**Supporting Information**

In Section A of the Supporting information we present the instructions given to subjects for the Time Discounting Task, used to measure patience, as well as the instructions for the Beauty-Contest games used to measure strategic reasoning.

In Section B we present the two survey questions used to measure subjects willingness to negotiate under greater levels of complexity, as well as their willingness to join a cooperative trade agreement.

In Section C we present the demographic survey questions used in the article’s regressions for our college population.

In Section D we report basic demographics for our elite population.

In Section E we present some of the comments subjects made with regards to whether or not they wanted to join the treaty.

**Section A: Game Instructions**

***A1.Time Discounting Task***

For this next section of the study, we will draw a monetary prize. If you are chosen to win the prize your choices below will determine the amount of the prize and the date of payment.

You will be asked to choose the payment option that you would prefer in each of 20 different payoff alternatives.

Note that for each of the 20 payoff alternatives Option A will pay $100 in 30 days and Option B will pay $100 + $x in 60 days.

 For each payoff alternative you will select the payment option (A or B) that you would prefer if you are chosen to receive the prize.

When the study is completed a random drawing will be held to choose which one of the 20 payoff alternatives will determine the prize, and another random drawing will be held to determine the one person who will receive the prize.

When and how much the winner will be paid will be based on the payment option he or she chooses under the payoff alternative selected.

Please make a choice for each payoff alternative below.

|  |  |  |
| --- | --- | --- |
|  | A (1) | B (2) |
| Option A ($100.00 in 30 days) or Option B ($100.17 in 60 days)? (1) |  |  |
| Option A ($100.00 in 30 days) or Option B ($100.25 in 60 days)?" (2) |  |  |
| Option A ($100.00 in 30 days) or Option B ($100.33 in 60 days)? (3) |  |  |
| Option A ($100.00 in 30 days) or Option B ($100.42 in 60 days)? (4) |  |  |
| Option A ($100.00 in 30 days) or Option B ($100.63 in 60 days)? (5) |  |  |
| Option A ($100.00 in 30 days) or Option B ($100.84 in 60 days)? (6) |  |  |
| Option A ($100.00 in 30 days) or Option B ($101.05 in 60 days)? (7) |  |  |
| Option A ($100.00 in 30 days) or Option B ($101.26 in 60 days)? (8) |  |  |
| Option A ($100.00 in 30 days) or Option B ($101.47 in 60 days)? (9) |  |  |
| Option A ($100.00 in 30 days) or Option B ($101.68 in 60 days)? (10) |  |  |
| Option A ($100.00 in 30 days) or Option B ($102.10 in 60 days)? (11) |  |  |
| Option A ($100.00 in 30 days) or Option B ($102.96 in 60 days)? (12) |  |  |
| Option A ($100.00 in 30 days) or Option B ($104.25 in 60 days)? (13) |  |  |
| Option A ($100.00 in 30 days) or Option B ($106.44 in 60 days)? (14) |  |  |
| Option A ($100.00 in 30 days) or Option B ($108.68 in 60 days)? (15) |  |  |
| Option A ($100.00 in 30 days) or Option B ($110.96 in 60 days)? (16) |  |  |
| Option A ($100.00 in 30 days) or Option B ($113.29 in 60 days)? (17) |  |  |
| Option A ($100.00 in 30 days) or Option B ($115.66 in 60 days)? (18) |  |  |
| Option A ($100.00 in 30 days) or Option B ($118.08 in 60 days)? (19) |  |  |
| Option A ($100.00 in 30 days) or Option B ($123.07 in 60 days)? (20) |  |  |

***A 1.1 Measuring Patience***

As noted in the main text, for each subject, a measure of patience is the number of 60-day choices.

The point at which subjects switched from taking the 30-day prize to the 60-day prize could also be used as measure of the subject’s discount rate. If subjects made no mistakes, and discounted future payments at a constant rate, then this implied an equality *p >df* over the time period in question, where *p* is the value of a prize in the present time period, *f* is the value of the prize in the future time period and *d* is the factor by which a subject discounts future payments. In practice it has proved difficult to interpret discount rates measured this way.[[1]](#footnote-1) Thus we adopt a simpler approach of measuring a subject’s patience as the total number of 60-day choices subjects made.[[2]](#footnote-2)

***A2.Beauty Contest Game***

For the next section we will draw a $100 prize at the end of the study. Whether or not you win this prize will depend both on your choices and the choices of other study participants.

You have been paired randomly with 5 other anonymous participants in the study. You will never know their identity, and they will never know yours.

In this section, you will play 6 games. In each game you and each of the participants that you have been paired with will guess a whole number (integer) between 0 and 100 (0 and 100 included).

The winner of this game will be the participant in the group whose guess is closest to the group’s average guess, multiplied by a number M. We tell you what M is at the beginning of each game.

If more than one participant picks the same winning number, we will split the prize among those participants.

At the end of the study we will choose 1 group via a random drawing. We will then, via another random drawing, pick 1 of the group's games. For the chosen game and group, the winner will be awarded $100 and notified by email.

What is the average?

The average is the sum of each participant’s guess divided by the number of participants. So if the 5 participants in a group each guess numbers a, b, c, d, e. The average is (a+b+c+d+e)/5.

Calculator

This game isn't supposed to be a math test. Feel free to use a calculator. We've provided a link to one below each game.

Examples

**Example1**:
Say the multiplier M is 3/5. The winner of this game is the participant whose guess is closest to the group's average guess multiplied by 3/5. Below is a table showing 3 possible average guesses for a group, and the optimal guess given that average guess. The winner of the game would be the participant whose guess was closest to the optimal number.

For M=3/5

|  |  |  |  |
| --- | --- | --- | --- |
| If the group's average guess is | 75 | 50 | 25 |
| The winner is the participant in the group who guessed the number closest to | 45 | 30 | 15 |

**Example2**:
Say the multiplier M is 6/5. Below is a table showing 3 possible average numbers for a group, and the optimal guess.

For M=6/5

|  |  |  |  |
| --- | --- | --- | --- |
| If the group's average guess is | 75 | 50 | 25 |
| The winner is the participant in the group who guessed the number closest to | 90 | 60 | 30 |

*Notice how when the Multiplier M is less than 1 (Example 1) a player always wants to guess lower than the group average, and when the Multiplier M is greater than 1 (Example 2) a player always want to guess above the group average.*

***<After reading the instructions above, subjects played each of the following 6 games in random order. For each game they had access to a calculator.>***

**Game M=1/4**

Please use the slider to pick a number between 0 and 100 (0 and 100 included). The winner of this game will be the participant whose guess is closest to the group’s average guess, multiplied by 1/4.

**Game M=1/2**

Please use the slider to pick a number between 0 and 100 (0 and 100 included). The winner of this game will be the participant whose guess is closest to the group’s average guess, multiplied by 1/2.

**Game M=2/3**

Please use the slider to pick a number between 0 and 100 (0 and 100 included). The winner of this game will be the participant whose guess is closest to the group’s average guess, multiplied by 2/3.

**Game M=4/3**

Please use the slider to pick a number between 0 and 100 (0 and 100 included). The winner of this game will be the participant whose guess is closest to the group’s average guess, multiplied by 4/3.

**Game M=3/2**

Please use the slider to pick a number between 0 and 100 (0 and 100 included). The winner of this game will be the participant whose guess is closest to the group’s average guess, multiplied by 3/2.

**Game M=7/4**

Please use the slider to pick a number between 0 and 100 (0 and 100 included). The winner of this game will be the participant whose guess is closest to the group’s average guess, multiplied by 7/4.

**Section B**

***B1.Question on Negotiation complexity***

You are the lead negotiator on behalf of your government for a major new treaty on international trade. The treaty would contain obligations that require signatories to lower tariffs and other barriers against trade with other countries that join the treaty. If you succeed in negotiating the treaty, your country’s economic output could increase by a few percent in a decade, creating new jobs. Furthermore, in the future, the larger international markets created by the treaty may also create opportunities for local companies to sell profitable new products and services around the world. However, in the immediate term not everyone in your country will benefit if you join the treaty; some existing jobs could be lost, leaving some people unemployed.

Currently you are deciding how many countries should be invited to the first round of negotiations. Ideally, the treaty would include a large number of countries that all adhere to the treaty obligations. However, there is a trade off.  At one extreme, you can start negotiations with all of the 160 countries that could be treaty members, but the risk is that such a negotiation would be extremely complicated and reaching agreement would require watering down the obligations for each country. Possibly over time those obligations could be strengthened through future negotiations. At the other extreme, you can start negotiations with just a few countries, accounting for a substantial fraction of international trade, and guarantee the treaty contains essentially all of the obligations you want. However, the risk is that you will reach an agreement that will anger countries left out of the negotiations, and those countries’ markets will become less accessible to trade now and in the future. While these countries comprise a small share of the market now, many of these country’s markets are likely to grow over time. Possibly over time through future negotiations some of these other countries could be included.

Indicate your top preference for your negotiating strategy.

* Start with a very small number of countries that account for 1/3rd of world trade and are likely to accept 100% of the treaty obligations, but only for that very small group (1)
* Start with a couple dozen countries that account for ½ of world trade and are likely to accept 75% of the treaty obligations that you are seeking, but only for those couple dozen countries (2)
* Start with about 100 countries that account for the majority of world trade and accept 50% of the treaty obligations that you are seeking, but only for those 100 countries (3)
* Start with all 160 countries that account for essentially all world trade are likely to accept perhaps 25% of the treaty obligations that you are seeking (4)

***B2.Question on Joining: No Enforcement condition***

You are deciding on behalf of the government whether to join a major new treaty on international trade. The treaty contains obligations that require signatories to lower tariffs and other barriers against trade with other countries that also join the treaty.  If you join the treaty, your country’s economic output could increase by a few percent in a decade, creating new jobs. Furthermore, in the future, the larger international markets created by the treaty may also create opportunities for local companies to sell profitable new products and services around the world. However, in the immediate term not everyone in your country will benefit if you join the treaty; some existing jobs could be lost, leaving some people unemployed. You will benefit more if many other countries join the treaty than if only a few join the treaty, as long as most countries comply with the agreement.  **The treaty does not provide any formal mechanism to punish countries that fail to comply.**

What is the percent chance that you will join this treaty?

* 0-20% Highly unlikely (1)
* 21-40% Fairly unlikely (2)
* 41- 60% Could go either way (3)
* 61-80% Fairly likely (4)
* 81-100% Almost certain (5)

***B3.Question on Joining: Enforcement condition***

You are deciding on behalf of the government whether to join a major new treaty on international trade. The treaty contains obligations that require signatories to lower tariffs and other barriers against trade with other countries that also join the treaty.  If you join the treaty, your country’s economic output could increase by a few percent in a decade, creating new jobs. Furthermore, in the future, the larger international markets created by the treaty may also create opportunities for local companies to sell profitable new products and services around the world. However, in the immediate term not everyone in your country will benefit if you join the treaty; some existing jobs could be lost, leaving some people unemployed. You will benefit more if many other countries join the treaty than if only a few join the treaty, as long as most countries comply with the agreement.  **An independent enforcement mechanism promptly and credibly punishes any country that does not comply by taking away some of the benefits of the treaty from the country that breaks the rules.**

What is the percent chance that you will join this treaty?

* 0-20% Highly unlikely (1)
* 21-40% Fairly unlikely (2)
* 41- 60% Could go either way (3)
* 61-80% Fairly likely (4)
* 81-100% Almost certain (5)

**Section C: Demographics**

***C1.Gender***

Are you male or female?

* Male (0)
* Female (1)

***C2.Income***

For this question, please take your best guess even if you do not know the exact answer.  Please choose the total income earned by the adults in your household in the year before you entered college.

* $0-$24,000 (1)
* $25,000-40,000 (2)
* $41,000-54,000 (3)
* $55,000 - $69,000 (4)
* $70,000 - $84,000 (5)
* $85,000 - $99,000 (6)
* $100,000 - $149,000 (7)
* $150,000 - $199,000 (8)
* $200,000 or more (9)
* Don't know (10)

***C3.Year in school***

What is your year in at UCSD?

* 1 (1)
* 2 (2)
* 3 (3)
* 4 (4)
* 5 (5)
* 6 (6)
* Graduate Student (7)
* Other (8) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In addition to the demographics listed above we also looked at partisanship and ideology. An early reader of this paper suggested including a control for subjects’ general preference for free trade or the intensity of their trade preferences. Unfortunately we do not have such a control. Furthermore, including such a control could be problematic because general trade preferences could easily be the product of the two traits we are measuring and effectively constitute a “post-treatment” variable. For a brief explanation of why post-treatment variables are a problem for regression inference see King and Langche 2005. Though we cannot control for such a factor, we believe this is unlikely to affect our results for two main reasons. Theoretically, it seems unlikely that a preference for free trade causes an individual to be more patient or strategic. Empirically, there is little correlation between the games we use and proxies for trade preferences such as ideology (which we measured using a standard 7 point Likert scale where 1 represents “extremely liberal” and 7 represents “extremely conservative”). The Pearson correlation between this measure and a subject’s Level-K is -.06. The correlation between ideology and patience is even lower at 0.02.

**Section D: Elite Demographics**

|  |
| --- |
| **Age**: mean = 52, sd = 12 |
| **Gender**: 72 male, 19 Female**Years Experience:** mean = 21, sd = 11 |
|

|  |  |
| --- | --- |
| **Elite’s Sector** | **N** |
| Government | 33 |
| Private Industry | 40 |
| Academia/Think Tank | 17 |
| International NGO/Non-Profit | 2 |

 |

**Section E: Subject Comments on the Question of Joining a Trade Treaty.**

As noted in the main text of our article, we also invited subjects to comment on their decisions and reasoning processes regarding their decision about whether or not to join a trade agreement. Subjects who were classified as nonstrategic (measured as a Level-1 reasoner) typically focused on how their country individually benefited from the treaty’s provisions, or acted as though other country’s decisions were exogenous:

“By lowering tariffs and other barriers against trade with other countries my country's economic output could increase. Although not everyone will benefit, there is a 50/50 chance of benefiting depending on the amount of countries joining the treaty, therefore I could go either way.”

“The long-term effects do not seem promising - the success of your country is based on others' decisions.”

Meanwhile, strategic (Level-2) reasoners were more likely to comment on how their own decision might influence the decisions of other countries:

“The long term gain outweighs the short term pain. The assumption is that I'm making a decision for the US government. Because we will benefit more by more people joining and the US is looked to as an example in many regards.”

 “The more countries that join the better it is for all of them. So by joining, you encourage others to do the same, presumably.”

**Bibliography**

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Knetsch, Jack L. 1989. The Endowment Effect and Evidence of Nonreversible Indifference Curves. *American Economic Review* 79 (5): 1277–84.

Laibson, David. 1997. Golden Eggs and Hyperbolic Discounting. *Quarterly Journal of Economics* 112 (2): 443–78.

1. Many studies have found evidence for hyperbolic discounting, meaning that subjects value the near future much more than the distant future (Laibson 1997; Frederick, Loewenstein, and O’Donoghue 2002). [↑](#footnote-ref-1)
2. Our measure does make the untested assumption that each 60-day choice measures an equal increase in patience. We checked whether our results are robust to violations of this assumption using a linear-by-linear association test, which assumes that patience is increasing in the number of 60-day choices, but does not assume that the choices are equally spaced. Similar to our results in Table 4 of the main text, there is a significant positive relationship between patience and subject’s preference for adding more countries to negotiations (p=.0069). [↑](#footnote-ref-2)