TABLE 1—BASIC REGRESSIONS

Dependent variable: Responsibility for financial security ...	... when unemployed	... when sick	... of the family	... when old	... when requiring care
East	0.432***	0.434***	0.420***	0.426***	0.371***
	(0.030)	(0.028)	(0.028)	(0.028)	(0.028)
Year02	0.064***	0.165***	0.012	−0.033	0.103***
	(0.023)	(0.023)	(0.024)	(0.023)	(0.023)
East * year02	−0.123***	−0.161***	0.060*	−0.143***	−0.176***
	(0.039)	(0.036)	(0.036)	(0.036)	(0.036)
Age	−0.026*	−0.005	0.009	−0.019	−0.003
	(0.015)	(0.015)	(0.015)	(0.014)	(0.014)
Age squared (*10³)	0.614**	0.150	0.255	0.434	−0.042
	(0.296)	(0.289)	(0.292)	(0.286)	(0.286)
Age cubed (*10⁵)	−0.406**	−0.095	−0.193	−0.279	0.066
	(0.185)	(0.181)	(0.183)	(0.197)	(0.179)
College	−0.203***	−0.258***	−0.141**	−0.277***	−0.122**
	(0.064)	(0.061)	(0.062)	(0.061)	(0.060)
Vocational training	−0.096*	−0.140***	−0.136**	−0.163***	−0.087
	(0.057)	(0.054)	(0.055)	(0.054)	(0.054)
Secondary schooling	−0.101*	−0.071	−0.023	−0.103*	−0.068
	(0.059)	(0.056)	(0.057)	(0.056)	(0.056)
Intermediate schooling	−0.103	−0.152**	−0.147**	−0.155**	−0.052
	(0.069)	(0.066)	(0.068)	(0.065)	(0.065)
Male	−0.083***	−0.072***	−0.003	−0.020	0.020
	(0.023)	(0.022)	(0.022)	(0.022)	(0.021)
Number of children	0.034**	0.034***	0.064***	0.038***	0.010
	(0.014)	(0.012)	(0.012)	(0.012)	(0.012)
Number of adults	0.022*	0.043***	0.022**	0.037***	0.007
	(0.013)	(0.012)	(0.011)	(0.011)	(0.012)
Married	0.069*	0.106***	0.026	0.045	0.109***
	(0.039)	(0.037)	(0.037)	(0.036)	(0.036)
Divorced	0.089*	0.048	0.042	0.047	0.107**
	(0.052)	(0.051)	(0.050)	(0.050)	(0.049)
Married but separated	0.011	−0.028	−0.042	0.082	0.161*
	(0.087)	(0.083)	(0.083)	(0.084)	(0.084)
Widowed	−0.050	0.027	−0.043	−0.038	0.075
	(0.060)	(0.058)	(0.059)	(0.057)	(0.057)
Log (household income)	−0.156***	−0.264***	−0.135***	−0.224***	−0.148***
	(0.027)	(0.025)	(0.025)	(0.025)	(0.025)
Civil servant	−0.122**	−0.222***	0.085	−0.060	−0.113**
	(0.057)	(0.059)	(0.059)	(0.059)	(0.055)
Self-employed	−0.317***	−0.403***	−0.332***	−0.450***	−0.306***
	(0.052)	(0.053)	(0.053)	(0.053)	(0.051)
White-collar worker	−0.030	−0.044	0.011	−0.089***	−0.101***
	(0.033)	(0.032)	(0.032)	(0.031)	(0.031)
Unemployed	0.161***	0.005	0.142***	0.005	−0.034
	(0.051)	(0.047)	(0.047)	(0.046)	(0.046)
Retired	−0.075	−0.090	0.149***	0.019	0.011
	(0.059)	(0.057)	(0.058)	(0.056)	(0.056)
Maternity	0.015	−0.051	0.119	−0.197***	−0.081
	(0.080)	(0.077)	(0.075)	(0.077)	(0.075)
Nonworking	−0.027	−0.022	0.158***	−0.012	0.021
	(0.043)	(0.042)	(0.042)	(0.041)	(0.041)
Training	−0.049	−0.021	−0.115*	−0.086	−0.021
	(0.066)	(0.063)	(0.065)	(0.063)	(0.063)
Other nonworking	−0.000	−0.093*	0.062	−0.046	−0.097**
	(0.052)	(0.049)	(0.049)	(0.049)	(0.049)
Constant	1.994***	1.852***	0.728**	1.859***	1.178***
	(0.303)	(0.293)	(0.293)	(0.291)	(0.287)
Observations	18,489	18,487	18,485	18,516	18,514
Log likelihood	−11,060	−12,192	−11,954	−12,250	−12,568

Notes: Probit regressions. The dependent variable is an indicator variable that takes the value one if the household responds "only the state" or "mostly the state" to the question of who should be responsible for the financial security of different groups. Omitted categories are fewer than nine years of schooling, female, single, blue-collar worker, and employed.
    *** Significant at, or below, 1 percent. ** Significant at, or below, 5 percent. * Significant at, or below, 10 percent.

HOMO RECIPROCANS: Survey evidence on behavioural outcomes

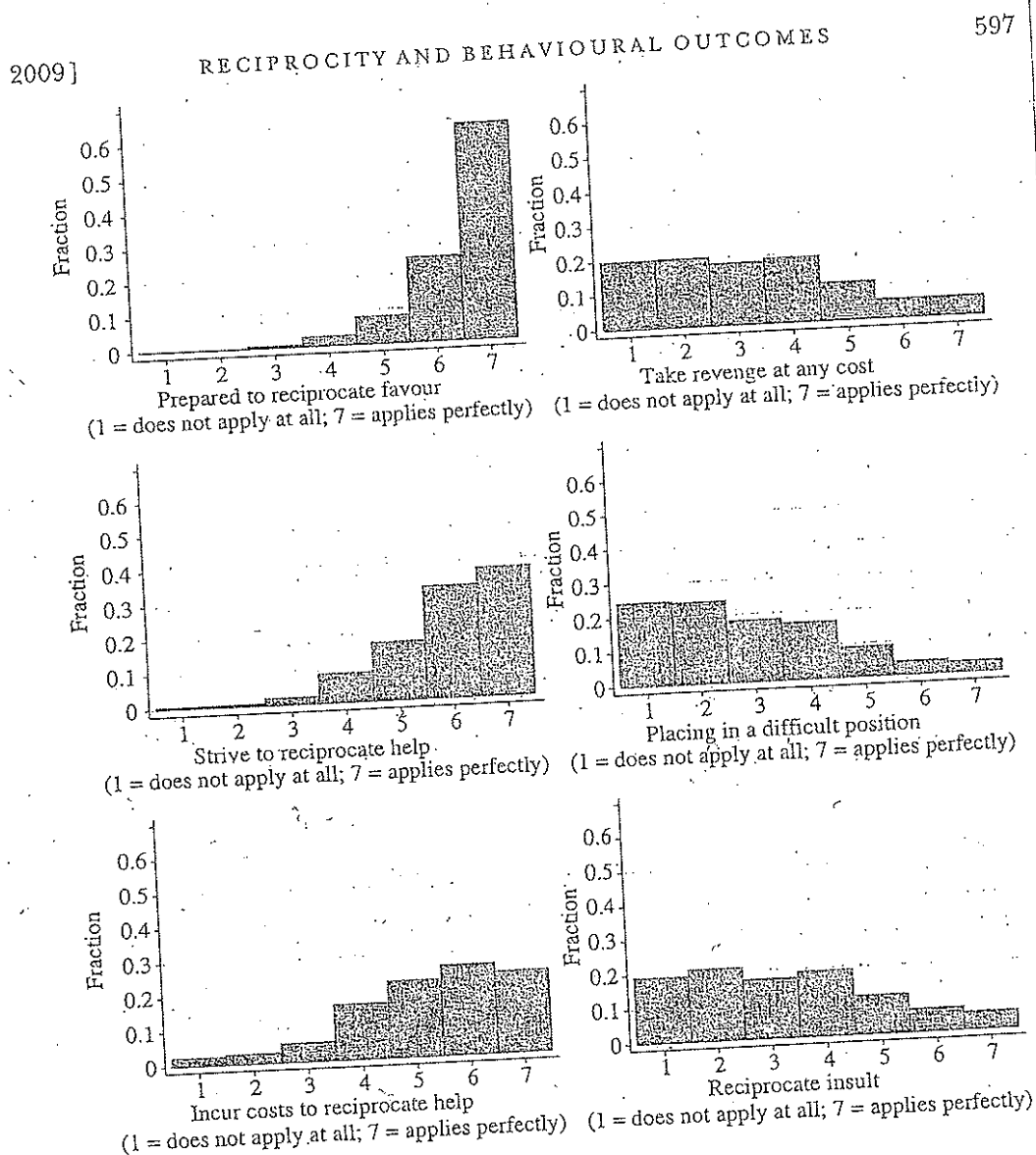*Thomas Dohmen, Armin Falk, David Huffmann and Uwe Sunde*

Fig. 1. *Distribution of Reciprocity*

Table 3
Reciprocity and Unemployment

Dependent variable:	1 if unemployed in 2005		1 if unemployed in 2006		1 if unemployed in 2007	
	(1)	(2)	(3)	(4)	(5)	(6)
Positive reciprocity	−0.010*** [0.003]	−0.010*** [0.003]	−0.006** [0.003]	−0.005* [0.003]	−0.005* [0.003]	−0.005* [0.003]
Negative reciprocity	0.006*** [0.002]	0.006*** [0.002]	0.004** [0.002]	0.004** [0.002]	0.004** [0.002]	0.003** [0.002]
Years of education	0.001 [0.005]	0.001 [0.005]	0.004 [0.005]	0.004 [0.005]	0.019*** [0.005]	0.019*** [0.004]
1 if female	−0.018*** [0.001]	−0.018*** [0.001]	−0.018*** [0.001]	−0.018*** [0.001]	−0.014*** [0.001]	−0.014*** [0.001]
Age (in years)	0.001*** [0.000]	0.001*** [0.000]	0.002*** [0.000]	0.002*** [0.000]	0.002*** [0.000]	0.002*** [0.000]
Lived in GDR in 1989	0.083*** [0.008]	0.011 [0.011]	0.085*** [0.009]	0.032*** [0.012]	0.073*** [0.009]	0.019* [0.011]
Lived abroad in 1989	0.063*** [0.017]	0.058*** [0.017]	0.055*** [0.013]	0.047*** [0.017]	0.080*** [0.020]	0.073*** [0.019]
Residence in 1989 missing	0.099 [0.071]	0.055 [0.052]	0.039 [0.056]	0.007 [0.045]	0.143 [0.093]	0.094 [0.081]
German nationality	−0.030** [0.013]	−0.036** [0.014]	−0.043*** [0.015]	−0.049*** [0.016]	−0.005 [0.012]	−0.008 [0.013]
Other Controls	Yes	Yes	Yes	Yes	Yes	Yes
Region (Bundesland) dummies	No	Yes	No	Yes	No	Yes
Observations	12,640	12,640	11,460	11,460	10,740	10,740
Pseudo R-squared	0.11	0.12	0.11	0.11	0.10	0.12

The dependent variable takes the value 1 if the respondent is unemployed at the survey date in 2005 (Columns (1) and (2)), 2006 (Columns (3) and (4)), or 2007 (Columns (5) and (6)). Estimates are Probit marginal effects estimates. The measure of positive reciprocity is the individual's average level of agreement to three statements concerning, respectively, willingness to return a favour, to go out of the way to help somebody who was kind and undergo personal costs to help someone who was helpful before. The measure of negative reciprocity reflects average agreement to statements concerning willingness to take revenge for a serious wrong, to retaliate for being put in a difficult position and to respond to an insult with an insult. Answers are always on a scale from 1 to 7, where 1 means 'does not apply to me at all' and 7 means 'applies to me perfectly'. Additional other controls are marital status, number of children in the household and religious background. All regressions include indicator variables for marital status (married, widowed, divorced), for the number of children in the household (1 child, 2 children, 3 children, 4 or more children) and categorical variables for religion (catholic, other Christian, other religion, no confession, religion missing). We use information on religion from the 2003 wave in Columns (1)–(4). Religion information from the 2007 survey is used in Columns (5) and (6). An additional religion category (islamic), that was previously subsumed in the category 'other religion' was defined in 2007. Regressions in Columns (2), (4) and (6) include dummy variables for the state (Bundesland) of residence (Saarland and Rhineland-Palatinate are subsumed in one category). Robust standard errors in brackets allow for clustering at the household level; ***, **, * indicate significance at 1%, 5%, and 10% level, respectively.

Overall Success of Homo Reciprocans

Dependent Variable:	Number of Friends		Overall Life Satisfaction		
	(1)	(2)	2005 (3)	2006 (4)	2007 (5)
Positive reciprocity	0.218*** [0.038]	0.214*** [0.038]	0.170*** [0.016]	0.123*** [0.016]	0.095*** [0.016]
Negative reciprocity	−0.057** [0.027]	−0.054** [0.027]	−0.091*** [0.010]	−0.074*** [0.010]	−0.056*** [0.010]
Years of education	0.066*** [0.018]	0.068*** [0.018]	0.006 [0.006]	0.009 [0.006]	0.014** [0.006]
1 if female	−0.092 [0.062]	−0.105* [0.062]	0.055** [0.025]	0.050** [0.025]	0.049* [0.025]
Age (in years)	0.012*** [0.005]	0.007 [0.005]	0.003* [0.002]	0.008*** [0.002]	0.008 [0.002]
Lived in GDR in 1989	0.078 [0.109]	0.056 [0.108]	−0.448*** [0.040]	−0.468*** [0.040]	−0.427*** [0.040]
Lived abroad in 1989	−0.463** [0.233]	−0.438* [0.230]	−0.004 [0.080]	0.050 [0.081]	0.172** [0.087]
Residence in 1989 missing	−0.959*** [0.359]	−1.006*** [0.277]	0.592 [0.963]	−0.115 [0.672]	0.645 [1.335]
Subjective health	−0.283*** [0.041]	−0.181*** [0.041]	−0.818*** [0.017]	−0.832*** [0.018]	−0.876*** [0.018]
Log net annual household income	0.215*** [0.068]	0.291*** [0.068]	0.298*** [0.026]	0.357*** [0.026]	0.285*** [0.028]
1 if unemployed	−0.062 [0.173]	−0.027 [0.174]	−1.001*** [0.075]	−0.856*** [0.076]	−0.805*** [0.084]
1 if non-participating	0.123 [0.155]	0.153 [0.152]	0.008 [0.060]	0.680*** [0.231]	−0.014 [0.065]
1 if retired	−0.057 [0.168]	0.144 [0.170]	0.229*** [0.058]	0.187*** [0.061]	0.175*** [0.060]
Trust (standardised)	0.468*** [0.041]	0.483*** [0.041]	0.187*** [0.014]	0.185*** [0.014]	0.150*** [0.015]
Constant	1.463* [0.805]	2.406 [2.582]	4.481*** [0.470]	3.313*** [0.668]	5.326*** [0.978]
Other Controls	Yes	Yes	Yes	Yes	Yes
Observations	15,747	15,972	16,402	15,069	13,904
R-squared	0.04	0.04			
Pseudo-Log-Likelihood			−29,958	−27,191	−24,907

OLS coefficient estimates in Columns (1) and (2). The dependent variable in Columns (1) and (2) is the number of close friends and is constructed based on the answer to a question in the 2003 wave. Time-variant explanatory variables are fixed at the values for 2003 in Column (1) and 2005 in Column (2). The dependent variable in Columns (3) to (5) is the answer to a question on overall life satisfaction on a scale from 0 to 10, where 0 means 'completely dissatisfied' and 10 means 'completely satisfied'. Because the dependent variable is elicited in intervals, coefficients are based on interval regression, which corrects for left and right censoring of the dependent variable. The measure of positive reciprocity is the individual's average level of agreement to three statements concerning, respectively, willingness to return a favour, to go out of the way to help somebody who was kind, and undergo personal costs to help someone who was helpful before. The measure of negative reciprocity reflects average agreement to statements concerning willingness to take revenge for a serious wrong, to retaliate for being put in a difficult position and to respond to an insult with an insult. Answers are always on a scale from 1 to 7, where 1 means 'does not apply at all' and 7 means 'totally applies'. The measure for annual income is taken form the equivalent files of the SOEP and captures all income sources of the household in the previous year (including for example, earnings, non-labour income, social support, unemployment insurance, retirement and pension benefits and any other benefits). The other controls include parental education background (indicator variables for completion of the Abitur by mothers and fathers), marital status, indicator variables for the number of children under the age of 19 in the household, indicator variables for enrollment in school and different vocational education programmes, categorical variables for labour market status and occupational status in private and public sector employment, categorical variables for religious background, social and national background, and month of interview. The measure of trust is based on standardised answers to a general trust question asked in the 2003 wave of the SOEP. Detailed results are available upon request. Robust standard errors in brackets allow for cluster at the household level; ***, **, * indicate significance at 1%, 5%, and 10% level, respectively.

Table 1
Reciprocity and Work Effort

Dependent variable:	Worked Overtime Last Month			Worked Overtime in 2005	
	2005 (1)	2006 (2)	2007 (3)	Wage perceived fair (4)	Wage perceived not fair (5)
Positive reciprocity	0.023*** [0.007]	0.025*** [0.007]	0.020*** [0.007]	0.038*** [0.008]	−0.007 [0.011]
Negative reciprocity	−0.010** [0.004]	−0.008* [0.004]	0.002 [0.004]	−0.012** [0.005]	−0.009 [0.007]
female	−0.051*** [0.014]	−0.005 [0.015]	−0.039** [0.015]	−0.051*** [0.018]	−0.059** [0.024]
years of education	0.006* [0.003]	0.004 [0.003]	0.007** [0.003]	0.004 [0.004]	0.007 [0.005]
Full-time work experience (in years)	0.008*** [0.002]	0.007*** [0.003]	0.009*** [0.003]	0.006** [0.003]	0.011*** [0.004]
Full-time work experience²/100	−0.018*** [0.005]	−0.013** [0.005]	−0.017*** [0.005]	−0.015** [0.005]	−0.020** [0.006]
Part-time work experience (in years)	0.011*** [0.004]	0.010*** [0.004]	0.011*** [0.004]	0.011** [0.005]	0.011* [0.006]
Part-time work experience²/100	−0.034** [0.013]	−0.025* [0.014]	−0.024* [0.014]	−0.040** [0.017]	−0.023 [0.023]
tenure (in years)	−0.006*** [0.002]	−0.002 [0.002]	−0.006*** [0.002]	−0.004* [0.003]	−0.008** [0.003]
tenure²/100	0.011* [0.006]	−0.005 [0.006]	0.011** [0.005]	0.009 [0.007]	0.013 [0.010]
part-time	−0.191*** [0.016]	−0.210*** [0.017]	−0.179*** [0.018]	−0.190*** [0.020]	−0.175*** [0.027]
(in years)	−0.005*** [0.001]	−0.005*** [0.002]	−0.007*** [0.002]	−0.004** [0.002]	−0.006** [0.003]
Controls	Yes	Yes	Yes	Yes	Yes
Observations	8,462	7,611	7,301	5,626	2,815
R-squared	0.07	0.08	0.08	0.08	0.07

Dependent variable is a binary variable, taking the value 1 if an individual reports to have worked overtime in the past month. Marginal effects estimates of Probit models (evaluated at the mean of the independent variables) are reported. The measure of positive reciprocity is the individual's average level of agreement to three statements concerning, respectively, willingness to return a favour, to go out of the way to help somebody who was kind and undergo personal costs to help someone who was helpful before. The measure of negative reciprocity reflects average agreement to statements concerning willingness to take revenge for a serious wrong, to retaliate for being put in a difficult position, and to respond to an insult with an insult. Answers are always on a scale from 1 to 7, where 1 means 'does not apply to me at all' and 7 means 'applies to me perfectly'. The sample is split in Columns (4) and (5) based on the response to the question: 'Is your income what you earn at your current job just, from your point of view?' (translated from German). Regressions in all columns include indicator variables for firm size (5–19, 20–99, 100–199, 200–1999, more than 2000 employees), industrial sector (agriculture, energy, mining, manufacturing, construction, trade, transport, bank and insurance), and occupational status in public and private employment. Detailed results and control variables are available upon request. Robust standard errors in brackets allow for clustering at the household level; ***, **, * indicate significance at 1%, 5%, and 10% level, respectively.

Table 2
Reciprocity and Labour Income

Dependent variable:	Log Gross Monthly Labour Income			Log Gross Annual Labour Income	
	2005 (1)	2006 (2)	2007 (3)	2005 (4)	2006 (5)
Positive reciprocity	0.012** [0.005]	0.019*** [0.006]	0.009* [0.005]	0.018*** [0.006]	0.016*** [0.006]
Negative reciprocity	0.000 [0.003]	−0.004 [0.003]	0.003 [0.003]	−0.003 [0.004]	0.001 [0.004]
1 if female	−0.154*** [0.012]	−0.170*** [0.012]	−0.166*** [0.013]	−0.174*** [0.013]	−0.176*** [0.014]
Years of education	0.030*** [0.002]	0.035*** [0.002]	0.030*** [0.003]	0.035*** [0.003]	0.033*** [0.003]
Full-time work experience (in years)	0.021*** [0.002]	0.021*** [0.002]	0.022*** [0.002]	0.028*** [0.002]	0.030*** [0.002]
Full-time work experience²/100	−0.043*** [0.004]	−0.041*** [0.004]	−0.043*** [0.004]	−0.054*** [0.005]	−0.057*** [0.005]
Part-time work experience (in years)	−0.004 [0.003]	−0.001 [0.003]	−0.007** [0.004]	0.006** [0.003]	0.008** [0.003]
Part-time work experience²/100	0.017* [0.010]	0.000 [0.011]	0.017 [0.011]	−0.018 [0.012]	−0.015 [0.012]
Job tenure (in years)	0.015*** [0.002]	0.013*** [0.002]	0.013*** [0.002]	0.017*** [0.002]	0.022*** [0.002]
Job tenure²/100	−0.022*** [0.004]	−0.019*** [0.005]	−0.019*** [0.005]	−0.027*** [0.005]	−0.038*** [0.005]
1 if part-time	−0.065*** [0.016]	−0.137*** [0.020]	−0.198*** [0.018]	−0.198*** [0.024]	−0.340*** [0.024]
Contractual weekly hours	0.025*** [0.001]	0.017*** [0.001]	0.011*** [0.001]	0.016*** [0.001]	0.010*** [0.001]
Constant	5.946*** [0.071]	6.179*** [0.075]	6.482*** [0.071]	8.588*** [0.081]	8.822*** [0.080]
Other Controls	Yes	Yes	Yes	Yes	Yes
Observations	7,928	6,866	6,328	6,867	6,330
R-squared	0.64	0.63	0.62	0.62	0.62

The dependent variable in Columns (1) to (3) is log gross monthly labour earnings (taken from the generated files vpgen, wpgen and xpgen of the SOEP). The dependent variable in Columns (4) and (5) is log annual individual labour earnings (taken from the equivalent files of the SOEP). The sample is restricted to the employed; farmers, self-employed, those in compulsory military or community service are excluded. The measure of positive reciprocity is the individual's average level of agreement to three statements concerning, respectively, willingness to return a favour, to go out of the way to help somebody who was kind, and undergo personal costs to help someone who was helpful before. The measure of negative reciprocity reflects average agreement to statements concerning willingness to take revenge for a serious wrong, to retaliate for being put in a difficult position and to respond to an insult with an insult. Answers are always on a scale from 1 to 7, where 1 means 'does not apply to me at all' and 7 means 'applies to me perfectly'. Regressions in all columns include indicator variables for firm size (5–19, 20–99, 100–199, 200–1999, more than 2000 employees), industrial sector (agriculture energy, mining, manufacturing, construction, trade, transport, bank and insurance), and occupational status in public and private employment. Detailed results for all control variables are available upon request. Robust standard errors in brackets allow for clustering...