SUPPLEMENTARY MATERIALS:

Activating the legacy motive mitigates intergenerational discounting in the climate game

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Using a dangerous climate change framed public goods game,[1] examined whether persuasive messages that activate the "legacy motive"—the desire to build a positive legacy—can increase the willingness of current actors to make sacrifices for future generations. It was found that when the benefits of cooperation accrued to decision makers in the present, high levels of cooperation were sustained, whereas when the benefits accrued to future generations, intergenerational discounting caused cooperation to collapse. Crucially, when the legacy motive was activated—by promoting death awareness, feelings of power, and intergenerational reciprocity—intergenerational discounting was attenuated, and cooperation was restored. This supplementary document reports additional details about the experiment. It is not meant to be self-explanatory—please consult[1] for further information.

1 Experimental Instructions

1.1 Short-delay condition

Welcome to the experiment!

In this experiment, you can earn money. For a successful experiment, you must not communicate with other participants or make yourself noticeable to them in any way. Please read the following instructions carefully. Should you have any questions, please signal us. At the end of the instructions, you will find several control questions. Please answer all questions, and signal us when you have finished. We will then come to you and check your answers.

Climate change

Today you will take part in a game simulating climate change. Global climate change is a serious environmental problem faced by mankind. There is a consensus amongst the world's climate scientists that human emissions of greenhouse gases, especially carbon dioxide (CO_2), are causing climate change. CO_2 originates from the burning of fossil fuels like coal, oil, or natural gas in industrial processes and energy production, and from combustion engines of cars. It is a global pollutant, which means that each unit of CO_2 emitted has the same effect on the climate regardless of the location where the emission occurred. If global efforts are not made to reduce human CO_2 emissions, climate scientists have forecast that global average temperature will rise to dangerous levels, leading to a very different planet than the one that humanity currently knows.

About the experiment

At the start of the experiment, $85 will be credited to your account. This is comprised of a **$40 operating fund** and a **$45 endowment.** During the game you can use your operating fund freely; however the endowment will remain untouched.

In the course of the game you can decide how much of your $40 operating fund you invest. Any amount that you have not invested will be paid to you immediately after the game.

All decisions you make are anonymous. To ensure this, a pseudonym is assigned to you by the computer, visible at the bottom left of the screen. These pseudonyms correspond to names of moons in our solar system (Leda, Triton, Portia, Sinope, Carpo or Galatea).

In the course of this experiment you will play **exactly 10 climate rounds.**

In each of these rounds you can invest in an attempt to avoid dangerous climate change. One of the consequences of dangerous climate change will be serious economic loss. In this experiment, this is simulated through possible loss of your endowment if your group does not collectively invest at least $120 in the climate account by the end of round 10. What you do not use of your operating fund you will definitely be paid.

In each round of the game all six players will be asked: ***How much do you want to invest in climate protection?*** (possible answers: $0, $2 or $4).

When everyone has made a decision, all six player contributions will be displayed together on the screen. After the experiment, all contributions will be credited to an account for climate change.

Use of the money in the climate account

Funded by the money you pay into the climate account, we will place an advertisement in a large daily newspaper. This will give general information about simple methods for climate protection—methods that everybody can implement without much effort to protect our climate and to assist in avoiding dangerous climate change. The more money we collect the larger and more conspicuous the advertisement will be. If this promotion is successful, sponsors for international advertising campaigns could be mobilized.

Continue climate round

After every round, each player's contribution will be displayed to all players.

Example: On round 3, four players have decided to invest into climate protection. Two of them paid $2, while another two paid $4.

Round 3 player investments in the climate account.

Pseudonym	Decision	Change in player's account
Leda	Yes	–2
Triton	No	0
Portia	No	0
Sinope	Yes	–4
Carpo	Yes	–2
Galatea	Yes	–4
	Group Total Round 3	12
	Climate Account Total	34

"Group Total Round 3" shows the amount invested in the climate account for the current round. In total, $12 was invested in climate protection and thus credited to the climate account.

"Climate Account Total" shows the current balance of the climate account—the sum of the investments to the climate account across all rounds so far.

Player strategies

You can choose to play using many different strategies.

For example, you and your 5 co-players could contribute $120 or more during the 10 rounds (on average at least $20 each). In the event that your group reaches this target you would safely receive your endowment of $45 in cash in this room tomorrow between 9am and 5pm. Money remaining in your operating fund would be paid to you in cash immediately after the game. Using this strategy you would earn a **total of $65:** about $20 directly after the game, and $45 tomorrow.

Another strategy could be to contribute nothing from your operating fund over the 10 rounds. In this case you would obtain the entire $40 of your operating fund in cash immediately after the game. If your group has not invested at least $120 after 10 rounds, you will lose your endowment with a probability of 90%. However, there remains a 10% chance that you will receive your endowment tomorrow. You will be informed of this outcome at the end of the game. Using this strategy you would earn a **total of $40,** paid today directly after the game.

Of course there are many other strategies you could use, aside from these two examples.

Remember, if your group reaches the $120 target, your endowment will be paid to you tomorrow in this room between 9am and 5pm, instead of directly after the game today.

End of the game

At the end of the game (after exactly 10 climate rounds) the computer will compare the climate account with the threshold amount of $120. The threshold amount must be reached to avoid dangerous climate change. It is reached if every player pays on average $2 per round for climate protection. In this case, $12 per round would be paid into the climate account.

If the $120 target has been reached in the climate account, every player will receive the $45 endowment in cash the next day. Any money that has not been invested and remains in your operating fund will be paid to you anonymously in cash, immediately after the game.

If the threshold amount for the climate account is not reached, dangerous climate change will occur with a probability of **90% (9 out of 10 cases),** followed by serious economic losses. This is the probability of losing your $45 endowment. Irrespective of this, any remaining money not invested from your operating fund will be paid to you anonymously in cash.

There is a probability of **10% (1 out of 10 cases)** that you would keep your endowment of $45. After the game the computer decides randomly by "throwing a dice" with this probability. Any remaining money not invested from your operating fund will be paid to you anonymously in cash, immediately after the game.

Operating fund – $40:

During the game, you can choose to contribute from this into a climate account. What you do not invest, you will definitely be paid anonymously and in cash at the end of the game, irrespective of whether your group paid the minimum $120 into the climate account.

Endowment – $45:

You will be paid this amount tomorrow, anonymously and in cash, if your group has paid at least $120 into the climate account.

If your group has not paid $120, you will lose your endowment with a probability of 90% (in 9 out of 10 cases).

Summary

Total capital = operating fund + endowment

10 rounds will be played

In each round you can invest $0, $2 or $4 in climate protection.

If you have finished reading the instructions and do not have any questions, please answer the control questions on the sheet in front of you.

1.2 Intergenerational condition

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In the course of the game you can decide how much of your $40 operating fund you invest. Any amount that you have not invested will be paid to you immediately after the game.

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In the course of this experiment you will play **exactly 10 climate rounds.**

In each of these rounds you can invest in an attempt to avoid dangerous climate change. One of the consequences of dangerous climate change will be serious economic loss. In this experiment, this is simulated through possible loss of your endowment if your group does not collectively invest at least $120 in the climate account by the end of round 10. What you do not use of your operating fund you will definitely be paid.

In each round of the game all six players will be asked: ***How much do you want to invest in climate protection?*** (possible answers: $0, $2 or $4).

When everyone has made a decision, all six player contributions will be displayed together on the screen. After the experiment, all contributions will be credited to an account for climate change.

Use of the money in the climate account
Funded by the money you pay into the climate account, we will place an advertisement in a large daily newspaper. This will give general information about simple methods for climate protection—methods that everybody can implement without much effort to protect our climate and to assist in avoiding dangerous climate change. The more money we collect the larger and more conspicuous the advertisement will be. If this promotion is successful, sponsors for international advertising campaigns could be mobilized.

Continue climate round

After every round, each player's contribution will be displayed to all players.

Example: On round 3, four players have decided to invest into climate protection. Two of them paid $2, while another two paid $4.

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Player strategies

You can choose to play using many different strategies.

For example, you and your 5 co-players could contribute $120 or more during the 10 rounds (on average at least $20 each). In the event that your group reaches this target, we will invest each player's $45 endowment in planting trees for the next generation, in the framework of a reforestation project. Trees are the cornerstone of healthy societies, and play an important role in addressing climate change. They do this by helping to reduce atmospheric carbon dioxide levels. The trees will not be used for commercial purposes and will store carbon dioxide for at least 80 years. By capturing and storing carbon dioxide from the atmosphere, the trees will benefit the next generation by helping to mitigate against climate change. Money remaining in your operating fund would be paid to you in cash immediately after the game.

Using the above strategy, you would earn a **total of $20** in cash directly after the game, and a $45 endowment to the next generation would be invested into reforestation of trees. This would amount to a combined reforestation investment of $270 (6 players × $45 each), which would plant 72 trees (12 trees per player). Evidence for the deposit of this investment would be displayed on our website (http://bel-uwa.github.io).

Another strategy could be to contribute nothing from your operating fund over the 10 rounds. In this case you would obtain the entire $40 of your operating fund in cash immediately after the game. If your group has not invested at least $120 after 10 rounds you will lose the endowment of the next generation with a probability of 90% (9 out of 10 cases). However, there remains a 10% chance (1 out of 10 cases) that trees will be planted regardless. You will be informed of this outcome at the end of the game. Using this strategy you would earn a **total of $40,** paid today after the game.

Of course there are many other strategies you could use, aside from these two examples.

End of the game

At the end of the game (after exactly 10 rounds) the computer will compare the climate account with the threshold amount of $120. The threshold amount must be reached to avoid dangerous climate change. It is reached if every player pays on average $2 per round for climate protection. In this case, $12 per round would be paid into the climate account.

If the $120 target has been reached in the climate account, each player's $45 endowment ($270 in total) will be invested in the reforestation of trees for the next generation. Any money that has not been invested and remains in your operating fund will be paid to you anonymously in cash, immediately after the game.

If the threshold amount for the climate account is not reached, dangerous climate change will occur with a probability of 90% (9 out of 10 cases), followed by serious economic losses. This is the probability of losing the $45 endowment for the next generation. Irrespective of this, any remaining money not invested from your operating fund will be paid to you anonymously in cash.

There is a probability of 10% (1 out of 10 cases) that trees will be planted for the next generation, even if the target is not reached. After the game the computer decides randomly by "throwing a dice" with this probability. Any remaining money not invested from your operating fund will be paid to you anonymously in cash, immediately after the game.

Operating fund – $40:

During the game, you can choose to contribute from this into a climate account. What you do not invest, you will definitely be paid anonymously and in cash at the end of the game, irrespective of whether your group paid the minimum $120 into the climate account.

Endowment of the next generation – $45:

This amount will be invested for each player in planting trees for the next generation, if your group has paid at least $120 into the climate account.

If the group has not paid $120, the endowment of the next generation will be lost with a probability of 90% (9 out of 10 cases).

Summary

Total capital = operating fund + endowment

10 rounds will be played

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1.3 Legacy induction condition

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Verbal Passages

At the beginning of **rounds 1, 4,** and **7** you will be required to read a short verbal passage about protecting the climate before you decide how much you want to invest in the climate account. Please read the passages very carefully as you will be questioned about their contents in the questionnaire at the end of the experiment.

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Summary

Total capital = operating fund + endowment

10 rounds will be played

In each round you can invest $0, $2 or $4 in climate protection.

If you have finished reading the instructions and do not have any questions, please answer the control questions on the sheet in front of you.

2 Control Questions

For a successful experiment, it is imperative that each player understands the rules of play. Please answer the following questions so that we can ensure that you have understood the instructions. Please answer all questions, and signal us when you have finished. We will then come to you and check your answers.

1. What total amount does each player have to invest into climate protection, on average, in the 10 rounds to evade dangerous climate change (please tick the correct box)?

☐ $12
☐ $20
☐ $40
☐ $120

2. What will the money each player invests into the climate account be used to fund (please tick the correct box)?

☐ A climate protection advertisement in a large daily newspaper
☐ The purchase of CO_2 emission certificates
☐ A climate change education pamphlet
☐ Donation to a climate change charity

3. Assume that the necessary amount of $120 to evade dangerous climate change has *not* been earned and you have contributed a total of $16 in the 10 rounds. How much money will you be paid out (please tick the correct box)?

☐ $0
☐ $10
☐ $24
☐ $60

4. What is the threshold amount that your group must pay into the climate account in order to avoid dangerous climate change with certainty (please tick the correct box)?

☐ $80
☐ $100
☐ $120
☐ $140

5. If the threshold amount of $120 for the climate account is not reached, what is the probability that you will lose your $45 endowment (please tick the correct box)?

☐ 10%
☐ 30%
☐ 50%
☐ 90%

6. Imagine that you contributed $0 on round 1, $2 on round 2, $4 on round 3, and $4 on round 4. How much money would be left in your operating fund at the end of round 4 (please tick the correct box)?

☐ $24
☐ $30

☐ $34
☐ $45

7. Please refer to the example table on page 3 of the instructions. How much did Leda and Galatea invest in the climate account on round 3?

Leda invested $
Galatea invested $

8. Please refer again to the example table on page 3 of the instructions. How much must the group of players contribute collectively to the climate account over the next 7 rounds to reach the threshold amount of $120 (please tick the correct box)?

☐ $12
☐ $34
☐ $86
☐ $100

3 Legacy Enacting Messages

3.1 Mortality salience

Leaving A Positive Legacy

Whether in months, years or decades, we all face the same fate as human beings. Death is certain, and life is short, even though family, friendships, and career all feel as though they will last forever. Before we know it, we will reach a point of reflection rather than action. We will be in the position of passing the places and objects in our lives on to new generations.

We all leave footprints on the world. Some are fleeting, like a smile to lift someone's day, and some are more enduring. Even though we cannot live forever, our actions will live on long after we do. These actions can be a benefit or burden to future generations, and they dictate how our time on this planet will be remembered.

Our footprints on the world remain long after we are gone.

As the current stewards of the Earth, we have a responsibility to behave in ways that do not create burdens for future generations. Behaving without regard to the life and environment of future generations is unethical in a civilized society. If we fail to take action on climate change, it will have disastrous consequences for our grandchildren and great-grandchildren. However, by engaging in behaviours that protect the climate, we can help to shield our descendants from harm. By doing what is morally right, we can ensure that we are remembered positively by future generations.

3.2 Power asymmetry

The Helpless Nature of Future Generations

It is easy to think our decisions shaped what our world looks like today. However, the world as we know it is largely a reflection of the past. Previous generations of people made the decisions that moulded our communities, laws, culture, environment, and economy into what they are today. Almost every aspect of our society is the result of other generation's decisions, whether 50 or 200 years ago, and what they decided on, we have inherited, for better or worse.

We are completely powerless in receiving what past generations left to us. They had no obligation to care about us, but they did so nevertheless. Now, we are in that same position of absolute power: what we decide now will dictate what future generations will receive from us. Everything that we do now will affect them, but nothing they can do will affect us.

We have a responsibility to help powerless future generations.

Climate change might not seem like a present danger. However, its effects will worsen with time, meaning that future generations will experience catastrophic consequences if we do not tackle this burden for them now. Whether or not we decide to act, future generations are voiceless in the matter. They cannot negotiate their needs and rights to land and life. They are completely helpless and at our mercy. Accordingly, we have a responsibility to speak and act on their behalf.

3.3 Intergenerational reciprocity

**We Are One With Future Generations**

Humans have always faced great trials and adversity. Our parents and grandparents have faced many challenges, which have tested their personal strength and courage. Each generation has been burdened with problems in some shape or form, from the small to the seemingly insurmountable. And for each problem overcome by one generation, another arises to confront the next.

More than 70 years ago, the greatest problem of members of that generation's time was achieving world peace by winning World War II. Millions of war veterans from many countries fought and died for the Allied forces to protect our lands, rights, and freedoms, so that we could inherit a peaceful and just world. In the darkness of war they were confronted with unimaginable horrors and seemingly impossible challenges, but their strength and bravery shone through. They achieved their goal of peace and freedom, and today we honour and remember them for giving us the world we inherited.

We are one link in a chain connecting us with past and future generations.

Climate change is the greatest problem of our time. If we fail to act, there will be disastrous consequences for future generations, placing our grandchildren and great-grandchildren at risk of great personal hardship. But like our ancestors before us, this problem is an opportunity for us to demonstrate our own willingness to shape a better world for future others. It is our chance to ensure that our descendants remember us as a generation that did not shirk their responsibility to protect them from harm. Just as past generations have taken actions to benefit us, so too must we for generations to come.
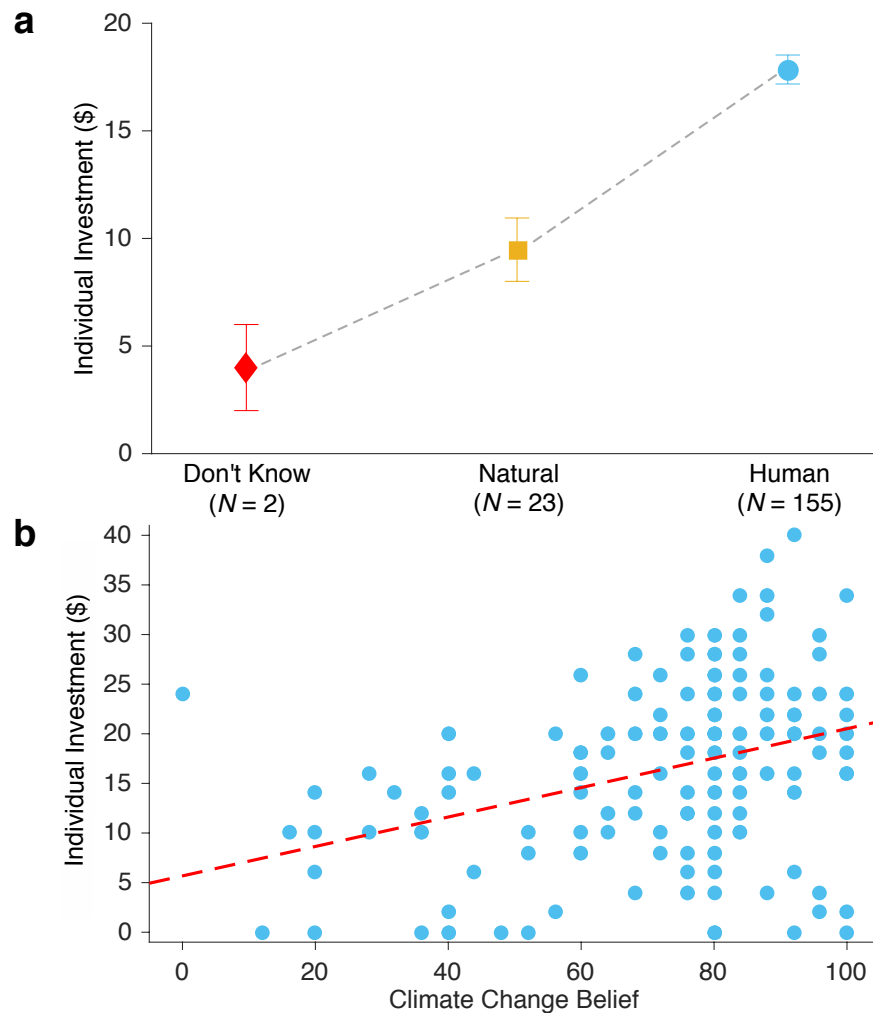
Figure S1 | The relationship between individual player investments and climate change attitudes and beliefs. a, Total player investments as a function of climate change attitude category. **b,** Scatterplot of individual player investments as a function of degree of belief in anthropogenic climate change.

4 Supplementary Analyses

After the experiment, participants completed a brief questionnaire (section 6) to identify attitudes, beliefs, economic preferences, personality traits and states, and ideological factors that might have influenced their investments during the climate cooperation game.

Attitudes and beliefs about climate change were assessed using two items (climate belief items). First, players were asked to indicate which of four statements best represented their attitude toward climate change: 'I don't think climate change is happening' (deny); 'I have no idea whether climate change is happening or not' (don't know); 'I think that climate change is happening, but it's just a natural fluctuation in Earth's temperatures' (natural); 'I think that climate change is happening, and I think that humans are largely causing it' (human). We expected that investments would be lowest from players in the 'deny' category followed by players in the 'don't know' and 'natural' categories, with investments being highest from players in the 'human' category. Second, participants were asked to indicate the extent to which they believe humans are responsible for climate change on a scale ranging from 0% (not at all caused by human activity) to 100% (entirely caused by human activity). We expected that individual player investments would be positively correlated with responses on this belief item.
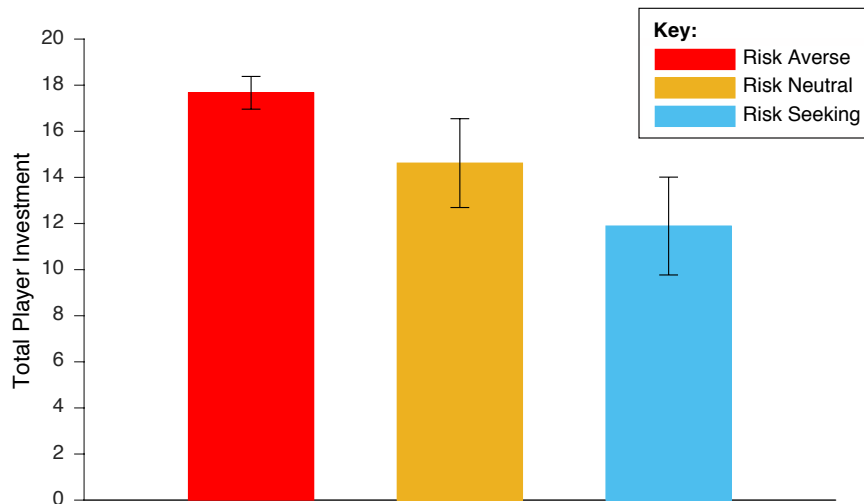
Figure S2 | Total player investments (rounds 1–10) as a function of risk preference. Personal investments increase as a function of degree of risk aversion.

Considering first responses on the attitudinal item, of the 180 participants two indicated that they 'don't know' whether climate change is happening or not; 23 indicated that they thought climate change was due to 'natural' temperature variability; and 155 indicated that they thought climate change is due to 'human' activity (Fig. S1a). Investments amongst the 'natural' group (9.48 ± 1.47) were on average 137% higher than investments in the 'don't know' group (4 ± 2), and investments amongst the 'human' group ($17.85 \pm .67$) were, in turn, 88% higher on average than investments in the 'natural' group. A one-way ANOVA confirmed that individual investments in the climate account varied significantly across climate change attitude groups, $F(2,177) = 12.78$, $p < .001$. Simple contrasts revealed that the difference between the 'don't know' and 'natural' groups was not significant, $t(177) = .91$, $p = .367$—no doubt due to the small number of observations in the former group—whereas the difference between the 'natural' and 'human' groups was significant, $t(177) = 2.37$, $p = .019$.

Turning to the climate change belief item, overall there was a moderate significant positive correlation between individual participant responses on this item and their personal investment in the climate account, $r = .35$, $p < .001$ (Fig. S1b). However, when examined by condition, the correlation remained significant only in the intergenerational, $r = .27$, $p = .039$, and legacy induction conditions, $r = .40$, $p = .001$—small and moderate correlations, respectively. By contrast, the correlation in the control condition was not significant, $r = .18$, $p = .175$.

Climate change beliefs were higher in the short-delay (78.33 ± 2.56) and legacy induction (75.80 ± 2.56) conditions, than in the intergenerational condition (67.20 ± 2.56). We therefore conducted an Analysis of Covariance—with condition as a fixed factor and climate change belief as a covariate—on total player investments to ensure that the reliable differences between conditions reported in XXXXXXXXX et al.[1] still stood after controlling for the influence of climate change beliefs. As expected, there was a reliable effect of climate change belief, $F(1,176) = 16.56$, $p < .001$, but the effect of condition was still reliable after controlling for the effect of this variable, $F(2,176) = 6.37$, $p = .002$. Simple contrasts statistically confirmed that player investments in the climate account were reliably higher in the short-delay condition, compared to the intergenerational condition, $t(176) = 3.49$, $p < .001$, and in the legacy induction condition, compared to the intergenerational condition, $t(176) = 2.44$, $p < .016$.

Risk preferences were elicited using a choice over gambles (risk preference item) that permitted classification of individuals as either risk averse, risk neutral, or risk seeking. Fig. S2 visualises the effect of risk preferences on investment behaviour from which it can be seen that total player investments in the climate account were highest for risk averse players (17.67 ± 0.74), followed by risk neutral players (14.62 ± 1.68), with risk seeking players
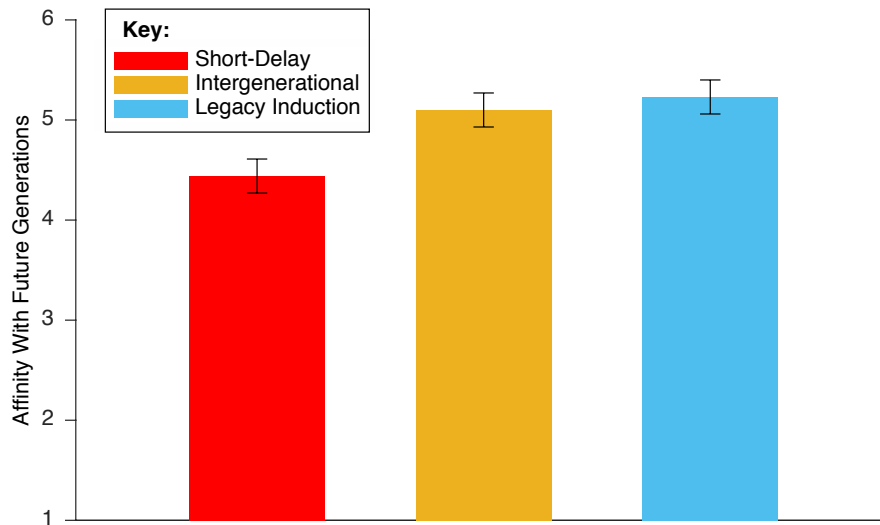
Figure S3 | Affinity with future generations as a function of condition. Although affinity with future generations is higher in the legacy induction condition than the short-delay condition, so too is it higher in the intergenerational condition, and by a comparable degree.

investing the least ($11.89 $\pm$ 1.97). Accordingly, total investments increased as a function of degree of risk aversion, as one would expect. A one-way ANOVA on these data revealed a reliable effect of risk preferences, $F(2,177) = 4.63$, $p = .011$. Simple contrasts confirmed that investments in the climate account were reliably higher amongst risk averse than risk seeking players, $t(177) = -2.75$, $p = .007$, but investments in the climate account did not differ reliably between risk averse and risk neutral players, $t(177) = -1.67$, $p = .097$.

Affinity with future generations—a psychological state reflecting the degree to which individuals feel a connection with future generations—was measured using four-items (affinity items, $\alpha = 0.88$).[7] Time perspective—a related psychological trait that refers to a disposition toward present or future thinking—was assessed using fourteen-items (time perspective items, $\alpha = .88$). We had expected that affinity with future generations would be higher in the legacy induction condition than in the short-delay and intergenerational conditions, although only tentatively so. This is because of the three mechanisms used to induce the legacy motive—namely intergenerational reciprocity, power asymmetry, and mortality salience—only the first is assumed to act by promoting affinity with future generations.[8] We also anticipated that affinity with future generations would be positively correlated with time perspective, and that both variables would be positively correlated with individual investments in the climate account.

Considering the first of these predictions, affinity with future generations was higher in the legacy induction condition (5.23 $\pm$ 0.17) than in the short-delay condition (4.44 $\pm$ 0.17), but so too was it higher in the intergenerational condition (5.10 $\pm$ 0.17), and by a similar degree (Fig. S3). A one-way ANOVA on affinity scores by condition was reliable, $F(2,177) = 6.09$, $p = .003$. Simple contrasts confirmed that although affinity scores were higher in the legacy induction condition than in the short-delay condition, $t(177) = -2.70$, $p = .008$, affinity scores did not differ reliably between the legacy induction and intergenerational conditions, $t(177) = .56$, $p = .574$. Turning to the second and third predictions, affinity with future generations was indeed moderately positively correlated with time perspective, $r = .43$, $p < .001$, and both affinity with future generations and time perspective were positively correlated with personal investments in the climate account ($r = .26$, $p < .001$, and, $r = .23$, $p = .002$, respectively).

Finally, we examined the relationship between investments in the climate account and two ideological variables, namely social dominance orientation—which was measured with four-items (social dominance items, $\alpha = .70$)—and political ideology on the liberal to conservative continuum—which was measured with a single-item (political ideology item). Social dominance orientation (SDO) is a personality trait that reflects an individuals degree of approval of

group-based hierarchies. It is associated with discriminatory and prejudicial beliefs about various minority groups, and conservative political worldviews.[3] Individuals who are high in SDO desire to maintain inequality between social groups, as well as individual group members. Accordingly, we anticipated that SDO would be negatively correlated with personal investments in the climate account, since individuals who have high levels of this construct are likely to perceive that their group members are inferior to themselves, and should therefore shoulder any burden of responsibility for contributing to the public good. We also anticipated that SDO would be positively correlated with political conservatism, and that political conservatism, in turn, would be negatively correlated with investments in the climate account, given the well-established negative association between conservative worldviews and belief in anthropogenic climate change.[4] The first prediction was not corroborated—that is, SDO was not reliably correlated with investments in the climate game, $r = .04$, $p = .608$, whereas the second prediction was corroborated—as expected, SDO was reliably positively correlated with political conservatism, $r = .21$, $p = .005$. So too was the third prediction corroborated—political conservatism was reliably negatively correlated with personal investments in the climate account, $r = -.18$, $p = .015$.

5 Ex Post Questionnaire

5.1 Climate change attitudes and beliefs[5]

1. Given what you know, which of the following statements best describes your thoughts about climate change? Select one box only.

☐ I don't think that climate change is happening.
☐ I have no idea whether climate change is happening or not.
☐ I think that climate change is happening, but it's just a natural fluctuation in Earth's temperatures.
☐ I think that climate change is happening, and I think that humans are largely causing it.

2. How much do you think human activity contributes to climate change, as a percentage of overall climate change? Please enter a value from 0 (not at all caused by humans) to 100 (entirely caused by humans).

5.2 Risk preference[6]

Please imagine the following situation: You have $40. With a probability of 50%, you will lose all $40. You can avoid the risk by giving away $20 of the $40. Would you pay the $20 to avoid the risk?

☐ Indifferent
☐ Yes
☐ No

5.3 Affinity with future generations[7]

Please indicate the extent to which you agree or disagree with each item using the 7-point scale (1 = Not At All and 7 = Very Much So).

1. I felt empathetic toward future generations.
2. I was able to imagine future generations.
3. I felt an affinity toward future generations.
4. I understood the impact my decision would have on future generations.

5.4 Time perspective[9]

For each of the statements shown, please indicate whether or not the statement is characteristic of you. If the statement is extremely uncharacteristic of you (Not At All Like Me) please select "1" on the scale; if the statement is extremely characteristic of you (Very Much Like Me) please select "7" on the scale. And, of course, use the numbers in the middle if you fall between the extremes."

1. I consider how things might be in the future, and try to influence those things with my day to day behaviour.
2. Often I engage in a particular behaviour in order to achieve outcomes that may not result for many years.
3. I only act to satisfy immediate concerns, figuring the future will take care of itself.
4. My behaviour is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.
5. My convenience is a big factor in the decisions I make or the actions I take.
6. I am willing to sacrifice my immediate happiness or wellbeing in order to achieve future outcomes.
7. I think it is important to take warnings about negative outcomes seriously even if the negative outcome will not occur for many years.
8. I think it is more important to perform a behaviour with important distant consequences than a behaviour with less important immediate consequences.

9. I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.

10. I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.

11. I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.

12. Since my day-to-day work has specific outcomes, it is more important to me than behaviour that has distant outcomes.

13. When I make a decision, I think about how it might affect me in the future.

14. My behaviour is generally influenced by future consequences.

5.5 Social dominance orientation scale[10]

There are many kinds of groups in the world: men and women, ethnic and religious groups, nationalities, political factions. How much do you support or oppose the ideas about groups in general? Please indicate the extent to which you agree or disagree with each item using the 10-point scale (1 = Extremely Oppose and 10 = Extremely Favour).

1. In setting priorities, we must consider all groups.

2. We should not push for group equality.

3. Group equality should be our ideal.

4. Superior groups should dominate inferior groups.

5.6 Political ideology

Please indicate the extent to which you identify yourself as politically left-wing or right-wing.

☐ Very Left-Wing
☐ Left-Wing
☐ Slightly Left-Wing
☐ Slightly Right-Wing
☐ Right-Wing
☐ Very Right-Wing

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Re: Commitment to plant trees for next generation

Dear Participant,

This letter is a formal acknowledgement that, should your group reach the threshold amount for climate protection in today's experiment, we shall invest $45 for each player (6 players × $45 = $270) in the planting of trees for the next generation.

The money will be donated to the Carbon Neutral Charitable Fund (http://cncf.com.au), an organisation committed to helping the broader community to adopt a more sustainable approach to a healthy environment and to reduce greenhouse gas emissions. They will use the money to plant 72 trees at a cost of $3.75 each (12 trees per player). The trees will not be used for commerical purposes and will store carbon dioxide for at least 80 years.

Should your group reach the threhsold amount for the climate account, you may keep this letter as formal proof of our commitment to honour your groups donation to reforestation.

Sincerely

Mark Hurlstone

Tree planting pledge given to participants in the intergenerational and legacy induction conditions.

7 Receipt For Planting of Trees

Carbon Neutral
CHARITABLE FUND

Your Tax Receipt

Your recent order on Carbon Neutral Charitable Fund has been completed. Your order details are shown below for your reference:

Order: 19183

[Order #19183] (28 February 2019)

Your Contributions	Quantity	Price
Donation	1	$2,430.00
Subtotal:		$2,430.00
Payment method:		Credit Card Payment
Total:		$2,430.00

Billing address

Mark Hurlstone
University of Western Australia
UWA - School of Psychological Science (M304)
35 Stirling Highway
Crawley Western Australia 6009
0864883249

Thank you - your contribution will re-establish native trees in Australia on land that was cleared for agriculture. The projects you make possible capture greenhouse gas emissions, encourages natural ecosystems and biodiversity, whilst building a more resilient local environment to climate change. Thank you for considering the environment.

If you'd like more information about any aspect of our work, call us on 1300 857 970 or visit cncf.com.au.

Please retain for your tax records.

Gifts of $2 or more to Carbon Neutral Charitable Fund (ABN 99124 696966) are tax deductible in Australia.

Thanks,

Carbon Neutral Charitable Fund

Receipt for the planting of trees for the 9 groups that successfully reached the threshold in the intergenerational and legacy induction conditions.

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