Does Africa Need a Rotten Kin Theorem? Experimental Evidence from Village Economies*

Pamela Jakiela Washington University in St. Louis University of California, Berkeley

Owen Ozier

Preliminary and incomplete.

Please do not cite without permission.

January 22, 2010

Abstract

This paper measures the economic impacts of social pressures to share income with relatives and neighbors in rural African villages within a controlled laboratory environment. We conduct a lab experiment in which we randomly vary the observability of positive income shocks resulting from risky investments. In some treatments, we allow participants to pay a price to avoid announcing anything about their income in the game. We vary the price offered to participants, and find that 28 percent of participants choose to pay to avoid the announcement, at a price that is on average 16 percent of their gross earnings in the game. Further, we find that 10 percent of women forced to announce a portion of their income shock adopt an investment strategy that conceals the size of their initial endowment in the experiment, though that strategy reduces their expected earnings. Both findings are suggestive of the economic drag that social pressures may create on investment in Sub-Saharan Africa.

^{*}We are grateful to Felipe Dizon for excellent research assistance. We thank the Weidenbaum Center at Washington University in St. Louis for funding.

"Whoever has a more mobile occupation, and less respect for tradition, tries to cover his tracks. In Dodoma, I once ran into a street vendor hawking oranges who used to bring these fruits to my house in Dar es Salaam. I was happy to see him, and asked him what he was doing here, five hundred kilometers from the capital. He had had to flee from his cousins, he explained. He had shared his meager profits with them for a long time, but finally had

had enough, and ran. 'I will have a few cents for a while,' he said happily. 'Until they find me again!' "

— Kapuscinski (2002)

1 Introduction

Risk is a pervasive aspect of the lives of individuals in many developing economies, and informal sharing norms are often viewed as a welfare-improving response to idiosyncratic risk in regions where credit and insurance markets are incomplete. However, a number of recent studies of Sub-Saharan African villages suggest that social pressures to share with neighbors and relatives can reduce incentives to make profitable investments, thereby inhibiting development and creating a poverty trap. For instance, Anderson and Baland (2002) show how, in the Nairobi slums, incomeearning women use ROSCAs to protect their savings from their husbands. Barr and Stein (2008) show that Zimbabwean villagers punish families who are becoming better off than their neighbors by refusing to attend the funerals of members of those households. Platteau (2000) points out that economically successful individuals who do not share enough with their communities often face accusations of witchcraft. Baland, Guirkinger, and Mali (2007) show that in Cameroon, some members of credit cooperatives use borrowing as a signal that they are poor, in order to avoid sharing savings with relatives.¹ In this paper, we report the results of an experiment designed to measure the economic impacts of social pressures to share income with relatives and neighbors in rural villages in Sub-Saharan Africa. The project uses a controlled laboratory environment to explore behaviors which are difficult or impossible to document using survey data: the willingness

¹In a similar vein, Dupas and Robinson (2009) show that female daily income earners make more productive investments when given access to even a costly savings account. See also Hoff and Sen (2006).

to forgo profitable investment opportunities so as to keep one's income secret from relatives and neighbors. We find convincing evidence that both agents are willing to reduce their expected income to avoid making positive income shocks observable to their neighbors and kin. These effects appear to be concentrated primarily among two groups: men who have recently been asked for, or made, transfers to nearby relatives, and women, particularly unmarried women.

2 Experimental Design and Procedures

Experiments were conducted in 26 rural, predominantly agricultural communities in western Kenya. Before beginning subject recruitment, research assistants met with community leaders — head teachers and local headmen — in selected villages² to introduce the project. One day prior to each experimental session, the survey team conducted a door-to-door recruitment campaign, visiting as many households within the village as possible. All households within each village were invited to send members to participate in the experimental economic game session the following day. 80.1 percent of individuals surveyed prior to the sessions chose to participate.

Experimental sessions were conducted at local primary schools. The project was conducted during the Kenyan school vacation period, so school classrooms were not being used at the time. Empty primary schools provided central locations familiar to all participants. Experimental sessions included an average of approximately 77 subjects, and no session included fewer than 56.

The experiment was designed to introduce exogenous variation in the observability of positive income shocks. Each participant was given an initial endowment of money, either 80 or 180 Kenyan shillings.³ Each participant was given the opportunity to invest a portion of her endowment in an investment which was risky but potentially profitable: there was a fifty percent chance that the investment would be successful, in which case the participant would receive five times the

 $^{^{2}}$ Villages were selected to be at least five kilometers apart from one another, to prevent overlap in subject populations.

 $^{^{3}}$ The endowments were equivalent to 1.04 and 2.34 U.S. dollars, respectively, at the time of the experiment. The latter amount is approximately equal to a day's wage for an agricultural laborer.

amount that she chose to invest; if the investment failed, the participant would lose the money she allocated to it. A coin was flipped to determine whether each project was successful. Thus, the main decision subjects faced was how much of their endowment to invest in the risky prospect and how much to allocate to the secure, but zero-profit alternative.

Within the experiment, players were randomly assigned to one of six treatments. First, players were allocated either the smaller endowment of 80 shillings or the larger endowment of 180 shillings. Second, every player was assigned to either the **private** treatment, the **public–mandatory** treatment, or the **public–price** treatment. Participants assigned to the private treatment were able to keep their investment income secret, while those assigned to the two public treatments could be obliged to make a public announcement revealing how much they had invested in the risky prospect, and whether their investment was successful, to all of the other participants at the end of the experiment. In the public–mandatory treatment, subjects were always required to make this announcement, while those assigned to the public–price condition were allowed to pay a randomly chosen price (between ten and 60 shillings) to avoid making a public statement of their investment earnings. Thus, randomized treatment assignment introduced exogenous variation in the observability of income shocks.

Within each session, participants were stratified by gender and education level (an indicator for going beyond primary school); within each stratum, players were randomly assigned to each of the six treatments with equal probability. Players assigned to the payout treatments were subsequently assigned a random "exit price" from the set of multiples of ten between ten and 60.

Experimental sessions were structured as follows. After a brief introduction, enumerators read the instructions and answered participant questions, illustrating the decisions that a subject might face with a series of wall posters. Subjects were then called outside one at a time, by ID number, to make their investment decisions. Since many participants had limited literacy skills, decisions were recorded by members of the enumeration team. To ensure that earnings not announced publicly remained private information, each enumerator sat at a desk in an otherwise empty section of the schoolyard. Enumerators began by asking a series of questions designed to test whether the subject understood the experiment. Subjects who grasped the setup were then informed whether they had received the large or small endowment and whether they were assigned to the private, publicmandatory, or public-price treatment. Those who were assigned to the public-price treatment were also told what price they would need to pay to avoid the public announcement. Subjects then made their investment decisions: each was handed a number of ten shilling coins equivalent to her endowment; the participant divided these coins between a "savings" cup and a "business" cup. After recording a subject's investment decision, the enumerator would give the subject a one shilling coin to flip.⁴ The outcome of the coin flip determined whether the money placed in the business cup was multiplied by five or removed from the subject's final payout. After all decisions had been recorded, public announcements were made.

3 Local Context

Sessions were conducted in Kenya's Western Province, in three adjoining districts: Bunyala, Samia, and Butula.⁵ All three districts are predominantly smallholder farming communities; Samia and Bunyala both include ports on Lake Victoria, making fishing a common livelihood in those areas as well. Basic summary statistics on experimental subjects are presented in Table 1. 60 percent of subjects were female. Respondents ranged in age from 18 to 85. In terms of educational attainment, 10 percent of subjects had no formal schooling, while 11.6 percent had finished secondary school. The median participant was a 34 year old married woman with seven years of education, living in a six-person household. The median participant's household owns one bicycle, one cell phone, four chickens, and two mosquito nets, but does not own a television, any cattle or goats, or

⁴To eliminate the possibility of influencing the outcome of the coin flip, each subject was required to place her coin into a sealed, opaque container which she shook vigorously before opening it to reveal the outcome of the coin toss.

⁵Kenya's recent redistricting carved these three former administrative divisions of Busia District off as new districts of their own; one was declared a new district during the course of this project.

a motor vehicle. 24.1 percent of respondents live in households with at least one household member in regular employment. The median monthly wage among participants with regular employment was 1500 Kenyan shillings, or approximately twenty U.S. dollars. 17 percent of participants have bank savings accounts, and 52 percent are members of rotating savings and credit associations (ROSCAs).⁶ The median participant also has six other relatives living in the same village but outside of her household. 57.3 percent of male participants and 13.2 percent of female participants have their parents living in the same village, consistent with patrilocal marriage traditions; 7.1 percent of men and 44.1 percent of women in the sample live in the same village as their in-laws (Table 1).

Because we are particularly interested in transfers between households, we gathered extensive survey data on different aspects of transfers, detailed in Table 2. Most experimental subjects in our sample are embedded in village and kin transfer networks. 44 percent of subjects had received a transfer in the last three months, while 90 percent report giving or loaning money to another household over the same period. The median respondent making a transfer had given 375 shillings to other households, 245 shillings of which went to households in the same village. In the three months prior to being surveyed, 43 percent of subjects had been asked for a gift or loan, and 90 percent of subjects had contributed money to a "harambee," a funeral, a wedding, or to help someone with school or hospital fees.⁷

This survey data — collected prior to experimental sessions — allows us to explore the relationship between kin networks, local-level charitable giving (to harambees, etc.), and interhousehold transfers. Table 3 reports the results of regressions of the (natural log of) the amount contributed to all local charitable causes — harambees, funerals, weddings, school fees, and hospital fees —

⁶Dupas and Robinson (2009) found that less than 3 percent of the daily wage earners sampled in Bumala, Kenya, had savings accounts. While Bumala is just a few kilometers from the region where the present study took place, their data were collected over two years before our household survey. The daily wage earners (primarily market vendors and bicycle taxi drivers) included in their study may also be somewhat worse off than our subjects.

⁷A harambee, pronounced hah-rahm-bay is a self-help effort in which community members contribute money or resources to assist a particular person in need. They may be for sending a child to school, paying for a wedding, or any number of other purposes. The concept existed within a number of different tribal groups in Kenya, but was made into a national rallying cry by Kenya's first president, Jomo Kenyatta (Ngau 1987).

on a variety of individual characteristics. Regressions are estimated using OLS, but coefficient estimates and significance levels are similar if a Tobit specification is used (results not shown). Both wealth and bank savings accounts are positively and significantly associated with contribution amounts, and the coefficient on participation in a ROSCA is also consistently positive (though only significant in three of six specifications).⁸ Participation in community groups is also positively and significantly associated with charitable donations. More interestingly, we find that mens' giving to harambees and other local causes increases significantly with the number of (non-household) relatives living in the village, though the coefficient estimate for such relatives is smaller and statistically insignificant for women.⁹

In Table 4, we use probit and OLS specifications to examine the demographic characteristics associated with transfers received. Assets increase the likelihood of receiving any transfer, but only increase the amount received from outside the village, not inside it—perhaps because assets are a proxy for the wealth of one's broader network, while within the village, they are a signal that the asset owner is not in need. Having an employed household member is associated with transfer amounts received from within the village, though it is only significant for women and for the pooled sample. Having parents in the village is negatively related transfers received, significantly so for transfer received from outside the village. That the coefficients in Columns 6–8 are more negative than those in Columns 3–5 may be mechanical if parents are a common source of transfers, but this would not explain the negative coefficient in the first two columns. Having more relatives living in the village with you is positively and significantly associated with transfers received from inside the village, though it is also only significant for women and for the pooled sample. Community group participation is a positive predictor of transfers received.

In Table 5, we use the same array of specifications as to explore transfers given. Women report giving fewer transfers; being married predicts a significant increase in both the probability of giving

 $^{^{8}}$ Wealth is proxied by an asset index — the first principal component of a vector of 30 household items including vehicles, livestock, and furniture.

 $^{^{9}}$ This is consistent with the findings of Taiwo (2008).

a transfer and in the total amount given to other villagers (the point estimates remain positive though not significant for amount given outside the village when the sample is split by gender). Household assets positively and significantly associate with transfers given (though not significant in Column 4). Participating in a ROSCA positively predicts giving, but is only significant in two speciation; having one's parents in the village is positively associated with the level of transfers given to other villagers by men, but negatively with the level given to those outside the village by women. Having one's in-laws in the village is not significant in any specification, but point estimates are for the amount are consistently negative for both men and women; and importantly, having more relatives in the village is positively and significantly associated with the amount given to other villagers (Columns 3–5).

4 Results

Summary statistics on outcomes in the experiment are presented in Table 7. In Panel A, we show that the randomization was successful.¹⁰ Because the randomization into treatment groups was carried out within gender-education strata, those variables show very small (statistically insignificant) differences across the six treatments. Age, marital status, household size, and the number of relatives within the village fluctuate slightly more, but all differences are small and few are statistically significant.

In Table 7, Panel B, we provide summary statistics for the key outcomes of interest: the amount invested (put in the business cup rather than the savings cup), which is subsequently announced in the public treatments, and the willingness to pay to avoid making a public announcement. On average, participants chose to invest roughly half their endowment in the risky but profitable investment. Among those with the larger endowment of 180 shillings, the amount invested is lower, on average, in the **public** treatments than in the **private** treatment. When allotted 180

¹⁰We show that the randomization of the price of avoiding making an announcement was successful, though the randomization was not stratified, in Table 17.

shillings, participants could avoid publicly revealing that their endowment exceeded that of others by investing 80 shillings or less; the frequency of this choice is tabulated in the third row of Panel B, and is higher in the **public** treatments than in the **private** treatment. Among those in the **public–price** treatment, the price of avoiding announcement ranged from ten to 60 shillings, yielding a mean exit price offered of 35 shillings (as shown). This price was, on average, 33.32 percent of the participants' gross (savings plus earnings) payout in the low endowment condition, and 20.56 percent in the high endowment condition. In this setting, 21 percent of participants in the low endowment condition pay the price to avoid announcing, as do 34 percent in the high endowment condition. The mean accepted price is lower: 20 percent of the gross payout in the low endowment condition, and 13 percent in the high endowment condition. The coin flip determining the success of the investment came up heads roughly half the time in all six treatments (again confirming that the experiment went as intended). The average payouts (savings + 5 × investment × heads) are tabulated in the last row of Panel B. In Panel C, we break down the mean investment amount by gender and by education level. Notably, women appear to be responsible for the lower investment levels in the **public** treatments among participants with the large endowment.

Our first main outcome of interest is the amount invested in the business cup. Table 8 reports the results of a series of OLS regressions of the amount invested on indicators for assignment to one of the public treatments and receiving the larger endowment, as well as an interaction between the two. We report specifications with and without village fixed effects; these have little impact on either coefficient estimates or significance levels, which is as expected since randomization to treatment occurred within each experimental session. On average, the treatments involving public announcements do not appear to have a significant impact on individual investment decisions (Columns 1–4). However, a different picture emerges when we disaggregate the impact of treatment by gender (Columns 5–6). There is suggestive evidence that women in the large endowment treatments invest less when they are obligated to make a public announcement of their investment income. The coefficient estimates suggest that women reduce the amount they invest by approximately six shillings, which is equivalent to a 6.2 percentage point reduction. We return to this point below.

Next, we explore the interactions between assignment to the public treatments and the extent of involvement in the kin and village transfer networks. Table 9 replicates Columns 4 and 6 of Table 8, adding interactions between gender, treatment assignment, and the natural log of the total amount of household transfers given to other village members over the last three months.¹¹ Including the additional independent variables has almost no impact on the coefficient estimates and significance levels attached to the original set of treatment-gender interactions (included in Table 8). The coefficient estimates on the new variables indicate that men who make more transfers to other households in their village also invest more in the experiment, but only in the private treatments; assignment of these men to the public treatment is associated with a significant decline in the amount invested. Moving from the average level of transfers given to one standard deviation above the average level is associated with a 5.72 shilling decrease in investment. Disaggregating the impacts by endowment level (Columns 3 and 4) demonstrates that the effects are primarily driven by men assigned to the large endowment treatment, though the point estimates move in the same direction for those allocated the smaller endowment. Thus, the interaction between assignment to the public treatments and the amount transferred to other households in one's village is negative and significant for men, and the effect is robust across specifications. In contrast, similar regressions estimating the association between interhousehold transfers received from other villagers does not find a significant association between amount received and behavior in the experiment for men or women (Table 10).

A similar pattern emerges when we interact treatment assignments with indicators for whether a participant has been asked for a gift or loan by a relative in the village over the last three months. In Table 11, we replicate the same set of regressions, including interactions with the indicator for being asked for a transfer. As in the case of transfers made, male subjects who have been asked

¹¹The variable is the demeaned natural log of one plus total transfers, so that subjects who report zero transfers are included in the regressions.

for a transfer invest more overall, but significantly less in the public treatments than those have not recently been asked for money by their relatives (though here, the effects are not driven by those with the large endowment). In contrast to this, and analogously to the results in Table 10, the indicator for having asked local relatives for a gift or loan does not significantly predict the behavior or male subjects in the experiment (Table 12).

In Table 13, we examine the association between behavior in the experiment and a range of individual characteristics drawn from the survey. Several variables are significantly associated with the amount invested in the experiment — for example, the indicators for being married and for participating in a ROSCA — however, restricting the sample to only the public treatments has little impact on coefficient estimates or significance levels.

In Table 14, we further explore this result by restricting the sample to subjects randomly allocated the larger endowment. We estimate probit regressions of the impact of assignment to the announcement treatments on the likelihood of investing 80 shillings or less, thereby preventing other participants from learning that one has received the larger endowment. Here, the results are striking: women are significantly more likely to invest 80 shillings or less in the announcement treatments than in the private treatment, and this result is significant at the 95 percent level in all specifications. The coefficient estimates indicate that being assigned to one of the announcement treatments increases the probability that a female subject invests 80 shillings or less by between 9.9 and 12.5 percentage points.¹²

In Table 15, we replicate the probit specifications described above, but include interactions between treatment assignment and the log of interhousehold transfers given (Columns 1–4) and received (Columns 5–8) in the last three months. None of these interactions is significant at conventional levels. In Table 16, reports the same set of regressions including interactions between indicators for being asked for a gift or loan (Columns 1–4) and asking for a gift or loan (Columns 5–8) from another relative living in the village. Men who have been asked for a transfer are

 $^{^{12}}$ This effect is even more pronounced for unmarried women, for whom a 0.486 probit coefficient is equivalent to a 19.2 percentage point increase in the likelihood of investing 80 shillings or less (results not shown).

significantly more likely to invest 80 shillings or less when assigned to the public treatments: the coefficient estimates suggest that men who have been asked for a transfer are 24.6 and 28.4 percentage points more likely to invest 80 shillings or less.

Next we explore the determinants of paying to avoid making a public announcement of one's earnings. Table 17 reports summary statistics on participants in the public-price treatments, broken down by randomly-assigned exit price; the table demonstrates that the randomization was successful. In Table 18, we estimate the causal impact of increasing the price of exit and of having a "successful" investment, which generates a positive income shock. Having a successful investment increases the probability of buying out of a public announcement by an estimated 22.2 to 23.3 percentage points. Reassuringly, both coefficient estimates and significance levels change little when the 10.3 percent of subjects unable to afford to buy their way out of announcing are omitted from the sample, suggesting that results are not driven by selection. Subjects with the larger endowment are more likely to pay, and are less sensitive to the price of exit.

In Table 19, we explore the interaction between being asked for a gift or loan by local relatives and the likelihood of paying to avoid making an announcement. Both men and women are more likely to buy out when they earn positive investment income, but the effect is particularly large among those who have been asked for money in the last three months.

5 Conclusions

We report the results of an experiment designed to measure the extent to which social pressures to share with relatives in poor, agricultural "village economies" create disincentives to make profitable investments. We find convincing evidence that both women, particularly unmarried women, and men who have recently been asked for gifts or loans by relatives are willing to reduce their expected profits to avoid making positive income shocks observable to the community. These groups are also willing to pay to hide their money.

References

- ANDERSON, S., AND J.-M. BALAND (2002): "The Economics of Roscas and Intrahousehold Resource Allocation," Quarterly Journal of Economics, 117(3), 963–995.
- BALAND, J.-M., C. GUIRKINGER, AND C. MALI (2007): "Pretending to be poor: borrowing to escape forced solidarity in credit cooperatives in Cameroon," *mimeo*, University of Namur, Belgium.
- BARR, A., AND M. STEIN (2008): "Status and egalitarianism in traditional communities: an analysis of funeral attendance in six Zimbabwean villages," CSAE Working Paper No. 26.
- DUPAS, P., AND J. ROBINSON (2009): "Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya," NBER Working Paper No. 14693.
- HOFF, K., AND A. SEN (2006): "The Kin System as a Poverty Trap," in *Poverty Traps*, ed. by S. Bowles, S. Durlauf, and K. Hoff, Chapter 4, pp. 95–115. Princeton University Press, Princeton.
- KAPUSCINSKI, R. (2002): The Shadow of the Sun. Vintage Books, New York, first vintage international edition, english translation by klara glowczewska edn.
- NGAU, P. M. (1987): "Tensions in Empowerment: The Experience of the "Harambee" (Self-Help) Movement in Kenya," *Economic Development and Cultural Change*, 35(3), 523–538.
- PLATTEAU, J.-P. (2000): Institutions, Social Norms and Economic Development. Harwood Academic Publishers, Amsterdam.
- TAIWO, O. (2008): "Lineage Networks and Intrahousehold Resource Allocation," *mimeo*, University of Colorado at Boulder.

Variable	MEAN	Median	Min	Max	Ν
Female	0.60	1	0	1	2004
	(0.49)				
Years of schooling	6.74	7	0	16	2001
0	(3.35)				
Age	37.02	34	18	85	1975
0	(14.15)				
Currently married	0.75	1	0	1	2000
	(0.43)				
Ever married	0.88	1	0	1	1997
	(0.33)				
No. cattle owned by HH	1.25	0	0	99	1983
	(3.02)				
No. bicycles owned by HH	0.83	1	0	6	1984
	(0.76)		Ū.		
No. phones owned by HH	0.73	1	0	10	1982
F	(0.84)		Ū.		
No. televisions owned by HH	0.14	0	0	3	1981
	(0.39)	0	Ŭ	0	1001
No mosquito nets owned by HH	2.13	2	0	11	1985
ito. mosquito news owned by init	(1.46)	-	0	11	1000
Household size	6.17	6	1	52	108
	(3.15)	0	T	52	1300
Father lives in village	(3.15)	0	0	1	1089
rather lives in vinage	(0.37)	0	0	1	1900
Mother lives in village	(0.37)	0	0	1	1099
Mother lives in vinage	(0.27)	0	0	1	1900
Eathan in law lives in willows	(0.43)	0	0	1	1000
rather-m-naw nives in vinage	(0.14)	0	0	1	1964
Mathan in land line in adultant	(0.55)	0	0	1	1001
Mother-m-law lives in village	0.20	0	0	1	1981
	(0.44)	C	0	150	1000
Relatives in village, but outside of household	11.43	6	0	159	1980
TT 1 1 1	(15.45)	0	0	-	105
Has regular employment	0.09	0	0	1	1978
	(0.29)	1 - 00	100	21000	450
Monthly wages (if employed)	3115.65	1500	100	21000	153
	(4453.37)				
HH member employed	0.16	0	0	1	1969
	(0.37)				
Has bank savings account	0.17	0	0	1	1980
	(0.37)				
Member of ROSCA	0.52	1	0	1	1977
	(0.50)				
Community groups	2.75	3	0	10	1982
	(1.87)				
No. of correct math responses (out of 3 questions)	2.15	2	0	3	1749
- , - ,	(1.00)				

Table 1: Summary Statistics on Experimental Subjects

Standard deviations in parentheses.

Variable	Mean	Median	Min	Max	N
Contributed to harambee in last 3 mos.	0.56	1	0	1	1982
	(0.50)				
Harambee contributions in last 3 mos. (if > 0)	428.84	200	3	15000	1110
	(869.33)				
Contributed to funeral in last 3 mos.	0.77	1	0	1	1973
	(0.42)				
Funeral contributions in last 3 mos. $(if > 0)$	280.63	120	1	7000	1499
	(537.61)				
Contributed to wedding in last 3 mos.	0.17	0	0	1	1975
	(0.38)				
Wedding contributions in last 3 mos. $(if > 0)$	350.70	200	10	5500	329
	(640.66)				
Contributed to school fees contributions in last 3 mos.	0.17	0	0	1	1969
	(0.38)				
School fees contributions in last 3 mos. $(if > 0)$	2528.67	400	10	90000	325
	(7957.89)				
Contributed to hospital fees in last 3 mos.	0.13	0	0	1	1973
	(0.33)				
Hospital fees contributions in last 3 mos. $(if > 0)$	710.36	300	10	33000	241
	(2307.01)				
Contributed to any of above in last 3 mos.	0.89	1	0	1	1984
	(0.31)				
Total contributions (to above) in last 3 mos. $(if > 0)$	1142.49	310	3	133000	1755
	(4472.89)				
HH member was asked for gift, loan in last 3 mos.	0.43	0	0	1	1969
	(0.50)				
HH member asked another HH for gift, loan in last 3 mos.	0.33	0	0	1	1981
	(0.47)				
HH received transfer (gift or loan) in last 3 mos.	0.44	0	0	1	1974
	(0.50)				
Total transfers received (if > 0) in last 3 mos.	2070.16	600	5	100000	868
	(5711.56)				
HH received transfer from co-villager in last 3 mos.	0.22	0	0	1	1973
	(0.41)				
Total transfers from villagers (if > 0) in last 3 mos.	1031.27	300	5	40060	427
	(3282.94)				
HH made transfer (gift or loan) in last 3 mos.	0.90	1	0	1	1980
	(0.30)				
Total transfers given (if > 0) in last 3 mos.	1228.90	375	5	63700	1756
	(3579.69)				
HH gave transfer from co-villager in last 3 mos.	0.78	1	0	1	1955
	(0.42)				
Total transfers to villagers (if > 0) in last 3 mos.	671.45	245	1	36500	1513
	(1766.48)				

Table 2: Summary Statistics on Experimental Subjects — Interhousehold Transfers

Standard deviations in parentheses.

Sample:	All	All	Men	Men	Women	Women
	(1)	(2)	(3)	(4)	(5)	(6)
Female	-0.367***	-0.377***				
	(0.133)	(0.133)				
Currently married	0.664^{***}	0.686^{***}	0.943^{***}	0.771^{*}	0.459^{***}	0.796^{**}
	(0.127)	(0.128)	(0.219)	(0.449)	(0.167)	(0.326)
Years of education	0.061^{***}	0.005	0.017	0.037	-0.022	-0.024
	(0.016)	(0.044)	(0.077)	(0.076)	(0.056)	(0.056)
(Years of education) ²	•	0.004	0.003	0.002	0.006	0.007
		(0.003)	(0.005)	(0.005)	(0.005)	(0.005)
First principal component of assets	0.09^{***}	0.087^{***}	0.065^{**}	0.066^{**}	0.128^{***}	0.132^{***}
	(0.022)	(0.022)	(0.031)	(0.032)	(0.032)	(0.032)
Has bank savings account	0.376^{***}	0.356^{***}	0.439^{***}	0.442^{***}	0.295	0.285
	(0.134)	(0.134)	(0.167)	(0.166)	(0.227)	(0.226)
Participates in ROSCA	0.122	0.129	0.17	0.382	0.112	0.57^{*}
	(0.117)	(0.117)	(0.181)	(0.48)	(0.16)	(0.305)
Married \times member of ROSCA				-0.275		-0.614^{*}
				(0.491)		(0.329)
Any HH member employed	-0.09	-0.1	-0.098	-0.081	-0.055	-0.055
	(0.112)	(0.113)	(0.171)	(0.17)	(0.153)	(0.153)
Parent lives in village	0.055	0.052	0.211	-0.522	-0.151	-0.154
	(0.126)	(0.126)	(0.164)	(0.408)	(0.214)	(0.35)
Married \times parent in village			•	0.886^{**}		0.115
				(0.421)		(0.433)
Parent-in-law in village	0.045	0.05	-0.202	-0.209	0.123	0.108
	(0.118)	(0.118)	(0.27)	(0.272)	(0.135)	(0.136)
Other relatives in village (outside HH)	0.008^{***}	0.008^{***}	0.009^{***}	0.027^{***}	0.006	0.006
	(0.003)	(0.003)	(0.003)	(0.008)	(0.005)	(0.006)
Married \times other relatives in village			•	-0.022^{**}		0.001
				(0.009)		(0.009)
No. of community groups	0.296^{***}	0.295^{***}	0.289^{***}	0.292^{***}	0.268^{***}	0.265^{***}
	(0.032)	(0.032)	(0.048)	(0.048)	(0.046)	(0.045)
Village FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1897	1897	760	760	1137	1137
R^2	0.229	0.23	0.295	0.306	0.191	0.194

Table 3: OLS Regressions of Log Amount Contributed to Harambees, etc.

Robust standard errors in parentheses. AGE, AGE², and HH SIZE included as controls in all specifications. *** indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and * indicates significance at the 90 percent level.

Dependent Variable:	Received	TRANSFER	Total i	FROM CO-	VILLAGERS	Total f	ROM OUTS	DE VILLAGE
Specification:	Probit	OLS	OLS	OLS	OLS	OLS	OLS	OLS
Sample:	All	All	All	Men	Women	All	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female	0.171**	0.063**	0.051	•	•	0.374^{**}	•	•
	(0.084)	(0.032)	(0.141)			(0.175)		
Currently married	-0.099	-0.037	-0.042	0.202	-0.136	-0.362**	-0.365	-0.214
	(0.078)	(0.03)	(0.13)	(0.254)	(0.168)	(0.166)	(0.316)	(0.218)
Years of education	0.039	0.014	0.024	0.024	-0.013	0.021	0.029	0.055
	(0.028)	(0.01)	(0.043)	(0.079)	(0.055)	(0.057)	(0.105)	(0.073)
(Years of education) ²	0.0001	0.0001	-0.002	-0.005	0.004	0.008^{*}	0.008	0.006
	(0.002)	(0.0008)	(0.003)	(0.005)	(0.005)	(0.005)	(0.008)	(0.006)
First principal component of assets	0.038^{***}	0.014^{***}	-0.004	0.053	-0.051	0.151^{***}	0.107^{**}	0.177^{***}
	(0.014)	(0.005)	(0.025)	(0.038)	(0.032)	(0.034)	(0.05)	(0.047)
Has bank savings account	0.06	0.022	0.175	0.129	0.24	0.23	0.525^{*}	0.031
	(0.085)	(0.033)	(0.163)	(0.232)	(0.237)	(0.202)	(0.28)	(0.297)
Participates in ROSCA	0.014	0.004	0.084	0.304	-0.059	-0.051	-0.002	-0.141
	(0.074)	(0.028)	(0.13)	(0.22)	(0.162)	(0.158)	(0.262)	(0.201)
Any HH member employed	0.034	0.013	0.267^{**}	0.035	0.35^{**}	-0.102	0.248	-0.274
	(0.071)	(0.027)	(0.123)	(0.199)	(0.158)	(0.154)	(0.263)	(0.191)
Parent lives in village	-0.14*	-0.054^{*}	-0.141	-0.069	-0.263	-0.415**	-0.253	-0.511*
-	(0.084)	(0.032)	(0.143)	(0.201)	(0.224)	(0.172)	(0.24)	(0.262)
Parent-in-law in village	0.017	0.006	-0.008	0.225	-0.063	0.125	0.083	0.147
-	(0.077)	(0.029)	(0.134)	(0.397)	(0.144)	(0.168)	(0.444)	(0.186)
Other relatives in village (outside HH)	0.005**	0.002^{**}	0.01^{**}	0.008	0.013^{**}	0.008	0.009	0.004
- 、 ,	(0.002)	(0.0008)	(0.004)	(0.006)	(0.006)	(0.005)	(0.006)	(0.007)
No. of community groups	0.06***	0.023***	0.077^{**}	0.048	0.082^{*}	0.146***	0.1	0.159^{***}
	(0.02)	(0.008)	(0.035)	(0.054)	(0.047)	(0.045)	(0.068)	(0.06)
Village FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1900	1900	2252	855	1397	2254	855	1399
R^2		0.06	0.051	0.086	0.056	0.082	0.138	0.081
Pseudo R^2	0.045							

Table 4: Regressions of Interhousehold Transfers Received

Robust standard errors in parentheses. AGE, AGE², and HH SIZE included as controls in all specifications. *** indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and * indicates significance at the 90 percent level.

Dependent Variable:	GAVE TH	RANSFER	Total	TO CO-VIL	LAGERS	TOTAL	TO OUTSIDI	E VILLAGE
Specification:	Probit	OLS	OLS	OLS	OLS	OLS	OLS	OLS
Sample:	All	All	All	Men	Women	All	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female	-0.316***	-0.05***	-0.264*			-0.394**		
	(0.122)	(0.019)	(0.146)			(0.171)		
Currently married	0.268^{**}	0.043^{**}	0.541^{***}	0.933^{***}	0.31^{*}	0.27^{*}	0.131	0.287
	(0.107)	(0.02)	(0.135)	(0.262)	(0.174)	(0.158)	(0.32)	(0.205)
Years of education	0.018	0.0008	0.039	-0.044	0.037	-0.048	-0.181	-0.028
	(0.039)	(0.006)	(0.049)	(0.104)	(0.06)	(0.057)	(0.12)	(0.071)
(Years of education) ²	-0.0004	0.00006	0.0007	0.004	0.003	0.006	0.013	0.005
	(0.003)	(0.0005)	(0.004)	(0.007)	(0.005)	(0.004)	(0.008)	(0.006)
First principal component of assets	0.047^{**}	0.006**	0.054^{**}	0.003	0.121***	0.137^{***}	0.169***	0.119^{**}
	(0.021)	(0.003)	(0.026)	(0.039)	(0.035)	(0.033)	(0.047)	(0.048)
Has bank savings account	0.018	-0.005	0.239	0.57^{***}	-0.059	0.39^{*}	0.252	0.525^{*}
	(0.141)	(0.016)	(0.159)	(0.217)	(0.243)	(0.2)	(0.286)	(0.287)
Participates in ROSCA	0.019	0.017	0.292**	0.428**	0.175	0.139	0.263	0.053
	(0.105)	(0.016)	(0.13)	(0.213)	(0.163)	(0.154)	(0.262)	(0.192)
Any HH member employed	0.119	0.014	0.199	0.27	0.185	0.179	0.073	0.243
	(0.103)	(0.015)	(0.123)	(0.198)	(0.159)	(0.148)	(0.251)	(0.185)
Parent lives in village	-0.121	-0.021	0.329^{**}	0.531***	-0.06	-0.591***	-0.265	-0.851***
-	(0.132)	(0.019)	(0.147)	(0.205)	(0.228)	(0.175)	(0.248)	(0.256)
Parent-in-law in village	-0.002	0.002	-0.117	-0.237	-0.078	-0.033	-0.124	-0.072
	(0.109)	(0.018)	(0.131)	(0.371)	(0.143)	(0.154)	(0.381)	(0.172)
Other relatives in village (outside HH)	0.003	0.0005	0.018***	0.017***	0.022***	-0.006	-0.009	-0.0005
	(0.005)	(0.0005)	(0.004)	(0.005)	(0.006)	(0.005)	(0.006)	(0.007)
No. of community groups	0.223***	0.029***	0.295***	0.216***	0.316***	0.245^{***}	0.219***	0.267***
	(0.035)	(0.004)	(0.035)	(0.057)	(0.046)	(0.042)	(0.067)	(0.055)
Constant	-0.893**	0.532^{***}	0.854	1.516^{*}	0.844	0.972	0.259	0.576
	(0.409)	(0.079)	(0.531)	(0.842)	(0.717)	(0.626)	(1.009)	(0.793)
Village FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1904	1904	2241	852	1389	2257	855	1402
R^2		0.099	0.167	0.167	0.167	0.108	0.131	0.114
Pseudo R^2	0.163		·		<u>.</u>	·		<u>.</u>

Table 5: Regressions of Interhousehold Transfers Given

Robust standard errors in parentheses. AGE, AGE², and HH SIZE included as controls in all specifications. *** indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and * indicates significance at the 90 percent level.

	HH ASK	ED FOR GIF	T OR LOAN FR	.ОМ	HH WAS	ASKED FOR	GIFT OR LOAD	N BY
	Relat	IVES	Non-rel	ATIVES	Relat	IVES	Non-rel	ATIVES
Dependent Variable:	In village	Outside	In village	Outside	IN VILLAGE	OUTSIDE	In village	OUTSIDE
Specification:	Probit	Probit	Probit	Probit	Probit	Probit	Probit	Probit
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female	-0.023	-0.01	-0.168	-0.238*	-0.002	-0.062	-0.098	-0.237^{*}
	(0.115)	(0.105)	(0.107)	(0.142)	(0.102)	(0.104)	(0.09)	(0.134)
Currently married	-0.005	-0.202**	-0.074	-0.106	0.222^{**}	0.018	0.032	-0.042
	(0.105)	(0.095)	(0.096)	(0.131)	(0.097)	(0.1)	(0.084)	(0.135)
Years of education	-0.014	0.095^{**}	0.013	0.04	0.015	0.007	0.035	-0.066
	(0.038)	(0.039)	(0.035)	(0.057)	(0.036)	(0.036)	(0.032)	(0.047)
(Years of education) ²	0.002	-0.004	0.00003	0.0004	0.0004	-0.0003	-0.0006	0.005
	(0.003)	(0.003)	(0.002)	(0.004)	(0.003)	(0.003)	(0.002)	(0.003)
First principal component of assets	-0.048**	0.009	-0.068***	-0.01	-0.017	0.027^{*}	0.002	0.049^{**}
	(0.02)	(0.017)	(0.02)	(0.023)	(0.016)	(0.015)	(0.015)	(0.02)
Has bank savings account	0.103	-0.026	-0.07	0.317^{**}	0.227^{**}	0.196^{**}	0.143	0.296^{**}
	(0.117)	(0.109)	(0.107)	(0.131)	(0.097)	(0.098)	(0.088)	(0.13)
Participates in ROSCA	-0.099	0.097	0.067	0.163	0.205^{**}	0.202^{**}	0.038	-0.104
	(0.101)	(0.093)	(0.093)	(0.144)	(0.088)	(0.093)	(0.08)	(0.128)
Any HH member employed	-0.078	-0.21**	0.232^{***}	0.127	-0.051	0.111	0.037	-0.077
	(0.095)	(0.096)	(0.084)	(0.119)	(0.085)	(0.085)	(0.075)	(0.118)
Parent lives in village	0.16	0.078	0.109	0.233^{*}	0.334^{***}	0.092	0.062	0.09
	(0.113)	(0.108)	(0.102)	(0.14)	(0.098)	(0.103)	(0.089)	(0.13)
Parent-in-law in village	0.218^{**}	0.174^{*}	0.086	-0.231	0.143	-0.02	0.092	-0.112
	(0.104)	(0.098)	(0.093)	(0.156)	(0.092)	(0.097)	(0.083)	(0.139)
Other relatives in village (outside HH)	0.007^{***}	0.001	0.003	-0.002	0.004^{*}	-0.007**	0.0009	-0.002
	(0.002)	(0.002)	(0.002)	(0.004)	(0.002)	(0.003)	(0.002)	(0.003)
No. of community groups	0.056^{**}	0.023	0.059^{**}	0.045	0.071^{***}	0.076^{***}	0.091^{***}	0.114^{***}
	(0.027)	(0.025)	(0.024)	(0.035)	(0.023)	(0.024)	(0.021)	(0.031)
Village FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1908	1908	1908	1835	1900	1899	1900	1899
Pseudo R^2	0.053	0.055	0.059	0.116	0.077	0.051	0.046	0.109

Table 6: Situations when HH asked others for gifts or loans

Robust standard errors in parentheses. AGE, AGE², and HH SIZE included as controls in all specifications.

* * * indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and *

indicates significance at the 90 percent level.

Budget Size: SMALL SMALL SMALL LARGE LARGE LARGE Panel 4: Experimental Subject Characteristics	E									
Panel A: Ernerimental Subject Characteristics	L									
Panel A: Experimental Subject Characteristics										
Proportion female 0.61 0.60 0.61 0.61 0.61										
$\begin{array}{cccccccccccccccccccccccccccccccccccc$)									
Vears of schooling 6.53 6.88 6.85 6.56 6.70 6.90)									
$\begin{array}{cccccccccccccccccccccccccccccccccccc$)									
$\begin{array}{cccccccccccccccccccccccccccccccccccc$)									
$\begin{array}{cccccccccccccccccccccccccccccccccccc$)									
(0.03) (0.03))									
Age 31.02 31.91 30.23 30.39 31.23 30.46 (0.76) (0.91) (0.90) (0.77) (0.79) (0.79))									
(0.70) (0.81) (0.80) (0.77) (0.78) ()									
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	`									
(0.02) ()									
HH SIZE 0.43 0.89 0.19 0.91 0.22 0.38 (0.12) (0.15) (0.15) (0.15) (0.15) (0.22)	`									
(0.18) (0.15) (0.19) (0.15) (0.15) (0.21) ()									
Other relatives in village 12.31 9.64 12.69 9.85 11.89 12.31 (0.00) (0.00))									
(0.88) (0.71) (0.88) (0.00) (0.96) (0.97))									
Panel B: Outcomes in Experiment										
Business investment 41.04 42.23 41.84 93.54 92.13 90.19)									
(0.83) (0.86) (0.82) (1.96) (1.96) (1.93))									
Fraction invested 0.51 0.53 0.52 0.52 0.51 0.50										
(0.01) (0.01) (0.01) (0.01) (0.01) (0.01))									
Investing 80 shillings or less $\dots \dots $										
(0.03) (0.03) (0.03))									
Mean exit price (Kenyan shillings))									
(0.94) (0.94))									
Mean exit price ($\%$ gross) </td <td>5</td>	5									
(1.82) (1.15))									
Proportion buying out 0.21 0.34										
(0.02) (0.03))									
Mean accepted exit price ($\%$ gross) 20.34 12.56	5									
(2.31) (1.33))									
Proportion heads 0.53 0.45 0.52 0.55 0.50 0.55										
$(0.03) \qquad (0.03) \qquad (0.03) \qquad (0.03) \qquad (0.03) \qquad (0.03)$)									
Average payout (Kenyan shillings) 149.01 132.84 139.03 345.88 318.66 335.5	5									
(6.09) (6.13) (6.08) (14.00) (13.95) (13.99)))									
Panel C: Business Investment, by Demographic Group	,									
Men 42.13 44.20 42.23 87.69 91.81 88.08	3									
(1.41) (1.28) (1.18) (3.43) (3.34) (3.20))									
Women 40.33 40.92 41.57 97.23 92.34 91.61	Ĺ									
(1.01) (1.15) (1.12) (2.31) (2.42) (2.41))									
Primary school only 41.48 42.35 42.82 91.73 93.63 91.76	ŝ									
(1.00) (1.13) (1.16) (2.57) (2.54) (2.54))									
Some secondary school 40.36 42.07 40.57 95.93 90.07 87.99	ý									
(1.42) (1.32) (1.11) (3.01) (3.10) (2.96))									

Table 7: Summary Statistics by Experimental Treatment

Standard errors in parentheses. Within each village, randomized assignment to treatment was stratified by gender and education level (an indicator for going beyond primary school).

	OLS	OLS	OLS	OLS	OLS	OLS
	(1)	(2)	(3)	(4)	(5)	(6)
Public treatment	-0.659	-0.861	1.005	0.79	•	•
	(1.286)	(1.284)	(1.018)	(1.037)		
Large endowment	50.281^{***}	50.193^{***}	52.504^{***}	52.398^{***}		
	(1.225)	(1.219)	(2.122)	(2.116)		
Large endowment \times public			-3.377	-3.346		
			(2.598)	(2.591)		
Female					-1.801	-1.655
					(1.732)	(1.761)
Male \times public					1.114	0.999
					(1.656)	(1.688)
Female \times public					0.899	0.609
					(1.289)	(1.310)
Male \times large endowment					45.560^{***}	45.383^{***}
					(3.698)	(3.678)
Female \times large endowment					56.901^{***}	56.820^{***}
					(2.524)	(2.526)
Male \times large endowment \times public					1.116	1.058
					(4.446)	(4.424)
Female \times large endowment \times public					-6.148^{*}	-6.041^{*}
					(3.150)	(3.143)
Village FEs	No	Yes	No	Yes	No	Yes
Observations	1999	1999	1999	1999	1999	1999
R^2	0.462	0.475	0.463	0.476	0.466	0.479

Table 8: OLS Regressions of Amount Invested by Experimental Treatment

Robust standard errors in parentheses. * * * indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and * indicates significance at the 90 percent level.

	OLS	OLS	OLS	OLS
	(1)	(2)	(3)	(4)
Public treatment	0.618	•	0.642	
	(1.063)		(1.054)	
Large endowment	52.177^{***}		52.199^{***}	
	(2.143)		(2.138)	
Large endowment \times public	-3.393		-3.426	
	(2.620)		(2.617)	
Female		-1.585		-1.353
		(1.814)		(1.778)
Male \times public		0.948		1.122
		(1.723)		(1.685)
Female \times public		0.382		0.322
		(1.344)		(1.345)
Male \times large endowment		45.079^{***}		45.402^{***}
		(3.657)		(3.607)
Female \times large endowment		56.690^{***}		56.549^{***}
		(2.588)		(2.605)
Male \times large endowment \times public		1.221		0.882
		(4.418)		(4.379)
Female \times large endowment \times public		-6.264^{*}		-6.132^{*}
		(3.207)		(3.221)
Male \times village transfers given	1.990^{**}	1.958^{**}	0.441	0.455
	(0.791)	(0.778)	(0.552)	(0.555)
Male \times public \times village transfers given	-2.226^{**}	-2.204^{**}	-0.734	-0.78
	(0.913)	(0.902)	(0.664)	(0.663)
Male \times large endowment \times village transfers given			3.323^{**}	3.224^{**}
			(1.606)	(1.592)
Male \times public \times large endowment \times village transfers given			-3.205^{*}	-3.062^{*}
			(1.842)	(1.828)
Female \times village transfers given	0.043	-0.02	-0.336	-0.316
	(0.503)	(0.506)	(0.431)	(0.433)
Female \times public \times village transfers given	-0.032	0.021	0.418	0.381
	(0.615)	(0.618)	(0.513)	(0.515)
Female \times large endowment \times village transfers given			0.771	0.601
			(0.995)	(0.998)
Female \times public \times large endowment \times village transfers given			-0.93	-0.742
			(1.246)	(1.248)
Village FEs	Yes	Yes	Yes	Yes
Observations	1962	1962	1962	1962
R^2	0.474	0.478	0.476	0.48

Table 9: OLS Regressions of Amount Invested by Experimental Treatment, Transfers Given

Robust standard errors in parentheses. *** indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and * indicates significance at the 90 percent level.

		010	010	010
	OLS	OLS	OLS	OLS
	(1)	(2)	(3)	(4)
Public treatment	0.634	•	0.678	•
T 1	(1.050)		(1.048)	
Large endowment	52.061***		52.097***	
	(2.145)		(2.147)	
Large endowment \times public	-3.131	•	-3.137	•
	(2.629)		(2.632)	
Female		-1.824		-1.688
		(1.780)		(1.775)
Male \times public		0.779		0.943
		(1.702)		(1.699)
Female \times public		0.498		0.459
		(1.329)		(1.327)
Male \times large endowment		44.540***		44.708***
		(3.691)		(3.709)
Female \times large endowment		56.831***		56.776***
0		(2.577)		(2.570)
Male \times large endowment \times public		1.817		1.676
I I I I I I I I I I I I I I I I I I I		(4.463)		(4.477)
Female \times large endowment \times public		-6.194*		-6.105*
	·	(3.199)		(3.198)
Male \times village transfers rcvd.	0.056	0.081	0.854^{*}	0.827^{*}
	(0.655)	(0.641)	(0.464)	(0.467)
Male × public × village transfers revd	-0 754	-0.761	-0.825	-0.783
Nale × public × village transferb fevel.	(0.785)	(0.774)	(0.632)	(0.636)
Male × large endowment × village transfers royd	(0.100)	(0.111)	-1 680	-1 569
wate × large endowment × vinage transfers fevu.			(1.363)	(1.357)
Male × public × large endowment × village transfers royd			(1.000)	0.184
$Male \wedge public \wedge harge endowment \wedge vinage transfers revu.$	·		(1.502)	(1.580)
Fomalo × villago transfors revd	0.034	0 022	(1.552)	(1.565)
remate × vinage transfers feve.	(0.502)	(0.400)	(0.400)	(0.421)
Female X public X village transformered	(0.302)	(0.499)	(0.422)	(0.421)
remaie × public × vinage transfers fevu.	(0.626)	(0.625)	(0.103)	(0.160)
Free la velanza en la munant ve atilla na tava afana ana l	(0.050)	(0.055)	(0.558)	(0.558)
Female \times large endowment \times village transfers revd.			-0.884	-0.85
			(1.022)	(1.009)
remaie \times public \times large endowment \times village transfers rcvd.	·	•	0.444	0.386
	37	37	(1.264)	(1.255)
Village FEs	Yes	Yes	Yes	Yes
Observations	1967	1967	1967	1967
R^2	0.474	0.478	0.475	0.479

Table 10: OLS Regressions of Amount Invested by Experimental Treatment, Transfers Received

Robust standard errors in parentheses. * * * indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and * indicates significance at the 90 percent level.

	OLS	OLS	OLS	OLS
	(1)	(2)	(3)	(4)
Public treatment	1.826	•	1.355	•
	(1.186)		(1.139)	
Large endowment	52.466^{***}		52.900^{***}	
	(2.137)		(2.348)	
Large endowment \times public	-3.685		-2.728	
	(2.613)		(2.877)	
Female		1.206		0.804
		(2.016)		(1.907)
Male \times public		4.588^{**}		3.820^{**}
		(1.947)		(1.831)
Female \times public		0.052		-0.255
		(1.491)		(1.454)
Male \times large endowment		45.384^{***}		45.226^{***}
		(3.662)		(4.052)
Female \times large endowment		57.030***		57.681^{***}
		(2.554)		(2.804)
Male \times large endowment \times public		0.803		2.407
		(4.429)		(4.953)
Female \times large endowment \times public		-6.510^{**}		-5.910^{*}
		(3.171)		(3.471)
Male \times asked for money by local relatives	6.098	9.839^{**}	9.026^{**}	9.459^{**}
	(4.060)	(4.357)	(3.564)	(3.781)
Male \times public \times asked for money by local relatives	-12.330^{**}	-16.678^{***}	-10.017^{**}	-12.453^{***}
	(4.915)	(5.283)	(4.173)	(4.433)
Male \times large endowment \times asked by local relatives			-6.878	0.874
			(8.788)	(9.386)
Male \times public \times large endowment \times asked by local relatives	•	•	-3.026	-8.237
			(10.306)	(11.085)
Female \times asked for money by local relatives	-0.954	-3.482	-1.270	-1.528
	(3.203)	(3.299)	(2.763)	(2.847)
Female \times public \times asked for money by local relatives	-1.257	1.891	2.338	3.899
	(3.946)	(4.080)	(3.518)	(3.644)
Female \times large endowment \times asked by local relatives		•	0.715	-4.127
			(6.753)	(6.941)
Female \times public \times large endowment \times asked by local relative			-8.082	-4.849
			(8.337)	(8.581)
Village FEs	Yes	Yes	Yes	Yes
Observations	1966	1966	1966	1966
R^2	0.475	0.481	0.477	0.482

Table 1	11:	OLS	Regressions	of	Amount	Invested	by	$\mathbf{E}\mathbf{x}$	perimental	Treatment,	Rec	uests	Rece	ived

Robust standard errors in parentheses. *** indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and * indicates significance at the 90 percent level.

		OIG		
	OLS	OLS	OLS	OLS (4)
Desklis two two art	(1)	(2)	(3)	(4)
Public treatment	(1.105)	•	(1, 007)	•
T 1 /	(1.135)		(1.097)	
Large endowment	52.092^{***}	·	51.907***	•
T 1 . 11	(2.147)		(2.188)	
Large endowment \times public	-3.304	•	-2.355	•
	(2.621)		(2.717)	
Female		-0.373		-0.796
		(1.929)		(1.868)
Male \times public	•	2.446	•	1.587
		(1.810)		(1.771)
Female \times public	•	-0.27	•	-0.513
		(1.457)		(1.394)
Male \times large endowment		45.168^{***}		44.422^{***}
		(3.682)		(3.857)
Female \times large endowment		56.463^{***}		56.573^{***}
		(2.586)		(2.579)
Male \times large endowment \times public		1.045	•	2.773
		(4.434)		(4.689)
Female \times large endowment \times public		-5.976^{*}		-5.489^{*}
		(3.198)		(3.265)
Male \times asked local relatives for money	3.434	5.505	2.825	2.325
	(4.949)	(5.222)	(4.583)	(4.748)
Male \times public \times asked local relatives for money	-7.857	-10.603^{*}	-2.096	-3.412
	(5.903)	(6.209)	(5.610)	(5.793)
Male \times large endowment \times asked local relatives	•	•	1.665	9.187
			(12.414)	(12.836)
Male \times public \times large endowment \times asked local relatives			-12.420	-17.546
			(13.946)	(14.476)
Female \times asked local relatives for money	-3.366	-5.051	-4.631	-4.334
	(6.124)	(6.191)	(3.437)	(3.523)
Female \times public \times asked local relatives for money	5.816	7.859	9.292**	10.162^{**}
	(6.785)	(6.879)	(4.468)	(4.570)
Female \times large endowment \times asked local relatives	•	•	3.058	-1.638
-			(14.259)	(14.346)
Female \times public \times large endowment \times asked local relatives			-7.216	-4.090
- ~			(15.350)	(15.473)
Village FEs	Yes	Yes	Yes	Yes
Observations	1977	1977	1977	1977
R^2	0.473	0.477	0.474	0.478

Table 12: OLS Regressions of Amount Invested by Experimental Treatment, Requests Made

Robust standard errors in parentheses. *** indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and * indicates significance at the 90 percent level.

Sample (Treatments included):	All	All	All	PUBLIC	All	Public
Sample (Gender):	All	All	Men	Men	Women	Women
	(1)	(2)	(3)	(4)	(5)	(6)
Female	-0.847	-0.748				
	(2.147)	(2.177)				
Male \times public	1.245	1.172	0.542			
	(1.700)	(1.730)	(1.807)			
Female \times public	0.777	0.462	•		0.614	
	(1.353)	(1.375)			(1.448)	
Male \times large endowment	44.786***	44.513***	44.417***	47.440***	•	
-	(3.652)	(3.636)	(3.613)	(2.528)		
Female \times large endowment	57.043***	56.898^{***}			56.694^{***}	50.209***
0	(2.639)	(2.644)			(2.659)	(2.030)
Male \times large endowment \times public	2.110	2.008	2.484			
0	(4.427)	(4.412)	(4.392)			
Female \times large endowment \times public	-6.762**	-6.387*			-6.492*	
, and a second sec	(3.312)	(3.316)			(3.328)	
Currently married	2.989^{*}	2.999^{*}	4.536	8.142^{*}	3.527^{*}	4.202^{*}
	(1.602)	(1.641)	(3.333)	(4.156)	(1.959)	(2.522)
Years of education	0.822	0.717	2.730**	2.467	-0.128	0.512
	(0.578)	(0.586)	(1.094)	(1.632)	(0.711)	(0.929)
$(Years of education)^2$	-0.087**	-0.077*	-0.221***	-0.206*	0.006	-0.044
(Total) of ordered (I)	(0.044)	(0.044)	(0.074)	(0.109)	(0.057)	(0.07)
First principal component of assets	0.332	0.374	0.851**	0.318	-0.181	-0.326
	(0.284)	(0.291)	(0.401)	(0.502)	(0.412)	(0.505)
Has bank savings account	2.805	2 331	4778^*	2.905	1.039	0.259
	(1.787)	(1.804)	(2.446)	(3.056)	(2.670)	(3.277)
Participates in BOSCA	3 660**	3 591**	6 134**	6.212^{**}	1.037	-0.321
	(1.525)	(1.522)	(2.462)	(3.004)	(1.947)	(2.493)
Any HH member employed	0.658	(1.022) 0.794	(2.102) 4 645*	3 489	-1 474	-1 019
They fill member employed	(1.491)	(1.512)	(2.445)	(2.818)	(1.895)	(2,386)
Parent lives in village	2370	2520	5 269**	5 652**	-0.962	-1 768
r arent nyes in vinage	(1.715)	(1.732)	(2,365)	(2.864)	(2.571)	(3.205)
Parent_in_law in village	(1.715)	(1.752)	(2.305)	(2.004)	0.06	-0.49
i arent-m-iaw in vinage	(1.664)	(1.665)	(4.228)	(5.043)	(1.846)	(2, 306)
Other relatives in village (outside HH)	0.01	0.011	0.052	0.067	0.033	(2.500)
other relatives in vinage (outside IIII)	(0.01)	(0.011)	(0.052)	(0.007)	-0.033	(0.111)
No. of community groups	-0.678*	-0.553	_1 981**	(0.07) _1 760**	(0.000)	0.024
Two. or community groups	(0.402)	-0.555 (0.400)	(0.620)	(0.780)	(0.554)	(0.624)
Villago FFg	(0.402) No	(0.409) Voc	(0.029) Vog	(0.769) Vos	(0.334) Voc	(0.000) Vos
Village FES Observations	1002	1002	769	168	1 es 1141	1es 740
Diservations D2	1909	1903	102	0.476	0 59	149 0 509
π-	0.400	0.478	0.457	0.470	0.52	0.502

Table 13: OLS Regressions of Amount Invested by Experimental Treatment and Gender

Robust standard errors in parentheses. AGE, AGE², and HH SIZE included as controls in all specifications. *** indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and * indicates significance at the 90 percent level.

	(1)	(2)	(3)	(4)	(5)	(6)
Public treatment	0.133	0.151^{*}				
	(0.085)	(0.085)				
Female	•	•	-0.367^{***}	-0.395^{***}	-0.42^{**}	-0.424^{**}
			(0.142)	(0.143)	(0.168)	(0.171)
Male \times public			-0.044	-0.025	-0.053	-0.028
			(0.135)	(0.136)	(0.14)	(0.141)
Female \times public			0.249^{**}	0.266^{**}	0.298^{***}	0.3^{***}
			(0.11)	(0.111)	(0.115)	(0.116)
Years of education			•	•	-0.033	-0.043
					(0.04)	(0.041)
(Years of education) ²					0.003	0.004
					(0.003)	(0.003)
First principal component of assets					-0.002	-0.001
					(0.019)	(0.02)
Has bank savings account					-0.095	-0.044
					(0.124)	(0.129)
Participates in ROSCA	•	•			0.093	0.09
					(0.105)	(0.108)
Any HH member employed	•	•			0.063	0.074
					(0.099)	(0.102)
Parent lives in village					-0.059	-0.075
					(0.114)	(0.118)
Parent-in-law in village	•	•			-0.019	-0.071
					(0.107)	(0.11)
Other relatives in village (outside HH)					-0.003	-0.003
					(0.003)	(0.003)
No. of community groups	•	•			0.017	0.018
					(0.028)	(0.029)
Village FEs	No	Yes	No	Yes	No	Yes
Observations	986	986	986	986	931	931
Pseudo R^2	0.002	0.034	0.007	0.04	0.018	0.049

Table 14: Probit Regressions of Indicator for Investing 80 Shillings or Less

Robust standard errors in parentheses. AGE, AGE^2 , YEARS OF EDUCATION, (YEARS OF EDUCATION)² and HH SIZE included as controls in all specifications. *** indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and * indicates significance at the 90 percent level. Sample restricted to subjects receiving larger endowment.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Public treatment	•	•	•	•	•	•	•	•
	0.05**	0.000	0.44 -	0.40**				0.100**
Female	-0.35**	-0.389***	-0.415**	-0.43**	-0.372***	-0.405***	-0.427**	-0.429**
	(0.144)	(0.146)	(0.172)	(0.175)	(0.143)	(0.145)	(0.169)	(0.172)
Male \times public	-0.032	-0.022	-0.036	-0.017	-0.045	-0.03	-0.052	-0.028
	(0.137)	(0.138)	(0.141)	(0.143)	(0.136)	(0.137)	(0.14)	(0.142)
Female \times public	0.259^{**}	0.278^{**}	0.315^{***}	0.322^{***}	0.262^{**}	0.281^{**}	0.309^{***}	0.313^{***}
	(0.111)	(0.112)	(0.117)	(0.118)	(0.111)	(0.112)	(0.116)	(0.117)
Male \times village transfers given	-0.08^{*}	-0.057	-0.08^{*}	-0.057				•
	(0.045)	(0.045)	(0.046)	(0.048)				
Male \times public \times village transfers given	0.069	0.051	0.069	0.051				
	(0.054)	(0.055)	(0.056)	(0.057)				
Female \times village transfers given	-0.018	-0.013	-0.013	-0.007				
	(0.037)	(0.038)	(0.04)	(0.041)				
Female \times public \times village transfers given	0.031	0.025	0.013	0.007				
	(0.045)	(0.046)	(0.047)	(0.048)				
Male \times village transfers rcvd.	•	•	•	•	0.036	0.036	0.035	0.035
-					(0.045)	(0.045)	(0.046)	(0.046)
Male \times public \times village transfers rcvd.					-0.011	-0.003	-0.014	-0.005
					(0.054)	(0.054)	(0.055)	(0.056)
Female \times village transfers rcvd.					0.045	0.044	0.04	0.04
0					(0.038)	(0.039)	(0.04)	(0.041)
Female \times public \times village transfers revd.					-0.065	-0.073	-0.068	-0.075
		-		-	(0.046)	(0.047)	(0.048)	(0.049)
Village FEs	No	Yes	No	Yes	No	Yes	No	Yes
Observations	969	969	923	923	971	971	927	927
Pseudo R^2	0.01	0.041	0.022	0.051	0.01	0.043	0.021	0.052

Table 15: Probit Regressions of Indicator for Investing Less than 80 Shillings, by Transfers Given and Received

Robust standard errors in parentheses. AGE, AGE^2 , YEARS OF EDUCATION, (YEARS OF EDUCATION)² and HH SIZE included as controls in all specifications. *** indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and * indicates significance at the 90 percent level. Sample restricted to subjects receiving larger endowment.

	(1)	(2)	(2)	(4)	(5)	(6)	(7)	(9)
	(1)	(2)	(3)	(4)	(3)	(0)	(7)	(8)
Public treatment	•	•	•	·	•	•	•	•
	0 400***	0 100***	0 5 40***	0 50 4***	0 001***	0 410***	0 490**	0 4 4 0 * *
Female	-0.489***	-0.496	-0.548	-0.534	-0.381	-0.412	-0.439***	-0.442***
	(0.156)	(0.158)	(0.182)	(0.186)	(0.147)	(0.149)	(0.173)	(0.176)
Male \times public	-0.176	-0.147	-0.18	-0.139	-0.06	-0.039	-0.069	-0.036
	(0.151)	(0.153)	(0.156)	(0.159)	(0.142)	(0.143)	(0.146)	(0.148)
Female \times public	0.288^{**}	0.296^{**}	0.339^{***}	0.34^{***}	0.274^{**}	0.29^{**}	0.33^{***}	0.329^{***}
	(0.12)	(0.122)	(0.125)	(0.127)	(0.115)	(0.116)	(0.12)	(0.122)
Male \times asked for money by local relatives	-0.536*	-0.429	-0.538*	-0.428	•	•	•	•
	(0.308)	(0.309)	(0.314)	(0.317)				
Male \times public \times asked for money by local relatives	0.746^{**}	0.664^{*}	0.728**	0.638^{*}				
r the second	(0.364)	(0.365)	(0.371)	(0.374)				
Female \times asked for money by local relatives	0.215	0.185	0.215	0.202				
	(0.25)	(0.251)	(0.255)	(0.258)				
Female \times public \times asked for money by local relatives	-0.172	-0.145	-0.204	-0.21				
	(0.316)	(0.322)	(0.325)	(0.331)				
Male \times asked local relatives for money	•	•	•	•	-0.021	-0.001	-0.093	-0.062
· ·					(0.458)	(0.461)	(0.452)	(0.444)
Male \times public \times asked local relatives for money					0.103	0.034	0.186	0.108
1 V					(0.52)	(0.523)	(0.514)	(0.508)
Female \times asked local relatives for money					0.36	0.35	0.282	0.3
	-			·	(0.374)	(0.376)	(0.387)	(0.392)
Female × public × asked local relatives for money					-0.42	-0.424	-0.406	-0.401
remaie × public × asked local relatives for money	•	•	•		(0.425)	(0.424)	(0.44)	(0.447)
	No	Var	$\mathbf{N}_{\mathbf{c}}$	Vez	(0.423)	(0.429)	(0.44) No	(0.447)
v mage r Es	110	res	110	res	110	res	INO 021	res
Ubservations	970	970	928	928	977	977	931	931
Pseudo R ²	0.011	0.043	0.022	0.052	0.008	0.04	0.019	0.049

Table 16: Probit Regressions of Indicator for Investing Less than 80 Shillings, by Requests Made and Received

Robust standard errors in parentheses. AGE, AGE^2 , YEARS OF EDUCATION, (YEARS OF EDUCATION)² and HH SIZE included as controls in all specifications. *** indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and * indicates significance at the 90 percent level. Sample restricted to subjects receiving larger endowment.

Price of Exit:	10	20	30	40	50	60
Proportion female	0.61	0.60	0.48	0.61	0.62	0.65
	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.05)
Years of schooling	7.29	6.81	6.67	6.50	7.07	6.92
	(0.29)	(0.30)	(0.31)	(0.35)	(0.31)	(0.34)
Any secondary school	0.48	0.42	0.39	0.40	0.41	0.45
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Age	36.00	35.99	37.38	37.75	37.74	32.72
	(1.30)	(1.32)	(1.40)	(1.45)	(1.37)	(1.26)
Currently married	0.72	0.72	0.72	0.79	0.78	0.72
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)
HH size	6.44	6.15	6.16	6.00	6.49	6.48
	(0.31)	(0.39)	(0.27)	(0.26)	(0.28)	(0.55)
Other relatives in village	10.48	12.27	15.05	11.47	11.00	15.53
	(1.31)	(1.51)	(1.94)	(1.33)	(1.48)	(2.03)
Proportion buying out	0.45	0.32	0.27	0.32	0.18	0.11
	(0.05)	(0.04)	(0.04)	(0.05)	(0.04)	(0.03)

Table 17: Summary Statistics by Price of Exit

Standard errors in parentheses.

Samula	 Fr	NTIDE CAME			ULOSE ADLE	HEADS ONLY		
Sumple.	(1)	ATIKE SAMP		$(A) \qquad (F) \qquad (C)$			()	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Price of buying out of announcing	-0.019^{***}	-0.027***	-0.029***	-0.016***	-0.021^{***}	-0.027^{***}	-0.015^{***}	-0.019^{***}
	(0.003)	(0.005)	(0.005)	(0.003)	(0.006)	(0.006)	(0.004)	(0.006)
Large endowment	0.425^{***}	-0.017	0.216	0.341^{***}	0.101	0.357	0.436^{***}	0.209
	(0.109)	(0.237)	(0.329)	(0.114)	(0.244)	(0.34)	(0.142)	(0.317)
Larger endowment \times exit price	•	0.014^{**}	0.007	•	0.008	0.001	•	0.007
-		(0.007)	(0.009)		(0.007)	(0.01)		(0.008)
Heads		•	0.733***		•	0.746^{***}		•
			(0.168)			(0.184)		
Larger endowment \times heads			-0.331			-0.416		
			(0.38)			(0.394)		
Larger endowment \times heads \times exit price			0.009			0.014		
Ŭ ·			(0.009)			(0.01)		
Constant	-0.199	0.045	-0.324	-0.204	-0.065	-0.392*	-0.034	0.085
	(0.132)	(0.172)	(0.208)	(0.133)	(0.181)	(0.213)	(0.173)	(0.223)
Observations	643	643	642	〕 577 ´	577	576	342	342
Pseudo R^2	0.062	0.067	0.121	0.042	0.044	0.102	0.047	0.048

Table 18: Probit Regressions of Paying to Avoid Announcing

Robust standard errors in parentheses. *** indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and * indicates significance at the 90 percent level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Male × exit price	(-)	(-)	(3)	(-)	-0.017***	-0.017***	-0.016***	-0.017***
Maie X exit price	·	•	•	•	(0,006)	(0,006)	(0.010)	(0,006)
Mala x hoads	0.405***	0 471**	0.386*	0.338	0.505***	0.576***	0.504**	0.461**
Male × lieads	(0.495)	(0.471)	(0.300)	(0.330)	(0.100)	(0.100)	(0.004)	(0.201)
	(0.187)	(0.19)	(0.214)	(0.219)	(0.192)	(0.199)	(0.22)	(0.23)
Male \times asked for money by local relatives	•	•	-0.987**	-1.063^{**}	•	•	-0.929^{*}	-1.020^{**}
			(0.482)	(0.494)			(0.494)	(0.511)
Male \times heads \times was asked for loan			0.97^{*}	0.998^{*}			0.865	0.922
			(0.557)	(0.569)			(0.57)	(0.586)
Female	0.057	0.041	-0.079	-0.107	0.163	0.166	0.061	0.044
	(0.194)	(0.2)	(0.218)	(0.224)	(0.284)	(0.285)	(0.301)	(0.302)
Female \times exit price					-0.021***	-0.022***	-0.021^{***}	-0.022***
-					(0.004)	(0.005)	(0.004)	(0.005)
Female \times heads	0.596^{***}	0.584^{***}	0.642^{***}	0.599^{***}	0.778***	0.774^{***}	0.818***	0.784***
	(0.151)	(0.155)	(0.163)	(0.168)	(0.156)	(0.162)	(0.168)	(0.175)
Female \times asked for money by local relatives			0.156	0.015			0.165	0.035
			(0.36)	(0.372)			(0.352)	(0.358)
Female \times heads \times was asked for loan			-0.261	-0.025			-0.261	-0.036
			(0.44)	(0.455)			(0.442)	(0.45)
Observations	576	576	566	566	576	576	566	566
Pseudo R^2	0.035	0.074	0.048	0.086	0.081	0.12	0.092	0.131

Table 19: Probit Regressions of Paying to Avoid Announcing, by Gender

Robust standard errors in parentheses. *** indicates significance at the 99 percent level; ** indicates significance at the 95 percent level; and * indicates significance at the 90 percent level.