Online Appendix: Fairness is intuitive

Alexander W. Cappelen Ulrik H. Nielsen Bertil Tungodden Jean-Robert Tyran Erik Wengström

August 10, 2015

Abstract

Section A.1 presents our experimental instructions translated into English. Section A.2 provides robustness checks of the results presented in the paper.

A.1 Instructions

In this section, we present translated instructions from the experiment. The instructions were originally written in Danish. Subjects were able to review the instructions on later screens by clicking the respective button on the screen.

[Screen 1: Instructions for part 1] Instructions for the experiment's first part

All participants in the experiment initially receive 75 DKK.

You are now involved in **2** decision situations.

In each situation, you will be randomly matched with another participant. (It will not be the same participant.)

Your decision

In one situation, you are the decision maker. You must decide how you wish to divide the total amount that you and the other participant have been given (75 + 75 = 150 DKK) between the two of you.

The initial situation is shown below.

[Continue]

[Screen 2: Instructions for part 2] The other situation

In the other situation, he or she is the decision maker. He or she must make a similar decision about how he or she wants to divide the total amount that you have initially been given.

Figure A.1: Illustration explaining the initial situation in the Dictator Game



Translated text: "Udgangspunkt"=Initial situation. "Dig"=You. "Den anden"=The other one.

Outcome

Only one of the situations will be selected for payments. Both you and that other participant will be paid according to the decision made in that situation. It is equally likely that you will be paid according to the situation in which you are the decision maker as it is that you will be paid according to the situation in which the other participant is the decision maker.

[Go back] [Continue]

[Screen 3: Decision screen] Your decision

Pick one of the options below and click **Submit decision**.

[See the instructions again] [Submit decision]

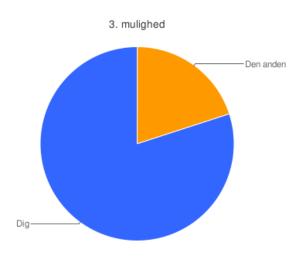
	Fordeling (dig - den anden)	Du får	Den anden får	Din beslutning
1	100% - 0%	150 kr.	0 kr.	0
2	90% - 10%	135 kr.	15 kr.	0
3	80% - 20%	120 kr.	30 kr.	0
4	70% - 30%	105 kr.	45 kr.	0
5	60% - 40%	90 kr.	60 kr.	0
6	50% - 50%	75 kr.	75 kr.	0
7	40% - 60%	60 kr.	90 kr.	0
8	30% - 70%	45 kr.	105 kr.	0
9	20% - 80%	30 kr.	120 kr.	0
10	10% - 90%	15 kr.	135 kr.	0
11	0% - 100%	0 kr.	150 kr.	0

Figure A.2: Screenshot of the decision screen in the Dictator Game

Translated text: "Fordeling (dig - den anden)"=Division (you - the other). "Du får"=You get. "Den anden får"=The other gets. "Din beslutning"=Your decision

	Fordeling (dig - den anden)	Du får	Den anden får	Din beslutning
1	100% - 0%	150 kr.	0 kr.	C
2	90% - 10%	135 kr.	15 kr.	C
3	80% - 20%	120 kr.	30 kr.	C
4	70% - 30%	105 kr.	45 kr.	С
5	60% - 40%	90 kr.	60 kr.	С
6	50% - 50%	75 kr.	75 kr.	С
7	40% - 60%	60 kr.	90 kr.	С
8	30% - 70%	45 kr.	105 kr.	C
9	20% - 80%	30 kr.	120 kr.	С
10	10% - 90%	15 kr.	135 kr.	С
11	0% - 100%	0 kr.	150 kr.	С

Figure A.3: Screenshot of the decision screen in the Dictator Game after clicking 80-20



Translated text: "Fordeling (dig - den anden)"=Division (you - the other). "Du får"=You get. "Den anden får"=The other gets. "Din beslutning"=Your decision. "3. mulighed"=3rd option. "Dig"=You. "Den anden"=The other one.

A.2 Robustness checks

In this section, we provide robustness checks of the results presented in the main paper. We make the following robustness checks:

Figure A.4: Figure 2 in the main paper, but with participants about whom we do not have background information included, too.

Table A.1: Regressions from Table 2 in the main paper, but with top-coding at 60 seconds.

Table A.2: Regressions from Table 2 in the main paper, but with top-coding at 240 seconds.

Table A.3: Regressions from Table 2 in the main paper, but with top-coding at 120 seconds and Tobit regression methods.

Table A.4: Regressions from Table 3 in the main paper, but with top-coding at 60 seconds.

Table A.5: Regressions from Table 3 in the main paper, but with top-coding at 240 seconds.

Table A.6: Regressions from Table 3 in the main paper, but with top-coding at 120 seconds and Tobit regression methods.

Table A.7: Regressions from Table 4 in the main paper, but with top-coding at 60 seconds.

Table A.8: Regressions from Table 4 in the main paper, but with top-coding at 240 seconds.

Table A.9: Regressions from Table 4 in the main paper, but with top-coding at 120 seconds and Tobit regression methods.

For Tables A.1, A.4, and A.7 we note that the mean response time when top-coding at 60 seconds was 36.2 seconds ($\sigma = 16.9$). Likewise, for Tables A.2, A.5, and A.8 we note that the mean response time when top-coding at 240 seconds was 48.1 seconds ($\sigma = 44.7$). Tables A.3, A.6, and A.9 use the actual response time as the dependent variable, and not the normalized response time used in the main paper and in the other tables presented in this Appendix.

In Table A.10, we compare the response time of fair participants to all the others' response time, i.e. both the selfish participants and the trade-off participants. Similar to what was found in Table 2 in the main paper, we find that the average response time of the fair participants is 0.45 standard deviations lower than the average response time of the other participants.

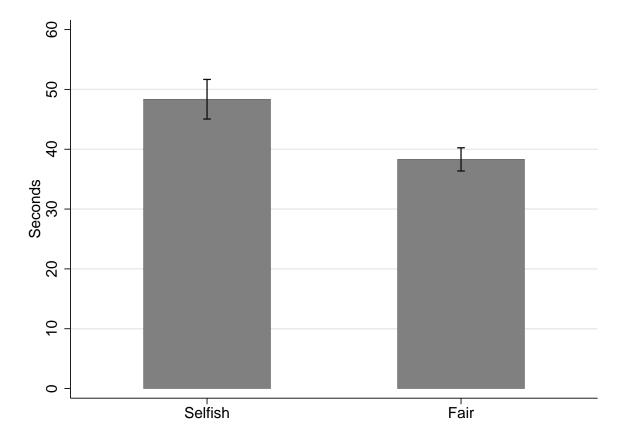


Figure A.4: Average response time of the selfish and the fair

Note: The figure reports the average response time in seconds (top-coded at 120 seconds) for participants who shared nothing (selfish) or shared equally (fair) with the other participant. Standard errors are indicated. We have included all 1,565 participants' choices and response times for this figure. 25% of these shared nothing, while 52% shared half.

	(1)	(2)	(3)	(4)	(5)
Fair	-0.336***	-0.445***	-0.413***	-0.482***	-0.499***
	(0.062)	(0.058)	(0.062)	(0.062)	(0.060)
Swiftness		-0.013***			-0.011***
		(0.001)			(0.001)
Cognitive ability			-0.063***		-0.021**
			(0.009)		(0.010)
Age				0.019^{***}	0.006***
				(0.002)	(0.002)
Male				-0.014	0.004
				(0.056)	(0.054)
Education				-0.026**	-0.002
				(0.012)	(0.012)
Constant	2.272***	3.298^{***}	2.880^{***}	1.848^{***}	3.081^{***}
	(0.051)	(0.089)	(0.103)	(0.190)	(0.230)
Observations	1,154	1,154	1,154	$1,\!154$	1,154
R^2	0.025	0.159	0.062	0.095	0.172

Table A.1: Regressions of response time, selfish and fair participants only

Notes: OLS regressions. The dependent variable is the response time top-coded at 60 seconds divided by the standard deviation of the response time (31.0 seconds). Standard errors in parentheses. We have only included the selfish and the fair participants (1,154 participants). "Fair" is a dummy for giving half of the money sum to the other participant, "Swiftness" is measured as 120 seconds minus the time used (top-coded at 120 seconds) on answering a three-item questionnaire about age, gender, and educational attainment, "Cognitive ability" is the number of correct answers on a 20-item progressive matrices test, "Age" is the participant's age, "Male" is a dummy for the participant being a male, and "Education" is the length of the participant's education in years. * p < 0.05, ** p < 0.01, *** p < 0.001

	(1)	(2)	(3)	(4)	(5)
Fair	-0.245***	-0.324***	-0.292***	-0.337***	-0.347***
	(0.055)	(0.053)	(0.056)	(0.056)	(0.055)
Swiftness		-0.010***			-0.009***
		(0.001)			(0.001)
Cognitive ability			-0.038***		-0.010
			(0.008)		(0.009)
Age				0.012^{***}	0.003
				(0.002)	(0.002)
Male				-0.032	-0.019
				(0.051)	(0.050)
Education				-0.013	0.006
				(0.011)	(0.011)
Constant	1.098***	1.845^{***}	1.470^{***}	0.785^{***}	1.691^{***}
	(0.045)	(0.082)	(0.093)	(0.173)	(0.212)
Observations	1,154	1,154	1,154	1,154	1,154
R^2	0.017	0.107	0.034	0.051	0.110

Table A.2: Regressions of response time, selfish and fair participants only

Notes: OLS regressions. The dependent variable is the response time top-coded at 240 seconds divided by the standard deviation of the response time (31.0 seconds). Standard errors in parentheses. We have only included the selfish and the fair participants (1,154 participants). "Fair" is a dummy for giving half of the money sum to the other participant, "Swiftness" is measured as 120 seconds minus the time used (top-coded at 120 seconds) on answering a three-item questionnaire about age, gender, and educational attainment, "Cognitive ability" is the number of correct answers on a 20-item progressive matrices test, "Age" is the participant's age, "Male" is a dummy for the participant being a male, and "Education" is the length of the participant's education in years. * p < 0.05, ** p < 0.01, *** p < 0.001

	(1)	(2)	(3)	(4)	(5)
Fair	-10.49***	-13.67***	-12.50***	-14.54***	-14.90***
	(2.00)	(1.89)	(2.00)	(2.01)	(1.94)
Swiftness		-0.39***			-0.34***
		(0.03)			(0.04)
Cognitive ability			-1.66***		-0.45
			(0.30)		(0.31)
Age				0.52^{***}	0.16^{**}
				(0.07)	(0.07)
Male				-0.74	-0.20
				(1.83)	(1.76)
Education				-0.61	0.13
				(0.38)	(0.38)
Constant	49.40***	79.96***	65.46^{***}	35.94^{***}	72.03***
	(1.64)	(2.91)	(3.35)	(6.16)	(7.48)
Observations	1,154	1,154	1,154	1,154	$1,\!154$

Table A.3: Regressions of response time, selfish and fair participants only

Notes: Tobit regressions. The dependent variable is the response time in seconds topcoded at 120 seconds. Standard errors in parentheses. We have only included the selfish and the fair participants (1,154 participants). "Fair" is a dummy for giving half of the money sum to the other participant, "Swiftness" is measured as 120 seconds minus the time used (top-coded at 120 seconds) on answering a three-item questionnaire about age, gender, and educational attainment, "Cognitive ability" is the number of correct answers on a 20-item progressive matrices test, "Age" is the participant's age, "Male" is a dummy for the participant being a male, and "Education" is the length of the participant's education in years.

	(1)	(2)	(3)	(4)	(5)
Share given	-0.179	0.003	-0.100	-0.056	0.033
	(0.306)	(0.280)	(0.294)	(0.296)	(0.276)
Swiftness		-0.015^{***}			-0.012^{***}
		(0.002)			(0.002)
Cognitive ability			-0.083***		-0.044***
			(0.015)		(0.015)
Age				0.018^{***}	0.006*
				(0.003)	(0.004)
Male				-0.091	-0.037
				(0.098)	(0.092)
Education				-0.012	0.011
				(0.021)	(0.020)
Constant	2.452^{***}	3.477^{***}	3.123***	1.766^{***}	3.232***
	(0.116)	(0.160)	(0.163)	(0.334)	(0.381)
Observations	354	354	354	354	354
R^2	0.001	0.172	0.085	0.086	0.209

Table A.4: Regressions of response time, trade-off participants only

Notes: OLS regressions. The dependent variable is the response time top-coded at 60 seconds divided by the standard deviation of the response time (31.0 seconds). Standard errors in parentheses. We have only included participants who did not choose either the selfish or the fair alternative (354 participants). "Share given" is the share of the endowment given to the other participant, "Swiftness" is measured as 120 seconds minus the time used (top-coded at 120 seconds) on answering a three-item questionnaire about age, gender, and educational attainment, "Cognitive ability" is the number of correct answers on a 20-item progressive matrices test, "Age" is the participant's age, "Male" is a dummy for the participant being a male, and "Education" is the length of the participant's education in years.

	(1)	(2)	(3)	(4)	(5)
Share given	-0.435	-0.261	-0.345	-0.390	-0.282
	(0.326)	(0.304)	(0.311)	(0.322)	(0.295)
Swiftness		-0.014***			-0.013***
		(0.002)			(0.002)
Cognitive ability			-0.095***		-0.070***
			(0.015)		(0.016)
Age				0.013^{***}	-0.002
				(0.004)	(0.004)
Male				-0.129	-0.075
				(0.107)	(0.099)
Education				0.036	0.061^{***}
				(0.023)	(0.021)
Constant	1.309***	2.290^{***}	2.077^{***}	0.271	2.136^{***}
	(0.124)	(0.174)	(0.172)	(0.364)	(0.407)
Observations	354	354	354	354	354
R^2	0.005	0.143	0.101	0.048	0.207

Table A.5: Regressions of response time, trade-off participants only

Notes: OLS regressions. The dependent variable is the response time top-coded at 240 seconds divided by the standard deviation of the response time (31.0 seconds). Standard errors in parentheses. We have only included participants who did not choose either the selfish or the fair alternative (354 participants). "Share given" is the share of the endowment given to the other participant, "Swiftness" is measured as 120 seconds minus the time used (top-coded at 120 seconds) on answering a three-item questionnaire about age, gender, and educational attainment, "Cognitive ability" is the number of correct answers on a 20-item progressive matrices test, "Age" is the participant's age, "Male" is a dummy for the participant being a male, and "Education" is the length of the participant's education in years.

	(1)	(2)	(3)	(4)	(5)
Share given	-15.68	-9.13	-12.54	-13.17	-9.28
	(11.44)	(10.52)	(10.88)	(11.15)	(10.21)
Swiftness		-0.52***			-0.46***
		(0.07)			(0.07)
Cognitive ability			-3.35***		-2.24***
			(0.55)		(0.56)
Age				0.56^{***}	0.03
				(0.12)	(0.13)
Male				-4.89	-2.87
				(3.71)	(3.42)
Education				0.90	1.81**
				(0.80)	(0.74)
Constant	57.30***	94.22***	84.43***	20.81*	84.59***
	(4.34)	(6.11)	(6.07)	(12.61)	(14.14)
Observations	354	354	354	354	354

Table A.6: Regressions of response time, trade-off participants only

Notes: Tobit regressions. The dependent variable is the response time in seconds topcoded at 120 seconds. Standard errors in parentheses. We have only included participants who did not choose either the selfish or the fair alternative (354 participants). "Share given" is the share of the endowment given to the other participant, "Swiftness" is measured as 120 seconds minus the time used (top-coded at 120 seconds) on answering a three-item questionnaire about age, gender, and educational attainment, "Cognitive ability" is the number of correct answers on a 20-item progressive matrices test, "Age" is the participant's age, "Male" is a dummy for the participant being a male, and "Education" is the length of the participant's education in years.

	(1)	(2)	(3)	(4)	(5)	(9)	(2)
Fair	-0.336***	-0.361^{***}	-0.436***	-0.396***	-0.402***	-0.403^{***}	-0.557***
	(0.062)	(0.089)	(0.101)	(0.095)	(0.093)	(0.090)	(0.149)
Swift		-0.559^{***}	~		,		-0.466^{***}
		(0.098)					(0.106)
$Fair \times Swift$							
High coonitive ability		(0.119)	-0.398***				(0.130) -0,277***
			(0.107)				(0.107)
Fair× High cognitive ability			0.062				0.128 (0.138)
Young			(071.0)	-0.378***			-0.138
				(0.104)			(0.110)
Fair× Young				-0.033			
Male				(0.125)	-0.062		(0.134) -0.046
					(0.103)		(0.098)
$Fair \times Male$					0.122		0.077
					(0.125)		(0.118)
Low education						-0.033	-0.085
						(0.102)	(0.097)
Fair× Low education						0.121	0.059
C	*** 10 0			۲ ***		(0.124)	(0.119)
COLISTATIU	(0.051)	2.008 (0.076)	(0.088)	(0.083)	2.308 (0.078)	(0.072)	(0.128)
Observations	1,154	1,154	1,154	1,154	1,154	1,154	1,154
R^2	0.025	0.126	0.055	0.066	0.026	0.026	0.143
Notes: OLS regressions. The dependent variable	dependent var	iable is the res	sponse time to	is the response time top-coded at 60 seconds divided by the standard deviation of	econds divided	by the standa	rd deviation of
the response time (31.0 seconds). Standard errors in parentheses. We have only included the selfish and the fair participants (1,154 \dots $(1,154)$ \dots $(1,154)$ $(1,$	ls). Standard	errors in paren	itheses. We ha	ve only include	the selfish ar 4 "c:4." :	duthe fair part	licipants (1,154
participants). Fair is a duminy for giving nair of the money sum to the other participant, BWIR is a duminy for being at or above median swift. "High cognitive ability" is dummy for scoring at or above the median in a 20-item progressive matrices test. "Young" is a	uy tor giving i ibility" is dum	mv for scoring	ey sum to the at or above the	utter participat median in a 20	lt, JWIIL IS a Litem progressi	uummy lor be ve matrices tes	tug at or above t. "Yonnø" is a
dummy for being at or below the median age. "Male" is a dummy for being a male, and "Low education" is a dummy for having at or	he median age	. "Male" is a d	lummy for bein	e a male. and "	Low education'	" is a dummy f	or having at or
below the median vears of education.	ation.						

Table A.7: Heterogeneity across age, gender, and education, selfish and fair participants only

below the median years of education. * p < 0.05, ** p < 0.01, *** p < 0.001

	(1)	(2)	(3)	(4)	(5)	(9)	(2)
Fair	-0.245***	-0.343***	-0.352***	-0.373***	-0.312***	-0.340***	-0.611^{***}
	(0.055)	(0.082)	(0.091)	(0.086)	(0.083)	(0.080)	(0.138)
Swift	~	-0.460^{***}	~	~	~	~	-0.382***
		(060.0)					(0.098)
$Fair \times Swift$		0.074					0.034
		(0.109)					(0.120)
High cognitive ability			-0.300***				-0.200^{**}
			(0.096)				(0.098)
Fair× High cognitive ability			$0.112 \\ (0.115)$				0.109 (0.118)
Young			~	-0.338***			-0.147
				(0.094)			(0.102)
$\operatorname{Fair} \times \operatorname{Young}$				0.128			0.109
				(0.113)			(0.124)
Male					-0.092		-0.078
					(0.092)		(0.090)
$Fair \times Male$					0.121		0.093
					(0.112)		(0.109)
Low education						-0.119	-0.157^{*}
						(0.091)	(0.089)
Fair× Low education						0.183^{*}	0.154
					, , , ,	(0.111)	(0.109)
Constant	1.098^{***} (0.045)	1.374^{***} (0.070)	1.301^{***} (0.079)	1.315^{***} (0.075)	1.151^{***}	1.157^{***} (0.064)	1.680^{***} (0.118)
Observations	1,154	1,154	1,154	1,154	1,154	1,154	1,154
R^{2}	0.017	0.069	0.032	0.037	0.018	0.019	0.081
Notes: OLS regressions. The c	dependent var	iable is the res	The dependent variable is the response time top-coded at 240 seconds divided by the standard deviation of	-coded at 240 s	econds divided	by the standa	rd deviation of
the response time (31.0 seconds). Standard errors in parentheses. We have only included the selfish and the fair participants (1,154	s). Standard	errors in paren	itheses. We har	ve only include	d the selfish ar	nd the fair part	icipants $(1,154)$
participants). "Fair" is a dummy for giving half of the money sum to the other participant, "Swift" is a dummy for being at or above	ny for giving l	nalf of the mon	ley sum to the e	other participar	ıt, "Swift" is a	dummy for bei	ing at or above
median swift, "High cognitive ability" is dummy for scoring at or above the median in a 20-item progressive matrices test, "Young" is a	bility" is dum	my for scoring	at or above the	median in a 20)-item progressi	ve matrices tes	t, "Young" is a
dummy for being at or below the median age, "Male" is a dummy for being a male, and "Low education" is a dummy for having at or 1 , 1 , 1 , 1 , 1 , 1 , 1 , 1 ,	he median age	, "Male″ is a d	lummy tor being	g a male, and "	Low education	is a dummy f	or having at or

Table A.8: Heterogeneity across age, gender, and education, selfish and fair participants only

below the median years of education. * p < 0.05, ** p < 0.01, *** p < 0.001

	(τ)	(7)		(\mathbf{T})		(0)	\subseteq
Fair	-10.49^{***}	-13.35***	-14.43***	-14.66^{***}	-12.55***	-13.87***	-22.37***
	(2.00)	(2.91)	(3.27)	(3.09)	(2.99)	(2.89)	(4.89)
Swift		-17.72***					-14.71***
Fair× Swift		(3.22)0.85					(3.47)-0.20
		(3.90)					(4.25)
High cognitive ability		~	-11.86^{***}				-7.92^{**}
			(3.47)				(3.50)
Fair× High cognitive ability			3.80 (4 13)				4.40 (7.10)
Young			(01.7)	-13.03***			(4.13)
)				(3.38)			(3.61)
$Fair \times Young$				3.11			2.86
				(4.07)			(4.38)
Male					-2.34		-1.79
					(3.32)		(3.19)
$Fair \times Male$					3.75		2.56
					(4.03)		(3.86)
Low education						-3.62	-5.15
						(3.28)	(3.17)
Fair× Low education						6.37	5.07
						(4.00)	(3.87)
Constant	49.40^{***}	60.02^{***}	57.40^{***}	57.79^{***}	50.76^{***}	51.20^{***}	70.70^{***}
	(1.64)	(2.50)	(2.85)	(2.71)	(2.53)	(2.31)	(4.19)
Observations	1,154	1,154	1,154	1,154	1,154	1,154	1,154

Table A.9: Heterogeneity across age, gender, and education, selfish and fair participants only

the other participant, "Swift" is a dummy for being at or above median swift, "High cognitive ability" is dummy for scoring at or above the median in a 20-item progressive matrices test, "Young" is a dummy for being at or below the median age, "Male" is a dummy for being a male, and "Low education" is a dummy for having at or below the median years of education. * p < 0.05, ** p < 0.01, *** p < 0.001L

	(1)	(2)	(3)	(4)	(5)
Fair	-0.350***	-0.428***	-0.388***	-0.439***	-0.454***
	(0.049)	(0.046)	(0.049)	(0.049)	(0.047)
Swiftness		-0.012^{***}			-0.011^{***}
		(0.001)			(0.001)
Cognitive ability			-0.062***		-0.027***
			(0.008)		(0.008)
Age				0.016^{***}	0.004^{*}
				(0.002)	(0.002)
Male				-0.039	-0.011
				(0.048)	(0.046)
Education				-0.011	0.014
				(0.010)	(0.010)
Constant	1.558^{***}	2.511^{***}	2.123^{***}	1.020^{***}	2.291***
	(0.036)	(0.072)	(0.078)	(0.160)	(0.192)
Observations	1,508	1,508	1,508	1,508	1,508
R^2	0.032	0.158	0.072	0.086	0.171

Table A.10: Regressions of response time, all participants

Notes: OLS regressions. The dependent variable is the response time (top-coded at 120 seconds) divided by the standard deviation of the response time (31.0 seconds). Standard errors in parentheses. We have included all the 1,508 participants. "Fair" is a dummy for giving half of the money to the other participant, "Swiftness" is measured as 120 seconds minus the time used (top-coded at 120 seconds) on answering a three-item questionnaire about age, gender, and educational attainment, "Cognitive ability" is the number of correct answers on a 20-item progressive matrices test, "Age" is the participant's age in years, "Male" is a dummy for the participant being a male, and "Education" is the length of the participant's education in years.