Table 1: Basic descriptive statistics

	S1	S2	S3	S4	S5	N1	N2	N3	N4
Number of Subjects									
Total	22	16	18	22	22	18	22	24	20
Group A	6	5	7	7	7	5	8	8	6
Group B	9	7	7	9	9	6	7	9	9
Group C	7	4	4	6	6	7	7	7	5
Mean household income in 2002 (in 1 million dong)									
Total	36.6	35.8	20.3	18.5	15.0	28.0	17.5	9.1	6.8
Group H (High income)	80.6	51.9	26.1	32.6	29.5	49.0	29.2	14.4	13.5
Group M (Middle income)	21.3	29.9	19.9	14.9	11.8	26.8	13.4	7.8	5.0
Group L (Low income)	18.4	26.1	10.6	6.9	5.3	14.0	8.2	4.7	2.1
Age (mean)	47.7	44.6	48.8	43.1	48.3	54.1	42.5	49.9	48.6
Gender (1=male) (mean)	0.59	0.88	0.83	0.68	0.82	0.44	0.36	0.50	0.50
Education (mean) (years)	7.2	7.1	8.4	5.8	5.0	7.8	8.0	4.8	7.6
Number of illiterate subjects	1	1	1	1	2	2	1	4	2
Acquaintance ratio (mean)	0.42	0.86	0.76	0.74	0.82	0.62	0.91	0.98	0.90
Main occupation of the subject (multiple answers)									
Farming	0	2	3	20	17	1	0	20	15
Livestock	1	3	10	11	7	1	10	13	2
Fishery	0	15	4	2	2	0	0	4	0
Trade	8	0	0	1	1	5	3	2	1
Business	5	0	3	0	1	1	3	2	2
Government officer	2	3	4	3	3	4	4	6	2
Casual work	6	0	2	1	3	0	1	4	2
Not working	5	0	3	0	2	9	2	2	3
No. of ROSCA contributors	3	7	3	14	9	7	12	20	7
Data from the 2002 Living Standard Measurement Survey (sample: 25 households)									
Village Gini coefficients	0.44	0.19	0.30	0.36	0.38	0.29	0.38	0.28	0.36
Distance to nearest market	0.0	5.0	0.0	4.2	0.0	0.0	1.0	3.0	0.3
Number of households receiving remittance from overseas									
	7	2	1	1	0	5	2	0	0
Daily wage for male labor for harvesting (1000 dong)									
	-	-	30	30	30	18	18	20	20

Table 2: Correlations between key variables

(1) Age, gender, education, and income

Total	Age	Gender	Education	Income
Age	1.00			
Gender	0.01	1.00		
Education	-0.36***	0.13*	1.00	
Income	-0.06	-0.01	0.13*	1.00

South	Age	Gender	Education	Income
Age	1.00			
Gender	0.04	1.00		
Education	-0.44***	0.16	1.00	
Income	-0.11	-0.12	0.11	1.00

North	Age	Gender	Education	Income
Age	1.00			
Gender	0.05	1.00		
Education	-0.28***	0.14	1.00	
Income	0.11	-0.06	0.22**	1.00

(2) Occupations, oversea remittance, ROSCA participation and key variables

Total	Age	Gender	Education	Income
Farm/livestock	-0.13*	-0.03	-0.17**	-0.21***
Fishery	-0.09	0.08	-0.10	0.18**
Trade	0.08	0.04	0.01	-0.03
Business	0.09	-0.08	0.00	0.14*
Government officer	-0.12	0.12	0.24***	-0.03
Overseas remittance	-0.05	-0.07	0.02	0.49***
ROSCA member	-0.13*	-0.16**	0.01	-0.07

South	Age	Gender	Education	Income
Farm/livestock	-0.10	0.03	-0.05	-0.15
Fishery	-0.12	0.09	-0.09	0.18*
Trade	0.20**	0.08	0.18*	-0.06
Business	0.10	0.04	0.07	0.12
Government officer	-0.20**	0.22**	0.25**	-0.07
Overseas remittance	-0.13	-0.15	0.04	0.46***
ROSCA member	-0.23**	-0.06	0.04	0.02

North	Age	Gender	Education	Income
Farm/livestock	-0.17	-0.04	-0.33***	-0.35***
Fishery	0.00	-0.09	-0.13	-0.03
Trade	-0.06	0.00	-0.01	0.03
Business	0.08	-0.22**	-0.10	0.22*
Government officer	-0.05	0.07	0.23**	0.09
Overseas remittance	0.07	-0.03	0.00	0.62***
ROSCA member	-0.09	-0.11	-0.03	-0.09

Note: * Significant at the 10% level. ** Significant at the 5% level. *** Significant at the 1% level.

Table 3: Three series of pairwise lottery choices

Option A	Option B	Expected payoff difference (A-B)
Series 1		
3/10 of 40,000 and 7/10 of 10,000	1/10 of 68,000 and 9/10 of 5,000	7,700
3/10 of 40,000 and 7/10 of 10,000	1/10 of 75,000 and 9/10 of 5,000	7,000
3/10 of 40,000 and 7/10 of 10,000	1/10 of 83,000 and 9/10 of 5,000	6,200
3/10 of 40,000 and 7/10 of 10,000	1/10 of 93,000 and 9/10 of 5,000	5,200
3/10 of 40,000 and 7/10 of 10,000	1/10 of 106,000 and 9/10 of 5,000	3,900
3/10 of 40,000 and 7/10 of 10,000	1/10 of 125,000 and 9/10 of 5,000	2,000
3/10 of 40,000 and 7/10 of 10,000	1/10 of 150,000 and 9/10 of 5,000	-500
3/10 of 40,000 and 7/10 of 10,000	1/10 of 185,000 and 9/10 of 5,000	-4,000
3/10 of 40,000 and 7/10 of 10,000	1/10 of 220,000 and 9/10 of 5,000	-7,500
3/10 of 40,000 and 7/10 of 10,000	1/10 of 300,000 and 9/10 of 5,000	-15,500
3/10 of 40,000 and 7/10 of 10,000	1/10 of 400,000 and 9/10 of 5,000	-25,500
3/10 of 40,000 and 7/10 of 10,000	1/10 of 600,000 and 9/10 of 5,000	-45,500
3/10 of 40,000 and 7/10 of 10,000	1/10 of 1,000,000 and 9/10 of 5,000	-85,500
3/10 of 40,000 and 7/10 of 10,000	1/10 of 1,700,000 and 9/10 of 5,000	-155,500
Series 2		
9/10 of 40,000 and 1/10 of 30,000	7/10 of 54,000 and 3/10 of 5,000	-300
9/10 of 40,000 and 1/10 of 30,000	7/10 of 56,000 and 3/10 of 5,000	-1,700
9/10 of 40,000 and 1/10 of 30,000	7/10 of 58,000 and 3/10 of 5,000	-3,100
9/10 of 40,000 and 1/10 of 30,000	7/10 of 60,000 and 3/10 of 5,000	-4,500
9/10 of 40,000 and 1/10 of 30,000	7/10 of 62,000 and 3/10 of 5,000	-5,900
9/10 of 40,000 and 1/10 of 30,000	7/10 of 65,000 and 3/10 of 5,000	-8,000
9/10 of 40,000 and 1/10 of 30,000	7/10 of 68,000 and 3/10 of 5,000	-10,100
9/10 of 40,000 and 1/10 of 30,000	7/10 of 72,000 and 3/10 of 5,000	-12,900
9/10 of 40,000 and 1/10 of 30,000	7/10 of 77,000 and 3/10 of 5,000	-16,400
9/10 of 40,000 and 1/10 of 30,000	7/10 of 83,000 and 3/10 of 5,000	-20,600
9/10 of 40,000 and 1/10 of 30,000	7/10 of 90,000 and 3/10 of 5,000	-25,500
9/10 of 40,000 and 1/10 of 30,000	7/10 of 100,000 and 3/10 of 5,000	-32,500
9/10 of 40,000 and 1/10 of 30,000	7/10 of 110,000 and 3/10 of 5,000	-39,500
9/10 of 40,000 and 1/10 of 30,000	7/10 of 130,000 and 3/10 of 5,000	-53,500
Series 3		
5/10 of 25,000 and 5/10 of -4,000	5/10 of 30,000 and 5/10 of -21,000	6,000
5/10 of 4,000 and 5/10 of -4,000	5/10 of 30,000 and 5/10 of -21,000	-4,500
5/10 of 1,000 and 5/10 of -4,000	5/10 of 30,000 and 5/10 of -21,000	-6,000
5/10 of 1,000 and 5/10 of -4,000	5/10 of 30,000 and 5/10 of -16,000	-8,500
5/10 of 1,000 and 5/10 of -8,000	5/10 of 30,000 and 5/10 of -16,000	-10,500
5/10 of 1,000 and 5/10 of -8,000	5/10 of 30,000 and 5/10 of -14,000	-11,500
5/10 of 1,000 and 5/10 of -8,000	5/10 of 30,000 and 5/10 of -11,000	-13,000

Table 4: Switching point (question at which preference switches from option A to option B) and approximations of σ (parameter for the curvature of power value function), α (probability sensitivity parameter in Prelec's weighting function), and λ (loss aversion parameter)

Series 1 (Question 1-14)

σ \ α	0.4	0.5	0.6	0.7	0.8	0.9	**1**
0.2	9	10	11	12	13	14	**never**
0.3	8	9	10	11	12	13	**14**
0.4	7	8	9	10	11	12	**13**
0.5	6	7	8	9	10	11	**12**
0.6	5	6	7	8	9	10	**11**
0.7	4	5	6	7	8	9	**10**
0.8	3	4	5	6	7	8	**9**
0.9	2	3	4	5	6	7	**8**
1	1	2	3	4	5	6	**7**

Series 2 (Question 15-28)

σ \ α	0.4	0.5	0.6	0.7	0.8	0.9	**1**
0.2	never	14	13	12	11	10	**9**
0.3	14	13	12	11	10	9	**8**
0.4	13	12	11	10	9	8	**7**
0.5	12	11	10	9	8	7	**6**
0.6	11	10	9	8	7	6	**5**
0.7	10	9	8	7	6	5	**4**
0.8	9	8	7	6	5	4	**3**
0.9	8	7	6	5	4	3	**2**
1	7	6	5	4	3	2	**1**

Bold indicates choices compatible with EU (α=1) and risk-aversion.

Series 3 (Question 29-35)

Switching question	σ=0.2	σ=1
1	λ>0.14	λ>0.29
2	0.14<λ<1.26	0.29<λ<1.53
3	1.26<λ<1.69	1.53<λ<1.88
4	1.69<λ<2.24	1.88<λ<2.42
5	2.24<λ<3.62	2.42<λ<4.32
6	3.62<λ<4.76	4.32<λ<5.43
7	4.76<λ<9.13	5.43<λ<9.78

Table 5: Number of subjects by switching points

(1) Series 1 and 2

Student subjects	Switching point (question) in Series 1															
Series 2	1	2	3	4	5	6	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**Never**	Total
1	1			1	1		**1**		**1**						**2**	7
2																0
3																0
4				1							**1**					2
5									**1**						**1**	2
6																0
7						1	**3**	**3**	**1**				**1**		**1**	10
8	1				1		**1**	**1**	**1**	**1**	**1**					7
9								**1**	**1**	**1**						3
10								2				1				3
11					1	1			1			2				5
12						1	2						2			5
13													1	1	1	3
14											1	1				2
Never	1					1			1						3	6
Total	3	0	0	2	3	4	7	7	7	2	3	4	4	1	8	55

Field experiments	Switching point (question) in Series 1															
Series 2	1	2	3	4	5	6	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**Never**	Total
1	6		2	1	1	5	**2**	**3**	**2**	**2**	**1**				**8**	33
2				1		1	**1**	**1**								4
3		1	1					**1**		**1**						4
4						1	**1**		**1**	**1**					**3**	7
5			2	2	2	1	**3**	**1**	**1**		**1**				**1**	14
6		1		1	3	2			**2**							9
7	2				1	2	**8**	**2**		**1**	**1**				**3**	20
8				1		2	**4**	**7**	**2**	**1**					**2**	19
9						2	**3**	**4**	**2**	**3**	**3**				**1**	18
10							1		2			1				4
11						1	2		1	2	2	2				10
12						1	1	1			3	1				7
13								1			1	1				3
14					1			1					1			3
Never	1		1			3	2	5	1	3	2				11	29
Total	9	2	6	6	8	21	28	27	14	14	14	5	1	0	29	184

Bold indicates choices compatible with EU (α=1) and risk-aversion.

(2) Series 3

Switching point (question) in Series 3	1	2	3	4	5	6	7	Never	Total
Student Subjects	8	15	7	7	9	2	0	7	55
Field Experiments	38	26	27	29	26	6	3	29	184

Table 6: Determinants of risk aversion

	α (Weighting function)	σ (Value function)	λ (Loss aversion)
Age	-0.002	-0.003*	0.035
Gender (1=male)	-0.124**	-0.004	-0.607
Education	-0.002	-0.021***	0.163
Farm/livestock	-0.029	0.004	-1.005
Fishery	0.051	0.244***	-0.205
Trade	-0.003	-0.010	1.294
Business	0.010	-0.032	-0.170
Government officer	0.010	0.082	-1.771*
Relative income	0.027	-0.034	-0.477
Mean income	-0.005	-0.002	-0.145***
Distance to market	-0.007	-0.027*	0.065
ROSCA	0.108	-0.083	-0.435
ROSCA*Bidding	-0.200**	0.206**	0.029
South	0.247**	-0.206**	2.085
Constant	0.960***	1.012***	3.255
Observations	181	181	181
R^2	0.08	0.15	0.32

Note: * Significant at the 10% level. ** Significant at the 5% level. *** Significant at the 1% level. We estimated α and σ by OLS with robust standard errors, and λ by interval regressions with robust standard errors.

Table 7: Comparison of Present Bias and discount rates across models and subject pools (Non-linear regressions)

	Exponential	Quasi-hyperbolic	
		+ Dummy variables for r	+ Dummy variables for β
r (Discount rate)	0.016***	0.005***	0.006***
Dummy (Field)	0.007***	0.003*	
Dummy (South)	-0.003	-0.002	
β (Present bias)	Fixed 1	0.633***	0.681***
Dummy (Field)			-0.068
Dummy (South)			0.002
θ (Hyperbolicity)	Fixed 1	Fixed 1	Fixed 1
Observations	3750	3750	3750
R^2	0.66	0.77	0.77

Note: * Significant at the 10% level. ** Significant at the 5% level. *** Significant at the 1% level. We conducted robust regressions, and adjusted standard errors for correlations within individuals. We also estimated the equation (1) with unrestricted θ. However, R^2 did not increase very much.

Table 8: Determinants of Present Bias and discount rates (Non-linear regressions)

	+ Demographic variables for r	+ Demographic variables for β
r (Discount rate)	0.137	0.107
β (Present bias)	0.890***	0.778**
θ	4.999***	5.301***
Age	-0.002	0.003
Gender (1=male)	-0.005*	0.045
Education	0.005	-0.004
Acquaintance ratio	0.005	-0.142
Trusted agent	-0.033	0.046
Farm/livestock	-0.040*	0.050
Fishery	-0.073***	0.068
Trade	-0.029	-0.023
Business	0.167	-0.120
Government officer	-0.047*	-0.030
Relative income	0.036	-0.200
Mean income	-0.005**	0.007
Distance to market	0.006	0.002
ROSCA	-0.104**	0.146*
ROSCA*Bidding	0.204**	-0.270**
Log (savings)	0.001	0.008
Exp/income ratio	0.002	-0.001
Loss aversion (λ)	0.002	-0.015
Value fctn curve (σ)	0.014	-0.026
South	-0.007	0.002
Observations	2358	2358
R^2	0.79	0.78

Note: * Significant at the 10% level. ** Significant at the 5% level. *** Significant at the 1% level. We conducted robust regressions, and adjusted standard errors for correlations within individuals. 312 data points with inconsistent answers are excluded from the estimations.

Table 9: Determinants of Present Bias and discount rates among bidding ROSCA participants (Non-linear regressions)

	+ Demographic variables for r	+ Demographic variables for β
r (Discount rate)	0.309 *	0.12
β (Present bias)	0.938 ***	0.51
θ	3.932 ***	4.472 ***
Age	-0.002	0.01
Education	-0.01	0.034 **
Relative order	0.069	-0.288
Weekly ROSCA	0.714	-0.29 **
Monthly ROSCA	-0.13 *	0.471 **
Loss aversion (λ)	0	-0.008
Value fctn curve (σ)	-0.033	-0.241
Observations	387	387
R^2	0.79	0.79

Note: * Significant at the 10% level. ** Significant at the 5% level. *** Significant at the 1% level. We conducted robust regressions, and adjusted standard errors for correlations within individuals. 18 data points with inconsistent answers are excluded from the estimations.

Table 10: Mean amount sent by Player 1 and proportion of expected return by group of receiver (Player 2)

	Group A		Group B		Group C		Total	
Student subjects (South)								
SS1	13,091	(1.51)	11,636	(1.73)	12,000	(1.45)	12,242	(1.56)
SS2	9,455	(1.23)	9,818	(1.32)	11,818	(1.46)	10,364	(1.34)
Subtotal	11,273	(1.37)	10,727	(1.53)	11,303	(1.45)	11,303	(1.45)
Student subjects (North)								
SN1	7,538	(1.38)	7,385	(1.72)	11,077	(1.61)	8,667	(1.57)
South								
S1	4,364	(1.69)	6,727	(1.78)	7,636	(1.66)	6,242	(1.71)
S2	6,500	(1.48)	9,250	(1.42)	8,500	(1.24)	8,083	(1.38)
S3	3,333	(2.02)	4,667	(1.44)	5,778	(1.31)	4,593	(1.59)
S4	4,182	(2.76)	5,455	(2.67)	6,182	(2.11)	5,273	(2.51)
S5	3,455	(1.10)	4,727	(0.78)	6,182	(0.88)	4,788	(0.92)
Subtotal	4,280	(1.82)	6,040	(1.64)	6,800	(1.46)	5,707	(1.64)
North								
N1	6,667	(1.83)	7,778	(1.81)	9,333	(1.45)	7,926	(1.70)
N2	6,545	(1.60)	6,364	(1.36)	8,364	(1.38)	7,091	(1.45)
N3	8,500	(2.11)	9,500	(1.61)	9,167	(1.68)	9,056	(1.80)
N4	6,600	(1.74)	7,600	(1.50)	7,200	(2.21)	7,133	(1.82)
Subtotal	7,143	(1.83)	7,857	(1.56)	8,524	(1.68)	7,841	(1.69)
Total	6,772	(1.70)	7,591	(1.60)	8,693	(1.54)	7,685	(1.62)

Proportion of expected return is shown in the parentheses.

Table 11: Determinants of amount sent by Player 1

	South	North	Total	+ GSS Trust	+ GSS Fair	+ GSS Helpful
Expected return	-315	-1771***	-394*	-327	-315	-368*
Age	-147***	-27	-36	-42	-56	-51
Gender (1=male)	181	2236	1424	1510	1660	1681
Education	-277**	150	-39	-55	-85	-79
Oversea remittance	668	16960***	4447**	5326**	4608**	4755**
Acquaintance ratio	1011	3078	693	269	441	456
Farm/livestock	-1081	-259	-1124	-1306	-1535	-1198
Fishery	-2609*	3415	-130	-418	-356	511
Trade	3654***	6837***	1306	692	1394	1419
Business	-1163	-11124***	-2863***	-3359***	-3032***	-2967***
Government officer	-1623	1130	128	-151	55	65
Relative income	-143	-1842*	-315	-257	4	-265
Mean income	137**	-303***	2	1	5	-14
Gini coefficient	-17852**	-20594	-14585	-15531*	-16154*	-13959
Number of officers	180	312	131	141	159	133
Receiver M	1798***	164	1214***	1229***	1231***	1220***
Receiver L	2456***	1103*	1913***	1930***	1931***	1920***
ROSCA		2216	1860	2162	1563	1932
ROSCA*Bidding	-1219		-2638	-3197	-2747	-2819
Loss aversion (λ)	72	-681**	37	39	79	31
Value fctn curve (σ)	-1219	-6029*	-3088**	-3263**	-3363**	-3742**
Present bias	290	8521***	767	928	731	355
GSS Trust				1700*		
GSS Fair					2169**	
GSS Helpful						1567*
South			-1454	-1173	-1625	-1063
Constant	16564***	21349**	14199***	13984***	14282***	14393***
Observations	147	123	270	270	270	270
R^2	0.46	0.52	0.31	0.33	0.33	0.32

Note: * Significant at the 10% level. ** Significant at the 5% level. *** Significant at the 1% level. We conducted robust regressions, and adjusted standard errors for correlations within individuals.

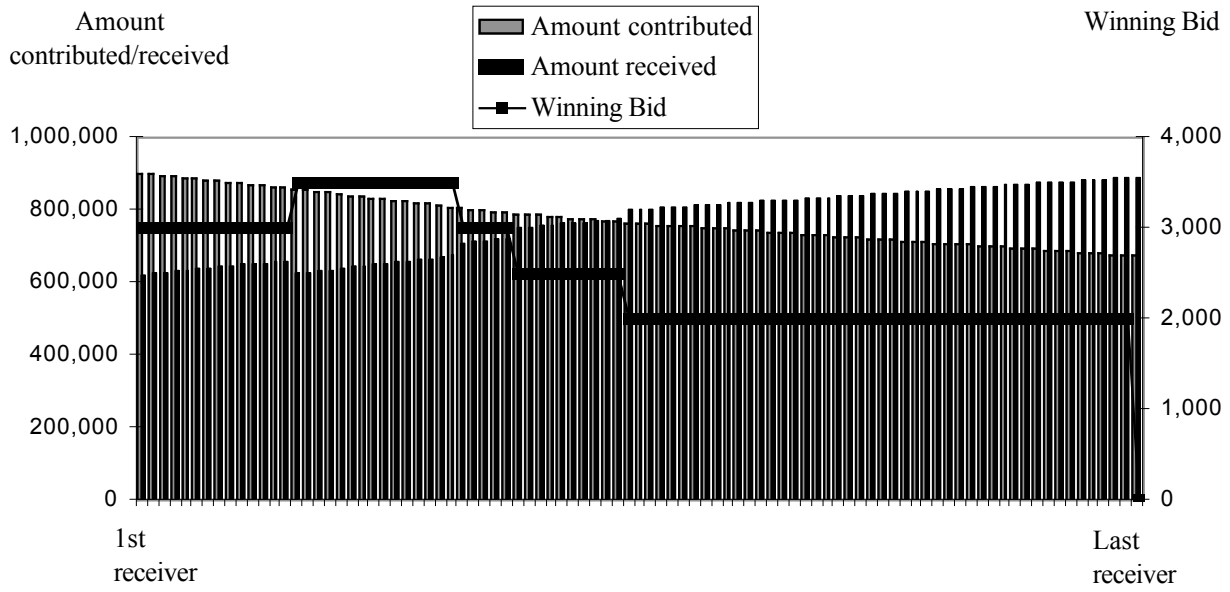
Table 12: Determinants of the proportion sent back by Player 2

	South	North	Total	+ GSS Trust	+ GSS Fair	+ GSS Helpful
Received	-0.180 ***	-0.043	-0.117***	-0.117***	-0.117***	-0.117***
Age	0.001	0.005 ***	0.003**	0.002**	0.003**	0.002**
Gender (1=male)	0.025	0.184 ***	0.092***	0.095***	0.090***	0.092***
Education	0.000	-0.003	-0.001	-0.001	-0.002	-0.001
Oversea remittance	-0.005	0.054	0.037	0.036	0.032	0.037
Acquaintance ratio	0.000	-0.001	0.004	0.004	0.004	0.004
Farm/livestock	-0.004	-0.046	0.020	0.023	0.020	0.020
Fishery	-0.197 *	0.031	-0.066	-0.068	-0.062	-0.066
Trade	0.104	0.145 ***	0.129**	0.129**	0.129**	0.129**
Business	0.209 ***	-0.087 *	-0.001	-0.005	-0.004	-0.001
Government officer	-0.074	0.025	-0.001	-0.001	-0.006	-0.001
Relative income	0.062 ***	0.112 ***	0.075***	0.074***	0.076***	0.075***
Mean income	-0.004	-0.005 *	-0.005	-0.004	-0.004	-0.005
Gini coefficient	-0.423	0.007	-0.162	-0.201	-0.136	-0.162
Number of officers	0.108 **	0.028 **	0.018	0.018	0.018	0.018
Group M	-0.072	0.147 **	-0.018	-0.019	-0.004	-0.018
M*Mean income	0.007	-0.006 *	0.005	0.005	0.004	0.005
Group L	-0.318	0.112	-0.086	-0.084	-0.083	-0.086
L*Mean income	0.018 **	-0.002	0.011***	0.011***	0.010***	0.011***
ROSCA		-0.133 ***	-0.064	-0.063	-0.066	-0.064
ROSCA*Bidding	-0.011		0.069	0.066	0.075	0.069
GSS Trust				0.016		
GSS Fair					-0.023	
GSS Helpful						0.000
South			-0.103**	-0.103**	-0.109**	-0.103**
Constant	0.222	-0.133	0.205	0.211	0.207	0.205
Observations	490	420	910	910	910	910
R^2	0.25	0.51	0.29	0.29	0.29	0.29

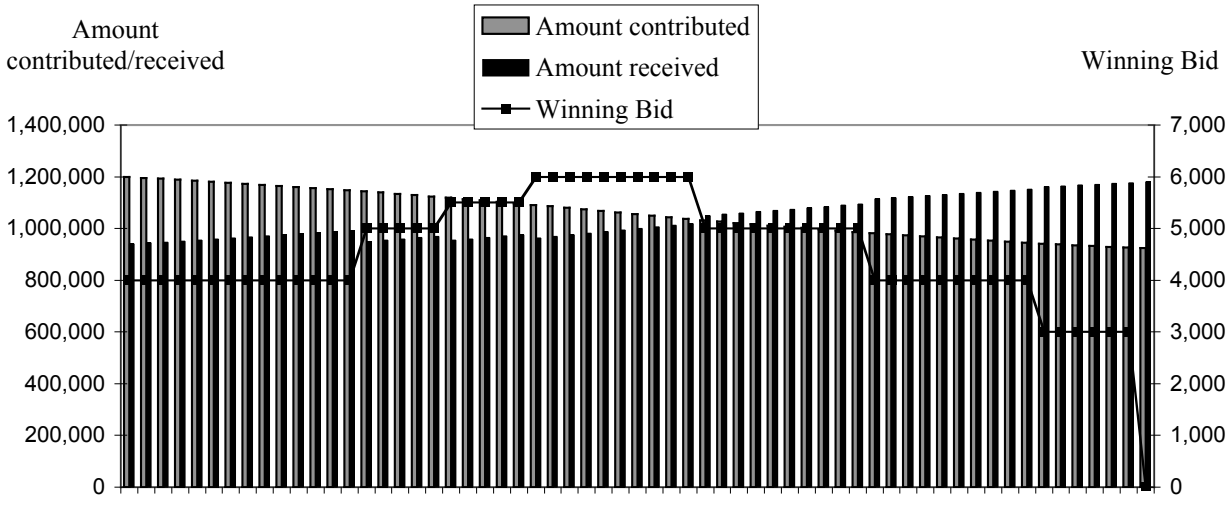
Note: * Significant at the 10% level. ** Significant at the 5% level. *** Significant at the 1% level. We conducted robust regressions, and adjusted standard errors for correlations within individuals.

Figure 1: Amount contributed and received by ROSCA participant

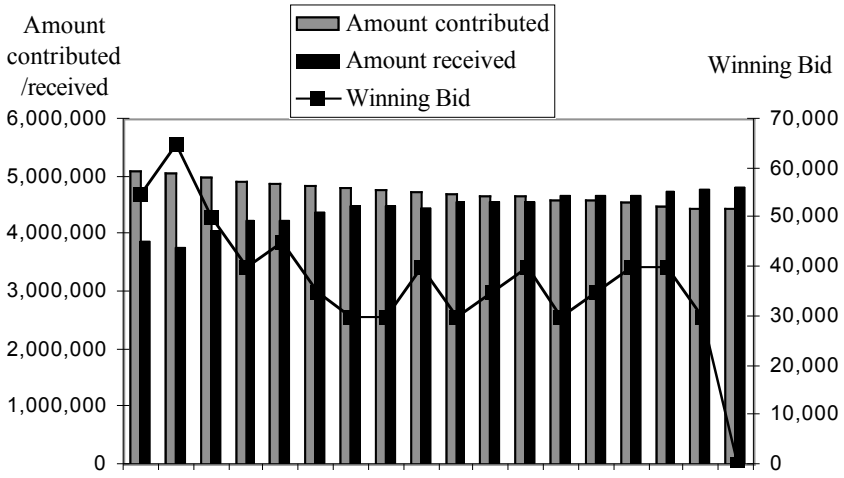
Daily bidding ROSCA (10,000dong – 91 days)



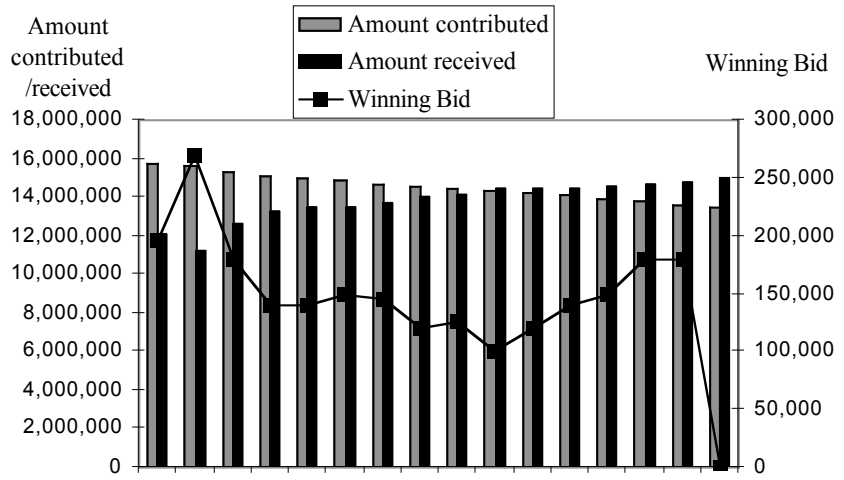
Daily bidding ROSCA (20,000dong – 61 days)



Weekly bidding ROSCA (300,000dong – 18 weeks)



Monthly bidding ROSCA (1,000,000dong – 17 months)



Monthly bidding ROSCA (2,000,000dong – 19 months)

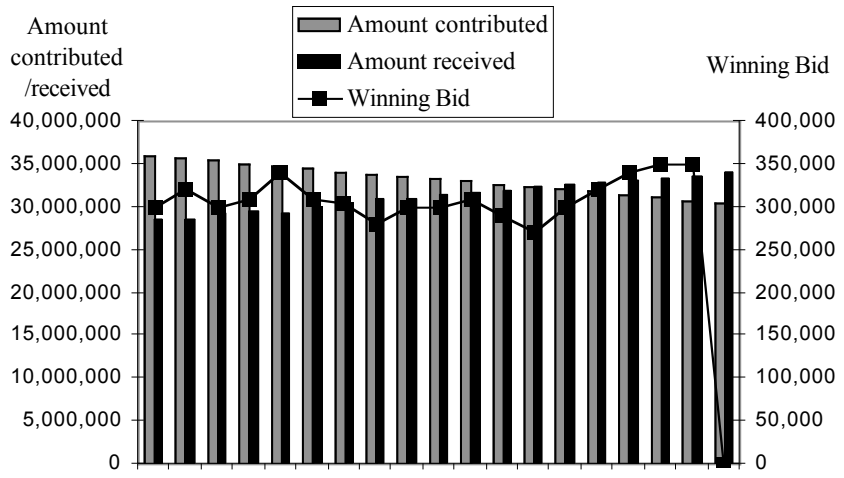
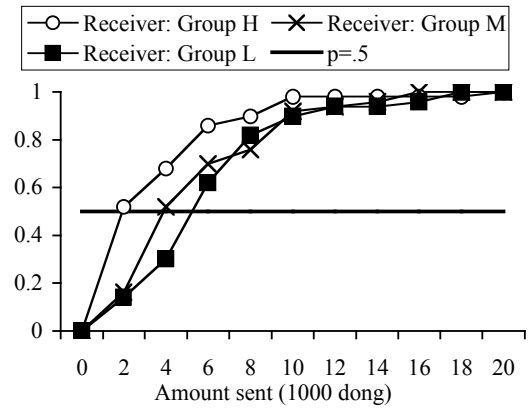


Figure 2: Cumulative distribution of amount set by Player 1 (by group of receiver)

South



North

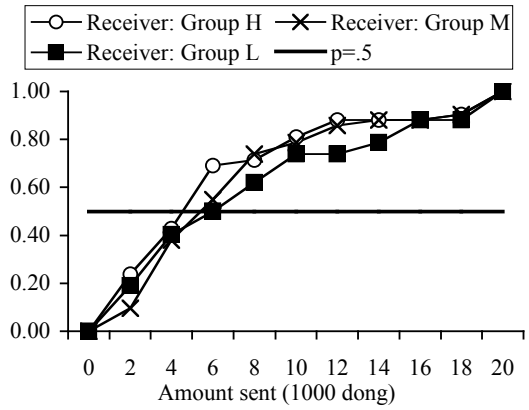
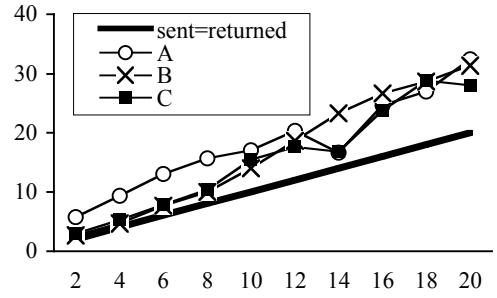


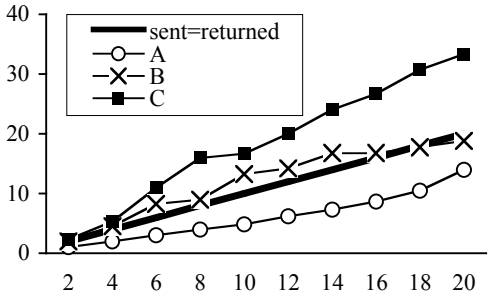
Figure 3: Amounts sent back by Player 2 (1000 dong)

Student subjects

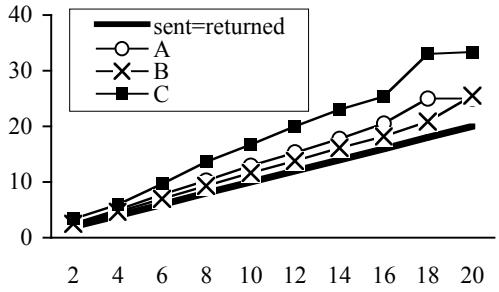
SS1



SS2

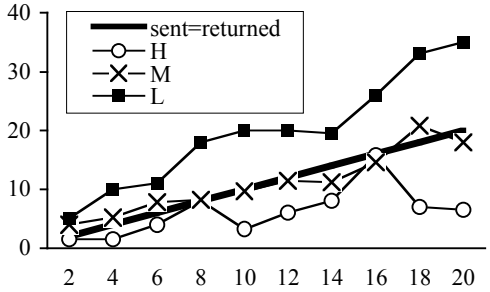


SN1

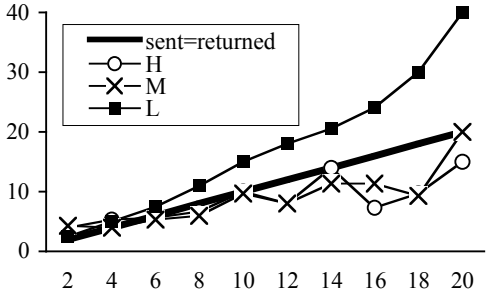


South

S1



S2



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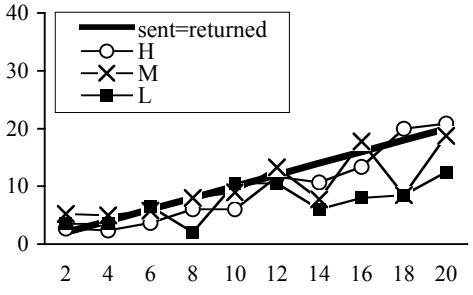
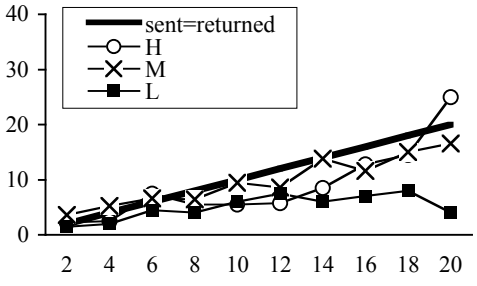
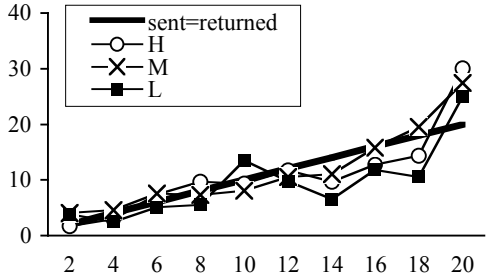


S4

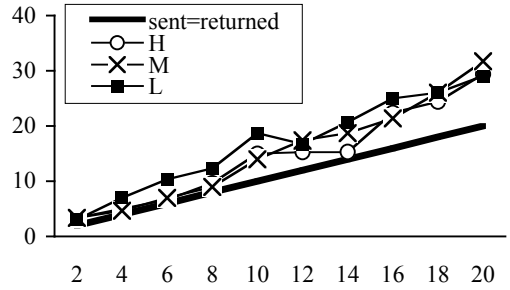


S5



North

N1



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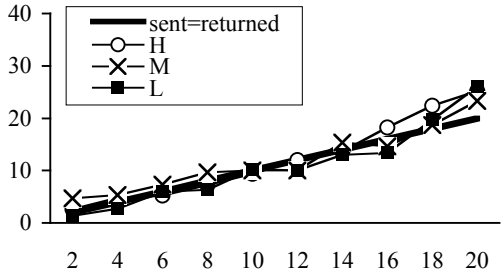

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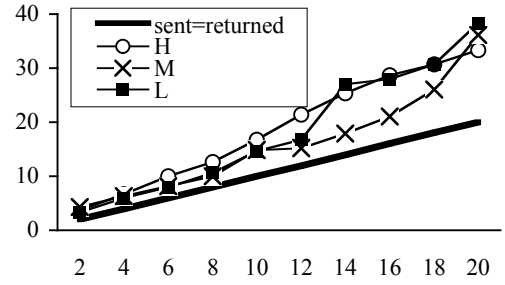
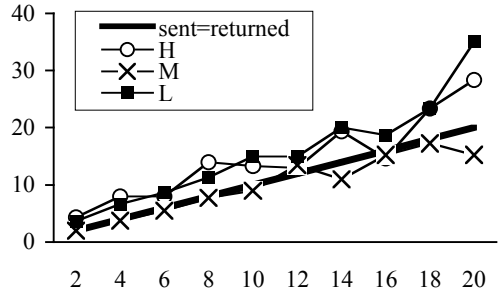
N4