “if there were only a few rights it would seem simple enough to determine whether states comply with them.” (Posner, 2014, 92-94). Yet, when there are many rights, states are basically free to pick and choose the rights that they focus on, since it is not possible to protect them all at once. In the same vein, Mary Ann Glendon has argued large catalogues of rights will produce competing rights values, which “may well trivialize this essential core without materially advancing the proliferating causes that have

been reconceptualized as involving rights” (Glendon, 1991, xi).

Environmental treaties may be another area where the many different multilateral environmental treaties may provide so many different obligations (according to the International Environmental Agreement Database Project, some 1300 multilateral agreements have been concluded till date) that countries scale down their overall effort. It may be for this reason that the Paris Agreement actually sets two different goals: (1) to keep the global temp well below 2°C above pre-industrial levels and (2) to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels. The reason for including a less ambitious goal is that keeping global temperature increase below 2°C is ambitious but plausible, while limiting global temperature increase to 1.5°C is most likely infeasible. This is supported by the International Energy Agency’s (IEA) assessment of the Paris Climate Accords, which has noted that “[t]he 2 °C pathway is very tough: the road to 1.5 °C goes through uncharted territory,” (World Energy Outlook, 2016, 5).



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# A Appendix A: Tables

Table A1: Statistical Tests for Mean Effort Levels Across Treatments

	Fisher's Exact Test	Student's t-test	Wilcoxon Rank Sum Test
Tables			
NP vs. Real	$p < .01^{***}$	$p < .01^{***}$	$p < .01^{***}$
NP vs. Asp.	$p < .01^{***}$	$p = .04^{**}$	$p = .98$
Real vs. Asp	$p < .01^{***}$	$p < .01^{***}$	$p < .01^{***}$
Words			
NP vs. Real	$p < .01^{***}$	$p < .01^{***}$	$p < .01^{***}$
NP vs. Asp.	$p < .01^{***}$	$p < .01^{***}$	$p = .03^{**}$
Real vs. Asp	$p < .01^{***}$	$p = .03^{**}$	$p = .41$
Coins			
NP vs. Real	$p < .01^{***}$	$p < .01^{***}$	$p < .01^{***}$
NP vs. Asp.	$p < .01^{***}$	$p < .01^{***}$	$p < .01^{***}$
Real vs. Asp	$p = .34$	$p = .75$	$p = .73$

Table A2: Statistical Tests for Mean Expectations Across Treatments

	Fisher's Exact Test	Student's t-test	Wilcoxon Rank Sum Test
Tables (Tables Counted)			
NP vs. Real		$p = .21$	$p < .01^{***}$
NP vs. Asp.		$p < .01^{***}$	$p < .01^{***}$
Real vs. Asp		$p < .01^{***}$	$p < .01^{***}$
Words (Percentage Promise Kept)			
NP vs. Real	$p < .01^{***}$	$p < .01^{***}$	$p < .01^{***}$
NP vs. Asp.	$p < .01^{***}$	$p < .01^{***}$	$p < .01^{***}$
Real vs. Asp	$p = 1.00$	$p = 1.00$	$p = 1.00$
Coins (Percentage Promise Kept)			
NP vs. Real	$p < .01^{***}$	$p < .01^{***}$	$p < .01^{***}$
NP vs. Asp.	$p < .01^{***}$	$p < .01^{***}$	$p < .01^{***}$
Real vs. Asp.	$p = 1.00$	$p = .96$	$p = .96$

## B Appendix B: Screenshots

## Study without promise

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### ETH ZURICH STUDY INFORMATION SHEET

#### Communication and Allocation of Money

Professors Adi Leibovitch from the faculty of law at the Hebrew University of Jerusalem, Alexander Stremitzer from the Center for Law & Economics at ETH Zurich, and Mila Versteeg from the school of law at the University of Virginia are conducting a research study.

You were selected to be a possible participant in this survey because you are subscribed to Amazon Mechanical Turk as an MTurk Worker. Your participation in the survey is voluntary.

#### Why is this study being done?

The study is done to understand how people make decisions in particular situations. The results of this study will help in evaluating and designing legal rules.

#### What will happen if I take part in this research study?

If you volunteer to participate in this study, you will be asked to do the following:

- Participate in games via a computer.
- Fill out a final questionnaire.

#### How long will participation in the research study take?

Participation will take a total of about 10-15 minutes.

#### Are there any potential risks or discomforts that I can expect from this study?

There are no anticipated risks or discomforts.

#### Are there any potential benefits if I participate?

You will be paid for your participation in the study, but you will not directly benefit beyond this. The results of the research may improve our general understanding of how people make decisions.

## Study without promise

### What other choices do I have if I choose not to participate?

You are free to choose any other HIT ('Human Intelligence Task') on Amazon Mechanical Turk or refrain from any participation in any task on Amazon Mechanical Turk.

### Will I be paid for participating?

You will receive \$0.50 for reading the instructions and participating in the practice rounds. You will receive an additional \$2 for completing the study, and additional \$0.50 for answering a questionnaire at the end. You may also receive additional bonuses in the games.

### Will information about me and my participation be kept confidential?

Any information that is obtained in connection with this study and that can identify you will remain confidential. It will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of not storing any information that matches the data you generate during the experiment with information allowing to personally identify a participant.

### What are my rights if I take part in this study?

- You can choose whether or not you want to be in this study, and you may withdraw your consent and discontinue participation at any time.
- Whatever decision you make, there will be no penalty to you

### Who can I contact if I have questions about this study?

If you have any questions, comments or concerns about the research, please contact: [descil@ethz.ch](mailto:descil@ethz.ch).

I have read and agree to the terms and conditions



**Welcome!**

Thank you very much for participating in this study!

In this study, you will be asked whether you want to perform two tasks. If you decide to participate, you will be matched with another player. Your decisions in Task 1 will affect the payment made to a charity. Your decisions in Task 2 will affect the payment made to the other player.

All players know the tasks (indeed they all practice them) but everybody knows from the beginning that only you will actively perform the tasks, while the other player will remain passive throughout the study. His or her payment depends on your decisions in the tasks.

All players know exactly the payments each other player can earn depending on this player's decisions and the decisions of others.

The payments will be determined as follows:

- You (as every other player) will receive **\$0.50** for reading the instructions and participating in the practice rounds.
- Afterwards, you will be asked whether you want to participate in the study.
  1. If you choose **"Yes, I want to participate"** the experiment will start and you will be paid an additional **\$2** for your participation. You can also receive additional money depending on your decisions.
  2. If you choose **"No, I do not want to participate"** you will move directly to the final questionnaire, **without** this additional payment.
- Note: The other player does not perform the tasks and does **not** receive the \$2 payment.
- At the end of the study you (as every other player) will be asked to answer a questionnaire. You will receive an additional **\$0.50** for answering the questionnaire. You can also receive additional money depending on your decisions.
- After completing the questionnaire, you will see all the payments you earned.



## Study without promise

3

### Coins

In this study, payoffs in the tasks are in coins. Each coin is worth 1 cent.



Coins



4

### Instructions

- The tasks that you are asked to perform are described below and will be further explained and practiced on the next screens.
- In the practice rounds, the player you are matched with will be asked to practice the same two tasks. But he or she will not actively perform any task.

**TASK 1:** Count how often a particular digit appears in tables displayed on your screen. For every table that you complete, 10 coins will be donated to the Save the Children Foundation.

**TASK 2:** Transcribe words from the Ancient Greek alphabet to the Latin alphabet (using a transcription table). For every word you complete, the player you are matched with will receive 10 coins.

Instructions





## Study without promise

5

Practice Round – Task 1 Instructions

### Practice Round - TASK 1 - Instructions

In this task, you are asked to count the number of times the digit "1" appears in tables of 200 digits ranging from "1" to "9". Any answer falling within a range of -2 to +2 from the correct number will be considered correct.

You can practice this task on the next screen.



6

Practice Round – Task 1

### Practice Round - TASK 1

1	2	4	3	6	5	1	4	3	7	5	6	1	3	5	2	5	1	4	2
9	6	7	1	5	2	6	4	8	1	2	4	1	6	3	5	1	1	5	7
8	2	6	4	5	1	1	5	3	7	5	9	3	5	2	6	3	5	1	7
3	6	4	3	6	7	1	9	0	6	0	7	0	4	7	5	6	8	2	4
3	9	4	7	1	4	1	5	1	3	2	9	9	7	5	3	6	7	6	9
3	1	4	2	5	3	1	6	3	7	1	4	2	6	3	5	4	2	7	5
9	4	6	3	8	5	8	1	3	1	5	4	7	3	5	2	6	4	8	1
4	2	5	3	7	9	5	7	1	4	2	6	4	8	9	2	3	4	2	1
5	4	7	8	5	6	1	4	3	3	7	8	4	0	1	4	2	6	4	8
1	5	7	3	9	6	8	3	5	2	6	1	5	1	7	2	5	3	1	6

Number of "1"



7

Your entry was correct.  
You will now move to practice the next task.



or

Your entry was incorrect.  
Please try again.



## Study without promise

8

Practice Round – Task 2 Instructions

### Practice Round - TASK 2 - Instructions

In this task, you are asked to transcribe words from the Ancient Greek alphabet to the Latin alphabet. There is a transcription table, showing you all letters of the Ancient Greek alphabet and the corresponding letters in the Latin alphabet.

You can practice this task on the next screen.



9

Practice Round – Task 2

### Practice Round - Task 2

ανγωω

Greek	Latin
α	a
β	b
γ	g
δ	d
ε	e
ζ	z
η	e
θ	th
ι	i
κ	k
λ	l
μ	m

Greek	Latin
ν	n
ξ	x
ο	o
π	p
ρ	r
σ, ζ	s
τ	t
υ	u
φ	ph
χ	ch
ψ	ps
ω	o



10

Your entry was correct.

Or

Your entry was incorrect.  
Please try again.



## Study without promise

11

Finishing Practice Rounds

You have now finished the practice rounds.

The study will start on the next screen. Before the study starts, remember you will be asked whether you want to participate in the study.

If you choose to participate in the study you will proceed to perform the tasks and you will earn an additional \$2. You may also earn additional bonuses in the games.

If you choose not to participate in the study you will proceed directly to the final questionnaire.



12

Participation

### Participation

Please indicate whether you want to participate in the study.

Yes, I want to participate



No, I do not want to participate



13

Task 1

### TASK 1

You will now start counting the digits in the tables. There is no time limit for this task, but you will be logged out automatically after 90 seconds of inactivity. When this happens you will proceed to next task. For every table you complete 10 coins will be donated to the Save the Children Foundation.



Study without promise

14

Task 1

Completed: 0  
Inactivity Timer: 90 seconds

9	1	9	3	3	6	5	3	9	9	8	5	4	3	2	9	9	5	2	2
1	9	1	2	5	4	5	3	1	3	4	9	4	1	5	1	6	4	2	8
4	7	2	8	1	7	5	4	9	3	6	1	6	6	9	8	9	2	4	9
1	1	9	4	4	2	2	1	3	4	2	1	8	8	6	4	9	2	4	1
3	2	6	5	5	6	7	6	1	3	4	3	6	3	9	3	4	6	6	9
1	1	1	3	4	3	4	5	5	9	4	5	8	5	5	4	1	6	1	6
8	9	9	2	1	1	6	3	1	3	1	9	2	8	1	7	8	7	1	6
4	1	1	7	3	9	7	5	2	3	9	8	3	1	6	7	1	7	8	3
2	8	4	6	6	6	8	3	1	1	4	5	4	3	5	6	4	3	9	7
1	8	1	9	1	4	2	6	8	7	4	7	7	3	8	9	5	3	1	2

Number of "1"



15

Task 1

Completed: 1  
Inactivity Timer: 89 seconds

Your entry was correct. Please decide whether you want to continue or not. If you want to continue the task and count another table, please click on the "Yes" button. If you want to stop, and move to the next task, please click on the "No" button.

YES

NO



Or

Completed: 0  
Inactivity Timer: 89 seconds

Your entry was incorrect. Please decide whether you want to continue or not. If you want to continue the task and recount the same table, please click on the "Yes" button. If you want to stop, and move to the next task, please click on the "No" button.

YES

NO



## Study without promise

16

Task 1

You have successfully counted 1 table(s).

You will now move to the next task.



17

Task 2

### TASK 2

You will now start transcribing words. For every word you complete, 10 coins will be given to the player with whom you were matched.

τα μεν ουν περι τας αρχας τουτον ειχε τον τροπον. δοκει δε της Σολωνος πολιτειας τρια ταυτ' ειναι τα δημοτικωτατα: πρωτον μεν και μεγιστον το μη δανειζειν επι τοις σωμασιν, επετα το εξειναι τω βουλομενω τιμωρειν υπερ των αδικουμενων, τριτον δε ω και μαλιστα φασιν ισχυκεναι το πληθος, η εις το δικαστηριον εφεσις: κυριος γαρ ων ο δημοσ της ψηφου, κυριος γινεται της πολιτειας. επι δε και δια το μη γεγραφθαι τους νομους απλως μηδε σαφως, αλλ' ωσπερ ο των κληρων και επικληρων, αναγκη πολλας αμφισβητησεις γινεσθαι, και παντα βραβευειν και τα κοινα και τα ιδια το δικαστηριον. οιονται μεν ουν τινες επιτηδες ασαφεις αυτον ποιησαι τους νομους, οπως η της κρισεως ο δημοσ κυριος. ου μην εικος, αλλα δια το μη δυνασθαι καθολου περιλαβειν το βελτιστον: ου γαρ δικαιον εκ των νυν γιγνομεων, αλλ' εκ της αλλης πολιτειας θεωρειν την εκεινου βουλησιν. εντευθεν εκκλησιαν εποιουν, εις ην η βουλη εισηνεγκε την εαυτης γνωμην καλλιξενου επιποντος τηνδε: επειδη των τε κατηγορουτων κατα των στρατηγων και εκεινων απολογουμενων εν τη προτερα εκκλησια ακηκοασι, διαψηφισασθαι Αθηναιους απαντας κατα φυλας: θειναι δε εις την φυλην εκαστην δυο υδριας: εφ' εκαστη δε τη φυλη κηρυκα κηρυττειν, οτω δοκουσιν αδικειν οι στρατηγοι ουκ ανελομενοι τους νικησαντας εν τη ναυμαχια, εις την προτεραν ψηφισασθαι, οτω δε μη, εις την υστεραν

Greek	Latin
α	a
β	b
γ	g
δ	d
ε	e
ζ	z
η	e
θ	th
ι	i
κ	k
λ	l
μ	m

Greek	Latin
ν	n
ξ	x
ο	o
π	p
ρ	r
σ, ς	s
τ	t
υ	u
φ	ph
χ	ch
ψ	ps
ω	o



## Study without promise

18

Completed: 0

τα

Greek	Latin
α	a
β	b
γ	g
δ	d
ε	e
ζ	z
η	e
θ	th
ι	i
κ	k
λ	l
μ	m

Greek	Latin
ν	n
ξ	x
ο	o
π	p
ρ	r
σ, ζ	s
τ	t
υ	u
φ	ph
χ	ch
ψ	ps
ω	o



Task 2

19

Completed: 1

Your entry was correct. Please decide whether you want to continue or not. If you want to continue the task and transcribe another word, please click on the "Yes" button. If you want to stop and move to the next task, please click on the "No" button.

Yes

No



Or

Completed: 1

Your entry was incorrect. Please decide whether you want to continue or not. If you want to continue the task and transcribe the same word, please click on the "Yes" button. If you want to stop and move to the next task, please click on the "No" button.

Yes

No



Task 2

## Study without promise

20

Task 2 - Result

You have successfully transcribed 1 word(s).



21

Results

Thank you! You have finished all tasks in this study. Your performance is displayed in the table below:

	PERFORMED
TASK 1	1 Correct Tables
TASK 2	1 Correct Words

On the next screen you are asked to answer a short questionnaire. You will receive an additional \$0.50 for answering the questionnaire. You can receive additional money, depending on your decisions.



22

Questionnaire

1. How difficult did you find TASK 1 (count tables)?

0 (Not at all)

1

2

3

4

5 (Very much)

2. How difficult did you find TASK 2 (transcribe words)?

0 (Not at all)

1

2

3

4

5 (Very much)



## Study without promise

23

Questionnaire

We asked the other player with whom you were matched to predict the average Player's performance in this game, before he or she learned how many coins he or she received from you.

We now ask you - what do you think he or she predicted?

For every estimate you get right (rounded to the nearest whole number) we will add additional 30 coins to your payoff at the end.

How many tables do you think he or she predicted the average player will count?

Tables

How many words do you think he or she predicted the average player will transcribe?

Words



24

Questionnaire

Imagine that a player only transcribed 7 words in Task 2.

How dissatisfied on a scale from 0 to 5 do you think the other player with whom he or she were matched would be about this behavior?

0 (Not at all)	1	2	3	4	5 (Very much)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Imagine that a player only counted 4 tables in Task 1.

How dissatisfied on a scale from 0 to 5 do you think the other player with whom he or she were matched would be about this behavior?

0 (Not at all)	1	2	3	4	5 (Very much)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





## Study without promise

25

In the table counting task the coins earned were used for donation to the Save the Children Foundation. Please tell us how positively on a scale from 0 to 5 do you rate this charity.

0 (Not at all)	1	2	3	4	5 (Very much)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Did you find the instructions easy to follow?

0 (Not at all)	1	2	3	4	5 (Very much)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Did you experience any problems with the interface?

Do you have any other suggestions for the researchers?



Questionnaire

26

Thank you for participating in the study!

You have earned the following payoffs:

Practice: \$0.50

Participation: \$2.00

Questionnaire: \$0.50

In addition, the following payoffs will be paid to:

Save the Children Foundation: \$0.10

Matched Player: \$0.10

**You have earned \$3.00 for participating in this experiment. We will follow up by email regarding any additional payment if your guess of the other player's predictions was correct.**



Questionnaire

**Study without promise**

27

Checkout

**Checkout**

You have finished the study. Thank you for taking the time!

**In order to receive your payment you must copy and paste the following redemption code back to Amazon Mechanical Turk:**

Your payment will be processed within the next 24 hours, bonus payments can take up to 72 hours. If you encounter problems submitting this HIT, please search for a HIT called "ETH Descil Trouble Ticket" and report your problem there.

## Study with promise

1

### ETH ZURICH STUDY INFORMATION SHEET

#### Communication and Allocation of Money

Professors Adi Leibovitch from the faculty of law at the Hebrew University of Jerusalem, Alexander Stremitzer from the Center for Law & Economics at ETH Zurich, and Mila Versteeg from the school of law at the University of Virginia are conducting a research study.

You were selected to be a possible participant in this survey because you are subscribed to Amazon Mechanical Turk as an MTurk Worker. Your participation in the survey is voluntary.

#### Why is this study being done?

The study is done to understand how people make decisions in particular situations. The results of this study will help in evaluating and designing legal rules.

#### What will happen if I take part in this research study?

If you volunteer to participate in this study, you will be asked to do the following:

- Participate in games via a computer.
- Fill out a final questionnaire.

#### How long will participation in the research study take?

Participation will take a total of about 10-15 minutes.

#### Are there any potential risks or discomforts that I can expect from this study?

There are no anticipated risks or discomforts.

#### Are there any potential benefits if I participate?

You will be paid for your participation in the study, but you will not directly benefit beyond this. The results of the research may improve our general understanding of how people make decisions.

#### What other choices do I have if I choose not to participate?

You are free to choose any other HIT ('Human Intelligence Task') on Amazon Mechanical Turk or refrain from any participation in any task on Amazon Mechanical Turk.

#### Will I be paid for participating?

You will receive \$0.50 for reading the instructions and participating in the practice rounds. You will receive an additional \$2 for completing the study, and additional \$0.50 for answering a questionnaire at the end. You may also receive additional bonuses in the games.

## Study with promise

### Will information about me and my participation be kept confidential?

Any information that is obtained in connection with this study and that can identify you will remain confidential. It will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of not storing any information that matches the data you generate during the experiment with information allowing to personally identify a participant.

### What are my rights if I take part in this study?

- You can choose whether or not you want to be in this study, and you may withdraw your consent and discontinue participation at any time.
- Whatever decision you make, there will be no penalty to you

### Who can I contact if I have questions about this study?

If you have any questions, comments or concerns about the research, please contact: [descil@ethz.ch](mailto:descil@ethz.ch).

I have read and agree to the terms and conditions



**Welcome!**

Thank you very much for participating in this study!

In this study, you will be asked whether you want to promise to fulfill two tasks. If you decide to promise, you will be matched with another player. Your decisions in Task 1 will affect the payment made to a charity. Your decisions in Task 2 will affect the payment made to the other player.

All players know the tasks (indeed they all practice them) but everybody knows from the beginning that only you will actively perform the tasks, while the other player will remain passive throughout the study. His or her payment depends on your decisions in the tasks.

All players know exactly the payments each other player can earn depending on this player's decisions and the decisions of others.

The payments will be determined as follows:

- You (as every other player) will receive **\$0.50** for reading the instructions and participating in the practice rounds.
- Afterwards, you will be asked whether you want to promise to fulfill the tasks to the extent requested by the researchers.
  1. If you choose **"Yes, I promise to perform the requested tasks"** the study will start and you will be paid an additional **\$2** for your participation. You can also receive additional money depending on your decisions.
  2. If you choose **"No, I do not promise"** you will move directly to the final questionnaire, **without** this additional payment.
- Note: The other player does not perform the tasks and does **not** receive the \$2 payment.
- At the end of the study you (as every other player) will be asked to answer a questionnaire. You will receive an additional **\$0.50** for answering the questionnaire. You can also receive additional money depending on your decisions.
- After completing the questionnaire, you will see all the payments you earned.



## Study with promise

3

### Coins

In this study, payoffs in the tasks are in coins. Each coin is worth 1 cent.



Coins



4

### Instructions

- The tasks that you are asked to perform are described below and will be further explained and practiced on the next screens.
- In the practice rounds, the player you are matched with will be asked to practice the same two tasks. But he or she will not actively perform any task.

**TASK 1:** Count how often a particular digit appears in tables displayed on your screen. For every table that you complete, 10 coins will be donated to the Save the Children Foundation.

**TASK 2:** Transcribe words from the Ancient Greek alphabet to the Latin alphabet (using a transcription table). For every word you complete, the player you are matched with will receive 10 coins.

Instructions



## Study with promise

5

Practice Round – Task 1 Instructions

### Practice Round - TASK 1 - Instructions

In this task, you are asked to count the number of times the digit "1" appears in tables of 200 digits ranging from "1" to "9". Any answer falling within a range of -2 to +2 from the correct number will be considered correct.

You can practice this task on the next screen.



6

Practice Round – Task 1

### Practice Round - TASK 1

1	2	4	3	6	5	1	4	3	7	5	6	1	3	5	2	5	1	4	2
9	6	7	1	5	2	6	4	8	1	2	4	1	6	3	5	1	1	5	7
8	2	6	4	5	1	1	5	3	7	5	9	3	5	2	6	3	5	1	7
3	6	4	3	6	7	1	9	0	6	0	7	0	4	7	5	6	8	2	4
3	9	4	7	1	4	1	5	1	3	2	9	9	7	5	3	6	7	6	9
3	1	4	2	5	3	1	6	3	7	1	4	2	6	3	5	4	2	7	5
9	4	6	3	8	5	8	1	3	1	5	4	7	3	5	2	6	4	8	1
4	2	5	3	7	9	5	7	1	4	2	6	4	8	9	2	3	4	2	1
5	4	7	8	5	6	1	4	3	3	7	8	4	0	1	4	2	6	4	8
1	5	7	3	9	6	8	3	5	2	6	1	5	1	7	2	5	3	1	6

Number of "1"



7

Your entry was correct.  
You will now move to practice the next task.



or

Your entry was incorrect.  
Please try again.



## Study with promise

8

Practice Round – Task 2 Instructions

### Practice Round - TASK 2 - Instructions

In this task, you are asked to transcribe words from the Ancient Greek alphabet to the Latin alphabet. There is a transcription table, showing you all letters of the Ancient Greek alphabet and the corresponding letters in the Latin alphabet.

You can practice this task on the next screen.



9

Practice Round – Task 2

### Practice Round - Task 2

ανγωω

Greek	Latin
α	a
β	b
γ	g
δ	d
ε	e
ζ	z
η	e
θ	th
ι	i
κ	k
λ	l
μ	m

Greek	Latin
ν	n
ξ	x
ο	o
π	p
ρ	r
σ, ζ	s
τ	t
υ	u
φ	ph
χ	ch
ψ	ps
ω	o



10

Your entry was correct.

Or

Your entry was incorrect.  
Please try again.





## Study with promise

11

Finishing Practice Rounds

You have now finished the practice rounds.

The study will start on the next screen. Before the study starts, remember you will be asked whether you want to promise to perform the above practiced tasks to the extent requested by the researchers.

The request by the researchers will tell you:

1. How many tables to count
2. How many words to transcribe

At the time you make the promise you do not yet see the precise request by the researchers.

If you choose to make the promise you will proceed to perform the tasks and you will earn an additional \$2. You may also earn additional bonuses in the games.

If you choose not to make a promise you will proceed directly to the final questionnaire.



12

Make a Promise

### Make a Promise

Please indicate whether you promise to perform the tasks to the extent requested from you.

Yes, I promise to perform the requested tasks



No, I do not promise



13

Your Promise

### Your Promise

- TASK 1: Count **15 tables**. There is no time limit to do so, but you will automatically be logged out and proceed to the next task after 90 seconds of inactivity.
- TASK 2: Transcribe **20 words**.



## Study with promise

14

Task 1

### TASK 1

You will now start counting the digits in the tables. You promised to complete **15 tables** in this task. There is no time limit for this task, but you will be logged out automatically after 90 seconds of inactivity. When this happens you will proceed to next task. For every table you complete, 10 coins will be donated to the Save the Children Foundation.



15

Task 1

Completed: 0

Promised: 15

Inactivity Timer: 90 seconds

3	4	8	6	5	8	6	3	6	6	1	4	2	6	3	8	8	4	8	9
2	1	7	5	7	9	8	3	5	2	5	5	1	5	8	3	7	4	5	2
6	1	9	4	3	5	8	5	8	9	2	1	3	6	5	1	7	2	7	5
1	1	7	3	4	3	7	3	9	3	8	5	5	6	3	1	1	2	2	6
9	2	3	9	4	7	9	8	1	3	1	6	9	7	7	1	1	4	7	5
9	4	6	5	5	8	8	7	5	4	7	2	7	2	8	1	5	1	7	1
7	9	8	8	8	3	5	7	2	1	6	1	5	1	7	4	2	5	3	2
8	4	9	4	6	4	4	6	1	1	6	5	1	1	7	6	6	8	3	8
2	1	9	5	6	1	5	4	4	2	8	9	9	6	2	3	6	4	9	1
3	8	1	9	3	8	3	7	3	1	3	5	3	3	4	4	1	2	5	1

Number of "1"



## Study with promise

16

Completed: 1  
Promised: 15  
Inactivity Timer: 89 seconds

Your entry was correct. Please decide whether you want to continue fulfilling the promise or not. If you want to continue the task and count another table, please click on the "Yes" button. If you want to stop and move to the next task, please click on the "No" button.

YES

NO



Or

Completed: 0  
Promised: 50  
Inactivity Timer: 90 seconds

Your entry was incorrect. Please decide whether you want to continue fulfilling the promise or not. If you want to continue the task and recount the same table, please click on the "Yes" button. If you want to stop and move to the next task, please click on the "No" button.

YES

NO



Task 1

17

You have promised to count 15 tables.

You have successfully counted 1 table(s).

You will now move to the next task.



Task 1

## TASK 2

You will now start transcribing words. You promised to transcribe **twenty (20) words**, which are marked in red in the text. For every word you complete, 10 coins will be given to the player with whom you were matched.

τα μεν ουν περι τας αρχας τουτον ειχε τον τροπον.  
 δοκει δε της Σολωνος πολιτειας τρια ταυτ' ειναι τα  
 δημοτικωτατα: πρωτον μεν και μεγιστον το μη δανειζειν  
 επι τοις σωμασιν, εππειτα το εξειναι τω βουλομενω  
 τιμωρειν υπερ των αδικουμενων, τριτον δε ω και  
 μαλιστα φασιν ισχυκεναι το πληθος, η εις το  
 δικαστηριον εφεσις: κυριος γαρ ων ο δημος της ψηφου,  
 κυριος γιγνεται της πολιτειας. επι δε και δια το μη  
 γεγραφθαι τους νομους απλως μηδε σαφως, αλλ'  
 ωσπερ ο των κληρων και επικληρων, αναγκη πολλας  
 αμφισβητησεις γιγνεσθαι, και παντα βραβευειν και τα  
 κοινα και τα ιδια το δικαστηριον. οιονται μεν ουν τινες  
 επιτηδες ασαφεις αυτον ποιησαι τους νομους, οπως η  
 της κρισεως ο δημος κυριος. ου μην εικος, αλλα δια το  
 μη δυνασθαι καθολου περιλαβειν το βελτιστον: ου γαρ  
 δικαιον εκ των νυν γιγνομεων, αλλ' εκ της αλλης  
 πολιτειας θεωρειν την εκεινου βουλησιν. εντευθεν  
 εκκλησιαν εποιοουν, εις ην η βουλη εισηνεγκε την εαυτης  
 γνωμην καλλιξενου επποντος τηνδε: επειδη των τε  
 κατηγορουτων κατα των στρατηγων και εκεινων  
 απολογουμενων εν τη προτερα εκκλησια ακηκοασι,  
 διαψηφισασθαι Αθηναιους απαντας κατα φυλας: θειναι  
 δε εις την φυλην εκαστην δυο υδριας: εφ' εκαστη δε τη  
 φυλη κηρυκα κηρυττειν, οτω δοκουσιν αδικειν οι  
 στρατηγοι ουκ ανελομενοι τους νικησαντας εν τη  
 ναυμαχια, εις την προτεραν ψηφισασθαι, οτω δε μη, εις  
 την υστεραν

Greek	Latin
α	a
β	b
γ	g
δ	d
ε	e
ζ	z
η	e
θ	th
ι	i
κ	k
λ	l
μ	m

Greek	Latin
ν	n
ξ	x
ο	o
π	p
ρ	r
σ, ς	s
τ	t
υ	u
φ	ph
χ	ch
ψ	ps
ω	o

## Study with promise

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Task 2

Completed: 0  
Promised: 20

τα

Greek	Latin
α	a
β	b
γ	g
δ	d
ε	e
ζ	z
η	e
θ	th
ι	i
κ	k
λ	l
μ	m

Greek	Latin
ν	n
ξ	x
ο	o
π	p
ρ	r
σ, ζ	s
τ	t
υ	u
φ	ph
χ	ch
ψ	ps
ω	o



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Task 2

Completed: 1  
Promised: 20

Your entry was correct. Please decide whether you want to continue fulfilling the promise or not. If you want to continue the task and transcribe another word, please click on the "Yes" button. If you want to stop and move to the next task, please click on the "No" button.

Yes

No



Or

Completed: 0  
Promised: 20

Your entry was incorrect. Please decide whether you want to continue fulfilling the promise or not. If you want to continue the task and transcribe the same word, please click on the "Yes" button. If you want to stop and move to the next task, please click on the "No" button.

Yes

No



## Study with promise

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Task 2 - Result

You have promised to transcribe 20 words.

You have successfully transcribed 1 word(s).



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Results

Thank you! You have finished all tasks in this study. Your performance is displayed in the table below:

	PROMISED	PERFORMED
TASK 1	15 Tables	1 Correct Table(s)
TASK 2	20 Words	1 Correct Word(s)

On the next screen you are asked to answer a short questionnaire. You will receive an additional \$0.50 for answering the questionnaire. You can receive additional money, depending on your decisions.



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Questionnaire

1. How difficult did you find TASK 1 (count tables)?

0 (Not at all)      1      2      3      4      5 (Very much)  
                             

2. How difficult did you find TASK 2 (transcribe words)?

0 (Not at all)      1      2      3      4      5 (Very much)  
                             



## Study with promise

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Questionnaire

We asked the other player with whom you were matched to predict the average Player's performance in this game, after he or she learned about the promise that was made, but before he or she learned how many coins he or she received from you.

We now ask you - what do you think he or she predicted on average?

For every estimate you get right (rounded to the nearest whole number), we will add additional 30 coins to your payoff at the end.

---

How many tables do you think he or she predicted the average player will count?

Tables

---

How many words do you he or she predicted the average player will transcribe?

Words



**Study with promise**

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Questionnaire

When you made your promise, did you intend to keep it? Why?

Did you end up keeping your promise? Why?

Did you finish all the promised tables in task 1?

If not, what factors influenced your decision to stop?

Did you finish all the promised words in task 2?

If not, what factors influenced your decision to stop?



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Questionnaire

Imagine that, despite making the promise, a player only transcribed 7 words in Task 2.

---

How dissatisfied on a scale from 0 to 5 do you think the other player with whom he or she were matched would be about this behavior?

- |                       |                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 0 (Not at all)        | 1                     | 2                     | 3                     | 4                     | 5 (Very much)         |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |





## Study with promise

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Questionnaire

Imagine that, despite making the promise, a player only counted 4 tables in Task 1.

How dissatisfied on a scale from 0 to 5 do you think the player with whom he or she were matched would be about this behavior?

0 (Not at all)      1      2      3      4      5 (Very much)  
                             



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Questionnaire

In the words transcription task, the coins earned were used for donation to the Save the Children Foundation. Please tell us how positively on a scale from 0 to 5 do you rate this charity.

0 (Not at all)      1      2      3      4      5 (Very much)  
                             

Did you find the instructions easy to follow?

0 (Not at all)      1      2      3      4      5 (Very much)  
                             

Did you experience any problems with the interface?

Do you have any other suggestions for the researchers?



## Study with promise

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End of study

Thank you for participating in the study!

You have earned the following payoffs:

Practice: \$0.50

Promise: \$2.00

Questionnaire: \$0.50

In addition, the following payoffs will be paid to:

Save the Children Foundation: \$0.10

Matched Player: \$0.10

**You have earned \$3.00 for participating in this experiment. We will follow up by email regarding any additional payment if your guess of the other players predictions was correct.**



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Checkout

### Checkout

You have finished the study. Thank you for taking the time!

**In order to receive your payment you must copy and paste the following redemption code back to Amazon Mechanical Turk:**

Your payment will be processed within the next 24 hours, bonus payments can take up to 72 hours. If you encounter problems submitting this HIT, please search for a HIT called "ETH Descil Trouble Ticket" and report your problem there.