

Online appendix

This document contains additional material to accompany “Deciding for Others Reduces Loss Aversion” by Ola Andersson, Håkan J. Holm, Jean-Robert Tyran, and Erik Wengström. Section A compares our sample to the Danish population with respect to key socio- demographic variables. Section B contains additional descriptions of our data and Section C presents results from a series of structural estimations that are discussed in the main paper. Details of the experimental design including screenshots are provided in Section D.

A. Comparison with the Danish population

Table A1: Representativeness of sample

Gender	Experimental population					Danish population
	Ind.	Hyp.	Both	Other	Total	
Female	46.8%	50.7%	40.5%	55.4%	48.3%	50.2%
Male	53.2%	49.3%	59.5%	44.6%	51.7%	49.8%
Age						
18-29 years	9.6%	11.0%	15.3%	11.7%	12.0%	18.5%
30-44 years	18.7%	21.3%	24.4%	30.4%	23.8%	29.1%
45-59 years	36.1%	45.2%	34.7%	30.4%	36.4%	27.0%
60-80 years	35.5%	22.6%	25.6%	27.5%	27.8%	25.3%
Education (highest completed)						
Basic education (up to 10 years)	10.8%	8.0%	12.5%	7.8%	9.8%	26.3%
High school or vocational education	27.8%	20.7%	22.6%	24.7%	24.0%	45.4%
Medium tertiary education	46.2%	49.3%	44.6%	48.2%	47.0%	21.1%
Long tertiary education	15.2%	22.0%	20.2%	19.3%	19.2%	7.1%

Notes: For gender and age, the data in the column Danish population summarizes individuals between 18-80 years of age. For education, the population is restricted to individuals between 20-69 years of age.

B. Additional statistical analysis

In this appendix, we provide some additional descriptions and analysis of our data. Table B1 reports the average number of safe choices by treatment and screen type. Table B2 contains two-sided p -values of the Mann-Whitney U-test on N_{safe} between treatments.

Table B1: Average number of safe choices ($n = 668$)

	Individual	Hypothetical	Both	Other
All Screens	21.21	19.72	20.28	20.34
Loss	10.71	9.27	9.75	9.85
NoLoss	10.50	10.45	10.53	10.49

Table B2: Mann-Whitney two sided p -values between treatments tests ($n = 668$)

	Individual	Hypothetical	Both
All Screens			
Hypothetical	0.115		
Both	0.293	0.623	
Other	0.373	0.451	0.839
Loss Screens			
Hypothetical	0.008		
Both	0.071	0.416	
Other	0.107	0.324	0.803
NoLoss Screens			
Hypothetical	0.973		
Both	0.948	0.951	
Other	0.957	0.900	0.976

C. Structural estimation results

Main specification

We estimate a structural model under the assumption that individuals have constant relative risk aversion (CRRA) and display loss aversion.¹ That is, the utility function has the following form

$$u(x) = \begin{cases} \frac{x^{1-\gamma}}{1-\gamma} & \text{if } x \geq 0 \\ -\lambda \frac{(-x)^{1-\gamma}}{1-\gamma} & \text{if } x < 0, \end{cases} \quad (\text{C1})$$

where γ is the coefficient of relative risk aversion and λ is the loss aversion parameter.² Using the utility function in (1) the expected utility of a lottery A is given by

$$EU(A) = \sum_{a \in A} p(a)u(a). \quad (\text{C2})$$

We calculate the difference in expected utility between the lotteries Left (L) and Right (R)

$$\Delta EU = \frac{EU(L) - EU(R)}{\mu},$$

and following Wilcox (2011), we normalize by dividing by $\mu > 0$, which is defined as the difference between the maximum utility and the minimum utility over all prizes in each lottery pair. Acknowledging the stochastic nature of the decision making process, we assume that individuals evaluate differences in expected utility with some noise. More specifically, we utilize the Fechner error structure that was popularized by Hey and Orme (1994) which states that the L lottery will be chosen if

$$\Delta EU + \tau \varepsilon > 0, \text{ where } \varepsilon \sim N(0,1), \quad (\text{C3})$$

where τ is a structural noise parameter. We can then write the likelihood function as

$$L = \begin{cases} \Phi\left(\frac{\Delta EU}{\tau}\right) & \text{if Left} \\ 1 - \Phi\left(\frac{\Delta EU}{\tau}\right) & \text{if Right,} \end{cases} \quad (\text{C4})$$

where Φ is the cumulative distribution function of the standard normal. We estimate (C4) using maximum likelihood methods. The parameters of interest to be estimated are γ (reflecting risk preferences), λ (reflecting loss aversion) and τ (reflecting noise). We estimate average parameters and

¹ Using the CRRA utility function is the main approach in the structural literature (see e.g. Andersen et al. 2008 who also use subjects that are randomly sampled from the Danish population).

² Even though prospect theory suggests that the risk aversion parameter γ should be distinct over the two domains, we estimate the same risk aversion parameter for both domains since this is required to identify the loss aversion parameter in our model (see Köbberling and Wakker 2005).

allow for heterogeneity by letting the parameters depend linearly on treatment dummies and covariates. Standard errors are clustered at the individual level and we thus allow for heteroskedasticity between and within individuals, and for autocorrelation within individuals.

The estimations control for gender, age, education, cognitive ability and cognitive reflection in all specifications as these have shown to be important determinants of risky behavior in previous studies (e.g., Dohmen et al. 2010, Andersson et al. 2013). Cognitive ability is measured using a 20-item progressive matrices test (Beauducel et al. 2010) and cognitive reflection is measured using the cognitive reflection test proposed by Frederick (2005). Both tasks were performed in the first wave of iLEE experiments about two years before our risk task. We exclude the fastest 10 percent in the main specification in Table C1 but later show that our results are robust to the inclusion of these subjects.

Table C1 presents the results. In Model 1, which we summarize in Table 2 in the paper, we let the preference parameters γ and λ depend on the treatment and a set of control variables. In Model 2 we in addition allow for heterogeneity in the noise parameter τ . In Andersson et al. (2013) we discuss and show the importance of allowing heterogeneous noise in the estimations. Not controlling for such heterogeneity might lead to biased inference on the relationship between covariates and preference parameters.

In addition to the findings reported in the paper, Table C1 confirm results in previous studies showing that age and education are closely linked to noisy decision making (Dave et al. 2010, von Gaudecker et al. 2011). We also corroborate the main results of Andersson et al. (2013) that cognitive ability is not mainly related to the curvature of utility function, but more to the noise parameter.

To get a sense of the magnitude of the drop in loss aversion we can measure the impact in terms of Certainty Equivalents (CE). In particular, we can take the average parameters of the Other treatment as a baseline set of preferences and then calculate the loss in CE that would arise by considering the behavioral bias induced by the increased loss aversion in the Individual treatment. To exemplify, consider Decision 6 on Screen 1. A subject with average preference parameters γ and λ from the Individual treatment will choose the Left gamble and the corresponding average subject from the Other treatment will choose the Right gamble. Using the baseline preference parameters from the Other treatment the CE of the subject is 39.2 DKK for the Right lottery. If such an individual instead chooses the Left gamble, the CE is 36.2 DKK. That is, adding the bias induced by the increase in loss aversion reduces the CE with 3 DKK or 8 percent.

Table C1: Structural estimation

	Model 1			Model 2		
	γ	λ	τ	γ	λ	τ
Hypothetical	-0.027 [0.056]	-0.379** [0.189]		-0.032 [0.044]	-0.278* [0.144]	0.008 [0.013]
Both	0.035 [0.044]	-0.383*** [0.148]		0.033 [0.044]	-0.328** [0.146]	0.017 [0.014]
Other	0.028 [0.043]	-0.424*** [0.139]		0.004 [0.035]	-0.332** [0.137]	0.012 [0.014]
Female	0.093*** [0.033]	0.270** [0.109]		0.080** [0.033]	0.305*** [0.105]	0.012 [0.009]
Age (35-44)	0.037 [0.042]	0.034 [0.151]		0.018 [0.051]	-0.012 [0.137]	0.011 [0.013]
Age (45-54)	0.109** [0.045]	-0.295** [0.150]		0.072 [0.045]	-0.214 [0.132]	0.020 [0.013]
Age (55-64)	0.198*** [0.043]	-0.101 [0.153]		0.141*** [0.050]	0.027 [0.176]	0.069*** [0.022]
Age (65-)	0.073 [0.069]	-0.346* [0.202]		-0.035 [0.150]	-0.213 [0.354]	0.102*** [0.034]
Education 1	0.040 [0.065]	-0.005 [0.243]		0.069 [0.051]	-0.121 [0.196]	-0.033 [0.024]
Education 2	0.015 [0.058]	0.071 [0.226]		0.034 [0.048]	0.020 [0.200]	-0.019 [0.023]
Education 3	-0.002 [0.006]	-0.226 [0.022]		0.043 [0.008]	-0.241 [0.022]	-0.056** [0.002]
Cogn. reflection	0.001 [0.016]	0.020 [0.065]		0.013 [0.015]	-0.059 [0.066]	-0.020*** [0.007]
Constant	0.078 [0.091]	1.575*** [0.363]	0.191*** [0.007]	0.031 [0.090]	1.714*** [0.336]	0.260*** [0.032]
Observations	25,680	25,680	25,680	25,680	25,680	25,680

Notes: Individual is the baseline treatment. Education1 refers to participants' degrees from high school and vocational school, Education2 represents tertiary education up to 4 years and Education3 tertiary education of at least 4 years. Participants with basic schooling (up to 10 years of schooling) are our baseline category. Cognitive ability measures the number of correct answers (ranging between 0 and 19) on a progressive matrices test (Beauducel et al. 2010). Cognitive reflection scores range from 0 to 3 and indicate the number of correct answers to the cognitive reflection test proposed by Frederick (2005). Model 2 allows the noise parameter to be heterogeneous across treatments and observable characteristics, whereas Model 1 does not. Robust standard errors in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Robustness

In Table C2 we present structural estimation results based on a restricted set of covariates. The main results presented in the text continue to hold also for this specification. Table C3 contains the specifications of Table C1 using the full sample (i.e. without removing the fastest 10%) and Table C4 contains the same specifications as Table C1 but using a restricted sample that also excludes subjects that switched back forth within one screen. Table C5 and Table C6 contains estimation results based on an extended error model where we have added a tremble probability ω to the contextual utility specification in equation (C4). More precisely, we assume that with probability ω an individual chooses at random between the two lotteries Left (L) and Right (R) and with probability $(1 - \omega)$ the individual evaluates the lotteries with the contextual error specification in Equation (C4). The likelihood now reads

$$L = \begin{cases} (1 - \omega)\Phi\left(\frac{\Delta EU}{\tau}\right) + \frac{\omega}{2} & \text{if Left} \\ 1 - \left((1 - \omega)\Phi\left(\frac{\Delta EU}{\tau}\right) + \frac{\omega}{2}\right) & \text{if Right,} \end{cases} \quad (C5)$$

In contrast to the Fechner error, the probability of making a mistake due to trembles is independent of the utility difference between the lotteries. The tremble parameter ω captures the idea that subjects err and choose one of the lotteries at random and in particular it enables us to capture violations of stochastic dominance.

The treatment effects presented in Tables C2-C6 are nearly identical to those presented in Table C1.

Table C2: Structural estimation, Contextual utility restricted set of covariates

	Model 1			Model 2		
	γ	λ	τ	γ	λ	τ
Hypothetical	-0.0293 [0.0443]	-0.390** [0.152]		-0.0289 [0.0408]	-0.330** [0.139]	0.00465 [0.0152]
Both	0.0283 [0.0414]	-0.369** [0.154]		0.0131 [0.0333]	-0.289** [0.145]	0.0191 [0.0154]
Other	0.0253 [0.0495]	-0.412** [0.166]		-0.00521 [0.0547]	-0.292* [0.166]	0.0186 [0.0152]
Female	0.0924*** [0.0345]	0.278** [0.110]		0.0762*** [0.0281]	0.287*** [0.0965]	0.0113 [0.0112]
Age (35-44)	0.0263 [0.0598]	0.0729 [0.191]		0.0123 [0.0502]	0.0870 [0.157]	0.0177 [0.0149]
Age (45-54)	0.110** [0.0474]	-0.294* [0.162]		0.0664** [0.0301]	-0.183 [0.121]	0.0300** [0.0134]
Age (55-64)	0.203*** [0.0419]	-0.125 [0.156]		0.115*** [0.0394]	0.130 [0.185]	0.0999*** [0.0215]
Age (65-)	0.0838* [0.0485]	-0.399** [0.165]		-0.0816 [0.118]	-0.108 [0.288]	0.149*** [0.0320]
Constant	0.0403 [0.0465]	1.752*** [0.171]	0.191*** [0.00658]	0.125*** [0.0346]	1.528*** [0.131]	0.121*** [0.0131]
Observations	25,680	25,680	25,680	25,680	25,680	25,680

Notes: Individual is the baseline treatment. Model 2 allows the noise parameter to be heterogeneous across treatments and observable characteristics, whereas Model 1 does not. Robust standard errors in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table C3: Contextual utility on full sample

	Model 1			Model 2		
	γ	λ	τ	γ	λ	τ
Hypothetical	-0.021 [0.047]	-0.365** [0.162]		-0.028 [0.039]	-0.277** [0.131]	0.001 [0.015]
Both	0.047 [0.049]	-0.386** [0.176]		0.046 [0.041]	-0.367** [0.149]	0.007 [0.015]
Other	0.038 [0.053]	-0.357* [0.189]		0.019 [0.039]	-0.307** [0.134]	-0.002 [0.014]
Female	0.080* [0.043]	0.241* [0.144]		0.070*** [0.027]	0.269*** [0.099]	0.009 [0.010]
Age (35-44)	0.020 [0.058]	0.195 [0.210]		0.011 [0.039]	0.093 [0.131]	0.006 [0.013]
Age (45-54)	0.048 [0.059]	-0.170 [0.213]		0.021 [0.036]	-0.114 [0.116]	0.020 [0.014]
Age (55-64)	0.148*** [0.052]	-0.046 [0.212]		0.103** [0.049]	0.045 [0.187]	0.062*** [0.023]
Age (65-)	0.032 [0.091]	-0.282 [0.291]		-0.061 [0.072]	-0.160 [0.209]	0.092*** [0.030]
Education 1	0.056 [0.044]	-0.018 [0.201]		0.071 [0.057]	-0.089 [0.187]	-0.016 [0.024]
Education 2	0.024 [0.051]	-0.036 [0.224]		0.038 [0.055]	-0.082 [0.185]	-0.011 [0.023]
Education 3	-0.021 [0.056]	-0.203 [0.212]		0.023 [0.059]	-0.267 [0.174]	-0.042* [0.023]
Cognitive ability	-0.007 [0.007]	0.017 [0.023]		-0.000 [0.005]	0.005 [0.014]	-0.007*** [0.002]
Cogn. reflection	-0.007 [0.018]	-0.021 [0.066]		0.011 [0.014]	-0.118* [0.065]	-0.025*** [0.007]
Constant	0.139 [0.089]	1.632*** [0.335]	0.200*** [0.007]	0.075 [0.086]	1.873*** [0.267]	0.290*** [0.033]
Observations	28,400	28,400	28,400	28,400	28,400	28,400

Notes: Individual is the baseline treatment. Education1 refers to participants' degrees from high school and vocational school, Education2 represents tertiary education up to 4 years and Education3 tertiary education of at least 4 years. Participants with basic schooling (up to 10 years of schooling) are our baseline category. Cognitive ability measures the number of correct answers (ranging between 0 and 19) on a progressive matrices test (Beauducel et al. 2010). Cognitive reflection scores range from 0 to 3 and indicate the number of correct answers to the cognitive reflection test proposed by Frederick (2005). Model 2 allows the noise parameter to be heterogeneous across treatments and observable characteristics, whereas Model 1 does not. Robust standard errors in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table C4: Contextual utility on restricted sample

	Model 1			Model 2		
	γ	λ	τ	γ	λ	τ
Hypothetical	0.002 [0.068]	-0.477** [0.219]		-0.010 [0.143]	-0.376 [0.470]	0.009 [0.018]
Both	0.052 [0.066]	-0.427** [0.211]		0.052 [0.039]	-0.383*** [0.121]	0.007 [0.013]
Other	0.039 [0.069]	-0.484** [0.222]		0.020 [0.036]	-0.393*** [0.113]	0.006 [0.014]
Female	0.098** [0.050]	0.229 [0.149]		0.082** [0.036]	0.284** [0.117]	0.013 [0.009]
Age (35-44)	0.070 [0.056]	-0.025 [0.186]		0.031 [0.039]	-0.004 [0.130]	0.018 [0.014]
Age (45-54)	0.114** [0.052]	-0.269 [0.173]		0.077* [0.046]	-0.194 [0.138]	0.018 [0.013]
Age (55-64)	0.205*** [0.065]	-0.199 [0.204]		0.144*** [0.053]	-0.048 [0.208]	0.063*** [0.022]
Age (65-)	0.019 [0.087]	-0.426* [0.250]		-0.111* [0.061]	-0.254 [0.223]	0.089*** [0.031]
Education 1	0.049 [0.088]	-0.057 [0.230]		0.073 [0.098]	-0.128 [0.276]	-0.026 [0.024]
Education 2	0.003 [0.080]	0.016 [0.227]		0.028 [0.102]	-0.017 [0.305]	-0.018 [0.024]
Education 3	-0.002 [0.090]	-0.187 [0.234]		0.039 [0.087]	-0.211 [0.216]	-0.043* [0.023]
Cognitive ability	-0.005 [0.008]	0.010 [0.025]		0.001 [0.007]	0.004 [0.021]	-0.006*** [0.002]
Cogn. reflection	-0.000 [0.022]	0.008 [0.081]		0.009 [0.024]	-0.058 [0.100]	-0.012* [0.006]
Constant	0.059 [0.116]	1.751*** [0.366]	0.167*** [0.006]	0.021 [0.091]	1.791*** [0.262]	0.225*** [0.032]
Observations	21,200	21,200	21,200	21,200	21,200	21,200

Notes: The sample excludes the fastest 10% and subjects with multiple switch points. Individual is the baseline treatment. Education1 refers to participants degrees from high school and vocational school, Education2 represents tertiary education up to 4 years and Education3 tertiary education of at least 4 year. Participants with basic schooling (up to 10 years of schooling) are our baseline category. Cognitive ability measures the number of correct answers (ranging between 0 and 19) on a progressive matrices test (Beauducel et al. 2010). Cognitive reflection ranges between 0 and 3 and indicate the number of correct answers to the cognitive reflection test proposed by Frederick (2005). Robust standard errors in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Model 2 allows for heterogeneous effects in noise whereas Model 1 does not.

Table C5: Structural estimation, contextual utility and trembles, restricted set of covariates

	γ	λ	ω	τ
Hypothetical	-0.016 [0.035]	-0.326*** [0.122]	-0.008 [0.032]	
Both	0.028 [0.037]	-0.295** [0.144]	0.030 [0.034]	
Other	-0.001 [0.032]	-0.259** [0.123]	0.043 [0.037]	
Female	0.084*** [0.025]	0.217** [0.085]	0.025 [0.026]	
Age (35-44)	0.002 [0.034]	0.098 [0.138]	0.047 [0.033]	
Age (45-54)	0.060** [0.031]	-0.145 [0.104]	0.075** [0.031]	
Age (55-64)	0.109** [0.047]	0.104 [0.150]	0.245*** [0.044]	
Age (65-)	-0.034 [0.060]	-0.148 [0.184]	0.303*** [0.049]	
Constant	0.125*** [0.032]	1.527*** [0.123]	0.028 [0.027]	0.114*** [0.004]
Observations	25,680	25,680	25,680	25,680

Notes: Individual is the baseline treatment. Education1 refers to participants' degrees from high school and vocational school, Education2 represents tertiary education up to 4 years and Education3 tertiary education of at least 4 years. Participants with basic schooling (up to 10 years of schooling) are our baseline category. Cognitive ability measures the number of correct answers (ranging between 0 and 19) on a progressive matrices test (Beauducel et al. 2010). Cognitive reflection scores range from 0 to 3 and indicate the number of correct answers to the cognitive reflection test proposed by Frederick (2005). Robust standard errors in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table C6: Structural estimation, contextual utility and trembles

	γ	λ	ω	τ
Hypothetical	-0.020 [0.045]	-0.293** [0.143]	0.004 [0.033]	
Both	0.045 [0.035]	-0.335*** [0.111]	0.026 [0.034]	
Other	0.001 [0.046]	-0.280* [0.159]	0.035 [0.034]	
Female	0.096*** [0.031]	0.198** [0.091]	0.002 [0.021]	
Age (35-44)	0.006 [0.035]	0.049 [0.104]	0.050* [0.029]	
Age (45-54)	0.063* [0.038]	-0.161 [0.120]	0.055** [0.026]	
Age (55-64)	0.123** [0.049]	0.070 [0.134]	0.179*** [0.046]	
Age (65-)	-0.016 [0.057]	-0.188 [0.164]	0.216*** [0.052]	
Education 1	0.051 [0.068]	-0.079 [0.193]	-0.080 [0.058]	
Education 2	0.024 [0.070]	0.028 [0.199]	-0.036 [0.056]	
Education 3	0.012 [0.072]	-0.161 [0.202]	-0.107* [0.056]	
Cognitive ability	-0.000 [0.004]	0.006 [0.013]	-0.016*** [0.004]	
Cogn. reflection	0.007 [0.019]	-0.026 [0.070]	-0.048*** [0.014]	
Constant	0.075 [0.079]	1.604*** [0.308]	0.366*** [0.078]	0.111*** [0.005]
Observations	25,680	25,680	25,680	25,680

Notes: Individual is the baseline treatment. Education1 refers to participants degrees from high school and vocational school, Education2 represents tertiary education up to 4 years and Education3 tertiary education of at least 4 year. Participants with basic schooling (up to 10 years of schooling) are our baseline category. Cognitive ability measures the number of correct answers (ranging between 0 and 19) on a progressive matrices test (Beauducel et al., 2010). Cognitive reflection ranges between 0 and 3 and indicate the number of correct answers to the cognitive reflection test proposed by Frederick (2005). Robust standard errors in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

D. Experimental design and screenshots

This appendix provides additional details about the design of the experiment. In short, participants repeatedly choose between a pair of lotteries (“left” vs. “right”). Each lottery has two possible outcomes which are equally likely (explained to subjects as a coin toss). Lotteries are presented in tables in which there are 10 choices to make (see Table 1 of the main text for the different payoff configurations used). In total, there are 4 tables which were presented in random order. The structure of the tables is such that the “left” option is relatively safe (possible payoffs are similar) and payoffs of the left option do not vary across choices (i.e. within a table). In the “right” option, the low payoff is held constant within a table but the high payoff varies systematically. Participants are paid according to one of the choices. Losses were possible in this module. Losses, if any, were deducted from gains in other modules. Payoffs across modules were calibrated such that it was not possible for subjects to incur losses over the entire iLEE3 wave (for a detailed description of the modules contained in each wave see <http://www.econ.ku.dk/cee/ilee>).

There are four treatments:

Individual: The decision maker’s (DM) choice only affects payoff of the DM.

Hypothetical: DM is asked to make choices as if she was paid, but no payment is actually made.

Both: DM choice affects DM and one other participant. Half of the participants are receivers”, the other half are DM. The DM makes the choices in the four tables, the receivers do not make choices.

Other: DM choice does not affect DM payoff but does affect the payoff of one other participant. Half the subjects are DM, the other half are receivers.

The allocation to the treatments was randomized. Roles are assigned ex ante in treatments Both and Other, i.e. receivers do not make choices and are directly routed to the next module.

One of the choices in one of the tables was chosen at random to be payoff relevant, and a random draw determined the earnings of the participant(s). Matching occurred within the treatments (four DM had to be matched twice because there were more receivers than decision makers). Average earnings were DKK 45.5 in this module (this includes DM in Hypothetical and Other who did not receive any payment from this module). The screens were presented in the order shown below.

Instructions: Two screens. **Instructions1:** Informs the subjects that they have to make 10 choices each in four tables. A sample choice is presented, and the payoffs for DM and the receiver are explained. **Instructions2:** Provides information on whether participants are assigned the role of DM or receiver (Note: only for treatment Both and Other).

Decision screens: Four tables are presented in random order. All 10 choices must be answered by either clicking the left or right button to proceed.

Sample Instruction screen 1 (treatment Both)

Instruktioner til 3. del af eksperimentet

I denne del af eksperimentet foretager en **beslutningstager** 40 valg på vegne af sig selv og en tilfældigt udvalgt anden deltager (en **modtager**).

Hvert valg er mellem to forskellige spil: plat eller krone. **Beslutningstageren skal hver gang angive, om han/hun foretrækker spillet til VENSTRE eller spillet til HØJRE.** Hvert spil har to mulige udfald, PLAT eller KRONE. Udfaldet afgøres tilfældigt, og begge udfald er lige sandsynlige.

Ét af de 40 valg mellem plat eller krone-spil vil blive tilfældigt udvalgt til betaling. Det spil, der var foretrukket her, vil blive spillet, og **udfaldet PLAT eller KRONE vil bestemme indtjeningen for både beslutningstageren og modtageren.** Nogle af spillene kan udløse tab, som i givet fald vil blive trukket fra både beslutningstagerens og modtagerens samlede indtjening i eksperimentet. Alle valg har samme sandsynlighed for at blive udvalgt.

Her kommer et eksempel.

	VENSTRE		Jeg vælger		HØJRE	
	KRONE	PLAT	Spillet til VENSTRE	Spillet til HØJRE	KRONE	PLAT
Beslutning 1	Vind 30 kr.	Vind 50 kr.	<input type="radio"/>	<input type="radio"/>	Tab 10 kr.	Vind 80 kr.

Hvis beslutningstageren vælger spillet til VENSTRE, vinder beslutningstageren og modtageren hver 30 kr., hvis udfaldet er KRONE, og 50 kr., hvis udfaldet er PLAT. Hvis beslutningstageren vælger spillet til HØJRE, taber beslutningstageren og modtageren hver 10 kr., hvis udfaldet er KRONE, men vinder 80 kr., hvis udfaldet er PLAT.

Beslutningstageren foretager altså valg mellem plat eller krone-spil **på vegne af både sig selv og modtageren.**

Hvilken rolle du har, afgøres tilfældigt. Det er lige så sandsynligt, at du er beslutningstager, som at du er modtager. Når rolleene er afgjort, matches hver beslutningstager tilfældigt med en modtager.

På næste skærm får du at vide, om du er udvalgt til at være beslutningstager eller modtager.

Fortsæt >>

Kommentar

Translation of Instruction screen 1 (treatment Both)

In this part of the experiment a **decision maker** will make 40 choices for himself/herself and another random participant (a **receiver**).

Each choice is between two different games of heads or tails. **The decision maker each time has to indicate if he/she prefers the game to the LEFT or the game to the RIGHT.** Each game has two possible outcomes, head or tail. The outcome is random and with equal probabilities.

One of the 40 choices between the two different games of heads or tails will be chosen randomly for payment. The game, which the decision maker chooses to play, will be played and the payment for both the decision maker and the receiver will depend on the outcome from either HEAD or TAIL. Some of the games can result in negative payment. In the case that a game with negative payment has been chosen for payment, the amount will be drawn from both the account of the decision maker and the receiver. All choices have equal probabilities to be selected for payment.

Here is one example.

	LEFT		I choose		RIGHT	
	HEAD	TAIL	The game to the LEFT	The game to the RIGHT	HEAD	TAIL
1st decision	Win 30 kr.	Win 50 kr.	<input type="radio"/>	<input type="radio"/>	Lose 10 kr.	Win 80 kr.

If the decision maker chooses the game to the LEFT the decision maker and the receiver will each win 30 kr., if the outcome is HEAD, and 50 kr., if the outcome is TAIL. If the decision maker chooses the game to the RIGHT the decision maker and the receiver each lose 10 kr., if the outcome is HEAD, but win 80 kr., if the outcome is TAIL.

The decision maker therefore chooses the game **on behalf of himself/herself and the receiver.**

Which role, decision maker or receiver, you will get will be determined randomly. You are as likely to become the decision maker as you are to become the receiver. When the roles have been determined, each decision maker will be matched randomly with a receiver.

On the next screen you will be informed whether you have been chosen to become a decision maker or a receiver.

Continue >>

Sample Instruction screen 2 (treatment Both)

iLEE Internet Laboratoriet for Eksperimentel Økonomi

Gense instruktioner Hjælp

Din rolle

Du er tilfældigt udvalgt til at være **modtager**. Du vil blive matchet med en tilfældigt udvalgt beslutningstager.

Du har derfor ikke selv nogen valg at foretage. Din indtjening fra denne del af eksperimentet afhænger af den andens valg.

Fortsæt >>

Kommentar

© 2010 Center for Eksperimentel Økonomi
Økonomisk Institut, Københavns Universitet

Translation of Instruction screen 2 (treatment Both)

Your role

You have randomly been chosen to be a **receiver**. You will be matched with a random chosen decision maker.

You therefore have no choices to make. Your payment from this part of the experiment will depend on the choices of the other participant.

Continue >>

Decision screen (treatment Both)

Dine valg mellem plat eller krone-spil (3/4)

	VENSTRE		Jeg vælger		HØJRE	
	KRONE	PLAT	Spillet til VENSTRE	Spillet til HØJRE	KRONE	PLAT
Beslutning 1	Tab 9 kr.	Vind 40 kr.	<input type="radio"/>	<input type="radio"/>	Tab 51 kr.	Vind 40 kr.
Beslutning 2	Tab 9 kr.	Vind 40 kr.	<input type="radio"/>	<input type="radio"/>	Tab 51 kr.	Vind 80 kr.
Beslutning 3	Tab 9 kr.	Vind 40 kr.	<input type="radio"/>	<input type="radio"/>	Tab 51 kr.	Vind 90 kr.
Beslutning 4	Tab 9 kr.	Vind 40 kr.	<input type="radio"/>	<input type="radio"/>	Tab 51 kr.	Vind 110 kr.
Beslutning 5	Tab 9 kr.	Vind 40 kr.	<input type="radio"/>	<input type="radio"/>	Tab 51 kr.	Vind 130 kr.
Beslutning 6	Tab 9 kr.	Vind 40 kr.	<input type="radio"/>	<input type="radio"/>	Tab 51 kr.	Vind 150 kr.
Beslutning 7	Tab 9 kr.	Vind 40 kr.	<input type="radio"/>	<input type="radio"/>	Tab 51 kr.	Vind 170 kr.
Beslutning 8	Tab 9 kr.	Vind 40 kr.	<input type="radio"/>	<input type="radio"/>	Tab 51 kr.	Vind 190 kr.
Beslutning 9	Tab 9 kr.	Vind 40 kr.	<input type="radio"/>	<input type="radio"/>	Tab 51 kr.	Vind 220 kr.
Beslutning 10	Tab 9 kr.	Vind 40 kr.	<input type="radio"/>	<input type="radio"/>	Tab 51 kr.	Vind 280 kr.

Indsend beslutninger

Translation of Decision screen (treatment Both)

Your choices in the heads or tails game

			I choose			
	Left				Right	
	Head	Tail	The game to the left	The game to the right	Head	Tail
Decision 1	Lose 9 kr	Win 40 kr			Lose 51 kr	Win 40 kr

References

- Andersen, S., Harrison, G., Lau, M.I., Rutstrom, E. 2008 “Eliciting Risk and Time Preferences,” *Econometrica*, 76(3): 583–618.
- Andersson, O., Tyran, J.-R., Wengström, E., Holm, H.J. 2013 “Risk Aversion Relates to Cognitive Ability: Fact or Fiction,” IFN Working Paper Series No 964, Research Institute of Industrial Economics (IFN).
- Beauducel, A., Leipmann, D., Horn, S., Brocke, B. 2010 “Intelligence Structure Test,” Hogrefe Verlag.
- Dave, C., Eckel, C., Johnson, C., Rojas, C. 2010 “Eliciting Risk Preferences: When is Simple Better?” *Journal of Risk and Uncertainty*, 41(3): 219–43.
- Dohmen, T., Falk, A., Huffman, D., Sunde, U. 2010 “Are Risk Aversion and Impatience Related to Cognitive Ability?” *American Economic Review*, 100(3): 1238–60.
- Frederick, S. 2005 “Cognitive Reflection and Decision Making,” *Journal of Economic Perspectives* 19(4): 25–42.
- von Gaudecker, H.-M., van Soest, A., Wengström, E. 2011 “Heterogeneity in Risky Choice Behavior in a Broad Population,” *American Economic Review*, 101(2): 664–94.
- Hey, J. D., Orme, C. 1994 “Investigating Generalizations of Expected Utility Theory Using Experimental Data,” *Econometrica*, 62(6): 1291–1326.
- Köbberling, V., Wakker, P. 2005 “An Index of Loss Aversion,” *Journal of Economic Theory*, 122(1): 119–31.
- Wilcox, N.T. 2011. “Stochastically More Risk Averse: A Contextual Theory of Stochastic Discrete Choice under Risk,” *Journal of Econometrics*, 162 (1): 89–104.