Convenience vs Conscience - Impact of Real Effort in Consumption on Pro-Environmental Behavior

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Abstract

This study examines how inconvenience shapes willingness to act sustainably. In a controlled laboratory experiment (N=100), participants repeatedly chose between a convenient no-effort option and an inconvenient option (real-effort slider task) across four structured contexts varying in beneficiary (self or environment) and benefit trade-off (present or absent, between these beneficiaries). Individualized normalization equated $8 in personal payoff to an equivalent environmental charity donation amount X_i, allowing domain-comparable incentives. Results show that identical effort is perceived as substantially more burdensome when it benefits the environment: the cost of inconvenience is about 19 percentage points higher for environmental actions and rises by an additional 15 points when personal and environmental motives conflict. While environmental costs spike sharply even for minor effort, self-related costs increase more gradually. The findings demonstrate that inconvenience is psychologically constructed and domain-sensitive, highlighting an important role of convenience in shaping sustainable behavior.

1 Introduction

During the 26th United Nations Climate Change Conference of the Parties (COP26), India proposed the "Lifestyle for Environment (LiFE) Movement." The goal of this initiative is to move away from "mindless and destructive consumption" towards environment-friendly conscious lifestyles (Ravindra et al., 2023). This and other similar initiatives are guided by the motivation that changing individual and community behavior alone can make a significant dent in the environmental and climate crises.

Existing research identifies many obstacles to pro-environmental behavior—financial costs, lack of information, weak social norms, diffusion of responsibility, and low perceived efficacy (Bartling et al., 2015; Andre et al., 2024; Gifford, 2011; Kollmuss and

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Agyeman, 2002), (see Blankenberg and Alhusen (2019) for a review). These factors underpin the well-documented attitude–behavior gap, where environmental concern often fails to produce consistent action (Rode et al., 2008; McNeill and Moore, 2015).

Yet, most studies treat inconvenience—the time, effort, or procedural burden of sustainable choices—as secondary or implicit. In practice, many unsustainable behaviors are not chosen out of indifference but because the alternative is easier: single-use plastics instead of reusables, driving short distances rather than using public transport, or buying fast fashion instead of sustainable apparel. Despite growing awareness of environmental crises, everyday consumption remains dominated by convenient but unsustainable choices. This study addresses this gap by investigating whether and how the inconvenience of the environmental actions, as well as the tradeoff between perceived environmental and self-benefit often attached to such actions, reduces willingness to act sustainably.

Consider choosing to cycle to work instead of driving. This imposes high objective inconvenience (more time, physical effort, weather sensitivity). If the benefit is framed as purely environmental (reduced carbon emissions), this burden may be enough to deter action. Even for individuals who value the environmental outcome highly, the action may still be less preferred because of the inherent inconvenience. Crucially, the deterrent effect may be amplified by the tradeoff: the individual might perceive themselves as sacrificing time and comfort only for the collective good. Conversely, the very same physical effort may be more readily rationalized if the benefit were framed around a concrete personal gain, such as improved cardiovascular health or significant savings on fuel and parking. This dynamic suggests that while inconvenience is a general barrier, when the action's benefit is perceived as strictly altruistic, the inconvenience is less rationalized, reinforcing the dominance of convenient but unsustainable choices and resulting in a significantly reduced willingness to act pro-environmentally.

Convenience—defined as the reduction of time and effort relative to other options—has become a central determinant of modern consumption decisions.[1] It is described as a "powerful force driving social economies" but also a driver of environmentally damaging behavior (Oka, 2021). The global challenge of sustainable consumption thus rests not only on willingness to pay but also on willingness to tolerate inconvenience. While inconvenience also arises in actions that benefit oneself—such as cooking healthy meals, exercising, or completing administrative tasks (Ubel et al., 2015; Sunstein, 2018)—comparing willingness to bear effort across personally beneficial and environmentally beneficial actions can reveal whether avoidance of inconvenience is a general human tendency or one that intensifies when the outcome serves collective rather than private goals. The analysis further examines how this avoidance varies across psychological and demographic traits linked to environmental behavior (Blankenberg and Alhusen, 2019).

The experiment models behavioral change as variation in the perceived cost of inconvenience—the extent to which identical effort feels more or less burdensome depending on who benefits from it. Participants made repeated binary choices between a convenient option (no effort) and an inconvenient option that required completing the slider task (Gill and Prowse, 2019) under four structured conditions: (1) effort for higher personal gain, (2) effort for higher environmental gain, (3) effort for personal gain when a convenient environmental option exists, and (4) effort for environmental gain when a con-

[1] https://www.euromonitor.com/megatrends-convenience/report

venient personal option exists. This structure, adapted from Exley (2016), allows precise comparison of willingness to exert effort when self-interest and environmental concern are isolated or conflict.

Pro-environmental action is proxied through donations to environmental charities. Participants chose one from a list of three well-known environmental organizations after being informed about their work and estimated environmental impact per donated dollar[2].

The amount of donation to charity is not fixed for each subject. We know that effort provision depends on incentives (DellaVigna and Pope, 2018). In order to compare effort provision between selfish context and environmental context, we need the difference in effort to be driven entirely by underlying emotions towards personal benefit and environmental benefit and not because of differences in monetary incentives. Since I may not value a \$8 donation for the sake of environment the same as I value \$8 for myself, making the financial incentive constant at \$8 in both contexts could lead to non-interpretable results. Thus individual valuations are normalized across domains using the normalization task adapted from Exley (2016). Each participant first reports, in an incentive-compatible setup, the donation amount they consider equivalent in value to \$8 of personal payoff. This donation-equivalent amount denoted X_i, personalizes subsequent charity payoffs so that comparisons across self and environment contexts reflect differences in motivation rather than in monetary scale.

Inconvenience was manipulated by varying the number of slider tasks required—one, three, five, or seven repetitions—while keeping potential payoffs constant. This variation isolates how perceived cost rises with effort when actions benefit oneself versus the environment.

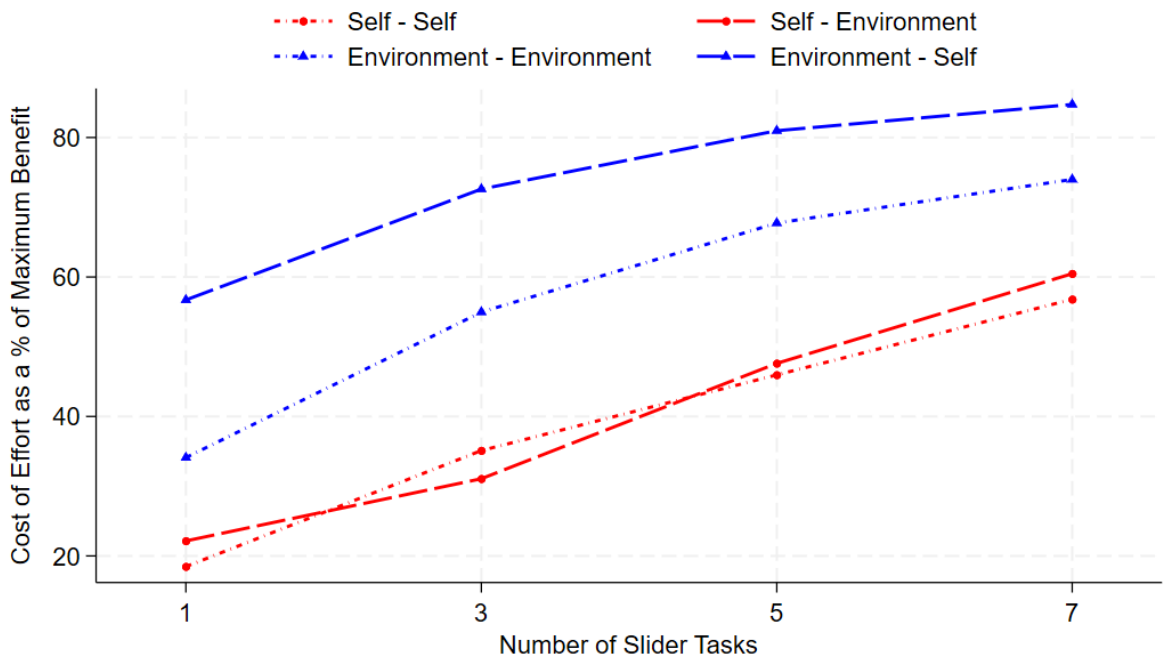
A central question is whether inconvenience is subjective: the same time and effort may be acceptable in one context but not in another. Results show that shifting the benefit domain from self to environment substantially increases the perceived cost of inconvenience. Figure 1 illustrates the mean costs at each inconvenience level across all four contexts. Even in the absence of tradeoff, the cost of inconvenience is higher across all levels of inconvenience (about 19 percentage points on average) when the effort benefits the environment. Thus showing that despite monetary equivalence in payoffs across domains, there exists a large gap in willingness to incur inconvenience.

When effort benefits the environment under a self–environment tradeoff, the cost increases further by approximately 15 percentage points relative to the no-tradeoff cost for environment. This indicates excuse-driven preferences: individuals justify avoiding pro-environmental effort by appealing to self-interest. Figure 1 shows that costs under Self–Self and Self–Env contexts are virtually identical. The cost of inconvenience for personal benefit is unaffected by whether the alternative benefits the self or the environment, showing that when effort benefits the self, the equalized monetary incentives (from the normalization task) fully align behavior across contexts. Thus confirming that the perceived burden of inconvenience is subjective, higher for environment than self and excuses operate asymmetrically—used to avoid environmental inconvenience but not personal inconvenience.

Results also show that in the tradeoff contexts, the increase in self-related cost is gradual, while environmental cost spikes early and then plateaus. At low inconvenience

[2]List and description of charities is given in Appendix Section B

Figure 1: Cost of Effort



levels, even minor burdens sharply raise environmental cost perception; as effort intensifies, self-related costs catch up, narrowing the gap. In the no-tradeoff context, cost differences across inconvenience levels are statistically indistinguishable.

Together, these findings establish that inconvenience is domain-dependent and psychologically constructed: identical physical effort is perceived as substantially more costly when its outcome benefits the environment rather than oneself. The remainder of the paper proceeds as follows: Section 2 describes the experimental design, Section 3 formalizes the behavioral framework and derivation of the cost-of-inconvenience measures, Section 4 states the main hypotheses, Section 5 presents the empirical specification and core findings and Section 7 concludes.

2 Experiment Design

A 100 subjects participated in 4 sessions of this experiment conducted in the experimental economics laboratory at Purdue University. Participants received a $5 show-up fee plus additional earnings determined by their own choices and a randomization protocol (detailed in Section 2.6). Subjects' decisions could also lead to charitable donations to a charity of their choice from a provided list. Subjects were provided a list of three charities to choose from. They were told that some of their decisions in the experiment may lead to a donation to their selected charity based on their decisions. The charity list comprised Ocean Blue Project, One Tree Planted, and Clean Air Task Force (CATF)—selected to span a wide range of environmental action, and because for each charity I could obtain a *per-dollar environmental benefit metric* (e.g., pounds of plastic recovered, trees planted,

or tons of CO_2 abated) (Refer to Appendix Section B for details on charities).

Each session implemented the same building blocks but *randomized the sequence of the four main decision contexts at the session level* (between-session randomization). Within each context, subjects made a series of binary choices arranged in a multiple price list format. Subjects also completed a post experiment survey questionnaire aimed as recording demographics and pro-environmental attitudes.

We begin by describing the real-effort task that defines the effort/inconvenience manipulation, followed by the normalization task, the four main decision contexts, the subject and charity payment mechanism and the bonus tasks used to measure individual's risk and pro-sociality measures. Formal definitions of the inconvenience cost measures appear in the next section.

Table 1: Demographic Characteristics of Participants

	All (N=100)	$X \leq 20$ (N=68)
Gender		
Female	51	37
Male	49	31
Ethnicity		
Asian	49	31
White	43	31
Hispanic/Latino	5	4
Black/African American	2	1
Other	1	1
College Year		
Freshman	5	5
Sophomore	25	18
Junior	19	10
Senior	35	25
Graduate	16	10
Age (years)		
18–19	27	22
20–21	48	30
22–23	15	9
≥24	10	7
Economics Classes Taken		
0–1	66	44
2–3	25	17
≥4	9	7

Notes. Values represent the number of participants in each category for the full sample (N=100) and the restricted subsample ($X \leq 20$, N=68). Most subjects were Asian or White, evenly split by gender, primarily upper-level undergraduates, and typically aged 18–21.

Figure 2: Slider Task

2.1 The Real-Effort Slider Task

Inconvenience was operationalized through a standard *Slider Task* widely used in real-effort experiments (Gill and Prowse (2019)). In each task, participants saw 50 horizontal sliders on a computer screen. Each slider initially appeared at a random position on its bar and had to be moved so that its handle aligned precisely with a target dot at the center of the bar (Figure 2). A slider changed color (from purple to green) once correctly positioned, providing immediate feedback. Participants could use the mouse freely and progress only after all sliders reached their target positions. This task captures a form of mild, measurable inconvenience that is cognitively simple but time-intensive, allowing precise control of effort without requiring skill or risk. The number of slider tasks to be completed corresponds directly to the inconvenience in a given decision context. The interface prevented advancement until all slider tasks were completed, ensuring compliance.

Before entering incentivized tasks, participants completed two *practice rounds* of the slider task. The software recorded each participant's average completion time per slider. This individual timing was displayed in subsequent tasks to provide personalized estimates of the time cost associated with completing the required number of slider tasks (e.g., "completing 3 slider tasks will take approximately 2.8 minutes"). The practice rounds were also aimed to reinforce the link between effort and inconvenience central to the experiment's design. Importantly subjects were told that once all the decision rounds are complete, subjects will be allowed to finish the experiment and leave at their own pace. That is, they will not need to wait for other participants while they complete their slider tasks to finish the experiment together. This adds an opportunity cost of time as well to choosing to do slider tasks since they could choose to not do the tasks and leave the lab sooner.

2.2 Normalization Task (Charity Equivalence)

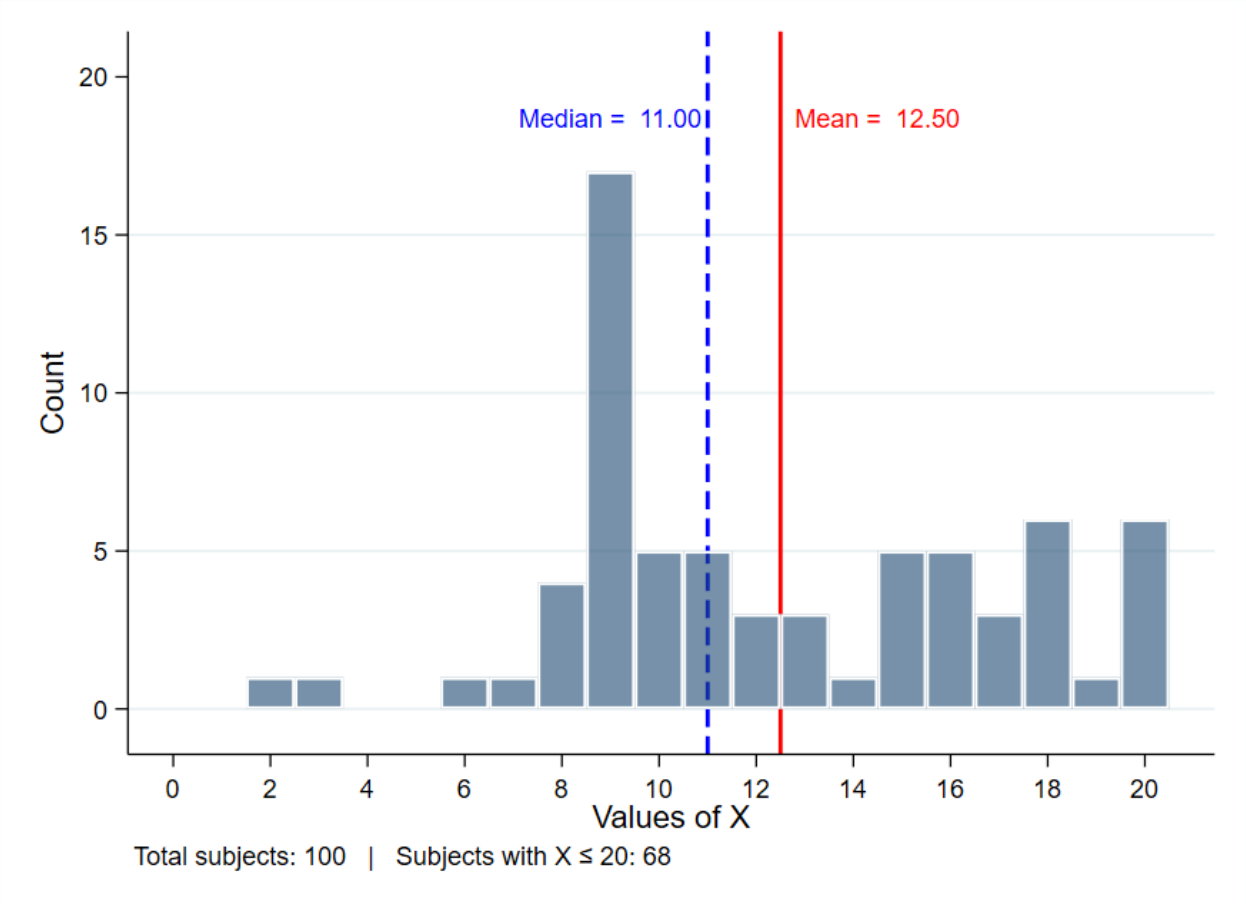
The normalization task established, for each participant i, a charity-equivalent amount X_i that is *personally indifferent* to receiving \$8 for oneself. In a Multiple Price List (MPL)

format, subjects were presented with multiple binary choices between a fixed \$8 benefit for self and benefit for the environmental charity increasing from 0 to \$20, in increments on a dollar. On each row, subjects choose between:

> **Option A:** You receive \$8; charity receives \$0. **& Option B:** You receive \$0; your chosen environmental charity receives $\$0, \$1, \ldots, \$20$.

A screenshot of the normalization task table is given in Figure A.4. The *switching row* where a subject preferred donating to self-payoff determined X_i, the minimum donation amount to the charity that equaled the value of \$8 for self. Subsequent multiple price lists use equal percentage steps of these maxima (\$8 and $\$X_i$), so that in any given comparison, irrespective of the domain (self-benefit or environmental benefit) the values are always equivalent[3]. Thus, each participant's X_i was then carried forward to all decision contexts involving charity payoffs, ensuring within-subject decision comparability without assuming equivalence of benefits in the two domains (self & environment) or imposing any arbitrary conversion rule.

Figure 3: Distribution of X



[3]It is possible that X_i does not represent the point of indifference but since at this number subject gave up the personal benefit of \$8, it is greater than or equal to the point of indifference. Section 3.1 discusses how this is dealt with in the analysis.

Figure 3 presents the distribution of X_i. 17 participants (out of 100) were indifferent at a charity amount of \$9—implying full efficiency with no monetary waste—while 43 others required donations exceeding this level up till the maximum of \$20. 32 out of 100 subjects always chose \$8 for themselves or never chose Option B. It is typical to find a comparable number of subjects who chose to never give up personal monetary benefit for charity (Exley (2016); Engel (2011)). Since the charitable indifference amount is uncertain for these candidates, they are dropped from the main analysis. For the rest of the experiment these subjects were assigned the maximum charitable amount of \$20 as their X_i. \$20 is only the lower bound for these subjects and including them in the analysis does not change our results.

2.3 Main Rounds

After the normalization task, participants completed 16 main rounds under four distinct *decision contexts*. Each round consisted of multiple binary choices in the form of MPL tables, similar to the normalization task. In each row of an MPL table, subjects made a choice between an inconvenient and a convenient option. The number of slider tasks required for the inconvenient option varied by round—1, 3, 5, or 7 slider tasks, each consisting of 50 sliders—to create discrete and progressively higher levels of inconvenience while keeping the cognitive demands identical.

The contexts differed in whose payoff was affected (self or charity) and whether the choice involved a trade-off between personal and environmental benefits: *Self–Self*, *Env–Env*, *Self–Env*, and *Env–Self*. In every context, the inconvenient option yielded the maximum possible benefit for that domain—either \$8 for self or the subject-specific X_i for charity—conditional on completing a required number of slider tasks (1, 3, 5, or 7). The convenient option provided a smaller payoff without inconvenience (equal payoff in the last row). Table glimpses below summarize the structure (exact 16-row tables given in the Appendix A). The order of contexts was randomly varied across sessions, but within a context the order of rounds was consistent - each context started with 1 slider task requirement and ended with 7 slider tasks requirement. Results are robust to context orders.

Each MPL list contained exactly 16 ordered rows for all participants. The convenient payoff in Option B increased proportionally to the maximum available payoff in that context—\$8 for self-benefit or the equivalent X_i for charity-benefit—so that the increments represented equal 6.25% steps of the maximum. This ensured that the payoffs were proportionally identical in each row across participants and contexts, even when absolute amounts differed. The software enforced a single switching point per list: once a participant switched from the inconvenient to the convenient option (or vice versa), all subsequent rows were automatically selected accordingly, preventing inconsistent reversal.

Self–Self (No Trade-off)

Option A: You receive \$8 *after completing* # sliders. Option B: You receive $\{0, 0.5, 1.0, \ldots, 8.0\}$ with no inconvenience. There was no environmental payoff in this context.

Excerpt from the Self–Self context (monotonic list with 16 rows).

Row	Option A (Inconvenient Self)	Option B (Convenient Self)
1	You: \$8 after sliders	\$0.00
2	You: \$8 after sliders	\$0.50
9	You: \$8 after sliders	\$4.00
16	You: \$8 after sliders	\$8.00

Env–Env (No Trade-off)

Personal payoff not affected by any option in this context. Option A: Your chosen charity receives X_i *after completing* # sliders. Option B: The charity receives a convenient amount in $\{0, 0.0625X_i, 0.125X_i, \ldots, X_i\}$ with no inconvenience.

Excerpt from the Env–Env context.

Row	Option A (Inconvenient Charity)	Option B (Convenient Charity)
2	Charity: X_i after sliders	$0.0625X_i$
9	Charity: X_i after sliders	$0.50X_i$
16	Charity: X_i after sliders	X_i

Env–Self (Trade-off)

Option A (Inconvenient, Environment): Charity receives X_i after completing # sliders; you receive \$0. Option B (Convenient, Self): You receive an amount in $\{0, 0.5, \ldots, 8.0\}$ with no inconvenience; charity receives \$0.

Excerpt from the Env–Self context (inconvenient charity vs. convenient self).

Row	Option A (Inconvenient Charity)	Option B (Convenient Self)
2	Charity: X_i after sliders	You: \$0.50
9	Charity: X_i after sliders	You: \$4.00
16	Charity: X_i after sliders	You: \$8.00

Self–Env (Trade-off)

Option A (Inconvenient, Self): You receive \$8 after completing # sliders; charity receives \$0. Option B (Convenient, Charity): The charity receives an amount in $\{0, 0.0625X_i, \ldots, X_i\}$ with no inconvenience; you receive \$0.

Excerpt from the Self–Env context (inconvenient self vs. convenient charity).

Row	Option A (Inconvenient Self)	Option B (Convenient Charity)
2	You: \$8 after sliders	Charity: $0.0625X_i$
9	You: \$8 after sliders	Charity: $0.50X_i$
16	You: \$8 after sliders	Charity: X_i

Together, these four contexts allow comparison between inconvenience aversion across domains (self versus environment) and under different motivational frames (with and without self–environment trade-offs). The Self–Self and Env–Env contexts identify baseline aversion to inconvenience within a single payoff domain, while the Self–Env and Env–Self contexts reveal how this aversion changes when decisions involve conflicting personal and environmental interests. Because X_i was individualized from the normalization task, differences in switching behavior reflect genuine preference variation rather than arbitrary scaling between self and charity payoffs.

2.4 Risk-Preference Elicitation

At the outset, participants also completed a simple lottery-choice list (similar in format to an MPL table) analogous to the Holt and Laury (2002) procedure, where Option A offered \$8 with a 75% probability and \$0 otherwise, while Option B offered a certain payment increasing from \$0 to \$8 across rows. This was included as a control for heterogeneity in risk attitudes. Risk Elicitation task and the SVO task (see below) were two bonus rounds and one of them was randomly selected to be paid as well. Risk elicitation task was also the first task attempted by subjects after the slider task. The purpose of this positioning was to familiarize subjects with the decision making process and outcome selection in an MPL table.

2.5 Social Value Orientation Task (SVO) (Murphy et al. (2011))

Finally, participants completed the SVO task - a six-item allocation task between self and an anonymous other, expressed in points convertible at \$0.05 per point. One decision was randomly selected, and roles (Sender/Receiver) were assigned at random. This served as a benchmark for prosociality in the sample, also used to test for decision heterogeneity.

2.6 Payment and Implementation Details

Subjects were paid for one randomly selected round from the main rounds and one of the bonus tasks. For the selected main round, a single row was randomly drawn and the recorded choice implemented. If the selected option required slider completion, subjects performed the corresponding number of sliders after all decision screens and a short survey. The interface enforced exact completion—participants could proceed only after all sliders were correctly positioned.

Donations to the environmental charities (Ocean Blue Project, One Tree Planted, and Clean Air Task Force) were aggregated and made publicly at the end of the experimental series. After completing Part 3, the survey, and any required slider tasks, participants received private cash payments and were allowed to leave individually.

3 Measuring the Cost of Inconvenience

3.1 Identifying Switching Points

In each decision list, the convenient payoff in Option B increased monotonically across 16 rows, and the interface enforced a single switching point. For participant i, let r_i denote the row where they first chose the convenient option, and let b_i be the convenient payoff displayed on that row, expressed in the payoff domain of the convenient option (self dollars or charity dollars).

b_i is the minimum convenient payoff that just compensates the participant for giving up the maximum available payoff under inconvenience. At this payoff subject could be (i) indifferent between the convenient and inconvenient payoff, or (ii) it could be higher than the indifference payoff such that the indifference payoff can be anywhere between b_i and the payoff in the previous row. For main analysis we assume that b_i represents the indifference payoff and show as a robustness that similar estimations using the interval and the mid-point between b_i and payoff in the previous row, provide the same results. The cost of inconvenience is estimated as the shortfall between the domain's maximum benefit (i.e. the earning from the inconvenient option) and this minimum compensating amount.

Edge Cases. If a participant always chose the *inconvenient* option, we set b_i equal to the domain's maximum payoff (zero cost of inconvenience). If they always chose the *convenient* option, we set $b_i = 0$ (maximum possible cost of inconvenience). These conventions ensure that $C_i \in [0, \text{maximum payoff}]$ for all participants and if anything, they provide conservative measures of cost of inconvenience. Higher C_i consistently represents greater avoidance of inconvenience.

3.2 Cost of Inconvenience in Single-Domain Contexts

In the *Self–Self* and *Env–Env* contexts, participants decided between inconvenient and convenient options within the same payoff domain. The cost of inconvenience for participant i in each case is given by:

$$C_{s,i} = 8 - b_i^{(s)}, \qquad C_{e,i} = X_i - b_i^{(e)},$$

where $b_i^{(s)}$ is the convenient self-benefit at the switching row, and $b_i^{(e)}$ is the convenient charity-benefit at the switching row. Both are expressed in their native units—self dollars and charity dollars, respectively.

For comparability across participants and domains, we scaled these costs by each domain's maximum payoff and use these as percentages in the main analysis:

$$\tilde{C}_{s,i} = \frac{C_{s,i}}{8}, \qquad \tilde{C}_{e,i} = \frac{C_{e,i}}{X_i}.$$

Here, $\tilde{C}$ represents the proportion of maximum potential benefit the participant is willing to forgo to avoid inconvenience within that domain.

3.3 Cost of Inconvenience in Trade-Off Contexts

In the *Env–Self* and *Self–Env* contexts, participants decided between an *inconvenient payoff* in one domain and a *convenient payoff* in another. The cost of inconvenience is measured in the units of the *convenient domain*, since the convenient option defines the compensation for avoiding inconvenience.

- In the *Env–Self* context, the inconvenient option benefits the charity (X_i) while the convenient option benefits the participant ($8). The participant's cost of inconvenience for the environment, expressed in self-dollars, is:

$$C_{e|s,i} = 8 - b_i^{(s|e)}.$$

  Here, $b_i^{(s|e)}$ is the convenient self-benefit at the switching row—the smallest self amount that makes the participant indifferent to avoiding the inconvenient environment benefiting task.

- In the *Self–Env* context, the inconvenient option benefits the participant ($8) while the convenient option benefits the charity (X_i). The participant's cost of inconvenience for self, expressed in charity dollars, is:

$$C_{s|e,i} = X_i - b_i^{(e|s)}.$$

  Here, $b_i^{(e|s)}$ is the convenient charity-benefit at the switching row—the smallest charity amount that compensates the participant for giving up the inconvenient self benefiting task.

For cross-context comparison, these are scaled analogously:

$$\tilde{C}_{e|s,i} = \frac{C_{e|s,i}}{8}, \qquad \tilde{C}_{s|e,i} = \frac{C_{s|e,i}}{X_i}.$$

3.4 Interpretation and Comparability

Each scaled measure $\tilde{C}$ represents the proportion of maximum benefit a participant is willing to sacrifice to avoid inconvenience in that context. Higher values of $\tilde{C}$ indicate stronger aversion to inconvenience. Comparing $\tilde{C}_{s,i}$ and $\tilde{C}_{e,i}$ captures domain-specific differences in inconvenience aversion, while comparing $\tilde{C}_{e|s,i}$ and $\tilde{C}_{s|e,i}$ reveals how these preferences shift when self–environment trade-offs are introduced. Because all payoffs were scaled to a constant 16-row grid with equal 6.25% increments and individualized X_i, these scaled measures are directly comparable across participants and contexts, independent of payoff magnitude.

4 Hypotheses

The experiment was designed to test how inconvenience affects pro-environmental decisions relative to personally beneficial ones, and whether self–environment trade-offs amplify this effect. The hypotheses build directly on the behavioral interpretation of inconvenience as a disutility term that reduces the net utility of an action.

4.1 Hypothesis 1: Domain Effect

H1: Inconvenience deters pro-environmental actions more than self-benefiting actions.

When inconvenience yields self-benefit, individuals may perceive the required action as more justifiable or feel a stronger sense of ownership over the resulting reward. In contrast, when inconvenience benefits an impersonal or altruistic target (the environment), its disutility may loom larger. Thus, if inconvenience imposes a larger psychological or motivational cost when it benefits the environment rather than the self, participants should be willing to forgo a greater fraction of potential benefit to avoid inconvenience in the environmental domain. Formally,

$$H_0 : \mathbb{E}[\tilde{C}_e] = \mathbb{E}[\tilde{C}_s], \qquad H_A : \mathbb{E}[\tilde{C}_e] > \mathbb{E}[\tilde{C}_s].$$

Comparing $\tilde{C}_e$ (Env–Env context) and $\tilde{C}_s$ (Self–Self context) identifies whether inconvenience aversion is domain-specific.

4.2 Hypothesis 2: Trade-Off Effect

H2a: The deterrent effect of inconvenience is amplified when pro-environmental actions conflict with self-benefit.

In the Env–Self context where individuals face a direct trade-off between personal and environmental benefits, the disutility of inconvenience may serve as a convenient justification for prioritizing personal gain. This prediction follows the logic of "excuse-driven preferences," in which people exploit situational factors to rationalize self-serving behavior. Since there is no self-benefit tradeoff involved in the Env–Env context, the only mental consideration involved is regarding environmental benefit and associated effort thus blocking the excuse channel present in the tradeoff condition. Thus if inconvenience provides such an excuse, the cost of inconvenience in environmental tasks should rise above the cost of inconvenience under Env–Env. Formally:

$$H_0 : \mathbb{E}[\tilde{C}_{e|s}] = \mathbb{E}[\tilde{C}_e], \qquad H_A : \mathbb{E}[\tilde{C}_{e|s}] > \mathbb{E}[\tilde{C}_e].$$

H2b: the cost under Self–Env should match the cost in pure self domain.

The *Self–Env* context pits an inconvenient self-benefit against a convenient environmental benefit, whereas *Self–Self* pits the same inconvenient self-benefit against a convenient self benefit. Thus, the inconvenient option (Option A) is exactly the same in both these contexts. If the equivalence identified at normalization remains valid in contexts involving inconvenience, the convenient options (Option B) also provides equivalent numbers in both contexts. This implies:
Formally,

$$H_0 : \quad \mathbb{E}\big[\tilde{C}_{s|e}\big] \;=\; \mathbb{E}\big[\tilde{C}_s\big]\,.$$

5 Results

5.1 Regression Specification

These hypotheses are evaluated using a difference-in-differences (DiD) specification of the following form:

$$Y_{si} = \gamma_0 + \gamma_1 \text{Charity}_{si} + \gamma_2 \text{Tradeoff}_{si} + \gamma_3 (\text{Charity}_{si} \times \text{Tradeoff}_{si}) + \sum_s \lambda_s + \mu_i + \varepsilon_{si}.$$

Here, Y_{si} denotes the *scaled cost of inconvenience*—the proportion of the maximum possible benefit forgone to avoid inconvenience—for participant i at slider-task level s. Charity_{si} is an indicator equal to one when the inconvenient option benefits the charity (environmental domain) and zero when it benefits the participant (self domain). Tradeoff_{si} equals one for contexts involving a self–environment trade-off (*Self–Env* or *Env–Self*) and zero otherwise (*Self–Self* or *Env–Env*). The interaction term $\text{Charity}_{si} \times \text{Tradeoff}_{si}$ captures the incremental deterrent effect of inconvenience in environmental trade-offs, interpreted as the *excuse-driven amplification* of inconvenience aversion. $\sum_s \lambda_s$ represents slider-level fixed effects (for 1, 3, 5, and 7 slider tasks), μ_i denotes individual fixed effects capturing subject-specific baseline tendencies, and ε_{si} is the idiosyncratic error term. Including individual fixed effects ensures that coefficients are identified entirely from within-participant variation across contexts.

In this specification, γ_1 identifies the **domain effect** (environment vs. self), γ_2 captures the average **trade-off effect** (trade-off vs. no trade-off), and γ_3 measures the **incremental deterrent effect** of inconvenience when environment-self trade-offs make excuse-driven behavior possible.

Results from the regression specification are given in Table 2. Columns (2)-(5) include subject fixed effects. Columns (3) and (5) include inconvenience level fixed effects. The main analysis does not include individuals who choose to never donate in the normalization task. Thus we included only the individuals who had X less than or equal to 20 and did not include the individuals for whom X is greater than 20 and indeterminate in the data. As a robustness Table 2 Column (5) includes all subjects and the results are consistent. These are discussed in detail in the relevant subsections below.

5.2 Evidence of Domain Specific Cost of Inconvenience

A central question in this research is to see if inconvenience is subjective. The same amount of time and effort maybe acceptable under certain circumstances and not acceptable or less acceptable under other circumstances. The first interesting results here is that changing the domain of benefit from personal to environmental, we see a large increase in individuals cost of inconvenience. Figure 1 plots means of these costs for each inconvenience level.

In Table 2, the coefficients for *Charity = 1* shows the impact of charity on cost of Inconvenience in no tradeoff context. The cost is higher by about 19 percentage points when inconvenience is to be incurred for environment as compared to oneself. The result is consistent across all specifications presented in the table. Thus satisfying the hypothesis **H1**. Interestingly, upon including the subjects with $X > 20$, results show that the cost in environmental domain is larger by about 36 percentage points as compared to 19pp when

Table 2: Cost of Inconvenience Across Contexts

Regression	OLS					Interval
VARIABLES	Yupper	Yupper	Yupper	Ymiddle	Yupper	Yupper Ylower
	(1)	(2)	(3)	(4)	(5)	(6)
Charity = 1 (& Tradeoff = 0)	18.61***	18.61***	18.61***	18.61***	36.39***	18.61***
	(3.162)	(3.264)	(3.269)	(3.264)	(3.864)	(3.157)
Tradeoff = 1 (& Charity = 0)	1.243	1.243	1.243	1.243	2.337	1.243
	(2.229)	(2.302)	(2.305)	(2.302)	(2.469)	(2.226)
1.Charity#1.Tradeoff	14.82***	14.82***	14.82***	11.69***	7.160*	17.94***
	(3.619)	(3.736)	(3.741)	(3.736)	(3.726)	(3.614)
Number of Slider Tasks = 3			15.58***		12.78***	
			(1.788)		(1.445)	
Number of Slider Tasks = 5			27.71***		23.97***	
			(2.725)		(2.198)	
Number of Slider Tasks = 7			36.14***		30.83***	
			(3.322)		(2.632)	
Constant	39.09***	39.09***	19.23***	42.21***	16.43***	35.96***
	(3.622)	(1.896)	(2.581)	(1.896)	(2.145)	(3.617)
	(3.622)	(1.896)	(2.581)	(1.896)	(2.145)	(0.0307)
Observations	1,088	1,088	1,088	1,088	1,600	1,088
Ind FE	No	Yes	Yes	Yes	Yes	No
$X > 20$	No	No	No	No	Yes	No

Notes. *** p<0.01, ** p<0.05, * p<0.1. Standard errors clustered at subject level and given in parentheses. The dependent variable $\tilde{Y}_i$ is the **scaled cost of inconvenience** – $\tilde{C}_{s,i}$, & $\tilde{C}_{e,i}$. in the tradeoff context and $\tilde{C}_{s|e,i}$, & $\tilde{C}_{s|e,i}$. in the tradeoff context.
Columns (1)–(5) report OLS specifications. Columns (1)-(3) and (5) use the upper bound that is the cost calculated using b_i (the switching-row convenient payoff), with Column (2) including individual fixed effects and Column (3) further adding slider-task fixed effects (3, 5). Column (4) uses the midpoint measure where cost if calculated using the midpoint between b_i and the convenient payoff in the previous row. Column (5) includes all subjects, that is even subjects with $X_i > 20$. Column (6) reports the interval-regression model using $[\tilde{Y}_i^{lower}, \tilde{Y}_i^{upper}]$, where $\tilde{Y}_i^{lower}$ is the cost calculated using the convenient payoff in the row before b_i. "Ind FE" indicates inclusion of individual fixed effects.

these subjects were not included. Subjects who chose to not donate in normalization task can be considered less pro-environmental as compared to others. Column (1) in Table A1 provides evidence that a one dollar increase in X is associated with about 1.5 percentage points increase in the difference between cost under environmental vs self domains. Table A2 confirms that the Cost of Inconvenience is significantly higher for the environment under all levels of inconvenience (number of slider tasks), despite large and significant increases in the cost by number of slider tasks under the personal benefit domain as well.

5.3 Evidence for Excuse Driven Environmental Preferences

As evident from Figure 1 the costs of Inconvenience obtained under the *Self–Env* and *Self–Self* contexts are indistinguishable from each other. Coefficients for Tradeoff = 1 (& Charity = 0) in Table 2 also shows that the difference between these two costs in tiny and statistically insignificant. Thus the cost of inconvenience for personal benefit does not change irrespective of the domain of the convenient option, in line with **H2b**. This evidence suggests that subjects do not use benefit to environment as an excuse to reduce inconvenience involved in personal benefit. This is a very significant finding as it suggests it may not be the inconvenience of the task but entirely the domain for which inconvenience is required that dictates the excuse driven preferences.

Under self-environment tradeoff when the inconvenience was required for environmental benefit, the cost of inconvenience is higher by about 15 percentage points on top of the cost under no trade-off. Thus the tradeoff leads to a further increase in cost of inconvenience for environment, in line with hypothesis **H2a** (Table 2). This is evidence for excuse based preferences where people are using personal benefit as an excuse to not incur the environmentally friendly inconvenience.

Table A1 shows that as X increases the difference in the two cost domains increases and that difference is higher and more pronounced in the tradeoff context as compared to the no tradeoff context. Table A3 confirms that the Cost of Inconvenience in the tradeoff context is significantly higher for the environment under all levels of inconvenience (number of slider tasks). It also shows that under the tradeoff context, the difference in cost first increases significantly with increase in inconvenience and then it falls again as the required number of slider tasks rises to 7.

Table 3: Cost Differences Between Consecutive Slider Tasks by Domain - Tradeoff Context

Comparison	Self (No Charity)	SE	Environment (Charity)	SE
1 → 3 Slider Tasks	8.9***	1.82	15.9***	2.32
3 → 5 Slider Tasks	16.55***	3.44	8.36***	1.30
5 → 7 Slider Tasks	12.86***	2.42	3.76***	1.11

*** p<0.01, ** p<0.05, * p<0.1.

Robust standard errors clustered at subject level.

Notes. Each coefficient represents the difference in mean scaled cost between consecutive slider-task levels within a domain, obtained from postestimation pairwise comparisons (`pwcompare`). Positive coefficients indicate rising cost with greater inconvenience.

Table 3 shows that the rise in cost of inconvenience for self is more gradual whereas the cost for environment domain increases abruptly at first and then slowly as inconvenience increases. This implies that at low levels of inconvenience, the environmental cost increases sharply, indicating high sensitivity to even minor inconveniences in pro-environmental decisions. However, as inconvenience grows further, the self-related cost continues to escalate while the environmental cost levels off, narrowing the difference between the two domains. In no tradeoff context the difference between cost for self and cost for environment is never significantly different across inconvenience levels.

5.4 Tests for Heterogeneity

To examine heterogeneity in the cost of inconvenience, I use the measures of risk and pro-sociality measured using experimental methods and survey responses from the post-experiment survey administered immediately after the main tasks. The survey questionnaire is provided in Appendix Section C. These questions captures variation in environmental beliefs, self-reported pro-environmental behaviors, willingness to sacrifice comfort, time and effort preferences, and demographic characteristics such as gender, race, major, and political orientation. These measures, enable linking behavioral responses in the experiment to underlying attitudinal and demographic traits, allowing a systematic assessment of how individual differences shape the perceived cost of inconvenience across contexts.

To examine whether the cost of inconvenience varies across individual traits, I estimate heterogeneity regressions for each context—Self–Self, Self–Environment, Environment–Self, and Environment–Environment. Results are reported in Appendix Table A4. I also test for heterogeneity using as outcomes the difference in costs for environment and self in no tradeoff and tradeoff contexts, $\tilde{C}_{e,i} - \tilde{C}_{s,i}$, and $\tilde{C}_{e|s,i} - \tilde{C}_{s|e,i}$, reported in Appendix Table A5.

In the context-specific regressions, the coefficient on X is negative and significant in self-focused contexts (Self–Self: -1.852^{**}; Self–Env: -1.390^{**}), indicating that higher X is associated with lower perceived cost of inconvenience when acting for self-benefit. In contrast, the effect reverses in the Environment–Self condition (1.349^{*}) and the effect in the Env–Env condition is small and statistically insignificant. Since a larger X is associated with willingness to keep more money for self, these results imply that higher willingness to make money in the experiment for oneself dictates the cost of inconvenience. The same is evident from Table A5. Interestingly, when no self benefit is involved in the decision as in the Env-Env context, X does not relate to the cost. This implies that neither the measure of pro-environmental behavior as inferred from X nor the change in possible charity payoffs (larger X means larger charity payoffs) influences how much inconvenience one is willing to take up for the environment.

Practice time consistently increases costs across most contexts and works to reduce the difference in costs in the tradeoff context. Thus the longer it takes one to complete an inconvenient task, the less likely they are to take it up. Gender, prosocial orientation, and risk preferences show no systematic influence. Attitudinal heterogeneity, however, is evident: stronger pro-environmental attitudes predict lower costs in self-self context (-1.094^{**}), but not in any other contexts. Those willing to sacrifice comfort for environmental reasons display substantially lower perceived costs in both Self–Self and Env–Env conditions (-9.328^{**}; -11.38^{**}). Thus individuals' attitude regarding comfort is a better predictor of their willingness to take up effort for environment than their attitude regarding environment itself.

Demographic coefficients show large negative effects for Black and "Other" categories relative to Asian participants across several contexts (e.g., -27.42^{***} and -41.78^{***}), but these subsamples are small; the magnitudes should not be interpreted as informative of population-level differences.

In the cost difference analysis (Appendix Table A5), in no tradeoff context (column (1)) greater depth of future consideration narrows the environmental–self difference (-4.441^{**}) implying that forward looking individuals may be willing to take up more

inconvenience for environment. Also white subjects appear to have a lower difference in costs in no tradeoff context.

6 Conclusion

The study isolates inconvenience as a causal barrier to pro-environmental action using a real-effort slider task and an incentive-compatible normalization that equates \$8 for self with an individualized charity amount X_i. Keeping physical effort constant and monetary stakes equivalent across choices, identical effort was treated as substantially more onerous when it produced environmental benefit than when it produced personal benefit. In settings without a self–environment benefit tradeoff, participants were willing to forgo about 19 percentage points more of the available benefit to avoid environmental effort than to avoid personal effort. When a direct tradeoff was introduced—environmental effort versus convenient personal money—the deterrent effect rose by roughly 15 additional percentage points,consistent with excuse-driven preferences: the presence of a salient personal alternative supplies justification to avoid pro-environmental effort. By contrast, willingness to incur effort for personal payoffs did not change when the convenient alternative helped the environment rather than oneself, indicating that "excuses" operate asymmetrically—used to avoid environmental inconvenience but not to reduce inconvenient effort that benefits oneself.

The inconvenience sensitivity also differed across domains (self vs Environment). In tradeoff scenarios, environmental costs spiked at low inconvenience and grew slower from there, while self-related costs rose more gradually with effort, narrowing the gap only at higher inconvenience. This pattern implies that even modest frictions can disproportionately deter environmentally beneficial actions, whereas substantial effort is required before comparable deterrence emerges in the self domain. Together, the domain premium, the tradeoff amplification, and the differential slope supply a coherent account that inconvenience is not merely a fixed disutility but a psychologically constructed barrier that is larger and more behaviorally potent when actions help the environment.

Variation across individuals indicates that practical burdens—time taken and comfort lost—explain avoidance better than stated pro-environmental attitudes. Longer practice times—an empirical proxy for time intensity—increased avoidance broadly. Willingness to sacrifice comfort predicted lower avoidance in tasks without tradeoffs, whereas general pro-environmental attitudes were weak predictors once effort was salient.

The results have practical implications for the design of policies and consumer environments. The experiment shows that even small inconveniences can sharply reduce willingness to act for environmental benefit. Therefore, interventions that make sustainable choices easier—by saving time, minimizing hassle, or simplifying coordination—are likely to have a disproportionate impact. Reducing this "convenience gap" can be especially effective at low levels of effort, where avoidance relative to self benefit is strongest.

A second implication concerns the role of excuses when personal and environmental motives conflict. When individuals can justify inaction by appealing to self-interest, environmental effort drops further. Interventions that block or neutralize such excuses—by linking environmental improvements to personal benefits, by making sustainable options the default, or by removing procedural frictions from green alternatives—are expected to

be more successful than information campaigns that merely appeal to attitudes.

Finally, the fact that effort costs remain stable when actions benefit the individual suggests that people evaluate personal effort in a predictable way once the monetary reward is fixed. In other words, when effort directly produces self-gain, the perceived burden does not depend on what the alternative option is. This stability implies that the additional resistance observed in pro-environmental actions is not due to effort itself but to how people frame its purpose. Consequently, policymakers and firms can use private incentives—such as financial rewards, loyalty points, or personal co-benefits like health or convenience—to compensate for the extra inconvenience attached to sustainable actions. When calibrated correctly, such incentives can equalize willingness to act for personal and environmental outcomes without amplifying the psychological tendency to justify avoidance of environmental effort.

Several limitations qualify the interpretation of these findings. The sample consists of university participants, and the monetary stakes were moderate. The real-effort task captures a simple, low-skill form of inconvenience, and choices were recorded on a discrete price grid that imposes top-coding for participants who never donated. In addition, the environmental benefits were described but not experimentally varied in magnitude or certainty. These factors limit external validity, and replication in field settings with higher stakes and more diverse forms of inconvenience is necessary.

These limitations outline directions for future research. Subsequent work should examine how variation in environmental benefits and personal co-benefits influences willingness to exert effort, and whether these factors interact or substitute. Future studies could also disentangle different components of inconvenience—time, cognitive load, and uncertainty—to determine which most strongly drives avoidance. Extending the analysis to repeated or field settings would allow tests of persistence, habit formation, and the role of defaults at realistic scales. Comparing environmental decisions to other forms of altruism could clarify whether the observed asymmetry is unique to environmental outcomes. Finally, structural modeling that links individual valuations and effort costs could recover welfare-relevant parameters and inform the design of more efficient behavioral interventions.

Overall, the evidence establishes that inconvenience is not a neutral tax on action but a domain-sensitive cost that is highest, and most easily rationalized, when actions benefit the environment. Closing the convenience gap—not merely shifting attitudes—appears pivotal for translating pro-environmental intentions into behavior.

A Experiment Design

Figure A.1: Normalization Task

Row No.	**Option A (You receive)**		**Option B (EC Receives)**
1	You: $8 ○	**or**	○ One Tree Planted: $0
2	You: $8 ○	**or**	○ One Tree Planted: $1
3	You: $8 ○	**or**	○ One Tree Planted: $2
4	You: $8 ○	**or**	○ One Tree Planted: $3
5	You: $8 ○	**or**	○ One Tree Planted: $4
6	You: $8 ○	**or**	○ One Tree Planted: $5
7	You: $8 ○	**or**	○ One Tree Planted: $6
8	You: $8 ○	**or**	○ One Tree Planted: $7
9	You: $8 ○	**or**	○ One Tree Planted: $8
10	You: $8 ○	**or**	○ One Tree Planted: $9
11	You: $8 ○	**or**	○ One Tree Planted: $10
12	You: $8 ○	**or**	○ One Tree Planted: $11
13	You: $8 ○	**or**	○ One Tree Planted: $12
14	You: $8 ○	**or**	○ One Tree Planted: $13
15	You: $8 ○	**or**	○ One Tree Planted: $14
16	You: $8 ○	**or**	○ One Tree Planted: $15
17	You: $8 ○	**or**	○ One Tree Planted: $16
18	You: $8 ○	**or**	○ One Tree Planted: $17
19	You: $8 ○	**or**	○ One Tree Planted: $18
20	You: $8 ○	**or**	○ One Tree Planted: $19
21	You: $8 ○	**or**	○ One Tree Planted: $20

Figure A.2: Self–Self

Row No.	Option A (You Receive) Requires 1 Slider Task/s		Option B (You receive) No Slider Task required
1	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$0.0**
2	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$0.5**
3	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$1.0**
4	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$1.5**
5	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$2.0**
6	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$2.5**
7	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$3.0**
8	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$3.5**
9	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$4.0**
10	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$4.5**
11	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$5.0**
12	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$5.5**
13	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$6.0**
14	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$6.5**
15	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$7.0**
16	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$7.5**
17	You:**$8** after completing **1 Slider Task/s** ○	**or**	○ You: **$8.0**

Figure A.3: Env–Env (for X_i =16 & One Tree Planted as the chosen charity)

Row No.	Option A (EC Receives) Requires 1 Slider Tasks		Option B (EC receives) No Slider Task required
1	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$0.0**
2	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$1.0**
3	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$2.0**
4	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$3.0**
5	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$4.0**
6	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$5.0**
7	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$6.0**
8	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$7.0**
9	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$8.0**
10	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$9.0**
11	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$10.0**
12	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$11.0**
13	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$12.0**
14	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$13.0**
15	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$14.0**
16	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$15.0**
17	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$16.0**

Figure A.4: Env–Self (for X_i =16 & One Tree Planted as the chosen charity)

Row No.	Option A (EC Receives) Requires 1 Slider Tasks		Option B (You receive) No Slider Task required
1	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$0.0**
2	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$0.5**
3	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$1.0**
4	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$1.5**
5	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$2.0**
6	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$2.5**
7	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$3.0**
8	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$3.5**
9	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$4.0**
10	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$4.5**
11	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$5.0**
12	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$5.5**
13	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$6.0**
14	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$6.5**
15	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$7.0**
16	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$7.5**
17	One Tree Planted: **$16.0** after completing **1 Slider Task/s** ○	**or**	○ You: **$8.0**

Figure A.5: Self–Env (for X_i =16 & One Tree Planted as the chosen charity)

Row No.	Option A (You Receive) Requires 1 Slider Tasks		Option B (EC receives) No Slider Task required
1	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$0.0**
2	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$1.0**
3	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$2.0**
4	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$3.0**
5	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$4.0**
6	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$5.0**
7	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$6.0**
8	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$7.0**
9	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$8.0**
10	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$9.0**
11	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$10.0**
12	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$11.0**
13	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$12.0**
14	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$13.0**
15	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$14.0**
16	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$15.0**
17	You: **$8** after completing **1 Slider Task/s** ○	**or**	○ One Tree Planted: **$16.0**

B List of Charities

Ocean Blue Project: Ocean Blue Project is an ocean cleanup organization taking action to protect the health of humans, our One World Ocean, beaches, and rivers through collaborative community driven plastic pollution relief, service-learning projects, scientific research, and youth education. Ongoing Beach Clean-Ups are taking place in multiple United States locations. For every $1 donation, they recover 5 pounds of plastic and debris.

One Tree Planted: One Tree Planted projects are funded for the benefit of forest restoration, biodiversity conservation, ecological restoration, and agroforestry. They also provide community benefits such as improving local health, supporting indigenous project ownership, and encouraging sustainable income generation. They work with local planting partners in more than seventy countries, across diverse ecosystems, to fund large-scale, high-impact projects. For every $1 donation, they plant at least 1 Tree.

Clean Air Round Force: CATF works to safeguard against the worst impacts of

climate change by catalyzing the rapid global development and deployment of low-carbon energy and other climate-protecting technologies through research and analysis, public advocacy leadership, and partnership with the private sector. For every $1 donation, CATF would avert 1 Ton of CO2 emissions.

C Post-Experiment Survey Questionnaire

Section 1: Climate Change and Environmental Pollution
Instructions: Please state your agreement with the following statements on *Climate Change and Environmental Pollution*. The term "Environmental Pollution" includes all kinds of pollution: Air, Water, Soil, etc. It poses a hazard to the whole world and is already impacting life as we know it.
All questions in this section used the following response options: *Strongly disagree / Disagree a little / Neither agree nor disagree / Agree a little / Strongly agree.*

1. Is on the rise.
2. The earth can automatically recover from environmental pollution.
3. I see myself as a person who would recycle in a pro-environmental manner (e.g., paper, cardboard, plastic).
4. I believe that people should buy environmentally friendly products, no matter what their cost.
5. I believe it is important to avoid using plastic (e.g., bottles, plates, cups).
6. I believe that people should reduce or avoid eating red meat and/or cow milk.
7. Whenever possible, I believe that people should restrict their car-driving.
8. I see myself as a person who rather repair items than buy new ones.
9. I see myself as a person who conserves energy and water.
10. I see myself as a learner about technologies that are friendly to the environment.
11. I identify myself as an activist / advocate for the environment.

Additional question in this section:

- On a scale of 1–10, please rate how environmental pollution affects your personal health and safety (1 = least, 10 = most).

Section 2: Attention Check

1. To show that you are reading carefully, please choose both "Very strongly interested" and "Not at all interested" as your answer to the next question. *Options: Very strongly interested / Very interested / A little bit interested / Not very interested / Not at all interested.*

Section 3: Shopping Priorities

1. Please rank the following factors in importance for your shopping decisions. *Factors: Fashion, Convenience, Environmental Protection, Quality, Price.* Ranks cannot be repeated. *Options: Most Important / Rank 2 / Rank 3 / Rank 4 / Least Important.*

Section 4: Time Preference, Effort, and Behavior

1. When making choices in life (e.g., health, expenditure, relationships), how far ahead do you typically envision your future? *Options: Less than a month or two ahead / 6 months ahead / Almost a year ahead / At least a couple years ahead / I think deep into the future / I like to live in the moment.*

2. I often avoid tasks that require effort.

3. How likely are you to sacrifice some personal comforts to better suit the environment? *Options for Items 2–3: Strongly disagree / Disagree a little / Neither agree nor disagree / Agree a little / Strongly agree.*

4. On a scale of 1–5, how often do you find yourself procrastinating on tasks? *Options: 1 / 2 / 3 / 4 / 5.*

5. How often do you exercise (assume at least 30 minutes per session)? *Options: I exercise every day / I exercise at least 5 times a week / I exercise at least 3 times a week / I exercise at least once a week / I exercise occasionally / I do not exercise.*

Section 5: Demographics

1. What is your age? (Open-ended)

2. How do you identify? *Options: Male / Female / Other / Prefer not to say.*

3. Which of the following best describes your race/ethnicity? *Options: American Indian or Alaska Native / Asian / Black or African American / Hispanic or Latino / Native Hawaiian or Other Pacific Islander / White / Other.*

4. What year are you in University? *Options: Freshman / Sophomore / Junior / Senior / Graduate.*

5. Which of the following best describes your major? *Options: Agriculture / Business and Economics / Education / Engineering / Health and Human Sciences / Liberal Arts and Humanities / Other Social Sciences / Science and Mathematics / Other.*

6. What is your University GPA? (If first semester, type 0.) (Open-ended)

7. Do you receive need-based financial aid? *Options: Yes / No.*

8. What is your monthly rent? (Open-ended)

9. Please select the range of your average monthly expenditure (excluding tuition fees and accommodation, including food and other expenses). *Options: Less than $499 / $500–$699 / $700–$999 / $1000–$1199 / $1200–$1399 / $1400–$1699 / $1700–$1999 / $2000–$2499 / $2500–$2999 / $3000–$4000 / More than $4000.*

10. How many Economics courses have you taken so far? (Open-ended)

11. What is your political affiliation? *Options: Democrat / Republican / Independent / Other / None.*

12. Politically, where would you place yourself on the following scale? *Options: Very Liberal / Liberal / Somewhat Liberal / Moderate / Somewhat Conservative / Conservative / Very Conservative.*

13. How important is religion in your daily life? *Options: Not at all important / Somewhat important / Moderately important / Important / Very important.*

D Tables

Table A1: Relationship between Cost of Inconvenience for Environment and X

	(1)	(2)
VARIABLES	$\tilde{C}_{e,i} - \tilde{C}_{s,i}$	$\tilde{C}_{e\|s,i} - \tilde{C}_{s\|e,i}$
X	1.583**	2.934***
	(0.687)	(0.616)
Number of Slider Tasks = 3	4.228	6.986***
	(4.184)	(2.584)
Number of Slider Tasks = 5	6.153	-1.196
	(4.665)	(4.294)
Number of Slider Tasks = 7	1.558	-10.29**
	(5.696)	(4.839)
Constant	-4.157	-2.119
	(10.53)	(9.550)
Observations	272	272
$X > 20$	No	No

Notes:

*** p<0.01, ** p<0.05, * p<0.1. Standard errors clustered at subject level and given in parentheses. Column (1) reports the difference in scaled costs between the environmental and self domains, $\tilde{C}_{e,i} - \tilde{C}_{s,i}$. Column (2) reports the difference in scaled costs under the tradeoff condition, $\tilde{C}_{e|s,i} - \tilde{C}_{s|e,i}$. X denotes the environmental donation amount equivalent to \$8 for self. The sample excludes censored $X > 20$. All models estimated with robust standard errors clustered at the individual level.

Table A2: Cost of Inconvenience in No Self–Environment Tradeoff Context

Regression	OLS			Interval
VARIABLES	Yupper	Ymiddle	Yupper	Yupper Ylower
	(1)	(2)	(3)	(4)
Charity = 1	15.63***	15.63***	37.29***	15.63***
	(4.905)	(4.905)	(5.168)	(4.558)
Number of Slider Tasks = 3	16.64***	16.64***	14.13***	16.64***
	(3.246)	(3.246)	(2.577)	(3.016)
Number of Slider Tasks = 5	27.48***	27.48***	24.69***	27.48***
	(3.617)	(3.617)	(3.050)	(3.362)
Number of Slider Tasks = 7	38.33***	38.33***	35***	38.33***
	(4.539)	(4.539)	(3.688)	(4.219)
Charity = 1#N Slider Tasks = 3	4.228	4.228	2.070	4.228
	(4.469)	(4.469)	(3.675)	(4.153)
Charity = 1#N Slider Tasks = 5	6.153	6.153	0.195	6.153
	(4.983)	(4.983)	(4.292)	(4.631)
Charity = 1#N Slider Tasks = 7	1.558	1.558	-5.864	1.558
	(6.084)	(6.084)	(5.068)	(5.654)
Constant	18.47***	21.60***	14.87***	15.35***
	(3.091)	(3.091)	(2.577)	(3.411)
Estimated Domain Difference (Charity vs. Self) by Slider Level (lincom results)				
Slider Tasks = 1 (baseline)	15.63***	15.63***	37.29***	15.63***
Slider Tasks = 3	19.86***	19.86***	39.36***	19.86***
Slider Tasks = 5	21.78***	21.78***	37.49***	21.78***
Slider Tasks = 7	17.19***	17.19***	31.43***	17.19***
Observations	544	544	800	544
Ind FE	Yes	Yes	Yes	No
Censored X	No	No	Yes	No

Notes. *** p<0.01, ** p<0.05, * p<0.1. Standard errors clustered at subject level and given in parentheses. This regression includes data only from the no tradeoff contexts. The dependent variable $\tilde{Y}_i$ is the **scaled cost of inconvenience** – $\tilde{C}_{s,i}$, & $\tilde{C}_{e,i}$..
Columns (1-3) reports OLS specifications. Columns (1) and (3) use the upper bound that is the cost calculated using b_i (the switching-row convenient payoff). Column (2) uses the midpoint measure where cost if calculated using the midpoint between b_i and the convenient payoff in the previous row. Column (3) includes all subjects, that is even subjects with $X_i > 20$. Column (4) reports the interval-regression model using $[\tilde{Y}_i^{lower}, \tilde{Y}_i^{upper}]$, where $\tilde{Y}_i^{lower}$ is the cost calculated using the convenient payoff in the row before b_i. "Ind FE" indicates inclusion of individual fixed effects.
The section "Estimated Domain Difference (Charity vs. Self) by Slider Level (lincom results)" presents postestimation linear combinations computed as $\beta_{\text{Charity}} + \beta_{\text{Charity\#}s}$ for each slider level. These represent the estimated difference in scaled cost between domains at each task level, derived from the same regression.

Table A3: Cost of Inconvenience in Self–Environment Tradeoff Context

VARIABLES	Yupper	Ymiddle	Yupper	Yupper Ylower
	(1)	(2)	(3)	(4)
Charity = 1	34.56***	31.43***	47.19***	37.68***
	(4.921)	(4.921)	(4.616)	(4.573)
Number of Slider Tasks = 3	8.915***	8.915***	8.062***	8.915***
	(1.954)	(1.954)	(1.987)	(1.816)
Number of Slider Tasks = 5	25.46***	25.46***	26.31***	25.46***
	(4.408)	(4.408)	(4.054)	(4.096)
Number of Slider Tasks = 7	38.32***	38.32***	36.06***	38.32***
	(5.105)	(5.105)	(4.479)	(4.744)
1.charity#3.slidertask	6.986**	6.986**	4.688*	6.986***
	(2.760)	(2.760)	(2.607)	(2.565)
1.charity#5.slidertask	-1.196	-1.196	-6.306	-1.196
	(4.586)	(4.586)	(4.317)	(4.262)
1.charity#7.slidertask	-10.29*	-10.29*	-12.93***	-10.29**
	(5.168)	(5.168)	(4.434)	(4.803)
Constant	22.15***	25.28***	18.06***	19.03***
	(3.067)	(3.067)	(2.587)	(3.358)
Estimated Domain Difference (Charity vs. Self) by Slider Level (lincom results)				
Slider Tasks = 1 (baseline)	34.56***	31.43***	47.19***	37.68***
Slider Tasks = 3	41.55***	38.42***	51.88***	44.67***
Slider Tasks = 5	33.36***	30.23***	40.88***	36.48***
Slider Tasks = 7	24.27***	21.14***	34.26***	27.39***
Observations	544	544	800	544
Ind FE	Yes	Yes	Yes	No
Censored X	No	No	Yes	No

Notes. *** p<0.01, ** p<0.05, * p<0.1. Standard errors clustered at subject level and given in parentheses. This regression includes data only from the tradeoff contexts. The dependent variable $\tilde{Y}_i$ is the **scaled cost of inconvenience** – $\tilde{C}_{s|e,i}$, & $\tilde{C}_{s|e,i}$. Columns (1-3) reports OLS specifications. Columns (1) and (3) use the upper bound that is the cost calculated using b_i (the switching-row convenient payoff). Column (2) uses the midpoint measure where cost if calculated using the midpoint between b_i and the convenient payoff in the previous row. Column (3) includes all subjects, that is even subjects with $X_i > 20$. Column (4) reports the interval-regression model using $[\tilde{Y}_i^{lower}, \tilde{Y}_i^{upper}]$, where $\tilde{Y}_i^{lower}$ is the cost calculated using the convenient payoff in the row before b_i. "Ind FE" indicates inclusion of individual fixed effects.

The section "Estimated Domain Difference (Charity vs. Self) by Slider Level (lincom results)" presents postestimation linear combinations computed as $\beta_{\text{Charity}} + \beta_{\text{Charity\#}s}$ for each slider level. These represent the estimated difference in scaled cost between domains at each task level, derived from the same regression.

Table A4: Examining Heterogeneous Effects Including Survey Measures - All Costs

Context VARIABLES	(1) Self-Self Cost of Effort	(2) Self-Env Cost of Effort	(3) Env-Self Cost of Effort	(4) Env-Env Cost of Effort
X	-1.852**	-1.390**	1.349*	-0.412
	(0.702)	(0.678)	(0.691)	(0.764)
Practice Time	0.221***	0.276***	0.0786	0.188***
	(0.0678)	(0.0658)	(0.0633)	(0.0657)
Man vs Woman	-9.240	-6.456	3.896	-6.058
	(7.492)	(6.875)	(6.079)	(7.486)
Prosocial vs Individualistic	-6.609	-1.254	-5.511	-10.08
	(6.894)	(6.206)	(5.599)	(6.555)
Risk	2.579	4.539	2.545	2.232
	(2.931)	(3.036)	(2.662)	(3.521)
Survey Measure of Pro-Environmental Attitude	-1.094**	-0.884	-0.246	0.637
	(0.526)	(0.560)	(0.439)	(0.588)
Rank Assigned to Convenience	-0.314	1.200	0.895	0.934
	(2.890)	(2.788)	(3.134)	(4.047)
Effort Avoidance	2.317	1.662	0.862	-0.760
	(2.167)	(2.408)	(2.000)	(2.608)
Monthly Expenditure	1.123	0.0123	2.639**	1.113
	(1.391)	(1.610)	(1.311)	(1.400)
Black or African American vs Asian	-27.42***	-19.59*	-28.97***	-30.45***
	(9.353)	(10.10)	(7.876)	(9.970)
Hispanic or Latino vs Asian	-2.594	7.085	-24.18*	-15.90
	(14.53)	(16.61)	(12.19)	(11.77)
White vs Asian	7.261	3.741	-4.347	-6.290
	(6.320)	(6.208)	(5.332)	(6.924)
Other vs Asian	-7.290	22.62**	-32.09***	-41.78***
	(10.29)	(10.51)	(8.901)	(10.32)
Exercise Often	-2.122	0.0310	0.655	-1.972
	(2.290)	(2.115)	(2.614)	(2.431)
Sacrifice Comfort for Environment	-9.328**	-3.323	-2.592	-11.38**
	(4.077)	(4.190)	(3.269)	(4.659)
Depth of Future Consideration	-2.049	-1.242	-3.748	-6.490**
	(2.264)	(2.614)	(2.432)	(2.896)
Constant	114.4***	28.33	58.76**	87.13***
	(40.10)	(42.33)	(25.73)	(25.26)
Observations	272	272	272	272
$X > 20$	No	No	No	No

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A5: Examining Heterogeneous Effects Including Survey Measures - Cost Differences

VARIABLES	(1) $\tilde{C}_{e,i} - \tilde{C}_{s,i}$	(2) $\tilde{C}_{e\|s,i} - \tilde{C}_{s\|e,i}$
X	1.440**	2.739***
	(0.616)	(0.712)
Practice Time	-0.0330	-0.198***
	(0.0660)	(0.0666)
Man vs Woman	3.182	10.35
	(6.990)	(7.244)
Prosocial vs Individualistic	-3.467	-4.257
	(6.734)	(6.689)
Risk	-0.347	-1.994
	(2.616)	(2.827)
Rank Assigned to Environmental Protection	1.731***	0.638
	(0.511)	(0.515)
Rank Assigned to Convenience	1.248	-0.305
	(3.619)	(2.975)
Effort Avoidance	-3.077	-0.800
	(2.092)	(2.204)
Monthly Expenditure	-0.00982	2.627
	(1.202)	(1.706)
Black or African American vs Asian	-3.030	-9.380
	(7.808)	(9.748)
Hispanic or Latino vs Asian	-13.30	-31.26**
	(11.41)	(15.31)
White vs Asian	-13.55**	-8.088
	(6.017)	(5.821)
Other vs Asian	-34.49***	-54.71***
	(10.12)	(10.27)
Exercise Often	0.151	0.624
	(1.596)	(2.079)
Sacrifice Comfort for Environment	-2.056	0.731
	(4.278)	(4.062)
Depth of Future Consideration	-4.441**	-2.506
	(1.885)	(2.311)
Constant	-30.29	31.55
	(39.11)	(46.89)
Observations	272	272
$X > 20$	No	No

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

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