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2 **Supplementary Information for**

3 **Delayed Negative Effects of Prosocial Spending on Happiness**

4 **Armin Falk and Thomas Graeber**

5 **Armin Falk**

6 **E-mail: armin.falk@briq-institute.org**

7 **Thomas Graeber**

8 **E-mail: graeber@fas.harvard.edu.**

9 **This PDF file includes:**

- 10 Supplementary text
- 11 Figs. S1 to S4
- 12 Tables S1 to S3
- 13 References for SI reference citations

14 Supporting Information Text

15 **Sample and sample size.** The data used in this paper comprise three between-subjects conditions with a total of $N = 591$
16 participants. For each subject, repeated happiness measurements were taken as described in the main text.

17 1. Main sample: Lottery choice

18 Each subject had a choice between two lotteries, Lottery A and Lottery B. $N = 325$ participated in the laboratory
19 sessions, $N = 297$ of those also completed the follow-up online survey four weeks later.

20 2. Baseline sample: Deterministic choice

21 As in condition Lottery choice, but each subject directly chose between saving a life and receiving 100 euros. $N = 221$.

22 3. Calibration sample: Price list method

23 Using a price list method, we elicited the minimal monetary amount that would make a participant indifferent to saving
24 a life. $N = 45$.

25 **Details of the experiment.** Participants were recruited from the subject pool of the *BonnEconLab* at the University of Bonn,
26 Germany, and received a fixed payment of 10 euros transferred to their bank account for participation in the laboratory
27 experiment. Subjects agreed to participate in the follow-up online survey when they signed up for the laboratory experiment.
28 In between the laboratory session and the follow-up online survey, we sent two reminder emails to subjects, stating their
29 individual lottery outcome in the laboratory experiment. Exact wording of the experimental instructions and email texts is
30 reproduced in the [Materials](#) section. Subjects received 15 euros transferred to their bank account for participating in the online
31 survey. The study was approved by the Ethics Committee of the Economics Department at the University of Bonn (reference
32 no. 2016-02).

33 Our focus was on measuring two concepts, subjective well-being (SWB) and self-image. As to the former, the current
34 consensus in the literature is that SWB constitutes a multidimensional concept with several components. Rather than evaluation
35 of life, i.e., life satisfaction, or a sense of meaning or purpose in one's life, the notion of happiness used in this study most
36 closely relates to the emotional, or affective element of subjective well-being. We chose our main measure of happiness to fulfill
37 two requirements: It should be suited to capture both short-term as well as long-term variation in happiness, and it should be
38 widely used and validated by the previous literature. Our measure is based on the Subjective Happiness Scale (1), also referred
39 to as the General Happiness Scale. In particular, we use the first item, which is an assessment of the statement "*In general, I*
40 *consider myself:*" with possible responses ranging from 1 = "*not a very happy person*" to 7 = "*a very happy person*" on a
41 7-point Likert scale.

42 Our measure of self-image is an assessment of the statement "*I am a good person*" on a 10-point Likert scale ranging from 1
43 = "*fully disagree*" to 10 = "*fully agree*". "Good person" is a direct translation of the original German phrase "guter Mensch"
44 used in the experiment, which may also be translated as "good man" or "good human" here. Importantly, this is a typical
45 expression with a clear meaning in the German language featuring a strong moral connotation, with the opposite meaning of
46 being a bad or evil person. Moreover, mood was elicited using the question "*What is your mood at the moment?*", and an
47 11-point response scale from 0 = "*very bad*" to 10 = "*very good*".

48 All of the above measures were elicited at three points in time during the study. The first instance was at the beginning
49 of the laboratory session, before subjects were informed about the content of the study. This baseline measure serves as an
50 unpolluted individual measure which we use as an individual-specific benchmark for comparison against later measurements.
51 The second elicitation took place after subjects had taken their lottery choice and the lottery had been resolved, i.e., after
52 knowing the outcome of the lottery (short run). Note that we abstained from asking the set of questions again between the
53 choice of the lottery and the resolution of the lottery, mainly because this would have cluttered the experimental procedure
54 and might have been indicative of the experimenters' objectives. The third set of measures was elicited during the online
55 survey four weeks after the laboratory session (long run). At the end of the laboratory session, we elicited a range of further
56 measures based on standard questionnaires. In particular, we elicited cognitive skills using a set of 10 incentivized Raven
57 matrices, self-control (2), the Interpersonal Reactivity Index including a measure of empathic concern (3), a short version of the
58 Big Five personality inventory (4), and a measure of altruism (5).

59 The laboratory sessions were run in the main auditorium of the University of Bonn, Germany, in September 2016. We
60 recruited 325 subjects for the main lottery sample, mostly students at the University of Bonn, studying in various fields. 297
61 subjects completed both the laboratory session and the follow-up survey four weeks later, corresponding to an attrition rate of
62 9.4%. Attrition was not significantly predicted by lottery choice ($p = 0.43$) or outcome ($p = 0.21$) in a linear regression of a
63 dummy variable for participation on indicators for lottery choice and lottery outcome and their interaction. The experiment
64 was fully computerized and conducted using the software oTree (6). Subjects sat in cubicles to allow full privacy – no other
65 person could see their screens during the experiment. Participants could ask questions to an experimenter at all times and
66 were allowed to leave in case they wanted to (no subject did). The average completion time was 45 minutes.

67 **Deterministic Choice Treatment.** We ran the Deterministic Choice treatment to examine whether the lottery choice in the main
68 treatment is informative about which outcome the participant would have chosen if, instead of choosing between the lotteries,
69 he or she had the direct choice between life and money. We compare the lottery choice in our main sample ($N = 297$) to
70 the choice in an independent baseline experiment with a different set of subjects ($N = 221$). In particular, subjects in this

71 comparison study received identical instructions about the two outcomes, i.e., saving a life and receiving the money, except that
72 they could directly choose one of them. Note that the Deterministic Choice treatment was intended as a validation exercise for
73 the design of the Lottery Choice treatment and not as a separate study on the effect of choice on happiness. Consequently, we
74 did not include a follow-up survey to elicit the long-run happiness measure.

75 First of all, note that the fraction of subjects choosing the prosocial option is almost exactly identical in both samples.
76 60% choose the prosocial lottery (58% when including subjects who did not participate in the follow-up) and 57% choose
77 to save a life directly ($p = 0.49$, χ^2 test). Second, we analyze whether those who choose prosocially in each sample differ
78 systematically based on the personality measures that we elicited at the end of the laboratory session. Table S1 shows results
79 from regressions that investigate which measures are correlated with prosocial choice in both treatments. Column 1 indicates
80 which measures predict choice of the prosocial lottery. In line with previous evidence, we find that higher cognitive skills,
81 higher levels of altruism and stronger empathic concerns all positively predict altruistic choice. Our data show no direct effects
82 of agreeableness – a component of the Big Five personality inventory – and gender, once other factors are controlled for. The
83 correlates of altruistic lottery choice reported in column 1 square with previous evidence.

84 Column 2 reports the identical regression run on the deterministic choice treatment. All estimated coefficients are close to
85 their counterparts in the regression on the lottery choice sample (column 1). This observation is confirmed by a third regression
86 in column 3 run on the joint sample of the lottery treatment and the deterministic choice treatment. We again include the
87 above-mentioned personality measures as regressors as well as a full set of interaction terms of our personality measures with
88 an indicator variable that equals 1 for observations from the deterministic choice sample and 0 otherwise. We only display
89 estimates of the interaction effects in the table, since the main effects are identical to those reported in column 1. We find that
90 none of the measures differentially predict altruistic choice in the baseline sample relative to the lottery sample ($p > 0.1$ for all
91 interaction terms). Taken together, these results strongly suggest that our lottery choice data allow for a categorization of
92 more altruistic versus more selfish types that is essentially identical to the categorization that we would have obtained from
93 having subjects choose directly between saving a life and receiving 100 euros.

94 **Robustness of Results.** Table S2 shows that the regression analyses in the main text are robust to including a battery of
95 control variables. The regression specifications are identical to those in Table 1 except that they additionally include the set of
96 personality measures (all Big Five personality traits, the four measures of the Interpersonal Reactivity Index, all measures of
97 the preferences module36, the self-control score), our measure of cognitive skills, and a gender dummy. The results are similar
98 to those in Table 1.

99 In addition, we recognize that a least squares regression implicitly interprets the measurements of self-reported happiness,
100 self-image and mood scores as if they were interval data. Table S3 shows estimates from ordered probit regressions, which
101 allows these data to have an ordinal scale instead. We show estimates for ordered response model specifications that are
102 equivalent to the least-squares specifications in the main text (Table 1). The results are qualitatively similar to those obtained
103 through least squares analysis.

104 **Materials**

105 Instructions used in the laboratory experiment, the reminder emails and the follow-up online survey were translated from
106 German into English. Please contact the authors for the German instructions.

107 **Instructions Laboratory Session.**

108 Welcome and thank you for your interest in this study!

109
110 For your participation you will receive a fixed payment of 10.00 €, which will be paid to you by bank transfer after the study. In
111 this study you will take decisions on the computer. Depending on how you decide you can earn additional money. During the
112 entire study it is not allowed to talk to other participants. Please turn off your mobile phone now, so that other participants will
113 not be disturbed. Please only use the designated functions on the computer and make your entries using the keyboard and the
114 mouse. If you have any questions, please make a hand signal. Your question will be answered at your seat. On the next screens
115 you will see detailed information concerning the study. After reading this information you can confirm or refuse your participation.
116

117 To proceed click "Next".

118 [end of screen]

119
120
121 Information on Participation in this study of the *BonnEconLab*

122
123 The following information have been sent to you via email together with the confirmation of your registration for this
124 study. You receive this information again now. Once you have read the subsequent declaration of consent you can confirm your
125 participation by clicking on "I agree".
126

127 [followed by mandated exclusion restrictions for participation in this study]

128

129 [end of screen]

130

131 Information

132

133 In the following you will see important information, which are relevant for your subsequent decisions. They are about
134 the disease tuberculosis and its possible treatment. Please read all information carefully.

135

136 [end of screen]

137

138 Information about Tuberculosis

139

140 What is tuberculosis?

141

142 Tuberculosis – also called consumptiveness or White Death – is an infectious disease, which is caused by bacteria. Roughly one
143 third of all humans are infected with the pathogen of tuberculosis. Active tuberculosis breaks out among 5 to 10% of all those
144 infected. Tuberculosis is primarily airborne. This is also why a quick treatment is necessary.

145

146 What are the symptoms of tuberculosis?

147

148 Tuberculosis patients often suffer from very unspecific symptoms like fatigue, feeling of weakness, lack of appetite and
149 weight loss. At an advanced stage of lung tuberculosis, the patient coughs up blood, leading to the so-called rush of blood.
150 Without treatment a person with tuberculosis dies with a probability of 43%. How prevalent is tuberculosis? In the year 2014,
151 6 million people have been recorded as falling ill with active tuberculosis. Almost 1.5 million people die of tuberculosis each
152 year. This means more deaths due to tuberculosis than due to HIV, malaria or any other infectious disease.

153

154 Is tuberculosis curable?

155

156 Today tuberculosis is curable. Treatment is administered by giving antibiotics several times each week over a period of
157 6 months. It is important that there is no interruption of treatment. In the years 2000 to 2014 approximately 43 million
158 human lives could be saved due to an effective diagnosis and treatment of tuberculosis. The success rate of treatment for a new
159 infection is often above 85%. The preceding numbers and information are provided by the World Health Organization (WHO),
160 the United Nations' institution for the international public health, and are freely available. You can check this information on
161 the web page of the WHO after this study.

162

163 [Fig. S1 about here.]

164

165 [end of screen]

166

167 Description of the Decision

168

169 In the course of this study there is an Option A and an Option B. Option A and Option B have different consequences. One of
170 these two options will be implemented for you. That means, this option will be implemented with all its consequences exactly
171 as described. In what follows, the consequences of Option A and Option B will be explained to you in detail. After that you
172 will see a decision situation, in which you will have to make a choice. By means of your choice in this decision situation you
173 can influence which of the two options – Option A or Option B – will be implemented for you. Option A: If Option A is
174 implemented for you, you will be paid an additional monetary amount of 100.00 € by bank transfer after the study. Option
175 B: If Option B is implemented for you, you will not receive an additional payment. This option has another consequence:
176 You save one human life if Option B is implemented. After it has emerged which option will be implemented for you, it
177 will be carried out exactly as described. On the next tab you will receive more information about the implementation of Option B.

178

179 [end of screen]

180

181 Information about Option B

182

183 How will the human life be saved? Only if Option B is carried out for you, you will save a human life. If this option
184 is implemented, a donation of 350.00 € will be arranged on your behalf to an organization which identifies and treats people
185 suffering from tuberculosis. This donation will be executed for you by the BonnEconLab after the study. The entire donation
186 amount will be used by the organization for the direct treatment of tuberculosis.

187

188 What does it mean to “save a life”? To save a human life here means the successful cure from tuberculosis for one person,
189 who otherwise would have died due to his tuberculosis. That means in particular: The donation amount is sufficient to

190 identify and cure as many sick persons such that there is at least one person among these, who would otherwise have died
191 from tuberculosis in expectation. The calculation of the amount accommodates the fact that there are other ways (e.g., the
192 national health care system) through which people can be cured. That means: The amount of 350.00 € was calculated in
193 such a way that the organization can save at least one additional human from death. On the next tab you will receive ad-
194 ditional information about the possible saving of a human life and details about the organization that treats tuberculosis patients.

195
196 [end of screen]

197 198 Operation ASHA

199
200 In case of Option B being implemented you will save one human life. For this, an amount of 350.00 € will be trans-
201 ferred to the organization Operation ASHA after the study. Operation ASHA is a charity organization specialized since 2005
202 on treating tuberculosis in disadvantaged communities. The work of Operation ASHA is based on the insight that the biggest
203 obstacle for the treatment of tuberculosis is the interruption of the necessary 6-month-long regular intake of medication. For a
204 successful treatment the patient has to come to a medical facility twice a week – more than 60 times in total – to take the
205 medication. An interruption or termination of the treatment is fatal, because this strongly enhances the development of a
206 drug-resistant form of tuberculosis. This form of tuberculosis is much more difficult to treat and almost always leads to death.

207 To overcome this problem, Operation ASHA developed a concept that guarantees the regular treatment through immediate
208 spatial proximity to the patient. A possible non-adherence is additionally prevented by visiting the patient at home. By now
209 Operation ASHA runs more than 360 treatment centers, almost all of which are located in the poorer regions of India. More
210 than 60,000 sick persons have been identified and treated that way.

211 Operation ASHA is an internationally recognized organization, and their successes have been covered by the New York
212 Times, BBC and Deutsche Welle, for example. The MIT and the University College London have already conducted research
213 projects about the fight against tuberculosis in cooperation with Operation ASHA. The treatment method employed by
214 Operation ASHA is described by the World Health Organization (WHO) as “highly efficient and cost-effective”.

215
216 [Fig. S2 about here.]

217
218 [Fig. S3 about here.]

219
220 [end of screen]

221
222 What determines the donation amount for saving a human life?

223
224 The donation amount makes sure that at least one human life is saved in expectation. The information used for the
225 calculation of the donation amount exclusively consists of public statements by the World Health Organization (WHO),
226 peer-reviewed research studies, statistical releases from the Indian government as well as published figures from Operation
227 ASHA. In the calculation all information was interpreted in a conservative way and more pessimistic estimates were used in
228 case of doubt, such that the donation amount of 350.00 € is, if anything, higher than the actual costs associated with saving a
229 human life. Moreover, the calculation was based on the treatment success rate of Operation ASHA, the mortality rate of an
230 alternative treatment by the national tuberculosis program in India, and different detection rates for new cases of tuberculosis
231 have been accounted for. Based on a very high number of cases, one can illustrate the contribution of your donation as follows:
232 With your donation Operation ASHA can treat 5 additional tuberculosis patients. If these 5 sick persons would not be treated
233 by Operation ASHA, one patient would die in expectation. If 5 persons are treated by means of your donation, no patient
234 dies in expectation. Based on these expected values this means that one human life will be saved with your donation. This
235 relationship is depicted in the following diagram.

236 Without treatment by Operation ASHA, one of 5 persons sick of tuberculosis will die in expectation. With the donation
237 5 persons sick of tuberculosis can be treated by Operation ASHA. An agreement with Operation ASHA for the purpose of
238 this study ensures that 100 % of the donation amount will exclusively be used for the diagnosis and treatment of tuberculosis
239 patients. That means that every euro of the donation amount will directly go into saving human lives and no other costs will
240 be covered with it.

241
242 [Fig. S4 about here.]

243
244 [end of screen]

245 246 Summary

247 248 *Tuberculosis*

249
250 The success rate of medical treatment for a new infection is very high. Nevertheless, 1.5 million people die from tuber-

251 culosis each year. The biggest obstacle for the cure of tuberculosis is a possible termination of the regular treatment with
252 antibiotics. The concept of Operation ASHA is therefore based on the direct spatial proximity to their patients and on the
253 control and recording of the regular intake of medication.

254
255 *Option A, Option B and your decision*
256

257 Exactly one of the two options will be carried out for you after the study. The options have different consequences:

- 258 • In case of an implementation of Option A you will receive an additional amount of money.
- 259 • In case of an implementation of Option B you will save a human life. Concretely, for Option B a donation of 350.00 €
260 will be paid on your behalf, which is sufficient not only to cure one person, but to actually save that person from death
261 by tuberculosis.

262 In the following decision situation you will take a choice through which you can influence which of the two options – Option A
263 or Option B – will be implemented for you.

264
265 *How is the human life saved?*
266

267 The donation amount already accounts for the fact that a sick person could also have survived without treatment by
268 Operation ASHA; or that he could instead have been treated by the national health care system. This is why the amount is
269 sufficient for the diagnosis and complete treatment of several affected persons.

270
271 Please note: This is not a hypothetical game. The option to be implemented for you will actually be carried out – exactly
272 as described – on behalf of the *BonnEconLab*. As a proof you will receive the money in case of Option A; in case of an
273 implementation of Option B we will allow inspection of the confirmed bank transfer to the organization Operation ASHA on
274 request. If you have individual questions, you can also direct these by email after the study to nachbesprechung@uni-bonn.de.
275 You find this email address on the back of your seating card. You can take it home with you.

276
277 Click on “Next”, if you have carefully read the information on this page. Please note: You can only click on the but-
278 ton “Next” once you have spent at least 5 minutes on the seven tabs of this page.

279
280 [end of screen]

281
282 Your decision: On the next screen you can choose between two lotteries, Lottery 1 and Lottery 2. Lottery 1 With 60
283 % probability, Option A is implemented for you. With 40 % probability, Option B is implemented for you. Lottery 2: With 40
284 % probability, Option A is implemented for you. With 60 % probability, Option B is implemented for you.

285 This means: With your choice of a lottery you can determine whether rather Option A or rather Option B shall be
286 implemented for you. The lottery is played as follows: After you have chosen one of the two lotteries, the computer will draw a
287 random number. The drawn random number is one of the numbers from 1 to 10.

288 If you have opted for Lottery 1, Option A will be implemented only if the drawn random number is a 1, 2, 3, 4, 5, or 6.
289 Option B will be implemented if the drawn random number is a 7, 8, 9 or 10. If you have opted for Lottery 2, Option A will be
290 implemented only if the drawn random number is a 1, 2, 3 or 4. Option B will be implemented if the drawn random number is
291 a 5, 6, 7, 8, 9 or 10.

292
293 Remember:

- 294 • In case of an implementation of Option A you will receive an additional amount of money of 100.00 €.
- 295 • In case of an implementation of Option B you will save a human life. Concretely, for Option B a donation of 350.00 €
296 will be paid on your behalf, which is sufficient not only to cure one person, but to actually save that person from death
297 by tuberculosis.

298 Please note:

- 299 1. All statements in these instructions are true. In particular, all consequences that are described in the instructions will be
300 implemented exactly as described. This holds generally for all studies of the BonnEconLab for research in experimental
301 economics, and also for this study.
- 302 2. Anonymity: No other participant of this study can see your decision. The subsequent analysis of all data is performed in
303 an anonymized way, such that your decisions cannot be linked to you anymore.

304 [end of screen]

305
306 Decision

307
308 I choose Lottery 1 With 60 %: I receive 100.00 €. With 40 %: I save one human life.

309
310 I choose Lottery 2 With 40 %: I receive 100.00 €. With 60 %: I save one human life.

311
312 [end of screen]

313
314 Result

315
316 You chose [Lottery 1 / Lottery 2].

317
318 The random number drawn for you is a [1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10].

319
320 Bank transfer to you: [100.00 € / 0.00 €] Bank transfer to Operation ASHA: [0.00 € / 350.00 €]

321 **Reminder Emails and Survey.**

322 Email 1 (after 1 week)

323
324 Dear [first name last name]!

325
326 Thank you very much for your participation in our study from [date of study, time of study]. In the context of this
327 study, you could make a decision about whether you rather want a human life to be saved for you, or whether you rather want
328 to receive an additional payment of 100 €.

329
330 [Either:] At the end of the study you were informed that you receive an additional payment of 100 €.

331
332 [Or:] At the end of the study you were informed that you arranged for a donation in the amount of 350 € for the
333 treatment and cure of tuberculosis patients, such that one human life is saved in expectation.

334
335 The corresponding bank transfer is currently in process.

336
337 We will notify you again as soon as the bank transfers are entered. Yours sincerely, BonnEconLab

338
339 Email 2 (after 3 weeks)

340
341 Dear [first name last name]

342
343 Thank you very much for your participation in our study from [date of study, time of study].

344 [Either:] In the context of this study you received an additional payment of 100 €.

345
346 The corresponding bank transfer has been executed in the meantime and is credited to your bank account.

347
348 [Or:] In the context of this study you have arranged for a donation in the amount of 350 € for the treatment and cure
349 of tuberculosis patients. This way you saved one human life in expectation!

350
351 The corresponding bank transfer has been executed in the meantime and is credited to the bank account of Operation
352 ASHA.

353
354 In the next days you will receive a further email including the link to the announced online survey.

355 Yours sincerely, BonnEconLab

356
357 Survey Invitation (after 4 weeks)

358
359 To remind you: The study that you participated in was about either saving a human life or receiving an amount of
360 money.

361
362 [Either:] Due to your participation you have received an additional payoff of 100 € for yourself. This considerable amount of
363 money has been transferred to you in the meantime. With your amount of money you saved no human life in expectation!

364
365 [Or:] Due to your participation you have arranged for a donation in the amount of 350 € for the treatment and cure
366 of tuberculosis patients. This considerable amount of money has been transferred in the meantime and will now benefit people
367 in great distress.

368
369
370
371

With your amount of money you saved one human life in expectation!



Fig. S1. Picture shown to subjects in instructions. Typical symptoms of a tuberculosis patient. Source: <http://www.opasha.org>.



Fig. S2. Picture shown to subjects in instructions. Logo of charity organization Operation ASHA. Source: <http://www.opasha.org>.



Fig. S3. Picture shown to subjects in instructions. An employee of Operation ASHA provides medication to a tuberculosis patient. Source: <http://www.opasha.org>.

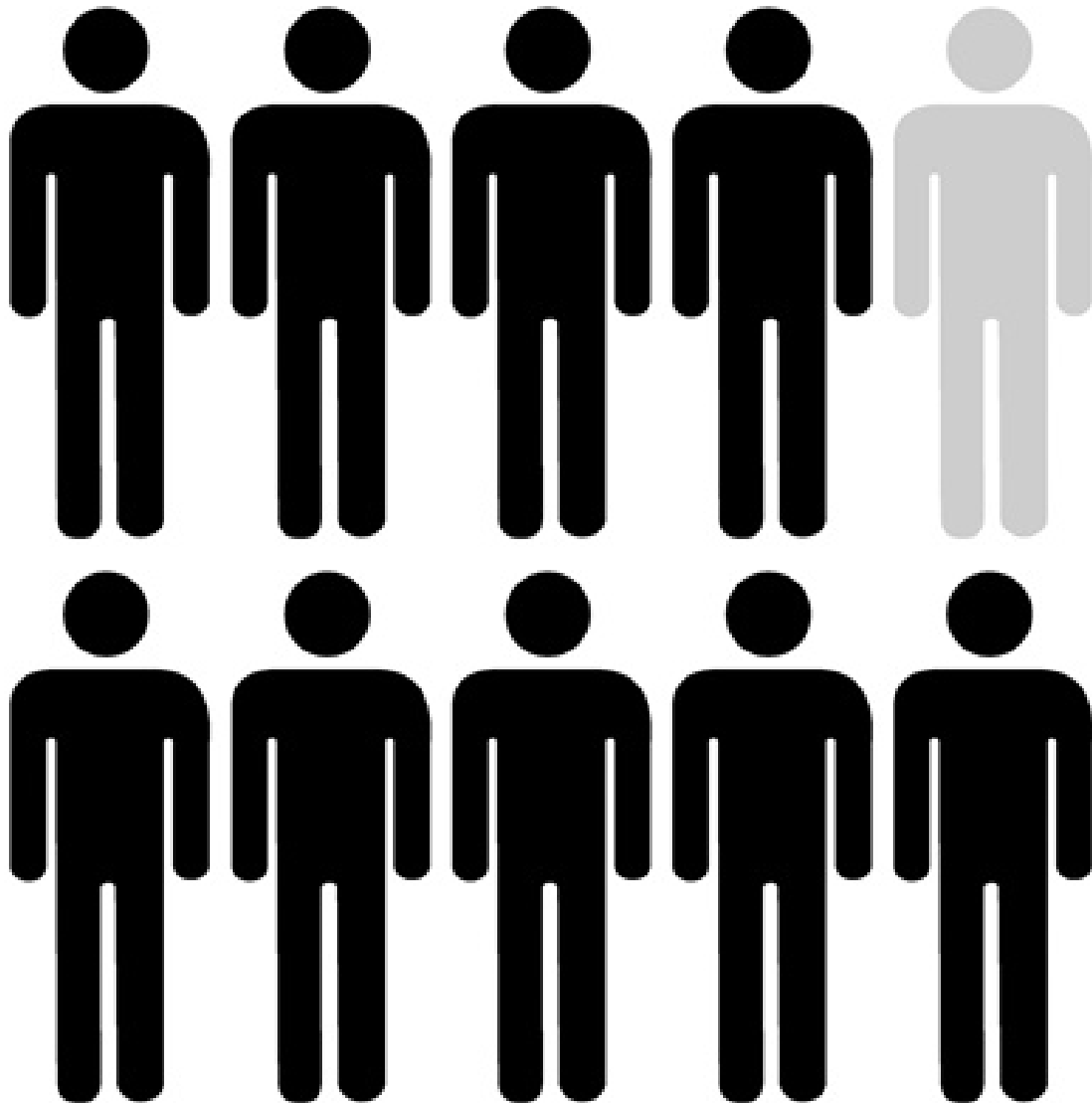


Fig. S4. . Picture shown to subjects in instructions. Top: Illustration of Option A. Without treatment by Operation ASHA, one of 5 persons sick of tuberculosis will die in expectation. Bottom: Illustration of Option B. With the donation 5 persons sick of tuberculosis can be treated by Operation ASHA and none of these persons will die in expectation.

Table S1. Correlates of prosocial choice in lottery treatment and the deterministic choice treatment.

Dependent variable: Choice (1 if altruistic, 0 if selfish)	Lottery sample	Deterministic sample	Full sample: Measure * 1(Deterministic)
	(1)	(2)	(3)
Female	0.050 (0.056)	0.049 (0.069)	-0.002 (0.088)
Cognitive intelligence (Raven)	0.027* (0.015)	0.021 (0.019)	-0.008 (0.021)
Self-control	0.005* (0.003)	0.006* (0.003)	0.000 (0.004)
Big 5 - agreeableness	0.007 (0.009)	-0.009 (0.013)	-0.017 (0.015)
Preferences module: altruism	0.225*** (0.034)	0.194*** (0.039)	-0.027 (0.050)
Preferences module: positive reciprocity	-0.036 (0.038)	-0.028 (0.044)	0.012 (0.055)
Preferences module: trust	0.033 (0.026)	0.011 (0.038)	-0.019 (0.043)
IRI - empathic concern	0.027** (0.012)	0.031** (0.015)	0.002 (0.017)
Self-image at begin of session	-0.018 (0.020)	0.005 (0.024)	0.022 (0.030)
Happiness at begin of session	-0.075*** (0.027)	-0.055 (0.039)	0.016 (0.044)
R ²	.2739	.2	.2425
N	297	221	518

Column 1 tests the predictive power of different personality measures for the choice of the prosocial rather than the selfish lottery. Column 2 is the same regression for the deterministic sample, i.e., the condition with a deterministic choice between life and money instead of lotteries. Column 3 is a regression on the joint sample including the lottery and the deterministic sample. The displayed coefficients in column 3 are interaction terms with an indicator that equals 1 for observations from the deterministic choice sample. Ordinary least squares regression. Robust standard errors in parentheses. The stars indicate significance levels of two-sided t tests for the null hypothesis that the regression coefficient equals zero. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table S2. Additional regression specifications with control variables.

Dependent variable (standardized):	Short run			Long run		
	Happiness	Self-image	Mood	Happiness	Self-image	Mood
	(1)	(2)	(3)	(4)	(5)	(6)
Lottery choice: 1 if altruistic, 0 if selfish	-0.001 (0.118)	0.444*** (0.142)	-0.694*** (0.171)	-0.116 (0.129)	0.244* (0.140)	0.139 (0.187)
Lottery outcome: 1 if life saved, 0 if money received	0.027 (0.104)	0.248* (0.143)	0.161 (0.180)	-0.277* (0.143)	0.259* (0.154)	0.067 (0.184)
Altruistic lottery choice * life saved	0.087 (0.147)	-0.018 (0.176)	1.243*** (0.218)	0.064 (0.181)	-0.266 (0.192)	-0.084 (0.228)
Constant	-4.389*** (0.732)	-4.282*** (0.713)	0.736 (0.818)	-2.740*** (0.751)	-4.116*** (0.730)	-0.460 (1.043)
Baseline happiness (at begin of session)	Yes			Yes		
Baseline self-image (at begin of session)		Yes			Yes	
Baseline mood (at begin of session)			Yes			Yes
Big 5	Yes	Yes	Yes	Yes	Yes	Yes
Preferences module	Yes	Yes	Yes	Yes	Yes	Yes
IRI	Yes	Yes	Yes	Yes	Yes	Yes
Self-control	Yes	Yes	Yes	Yes	Yes	Yes
Cognitive intelligence	Yes	Yes	Yes	Yes	Yes	Yes
Gender	Yes	Yes	Yes	Yes	Yes	Yes
Main effect choice: altruistic lottery	.04	.43***	-.07	-.08	.11	.1
Main effect outcome: life saved	.07	.24***	.78***	-.24***	.13	.03
R ²	.6068	.5746	.3629	.4295	.457	.2047
N	297	297	297	297	297	297

The regressions results shown in this table replicate the results obtained in Table 1 of the main text but include a set of control variables as a test of robustness. Ordinary least squares regression. Robust standard errors in parentheses. The stars indicate significance levels of two-sided t tests for the null hypothesis that the regression coefficient equals zero. The table footer displays F tests. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table S3. Alternative probit specification for main analyses.

Dependent variable (standardized):	Short run			Long run		
	Happiness	Self-image	Mood	Happiness	Self-image	Mood
	(1)	(2)	(3)	(4)	(5)	(6)
Lottery choice: 1 if altruistic, 0 if selfish	0.223 (0.191)	0.549** (0.214)	-0.728*** (0.172)	-0.117 (0.182)	0.339** (0.170)	0.163 (0.179)
Lottery outcome: 1 if life saved, 0 if money received	0.098 (0.190)	0.357* (0.206)	0.221 (0.215)	-0.432** (0.200)	0.376* (0.201)	0.145 (0.195)
Altruistic lottery choice * life saved	0.091 (0.266)	0.026 (0.261)	1.399*** (0.247)	0.144 (0.255)	-0.379 (0.250)	-0.132 (0.245)
Baseline happiness (at begin of session)	1.188*** (0.157)			0.829*** (0.099)		
Baseline self-image (at begin of session)		0.822*** (0.084)			0.618*** (0.065)	
Baseline mood (at begin of session)			0.126** (0.050)			0.196*** (0.043)
Main effect choice: altruistic lottery	.269**	.562***	-.028	-.045	.15	.098
Main effect outcome: life saved	.143**	.369***	.921***	-.359***	.187	.08
N	297	297	297	297	297	297

The displayed regression results replicate the main results from Table 1 using ordered probit estimation, which recognizes that the response data is ordinal rather than interval. The table shows regression coefficients, not partial effects. Coefficients for cut points not displayed. Robust standard errors in parentheses. The stars indicate significance levels of two-sided t tests for the null hypothesis that the regression coefficient equals zero. The table footer displays F tests. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

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