Opting In to Prosocial Incentives

Online Appendix

1. List of environmental organizations featured on the flyer given to participants in the optional prosocial incentive condition on the recycling collection day (Experiment 1).

   - World Wildlife Fund Chile
   - Greenpeace Chile
   - Fundación SNP Patagonia Sur

2. Additional regression analyses for the recycling campaign (Experiment 1)

   Table S1 Treatment effect on the probability of recycling. Linear probability models (I) and logit regressions (II, III and IV), assuming the probability of recycling to be a rare event.

DV: Pr(Recycling)	I (all)	II (all)	III (no donation message)	IV (donation message)
Donation option message	0.002	-0.326		
	(0.018)	(0.712)		
Monetary reward (in USD)	0.005***	0.084***	0.081***	0.007
	(0.001)	(0.024)	(0.024)	(0.047)
Donation option × Reward	-0.005***	-0.076		
	(0.002)	(0.055)		
Constant	0.018	-3.543***	-3.263***	-4.301***
	(0.022)	(0.640)	(0.638)	(1.494)
Building fixed effects	Yes	Yes	Yes	Yes
N	951	951	524	427

*$p < 0.10$; ** $p < 0.05$; *** $p < 0.01$. Note: Standard errors in parentheses.

Table S2 Treatment effect on the probability of recycling. Linear probability models including residents whose invitations were in their mailboxes when the reminder was delivered.[1]

DV: Pr(Recycling)	I (all)	II (all)	III (all)
Donation option message	-0.036***	0.001	0.001
	(0.011)	(0.017)	(0.017)
Monetary reward (in USD)	0.002***	0.004***	0.004***
	(0.001)	(0.001)	(0.001)
Donation option × Reward		-0.004***	-0.004***
		(0.002)	(0.001)
Constant	0.028***	0.014	0.019
	(0.010)	(0.011)	(0.021)
Building fixed effects	No	No	Yes
N	1,000	1,000	1,000

*$p < 0.10$; ** $p < 0.05$; *** $p < 0.01$. Note: Standard errors in parentheses.

[1] Results are similar with logit regressions.

3. Experimental materials (Experiment 2)

- Job posting text.
  Title: "Review online image links for a database"
  Body: "We have been collecting links to images featuring animals or wildlife. We need to verify that the image links we have are working links and that they actually feature animals or wildlife. You will need to verify 10 links."

- Questions. We used these questions to characterize the sample and conduct exploratory data analysis.
  i. Decision to work on the second job – provided in the main manuscript.
  ii. Independent of the decision to work, all workers were asked the following questions after making their choice:
    a. Demographics (gender and age) – reported in manuscript.
    b. "Please answer the following questions using a 1-5 scale where 1=not at all and 5=very much"[2]
      - (Item 1) "To what extent do you see yourself as a person who is giving and generous?"
      - (Item 2) "Given your decision regarding the bonus task, to what extent do you feel guilty?" – See section 4.
      - (Item 3) "If another individual was observing your decision regarding the bonus task, to what extent do you believe your choices would be judged negatively?" – See section 4.
      - (Item 4) "To what extent did you enjoy the task in which you verified that 10 image links were actually working and that they featured animals or wildlife?"
    c. "On average, how often do you donate money to non-profits/charities?" (Never, Rarely, Once a year, 2-3 times a year, 4-5 times a year, 6 or more times a year)
    d. "Please indicate how much you agree with each of the following statements" (from 1 = "Strongly agree" to 5 = "Strongly disagree)
      - "I have more respect for people who anonymously donate to charity than for those who ask for recognition."
      - "I think more people would donate to charities if they could be publicly recognized for their donation."
    e. "Why did you choose (not) to complete the bonus task?" (open ended) – see Section 5.
    f. "Please provide any other comments about this study."
  iii. Task instructions for those who choose to participate in the second, unrelated job: "Thanks for participating in this bonus task. You must search online for 25 unique images featuring animals or wildlife. IMPORTANT: The webpage address must be a direct link to the actual, singular image (i.e., the image CANNOT be embedded in a blog page, news piece, or be from a search engine URL such as Google). For example: (example of URL).
  Note that you actually have to enter a different link for each image. After each image you will answer whether you want to continue entering more links. If you don't, you will forfeit the bonus. It is very important that you answer every time if you want to continue so you can submit this survey. Press the arrows below to begin pasting the image links." Then, workers entered the links.

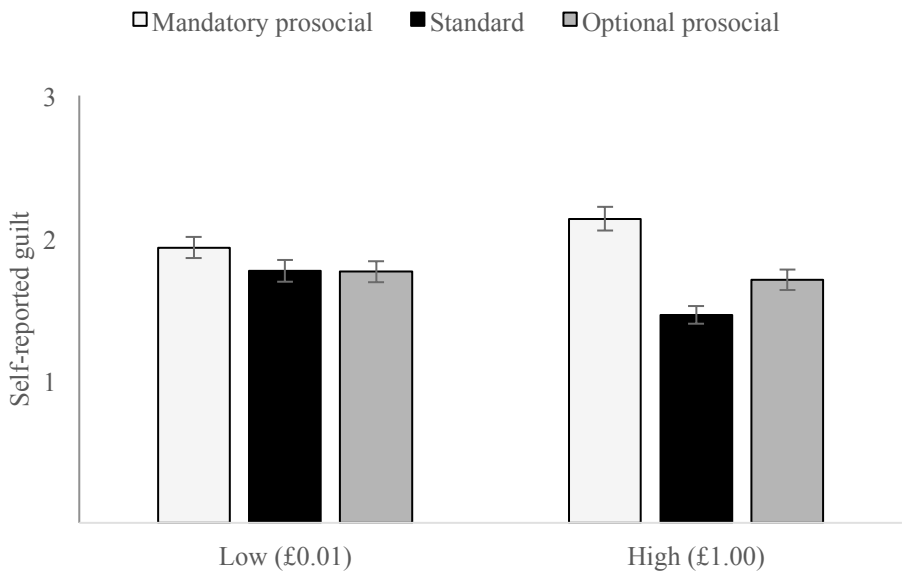
[2] The second and third items were used to measure guilt and image concern, respectively. The remaining two items served as filler questions.

4. Analysis for self-reported guilt and image concern (Experiment 2)

We measured the extent to which guilt and image concerns might have affected individuals' decisions. Figures S1 and S2 show that at high stakes, workers reported greater guilt ($\beta = 0.67$; $p < 0.01$) and image concern ($\beta = 0.73$; $p < 0.01$) when offered a mandatory prosocial incentive versus a standard incentive. Similarly, compared to the standard incentive, workers reported greater guilt when an optional prosocial incentive was offered ($\beta = 0.25$; $p = 0.02$), but did not report greater image concerns ($\beta = 0.15$; $p = 0.17$). Under low stakes, only reported image concerns were greater among participants in the mandatory prosocial incentive, compared to standard incentive participants ($\beta = 0.24$; $p = 0.03$).

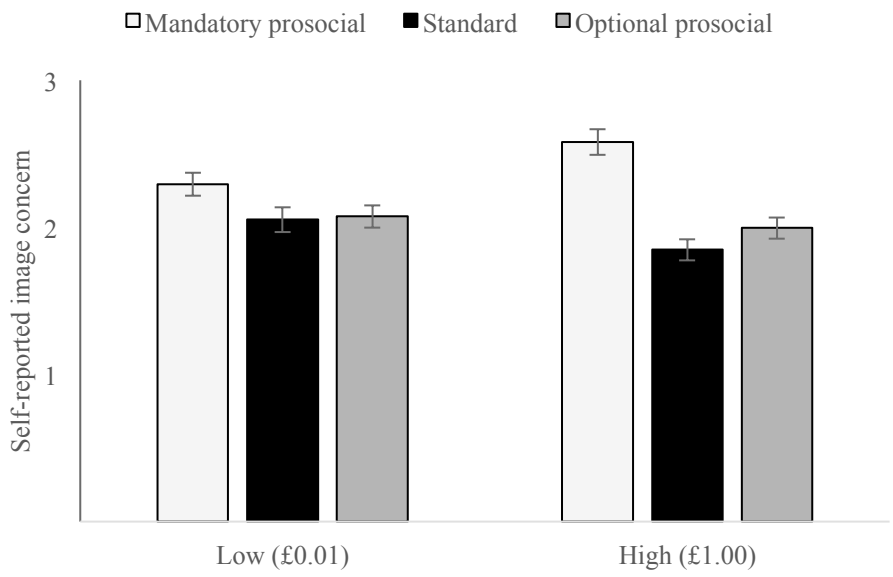
A mediation analysis using a percentile bootstrap procedure with 500 replications[3] indicates that guilt concerns partially explained lower opt-in rates when workers were offered a high mandatory or optional prosocial incentive, compared to a high standard incentive, with indirect effects b = -0.057 (95% CI [-0.101,-0.022]) and b = -0.013 (95% CI [-0.040,-0.001]), respectively (none include zero). Image concerns did not mediate the effect of the optional prosocial incentive on participation ($\beta = 0.15$, $p = 0.15$). Finally, image concerns partially mediated the effect of mandatory prosocial (versus standard) incentives under high stakes, with indirect effects b = -0.077 (95% CI [-0.121,-0.042]). Neither image nor guilt concerns affected individuals' decisions when the stakes were low.

Figure S1 Self-reported guilt. Error bars represent ±1 SE.



[3] See Preacher and Hayes (2008).

Figure S2 Self-reported image concern. Error bars represent ±1 SE.



5. Open-ended responses explaining the decision to participate (or not), Experiment 2

We conducted an exploratory data analysis using participants' open-ended responses. Reasons were coded by two independent judges unaware of the study's purpose. For example, reasons mentioning having other commitments (e.g., "I have to go out"), or not having enough time (e.g., "I don't have the time right now") were categorized as "being busy" (Kappa = 0.90, $p < 0.01$). Tables S4 and S5 provide a summary of responses given by participants who chose to not participate and those who chose to participate, respectively.

Table S3

Chose to not participate	Mandatory prosocial	Optional prosocial	Standard
Being busy	44%	42%	33%
Monetary (not enough money)	29%	36%	44%
Unsure how to search images	3%	3%	6%
Task is tedious	14%	12%	16%
Other	10%	8%	7%
Don't want to donate through the study	5%	3%	0%
Already give to charity	2%	1%	0%
Slow internet	5%	3%	0%
Task is pointless	1%	0%	1%
No Answer	5%	4%	4%

Table S4

Chose to participate	Mandatory prosocial	Optional prosocial	Standard
Like wildlife/task	16%	23%	34%
Help researcher	8%	2%	5%
Monetary reasons	5%	45%	48%
Like the charity	36%	13%	2%
Have time to spare	5%	11%	8%
Other	41%	18%	18%
No Answer	7%	6%	7%

6. Experimental materials (Experiments 3 and 4)

- Same job posting as in Experiment 2.
- Questions. As in Experiment 2, we used these questions to characterize the sample and conduct exploratory data analysis.
  i. Decision to work on the second job – provided in the main manuscript.
  ii. Independent of the decision to work, all workers were asked the following questions after making their choice:
    a. Demographics (gender and age) – reported in manuscript.
    b. "Please rate how you feel for each of the following emotions (Not at all (1) to Very strongly (7))" (Angry; Guilty; Joyous; Trusting)
    c. Same questions about image concerns, donation habits, reasons to complete the study, and comments about the study as asked in Experiment 2
  iii. Same instructions for the second job as in Experiment 2

7. Other studies conducted

Before Experiment 1, we conducted a pilot using Amazon Mechanical Turk (mTurk). We invited mTurk workers (N = 872) to sign up for a task that involved searching for 10 wildlife images for a flat payment plus a bonus incentive for each additional set of 10 images they provided. We varied the size (small or large) and the type (mandatory prosocial or standard) of the bonus incentive. Participants were randomly assigned to one of the four incentive treatments and asked if they were interested in the bonus. The main DV was whether workers accepted the bonus opportunity. In the mandatory prosocial bonus conditions, those workers who agreed to complete the bonus task simultaneously chose one out of five charity organizations to give their donation. *Results*: We found that more workers opted into the bonus task for the low mandatory prosocial (62.2%) (vs. standard: 53%) incentive ($p = 0.04$), but not for the high standard (60.6%) (vs. mandatory prosocial: 64.1%) incentive ($p = 0.46$).

There were a couple issues with this pilot, that we became aware of after data collection, which limit our ability to interpret the results: (1) The design allowed workers to continue searching for additional images, beyond the 10 required for the flat payment, even if they declined the bonus, and a significant percentage of workers did this. In addition, we had workers who accepted the bonus and then did not actually search for additional images. This created an issue around identifying the DV – it could be those who accept the bonus task regardless of whether they actually started the task or it could be anyone who actually started the bonus task (an implicit acceptance), regardless of whether they explicitly accepted the opportunity. The former is what we used to report the results above, however, if we consider the latter, the results are different.(2) The conditions with a mandatory prosocial bonus incentive presented workers with 6 options when they decided whether to accept the bonus opportunity (5 options of charity organizations and 1 declining participation in the bonus task). The conditions with standard bonuses offered only two options (accept or reject). The differences in the choice sets between these conditions may have created a potential confound. We solved both of these issues in the experiments described in the manuscript.

Finally, we conducted a study in the context of a recycling drive for undergraduate students (N = 846). In 12 classrooms, we announced an upcoming recycling drive. We asked students if they would like to sign up to participate in the drive. In the announcement, we randomly varied whether students were offered a mandatory prosocial or a standard incentive for recycling. We also varied whether they had to sign up by raising their hand and bringing a piece of paper to the front of the classroom indicating their preference (i.e., public decision) or by putting a piece of paper indicating their preference into an envelope and passing it down to a research assistant and (i.e., private decision). Finally, we treated one classroom as control group. The control classroom was similarly told about the recycling drive, but was not offered any incentive and students signed up privately (i.e., put the piece of paper with their preference into an envelope that was passed down). *Results*: Our primary measure was whether students showed up with any recycling (i.e., actual participation in the recycling drive). We ran a logit regression assuming the probability of recycling to be a rare event and added classroom fixed effects. Results show that students were more likely to participate when they were in the prosocial-public condition (7.2%) than in any other experimental condition: prosocial-private (1.8%; $p = 0.08$), standard-public (3.1%; $p = 0.07$), standard-private (1.5%; $p = 0.05$) or control (0%; $p < 0.01$). There were no differences between these four last conditions (all ns). Intention to participate on the day of the announcement was greater for the public prosocial incentive condition (23.9%) compared to the public standard incentive condition (6.8%; $p < 0.01$). There was no difference between prosocial (15.1%) and standard (8.1%) incentives when the decision was made privately ($p = 0.15$). In the control condition, 5.7% of students signed up to participate, which was significantly lower than the private and public prosocial-incentive conditions only ($p = 0.02$ and $p < 0.01$, respectively). One of

the issues with this study was that the peer pressure invoked as a result of sitting side by side in a classroom of peers, which created a situation in which even students in the private conditions did not have much flexibility to opt-out.