Expecting, Expressing and Exploiting Trust:

water allocation, efficiency and equity in NE Brazil [1]

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Abstract

We explore efficiency and equity in the allocation of a fixed resource. To fit the realities of local water allocation in NE Brazil, we employ Ultimatum bargaining games (UG) modified by adding a surplus-sharing last step. The final sharing step is relevant when expectations of compensation for surrendering resources to others, or trust, is critical. Our generically framed experiments had 358 participants in Ceará State from the endpoints of a large canal that soon will run to Fortaleza, the capital city, from the largest agricultural valley, the Jaguaribe. Our novel design has 3 steps: [1] proposers suggest a division of the resource; [2] responders accept or reject; rejecting yields a low payment for all; thus accepting creates surplus and, per local reality, proposers earn more per resource unit; then [3] if a division is accepted, proposers choose whether to share their incomes. We consider No Communication as a benchmark – in addition to comparing to prior UG games – and then communication in which a proposer sends a non-binding written Message about sharing when initially requesting resources. Proposers ask for, and responders accept, resource divisions that initially earn responders less than with rejection. Thus trust is both expected and expressed and such beliefs are productive (bigger pie). Then in the final step, some surplus sharing occurs. This justifies some trust as it brings responders' average earnings above earnings from rejection. Also, if more trust has been shown, to some degree reciprocally more is shared. Yet often trust is barely repaid to the level of the default plus the Message has little impact and often it is not true. In sum, while average trust is well beyond neoclassical predictions, it remains a limited solution.

Keywords

bargaining, trust, field experiment, water, allocation, Brazil, Ceará

JEL Codes

C78, C93, Q2, Q25

1. Introduction

This paper uses field experiments in Ceará in Northeast Brazil to explore behaviors in bargaining institutions for allocating productive resources. We aim to explore the expectations and presence of trust, as well as the drivers and impacts of trust. By "trust" we mean to decide upon a resource allocation without full knowledge of its outcomes and, further, knowing that others could exploit you by not sharing surplus. This is what upstream water users in Ceará are asked to do when they cede additional transfers to the capital for aggregate benefit, with promises of gains for everyone.

The results of our artefactual field experiments (see typology of Harrison and List 2004), in sum, are that such gambling on others' good intentions is expected and will occur and to some extent triggers reciprocal surplus sharing. This all can be seen as a clear deviation from the predictions based upon, at least, narrower neoclassical thinking. Yet while this trust is productive, what we observe remains a limited solution to the underlying problem of limited contracts (Arrow 1972).

Our experiment is based on the Jaguaribe-Metropolitan hydrosystem. The Jaguaribe River is the source of water for over forty-five municipalities including all of the most important economic centers of the Jaguaribe Valley, the largest and most agriculturally productive valley in Ceará. The valley occupies about half the area of the state and is home to just over half of the interior population. Its occupants range from rainfed agriculturalists to large agribusiness enterprises. Reservoirs located in the valley are central to rural life but also supply the capital, Fortaleza, home to a third of the population. We note urban industry and services are now responsible for 85% of state GDP.[2] Without question, monetary productivity of water is highest in Fortaleza.

Within this hydrosystem we are interested in the Castanhao reservoir. It is soon to be connected to the capital city by a large new Integration Canal, suggesting new water allocations to the city. No process to allocate water to the city via the canal has been officially stated but the history of participatory water allocation in Ceará suggests there may be a bargaining institution. The state (which often in part plays a 'city' role[3]) and the valley currently interact in participatory water allocation committees that decide, by consensus or by vote, the rate of release of water from the reservoirs (including Castanhao) for the purposes of use within the valley, mostly for irrigation.

Post-release from the reservoir, agricultural water use is loosely tracked. There is some payment for water, though not significant, by some rural users. There is no promise by the state to deliver any given level of water. In practice, as the amounts available from the reservoir move up and down, irrigators in the valley are rationed -- roughly in equal shares. Formal rights do not exist though payments to rural rice farmers to not farm, in the dry season of 2000 when water supply was very low (i.e. "Aguas Do Vale"), introduced the idea of receiving money instead of water.

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[2] GDP has grown in the last 15 years but agricultural productivity mostly has been low. The fraction of GDP from agriculture has dropped from 30% in the 1950s to 7% today. Population dependent on agriculture is still above 30%.

[3] While the state does not directly run all of the industry and tourism, links are strong between large producers and state planners. Further, the state benefits from employment and taxes the producers generate. Thus, we believe that the state, which also decides on investments in rural schools, roads and more, effectively 'plays versus' the valley. While the state very likely places positive weight on rural welfare, the valley must be uncertain about the extent to which that will outweigh pressures on the state to keep in the main metropolitan areas all growth-based investment.

Payments to rice farmers under Aguas Do Vale were quite low, though, even relative to the rice farmers' lower earnings. Thus, little of any of the surplus from shifting water to fruit production was shared (and some fruit farmers never paid), despite Integration Canal propaganda promoting gains for everyone. Still, investments in rural development could rise if the state's output does.

In light of all these realities, to match the setting of water in Ceará (and other natural-resources settings) we present a new variation upon the Ultimatum Game (UG). We start with asymmetric productivity, which reflects reality as noted above. It also explains why initial transfers of water to the city create additional output or surplus. We add a final step for potential sharing of that surplus. That is similar to the 'trust' or 'investment' game (Berg et al. 1995 and Guth et al. 1997) which simply multiplies the value, without specific explanation of surplus generation, of all the resources trusted to the actor who next chooses whether to shares the gains resulting from trust.

This allows a focus on trust, i.e. on actors' expectations about whether sharing water to grow the pie is rewarded with reciprocal sharing of surplus. What would ceding water bring to the valley? In Ceará and other settings, formal contracts for some natural resources are limited. Thus, critical expectations will vary concerning the compensation for agreeing to another's use of the resource.

The UG is a good building block, as players must agree for any surplus to be generated. No actor can dictate allocations of the productive resource, which fits the participatory history for Ceará. Total resources are fixed in a UG. The proposer or agenda setter suggests a split of the resource. The responding actor accepts or rejects. Accepting implements that split while rejection yields little for either. The loss of the surplus when a proposal is rejected reflects the costs of fighting, for instance in court or via protests about an allocation (which do occur in Ceará, as elsewhere). In Ceará, knowledge that the valley has protested proposals deemed unfair could limit requests.

Our focus on equity would be hard to study with a traditional UG with asymmetric productivity. There, as resources move to a high-productivity proposer the total pie grows but also that actor's share grows. Our new design decouples the division of the pie from the pie's aggregate growth. Connecting this directly with the realities in Ceará, for any given amount of water transferred to the city in the Integration Canal, i.e. for any given aggregate pie, the amount invested back in the Jaguaribe Valley (in schools or roads and almost surely not through water payments) could vary.

Our design has three steps: [1] proposers are two (or four) times more productive and they set the agenda by requesting an amount of the resource (that is represented by a bag of 10 tokens); [2] responders accept the split or reject it, the latter giving both a small default payment of R$5; [3] if responders accept, then proposers must decide whether to send back some of their earnings. The third (surplus sharing) step allows the division of the pie to vary independent of the total pie. Note that to maximize efficiency in [1] and [2], proposers should be allocated all of the resource. Then any desired division of the largest possible pie can be achieved in the final sharing step [3].

We explore two institutional designs. In "No Communication", the responders must decide in [2] based solely upon the initially requested split of the resources. In "Message", a proposer sends a non-binding written message, within [1], about how much will be shared if step [3] comes about.

In each, responders choose whether to let more resources flow to the more productive proposers, knowing that revenue will rise but not who gets it. Proposers, then, essentially invite responders to trust by asking for most or all of the resources. In Ceará, almost without a doubt the proposals for water allocations originate in the capital city. Such trust is productive, as the largest total pie is created by initially sending all the resource to the proposers. In Ceará, for example, the total output rises as water is shifted from flooded rice in the valley to urban tourism and/or industry.

We observe not only whether the responding actor (i.e. 'the valley') trusts but also whether the proposing actor (i.e. 'the city') expects trust to be present. Our results show evidence of trust by responders and expectations of trust by proposers. To infer whether this matters much, a useful basis of comparison is our prior work in NE Brazil on a classic UG with a zero default payment (one strength of this novel design is that it permits study of trust that allows comparison to UG).[4]

In prior work with equal resource productivities, proposers request 60% and this is accepted 94% of the time, consistent with UG literature (Camerer 2003 and Oosterbeek et al. 2004). However, if proposers are more productive they ask for less -- about half -- with 85% acceptance. This is somewhat lower acceptance, despite lower requests. In the literature, it has been suggested that asymmetric resource productivities imply more unequal earnings and can create conflict about what is fair, increasing rejection (Schmitt 2004, Kagel et al. 1996, Gneezy and Guth 2003).

In our new game with surplus sharing, under No Communication proposers ask for and get 66% of the resources in the initial allocation. This is not only clearly above our UG with asymmetric productivity and no sharing but also *above* - not below - our UG with symmetric productivities. Thus proposers to some extent expect that responders will trust enough to raise the pie by ceding more resources initially, presumably hoping that in the final step the proposers share the surplus.

Proposers' expectations of responders' trust are supported by responder acceptance of about 2/3 of requests for over half of the resources under No Communication. In accepting these requests responders are expressing trust, as any request for more than half of the resources requires that proposers share surplus in the final step for responders to earn more than the R$5 default earned by rejecting the unequal initial split. Thus sufficient trust exists for the responders to gamble on proposers' sharing intentions. This expectation of trust (in requesting) and expression of trust (in acceptancing) is productive. The total pie is higher than if the proposers try to avoid rejection by asking for a smaller share of the resources (to be safe, they might ask for less than half of them).

In our Message institution, proposers raise requests up to 70%. Clearly, then, again proposers expect trust by responders. Further, here acceptance is even higher (88% for 2:1, 73% for 4:1). Thus again responders expressed trust by accepting requests above half and this raised the pie.

Given both expectations and expressions of trust, it is interesting to try to explain variation at the individual levels. Proposers who are more risk averse (in our measures) ask for fewer resources, i.e. are less likely to risk rejection. Responder risk aversion, though, does not explain acceptance. On the other hand, responders seem to vary in their expectations that any surplus will be shared (we ask them) and the variation in their beliefs is significantly positively related to acceptance.

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[4] Those UGs are not an exact benchmark for here, as in our modified UG the default payment with rejection is R$5. Based upon this rise in the payment given rejection, all else equal one would expect higher rejection rates in ours.

Across the two institutions, the average final-step sharing is enough to bring responder earnings above the default. Thus, within our one-shot game[5], some reciprocity exists (unlike neoclassical predictions). Yet beyond being expected and expressed does trusting pay handsomely or poorly?

In our design, what the trusting actor gives up is the certain default of R$5. We find that in many cases, in particular if the proposers' resource requests were low, trust earns little more than R$5. Thus, as in the literature, it seems not infrequently the truster takes a risk but earns little surplus.

More positively, while the results are somewhat mixed across the treatments and productivities: when a proposer expected significant trust such as by requesting 80% of more of the resources, and the responder accepted thereby expressing significant trust, more of the surplus was shared. Thus not only was sharing non-zero, seemingly motivated by avoiding a loss for the responder, but also some form of reciprocal compulsion sometimes increased sharing when trust was high.

On the other hand, in a number of ways this non-binding solution to limited contracts is limited. As noted, a common outcome was to barely repay trust, so that a responder barely gets to R$5, and in both of our institutions one responder cedes all resources to a proposer who shares zero. Thus trust helps when contracts are not present but the truster is subject to the whims of others. Thus this evidence is adding to the literature relevant field evidence from a somewhat canonical water case, as well as trust evidence from a new experimental design comparable to UG games, and our design includes an observation of the expectation of trust by those initiating proposals.

Further, our Message design permits a direct observation that not all proposers are trustworthy: trust is not justified in that often actual sharing is lower than promised in the sharing message. The lies we observe and the small gains from Message suggest limitations of implicit contracts. That is consistent with Casari and Cason 2007 but in contrast to some findings on coordination through communication (Ben-Ner and Putterman 2009 offer a review and see Section 2 for more discussion of literature). This suggests more study of gains from contracts and communications.

Below, Section 2 provides background on Ceará and related literature. Section 3 describes our experimental design while Section 4 provides the details of our results and Section 5 concludes.

2. Background: Ceara's water sector & related trust literature

2.1 Ceara's Water Sector

In 1992, Ceará's state law 11.996 created a state system for management of water resources that called for water planning and management to be integrated, decentralized, and participative. The management was to include licensing of and charging for water, plus permits for infrastructure development, but these have been only minimally enforced. A formal partial decentralization of water management was effected as COGERH (the State Council for Water Resources) was given the ability to arbitrate water conflicts, although oversight remained with the state's judiciary.

[5] Our reports of trust obtained in a one shot game could be considered as the minimal trust. We expect trust to increase with a repeated game since punishment, reputation and learning could well help to develop more trust.

Local allocation of water now involves multi-stakeholder participatory water committees, one for each sub-basin of the Jaguaribe River and each of the other river basins. These were up and running by the late 1990s. They choose the seasonal rates of water release from the main reservoirs in the (sub-) basins, selecting from a small set of scenarios prepared by COGERH.

Within Brazil, the push towards local participation in water governance has been hailed in terms of democracy (Garjulli 2001a, b; Garjulli et al. 2002; Johnsson et al. 2005). Yet the form of "participation" that is most effective has not been demonstrated. Cases where participatory-process effects are shown are relatively few and careful empirical examination of participation or decentralization remains relatively rare (Kemper, Dinar and Blomquist 2005, Bardhan 2002,).

In 2000, a national water agency (ANA - Agência National de Águas) was created to modernize water management with a focus on transboundary watersheds. Despite all of the recent efforts to modernize the local institutional landscape, however, the turnover within the political cycles in Brazil poses challenges for water management. The heads of even the most technical agencies are often replaced after state elections, with an eye to party lines. After the 2002 elections, for instance, political changes with implications for the organization of the state water system occurred at both the national and the state level. The responsibility for organizing the water committees was firmly centralized, within the state, at the secretariat for water resources.

We note that, to date within the Valley, organization of water stakeholders has been in large part dominated by their locations. For instance, the communities located upstream of the reservoir tend to disagree with those downstream. Organization concerning these water issues has also occurred, though, along occupational lines, e.g. by unions, cooperatives and associations.

The water allocation commission of the Jaguaribe River has 153 members from four sub-basins. Of the 30% are from civil society, 40% are from rural workers unions. Roughly 30% are local water users, e.g. providing water for drinking or producing with irrigation. About 40% are from local government agencies or state or federal institutions. Two stories are commonly offered to explain the limited representation of actual water users in these committees, which one might have imagined would be made up only of actual water users. First, civil society indirectly uses water and it produces water pollution. Second, as suggested by the government and agency roles, COGERH and others in government want to maintain control. Bargaining is clearly occurring.

2.2 Related Trust Literature

As discussed in the introduction, our results can be compared directly with the "classical UG game", since we have modified the UG, per the realities of various resource allocation problems, in order to study trust. Thus we can see what effect the potential for investment or trust has upon UG bargaining.

On the other hand, the closest related literature to our experiments is the classic trust or investment game (Berg et al. 1995, Guth et al. 1997).[6] There an actor gives up a sure gain like

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[6] The nature of our game and our large field sample offer a contribution to the natural resources and the development literatures (Cardenas and Carpenter 2005, Levitt and List 2007) and empirical results relevant for institutions design.

our R$5 for a chance to gain more yet also a risk of gaining less.[7] The decision about whether to trust is the first action, i.e. a first mover must trust the second, more productive mover. This first choice is very similar to the choice our second movers make. Our responders could refuse the initial proposal and thereby obtain the certain default payment or instead trust the proposers to share surplus later and, by accepting, permit the game to move ahead with larger pie but with uncertain future sharing.

Yet that classic game does not capture an important element of our and surely other settings. Our setting and game depend on the first actor expecting that the second will trust. If our proposers, who we can think of as initiating the interactions, do not believe the responder will trust enough to accept an unequal split, they should limit the chance of being rejected by not requesting a lot. This would inefficiently lower the pie. Thus, unlike in the classic trust game, the size of the trust and thus the efficiency of the outcome given acceptance is decided upon within the proposal, i.e. not by the responder who chooses to trust. In the classic game, both are chosen by the first actor.

Our numerical results are not directly comparable to results in the "classical trust game" (Berg et al. 1995) yet it is worth discussing those general results here. In the original design, first movers send between 50%-65% of their initial endowment (seen as an evidence of trust). Second movers reciprocate by sending between 30%-40% of their earnings depending on the conditions (Berg et al 1995, Burks et al 2003; Holm and Danielson, 2005; Walker and Ostrom 2002). With a typical ratio of asymmetric productivities being three, returning a third of earnings means a truster gets back only what he sent and thus does not share in the surplus. This is non-zero sharing, and it is efficient in raising the pie. Yet most likely it is less than the trusting actors had envisioned.

This trust literature has explored motives behind trusting and reports a high individual heterogeneity in motivations (Henrich et al. 2001; Walker and Ostrom 2002; Cox 2004; Asharf, Bohnet and Piankov 2003; and Kiridaran et al. 2009). For example, Asharf, Bohnet and Piankov (2003) found that altruism (warm-glow kindness) is very relevant for those who trust little and only a fraction of subjects´ trustworthiness is based upon reciprocity. Other studies have explored gender differences across contexts with mixed results regarding its effect on trust (see for example the work of Croson and Buchan 1999 in Asia and United States, Chaudhuri and Gangadharan 2002, Eckel and Philip 1996 and 1998 and Croson et al. 2008).

Others explore the link between trust and risky decisions or gambles. Karlan (2005), in Peru, explores whether trust in the classical investment game is a measure of propensity to gamble and suggests that those who invest more in the trust game are risk takers. Kiridaran, Mestelman, Nainar, and Shehata (2009) find a strong significant positive relationship between risk attitudes and trust only for participants whose 'social value orientations measure' (the measure developed by Griesinger and Livingston 1973) indicate neither strongly pro-social nor strongly pro-self leanings. On the other hand, Bohnet and Zeckhauser (2004) find a distinction between types of expectations, i.e. that participants "are much more willing to take risk when the outcome is due to chance than when it depends on whether another player proves trustworthy" (pp, 479). Eckel and Wilson (2004) explored risk orientation (using 3 different instruments) and trust and found

[7] Walker and Ostrom 2002, p. 382, defines trust "as the willingness to take some risk in relation to other individuals on the expectation that the other will reciprocate". Another definition of trust that seems relevant for our situation is suggested by Harvey (2002), p. 292: "To trust means you relay on others not to take advantage of you".

that no risk measure correlates with trust. They say "subjects do not think of trust decisions and financial gambles as similar" (Eckel and Wilson 2004 pp. 464).

Another set of the experimental literature has explored the effect of communications devices on trust and bargaining settings[8]. Lunquist, Ellingsen and Johannesson (2009) find aversion to lying in bargaining with asymmetric information and different communication treatments. They found this aversion to increase with the size of the lie and that freely formulated messages yield fewest lies and greatest efficiency. We find otherwise, with a significant share of messages not having been carried out.

Others have reported lies in bargaining games. In particular, Ellingsen (2009), found that propensity to lie depends and it is conditional on the quality of the relationship measured by the performance on a paired Prisoner' dilemma game. Participants lie more in the bargaining game when their opponents defected in the Prisioner' dilemma game. Here, in contrast, we are observing lies by the proposers when the responders have made a cooperative choice to trust.

Charness and Dufwenberg (2006) explore the impacts of written messages upon trust and the role for guilt aversion. They use a free-form message they call a 'promise' and they find that this type of message is powerful because it shapes beliefs that influence motivation. They find that this enhances trustworthy behavior. In our results below, we find much less message impact.[9]

Ben-Ner and Putterman 2009 also are more positive than our results concerning communication. They explore multiple forms of pre-play communication which they find increase trust, and then the trusting increases trustworthiness. Contracts were largely unnecessary. Thus, trust institutions alone are suggested to achieve close to the optimal outcomes -- a viable alternative to contracts.

In contrast, Casari and Cason 2007 compare an unenforceable 'bonus' (similar to our Message) with enforceable contracts, in a new 'partnership' game similar to a principal-agent game. They find contracts outperform bonuses and in their bonus treatment a high share of participants lie (which is consistent with our results below within our Message institution). The paper suggests effort "to identify where explicit contracts perform worse and better than implicit contracts".

3. Experimental Design

Experiments were conducted in Ceara's capital city of Fortaleza and in the Jaguaribe Valley, in the city of Limoeiro do Norte, with 358 members of civil society (many being college students from local families). 196 were in the Fortaleza and 162 were in Limoeiro. Both of our treatments were done in each site. Our subjects are more diverse than typical US college lab subjects as university staff, officers from public institutions and, in Limoeiro, farmers participated as well. Recruitment was through local contacts who advertised the experiments. Table 1 summarizes.

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[8] The positive role of face to face communication to enhance cooperative behavior has been widely explored in the experimental literature, especially in the context of public and common pool games (See Shankar and Pavit (2002) and Cardenas et al. (2003) for reviews of the effects of communication in social dilemma experiments).

[9] Our message could be a 'promise', as proposers write sharing 'intentions'

Table 1 **Subject Characteristics**

Variable	Obs	Mean	Std. Dev.	Min	Max
Age	358	22.79	5.1	18	54
Gender	358	0.52	0.5	0	1
Education (years)	358	15.1	2.0	8	18

Experiments were modified ultimatum games (UG) with asymmetric productivity and a surplus-sharing step (see Introduction). Each set of paired participants had to allocate a bag of tokens. Each token was worth $R2 for proposers but $1R for responders in the 2:1 productivity ratio case and $R4 for proposers but $R1 for responders in the 4:1 case of the asymmetric productivity. Each of our institutional designs was done for each productivity ratio:

Table 2 **Experimental Design**

Productivites (Prop: Resp)	Observations per treatment	Observations per treatment
2:1	No Communication 44	Message 42
4:1	No Communication 44	Message 49

In each session, subjects participated in two one-shot games (usually between 20 and 30 subjects participated in each session). The games reported in this paper were always the game that was played first by the subject. In each game, players were randomly paired to avoid any learning. Proposers learned responders' decisions at the end of the second game. Identities were kept anonymous.[10] Roles were randomly assigned at the beginning of the session and kept for both games. After instructions, we administrated a quiz to check on their understating of the game. Then responders went to another room. At session's end, one of the two games was randomly chosen and then all payments were made in accordance with the decisions made in that game.

During payment calculations, participants answered a survey with socio-demographic questions, an open ended question asking to explain their behavior in the game, the General Social Survey (GSS) with trust-related questions as those reported by Glaeser et al. 2000 and Gachter et al 2004 and, to learn their attitudes to risk, and a risky-choice task similar to the one used by Eckel and Wilson 2004 but adapted to our case. The risky-choice task was the following. At the end of the game, each participant had to choose between option A, which gave 10R$ for sure, or option B, which implied a lottery with 10% chance of R$0 and a 20% chance of R$5 and a 40% chance of R$10 and a 20% chance of R$15 and a 10% chance of R$20 (same expected value as option A). One participant was randomly chosen to make his payment accordingly with the option chosen.

[10] Yet our protocol was not double blind, as are some in the experimental literature (e.g., Hoffman et al 1994).

4. Results

4.1 Expecting & Expressing Trust – Looking At Averages

We find evidence of both expectations and existence of trust in our one shot game.[11] That is consistent with previous trust literature[12]. Trust is expressed if a responder accepts an initial split of resources that initially earns them less than the default payment that they could receive if they just rejected the initial split. Trust is expected when a proposer asks for such initial splits, i.e. for more than half the resources. That trust was both expected and expressed here can be seen in the Average Ask For and in the Acceptance Rate in “No Communication” and “Message” (Table 3).

In the No Communication treatment, proposers clearly expect trust on average. We see in Table 3 that the Average Ask For is significantly greater than 5 (equalling 6.6 for both the 2:1 and the 4:1 cases, p=0.00). Recall, requests over 5 imply sharing is required for a responder to earn more than the default. Table 4a breaks these data down by level of ask. Proposers ask for more than 5 tokens in 59% of observations in 2:1, and 57% in 4:1. So, over half the proposers requested trust.

Responders in No Communication fulfill proposers’ expectations of trust by expressing trust. Table 3 shows acceptance of 70% and 86%, respectively, in the two cases. These are relatively high given the unequal splits requested on average, plus unequal productivities. For the requests of over 5 tokens, Table 4a shows (in the bottom row for each experiment) rates of acceptance of 50% in 2:1 and 76% in 4:1. The latter in particular must signal expectations of sharing, i.e. trust.

Consistent with and in fact rather similar to the No Communication results, we find expectations and expressions of trust in our Message treatment as well. Table 3 shows the Average Ask For significantly greater than five (7.1 for 2:1 and 6.9 for 4:1, p=0.00 in both cases). Acceptance rates are 88% and 73% across all requests, respectively, again quite high given the unequal splits. Thus, very much along the same lines, trust is expected and expressed in the Message treatment.

Looking specifically in Table 4b at the “requests for trust”, i.e. requests for more than 5 tokens, they occur in 83% of observations in the 2:1 case and 65% in 4:1. That is clearly higher than in No Communication and it is noteworthy. The rates of acceptance for the requests over 5 tokens, in contrast, are higher for Message only in 2:1 (at 86% in 2:1, 63% in 4:1). Thus these proposers may place more stock in the ability of the non-binding Message to induce trusting by responders than the responders place in the signal content of messages regarding proposers’ trustworthiness.

[11] We would expect trust to increase with a repeated game since punishment and reputation will help. Yet even here participants suggest that trust existed (note Glaeser et al. 2000 find statements about trust from the GSS do not line up with actual trusting behaviors): *“The offer was good, I decided to trust” (Responder in Message 2:1), “I trusted in someone who I don´t who he/she is, because I thought that if he does what he said was going to do, both will win” (Responder in Message 4:1), “I tried to be trustworthy by distributing the money half and half” (Proposer in Message 2:1), “I preferred to trust on the other participant´s good intentions” (Responder in Trust 4:1)*

[12] We also explore gender differences. Our preliminary results did not show any statistical difference in Average Ask For. In terms of acceptance, women if anything accepted more than men but not statistically significantly. While that is the case in general, i.e. looking across treatments, in "No communication" 2:1 this was statistically significant, as women accepted in 86% of the cases while males accepted only in 54% of the cases (p= 0.0207).

Comparing across the two ratios of asymmetric productivity, perhaps proposers are more wary of asking for a lot if the higher ratio may induce more equity concerns. Thus, in Tables 4a and 4b, it seems that in both institutions the proposers request trust less often with the higher productivity. This is stronger within Message -- perhaps indicating proposers' anticipation of responder doubt.

In expressing trust, responders do not respond uniformly to asymmetry ratios across institutions. Table 4a shows the acceptance rate of requests for trust was higher in No Communication for 4:1 while Table 4b shows that the acceptance rate of requests for trust was higher in Message for 2:1.

Yet across all institutions and treatments, uniformly there is a limit to the trust that is expressed. Tables 4a and 4b show that, in all four settings, the requests that were accepted averaged under 8, while those that were rejected always averaged over 8. Thus as proposers varied in willingness to request trust, and responders also varied in expressing it, some patterns of limited trust are clear.

4.2 <u>Trust Gains, Equity & Efficiency</u>

4.2.1 On Average, Trust Pays Off (A Little)

Table 3 shows that on average responders gain from trusting versus choosing the default payoff by rejecting. Sharing after accepted splits (R$4.8 in 4:1, R$ 2.5 in 2:1 for No Communication), when added to the responder's share of the initial resource split, beat the default payment of R$5. For example, in No Communication 2.1 accepted splits average 5.9, leaving 4.1 for responders. Then the average transfer if accepted is 2.5, yielding 6.6 for the responder, i.e. above default. Within the 4:1 case, the accepted splits yield 3.9 to the responder plus the 4.8 transfers for 8.7 in total. While that is well below the 24.4 (4 times 6.1) proposers get, it is above the default of R$5.

Trust paid off in Message too. In Table 3, for Message 2:1, the Average Ask For of 7 leaves the responder with 3, i.e. less than the default of R$5. However, the average transfer when offers were accepted was 2.8. Since 5.8 is greater than 5, we can say that trusting has paid off, a little. Within the 4:1 case, the accepted splits yield 3.6 to the responder. The 5.9 transfers yield 9.5 in total. While that clearly is above R$5, again it is well below the proposers' earnings of over 25. Thus proposers are on average willing to 'make responders whole' but not sharing much surplus.

4.2.2 Greater Trust, Greater Sharing?

To some extent, sharing by proposers seems to respond to the extent of the trust that was shown. While it is proposer who determines the amount of trust requested, by asking for a little or a lot more than half of the resources, in essence proposers seem to reciprocate a choice to trust a lot. Thus while proposers know responders did not initiate this they seem to appreciate permission. Such behavior would add to the evidence in the literature for many types of reciprocal behaviors.

As seen in Table 4a, in the No Communication treatment when the proposer asked for 80% or more of the resources, on average transfers were higher and raised the responder further above the R$5 default than when the proposer had requested less. Yet this is not universally the case. In Message 2:1 in Table 4b, the transfers do not rise much as the level of resources that were requested rises. In Message 4:1, there is more of a rise at the highest levels of requests, e.g. transfers of over 16 when all resources were requested and that immense request was accepted.

4.2.3 Examining Earnings

Tables 5a-c show average earnings for, respectively, all accepted cases, all cases, and accepted trust requests. When a proposed resource split is accepted (Table 5a & 5c), average responder earnings are significantly different than R$5 though as suggested above not necessarily by much.

Concerning trust's payoff, again comparison with the UG game without sharing has some value. There in the typical symmetric productivity case, the canonical 60/40 result implies a ratio of 1.5 between proposer and responder earnings. With asymmetric productivities, however, the roughly 50-50 resource split implies an earnings ratio of 2 or 4, depending on the ratio of productivities.

Tables 5a and 5b show that in the 2:1 games having the sharing step can bring the earnings ratio close to the 1.5 classic UG ratio or even lower. All of the ratios are below 2 in the 2:1 cases. In the 4:1 games, the ratios are higher as would be so within the asymmetric UG. Yet they are only around two, not close to four as in the UG. Thus sharing, which requires trust, on average helps responders and it improves equity overall. Similar results are obtained when looking specifically at the requests for trust in Table 5c, including that sharing especially helps in the 4:1 games. We see for accepted cases that earnings ratios across players in the 2:1 cases are close to 2, below it in No Communication and a bit above it in Message. For the 4:1 games the ratios are again well below the UG's 4. The institutions flip, with under 2 in Message and 2.5 in No Communication.

Another measure of equity could be the frequency of earnings being allocated as if by a 50-50 earnings distribution rule (recalling that this goes beyond the average UG result, although the mode in UG is often 50-50 resource splits and with equal productivities that is equal earnings). In No Communication, the percentage of accepted observations where earnings were distributed evenly was 26% for 2:1 and 13% for 4:1 (noting that, of those, 25% in 2:1 and 80% in 4:1 involved proposers asking for all of the resource, i.e. a lot of trust). In Message, the percentage of even sharing of earnings was 11% for both productivities (with 50% of those in 2:1 and 75% in 4:1 involving requests for 10 units or all of the resources, i.e. a lot of trust). Here, then, Message did not help much as a coordination device, if one aims for more observations distributed 50/50.

Comparing the two asymmetric productivity cases (2:1 vs. 4:1), in Tables 5a and 5b we can see that 4:1 does worse in equity, i.e. worse in earnings ratio and fewer observations where earnings are distributed evenly. However, looking at the requests for trust in Table 5b that equity is worse in 4:1 is only true in the No Communication institution. Transfers do, in fact, scale up with the size of the total pie though (Table 3), which is consistent with the proposers' sharing making the responders who trusted better off than responders who rejected -- but not necessarily by much.

As often noted above, the trust expected and expressed is productive, i.e. it increases efficiency, another focus in distributional literature. For the 2:1 case, maximum possible total earnings is 20 (if all the resources go the proposer). For the 4:1 case, the maximum is 40. For accepted cases, in Message the average earnings summed across players is about 17 in 2:1 (85% of the total and greater than the sum of the default earnings), while it is 29 in 4:1 (72% of the total). In No Communication, the total earnings are about 16 and 28, respectively. Table 5b then shows lower total earnings because the earnings in rejected cases are the low default of R$5 each. This can be seen in Table 5b to affect the 4:1 case more. Accepted requests for trust in Table 5c are similar to all acceptances in Table 5a for 2:1, with higher earnings for the 4:1 cases (over 80% of the total).

In both institutions, in 4:1 efficiency (earnings divided by maximum potential earnings) is lower. Equity concerns may limit efficiency that requires trust. Across institutions, the outcomes of the Message along these dimensions are not much different from those for the No Communication institution. For the accepted cases in Table 5a, they are only about R$1 higher on average. Then taking the cases of rejection into account, i.e. in Table 5b, or the requests for trust in 5c, they are essentially identical on average. Thus, on the whole, Message's communication gains are small.

4.3 Worthy of Trust?

4.3.1 Exploitation

As noted in 4.2, perhaps in particular for lower levels of trust (as requested by the proposer and expressed by the responder), often proposers share little more than is required to avoid a loss for responders who trusted instead of rejecting. That lack of surplus sharing on average is consistent with the variation in outcomes including the lower-than-average sharing. One extreme outcome, in each treatment, was one responder earning zero (Table 5c) by agreeing to allocate all of the resource to the proposer then receiving no transfer. Responders are subject to proposers' whims.

Another example is found in Message 2:1 (which as noted above varied from the others). Table 4b shows that if the proposer asked for 8 the transfers averaged R$3, which just barely allows the responder to earn as much as the default R$5. Then when the proposer asks for 9, transfers in the two accepted cases averaged only R$2.5, which leaves the responder below the default payment.

4.3.2 Lying

Trust in the Message communications is not fully justified. While the transfers in this institution are roughly similar to those in No Communication, such that the gains from the communications are not high, that is not *per se* a problem with this institution. However, these transfers are lower than the non-binding messages sent about transfers, i.e. people lie in messages. This is seen in Table 3, for instance, where average transfers if the split was accepted in Message are smaller than the average messages for those accepted cases. In 43% of transfers in 2:1 and in 42% of transfer in 4:1 proposers were lying, i.e. the message about sharing was greater than sharing.[13]

Table 4b shows that this occurs in varied situations. For both the 2:1 and the 4:1 cases, as noted, and for almost every level of initial resource request, many proposers share less than promised. Looking again only at the "requests for trust" (i.e. requests > 5), lying occurs in 50% of the 2:1 cases and in 30% of the 4:1 cases. Surely, this level of dishonesty does, *per se*, indicate some limitations upon implicit contracts. Efficiency might increase but yet not necessarily welfare.

4.4 Individual Variation & Risk Attitudes

4.4.1 Expecting and Expressing Trust

As we started to discuss in 4.3.1 in terms of trustworthiness, all of the averages discussed above mask considerable variation across observations within each treatment. This can be seen in just a glance at Table 4a and 4b, which within each institution-and-asymmetry-ratio combination

[13] Surprisingly, in 3% of the cases in 2:1 and 8% in 4:1 the transfers that proposers send are more than promised.

breaks out some of the data according to the level of resources the proposer requested. Clearly proposers made different decisions in identical settings, presenting responders with very different choices. This motivates exploring individual variation and, given observations in the literature that trust is like gambling, also exploring the behaviors' associations with our measure of risk.

Various analysts note that to trust is a form of gambling, with the chance of a good outcome known to depend on another's choice (Bohnet and Zeckhause 2004 and Eckel and Wilson 2004). Yet that is not the only gamble. As our game brings out, by requiring expectations of trust too, proposers must base their initial requests upon their estimates of the chance that the responder will trust. Requesting more resources is a bigger gamble. We would suppose that the individuals who make the risk-averse choice within our assessment exercise would be less likely to do that.

Table RT2 explains proposals (ask for) and finds this is the case. The risk averse proposer makes lower requests. In all the regressions we report, we control for socioeconomic characteristics: age, gender, a dummy capturing if the participant owns a computer, a dummy for whether the participant is catholic or not, and dummy variables for each treatment. In RT2, the only other significant variable besides risk is education. More educated proposers ask for fewer resources.

Tables RT3a and RT3b do not find risk aversion explains acceptance or decisions to trust. For all observations in RT3a or just the Message games in RT3b, risk aversion does not have an effect[14]. This is consistent with the results reported by Bohnet and Zeckhause (2004) & Eckel and Wilson (2004), who claimed that trusting behavior is distinct from risk aversion. Thus, we find that risk aversion associated with trust expectations by proposers but not responders' expressions of trust.

To examine variation in trust distinct from risk aversion, we asked the responders directly their estimates of how likely it is that the responder will in fact do non-zero sharing in the final step of the game (Chance Transfer). Using 1 (not likely) to 5 (very likely), responders were asked after the proposer sent the initial request for resources and any message. The answer to this question is very useful as it can be understood as another direct (self report) measure of trust in the proposer.

As seen in both sets of observations, i.e. in RT3a and RT3b, this measure of trust or perception of the likelihood of sharing is strongly associated with the decision to engage in the trusting behavior, i.e. to accept the proposed initial resource split. All else equal, and distinct from risk aversion, this links with acceptance[15]. We also see that controllling for the other determinants, a higher level of resources requested decreased the chance that the responder would accept a split.

4.4.2 Message's Impact on Trust/Acceptance

Communication could in principle be an important source of coordination. While we find the Message treatment did not achieve significant gains relative to No Communication, still it is interesting to explore what impacts a Message does have. To examine this we can look only at the Message games, for instance in RT3b for explaining acceptance. Here we see that the amount promised in the Message does have a significant impact on acceptance controlling for all of the other factors. The linear probability regression in RT3b (which also shows the robustness of the

[14] RT3a is a probit model explaining the likelihood of acceptance. We ran a linear regression for RT3b for easier interpretation of the coefficients. However, the results are consistent with a probit model that we don´t report here.
[15] Even when chance transfer is not included, risk measure does not explain acceptance of proposals.

key results from the Probit for all the observations in RT3a) suggests that for an additional R$ of sharing in a message, all else being equal, the probability of acceptance rises by about 3%.

Searching for more evidence about whether Message makes a difference, in RT3a we consider the possibility that simply having a communication could engender trust. Perhaps one piece of evidence for this would be reduced sensitivity to the level of resources asked for, since the larger request faces the responder with a larger gamble and more trust could make this less of an issue. We interact the dummy for being in one of the two Message treatment cases, i.e. 2:1 or 4:1, with the level of resources requested. As can be seen in RT3a, there is no evidence of such an impact.

However, in regression table RT4, explaining likelihood of non-zero sharing by other (Chance Transfer) which could be understood as another measure of trust, we find that the same dummy for being in the message treatments (Treatmessage) is significant and positive. Perhaps being in a more communicative institution provides some sense that one can gauge the proposer.

That said, this measure of trust may be a personal characteristic. Some people may simply be more trusting than others in the sense of having a higher expectation that others will 'do the right thing'. We note that RT4 shows that personal risk aversion (per our assessment) is negatively correlated with chance of transfer. We see, however, that the level of resources requested does not have a statistically significant impact at the 10% level, although it is close. The effect is negative, though. Thus, a large request is not successfully inducing trust that sharing will follow. Being Catholic and female are included and show negative effects but only at about a 20% level.

These results can be interestingly compared to our other, first measure of trust (i.e. acceptance). We noted in RT3b that the party making the trusting decision does so with a signal from the proposer in the form of the request. The effect is also negative. In Message, the signal also includes the message. We note that the level of the message increase the level of trust. However, in this case risk aversion does not explain acceptance of proposals. Therefore, acceptance and chance of transfer measure different aspects of trust, not both explained by the risk measure.

4.4.3 Lying

Finally, in RT5 we consider who is lying and specifically the amount of the lie, i.e. the difference between the message and the transfer[16]. Women lie less, though this is not quite significant at the 10% level (since we can do this analysis only for Message we have only so much data). What is significant is our risk aversion measure. Perhaps a "timid type" less likely to gamble (given trust expectations) and less trusting (lower expectations of sharing) also find lying too 'aggressive'.

5. Conclusion

We find significantly more trust expected and expressed than in neoclassical predictions. This combination of expectations is productive, raising the total pie. However, there is considerable variation in the outcomes across observations, suggesting the limitation of implicit contracting in

[16] Note that when trying to explain a binary indicator of having lied, i.e. tossing out continuous information, these results become insignificant

leaving trusting actors at the whim of others. Further, often sharing promises are simply untrue. Trust does provide some remedy, when contracting is limited, but this institution is also limited.

Exploring individual variation, we found that our measure of risk aversion is related to the gambling associated to expecting trust but not to the expressions of trust captured by the responder's acceptance.

Looking ahead, in further examinations of trust we could permit a much broader range of forms of communication (as noted, others in the literature have explored a variety of communications). Also communication can occur over time simply through repeated play, which allows reputations to develop. We would expect that lying could be punished in the future and thus be discouraged.

Another natural variation is changes in the framing. These games were neutrally framed, i.e. we do not mention water but just 'tokens' and we describe actors not as locations like valley and city but as players A (proposers) and players B (responders). We started with neutral framing in order to examine the effect of framing, though always working with populations in the relevant areas. Our pilots have found no effect from framing involving water or identifying a player's region.

Finally, we should compare this implicit contracting with explicit contracts. As suggested by Casari and Cason 2007, there is value in understanding when explicit and implicit contracts perform the same and when they differ. This is relevant for the design of new water institutions.

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Table 3

Summary Statistics by Treatment

Treatment	Average Ask For	Average Message R$	Acceptance Rate	Average Ask For If Accepted	Average Ask For If Rejected	Average Message R$ If accepted	Average Message R$ If rejected	Average Transfers R$ If accepted
No Commun 2:1	6,6		70%	5,9	8,2			2,5
No Commun 4:1	6,6		86%	6,1	9,6			4,8
Message 2:1	7,1	4,0	88%	7,0	8	3,9	4,6	2,8
Message 4:1	6,9	8,3	73%	6,4	8,3	8,4	8	5,9

Table 4a (No Communication games)

Acceptance and Transfers by Ask

Treatment	**# Chips Ask For**	**Number of Obs.**	**Rate of Acceptance**	**Average R$ Transfer if accept**
No Com. 2:1	2	0	-----	-----
	3	1	100%	0,00
	4	7	100%	0.57
	5	10	100%	0.60
	6	5	60%	1.00
	7	6	66%	3.25
	8	5	4%	7.00
	9	4	25%	8.00
	10	6	50%	9.33
	Trust *(i.e. Ask > 5)* (average Ask = 8.0)	26 (59%)	50% (Ask =7.8 if Accept) (Ask = 8.2 if Reject)	5.07
No Com. 4:1	2	1	100%	0.00
	3	4	100%	1.75
	4	2	100%	2.50
	5	12	100%	2.16
	6	4	100%	2.50
	7	5	100%	6.00
	8	5	80%	4.50
	9	0	-----	-----
	10	11	54%	14.33
	Trust *(i.e. Ask > 5)* (average Ask = 8.4)	25 (57%)	76% (Ask =7.9 if Accept) (Ask = 9.6 if Reject)	7.57

Table 4b (Message games)

Acceptance, Message and Transfer by Ask

Treatment	# Chips Ask For	Number of Obs.	Rate of Acceptance	Average R$ Transfer if accept	Average R$ Message if accept	% with Message > Transfer	Average R$ Message no accept
Message 2:1	2	0	-----	-----	-----	-----	-----
	3	0	-----	-----	-----	-----	-----
	4	3	100%	0.66	0.66	0%	-----
	5	4	100%	2.25	2.75	25%	-----
	6	8	87%	1.57	3.42	71%	4
	7	13	92%	3.00	3.75	42%	4
	8	5	80%	3.00	4	75%	6
	9	3	66%	2.50	3.5	50%	3
	10	6	83%	6.00	8	20%	6
	Trust *(i.e. Ask > 5)* (average Ask=7.6)	35 (83%)	86% (Ask =7.5 if Accept) (Ask = 8.0 if Reject)	3.1	4.4	50%	4.6
Message 4:1	2	0	-----	-----	-----	-----	-----
	3	1	100%	2,00	2	0%	-----
	4	4	100%	1,50	3,75	50%	-----
	5	12	91%	2,18	5,63	64%	2
	6	5	100%	5,60	8,8	40%	-----
	7	9	66%	6,66	7,33	17%	5.3
	8	4	75%	7,33	12	33%	6
	9	6	16%	10,0	15	100%	7
	10	8	62%	16,2	16,6	20%	15
	Trust *(i.e. Ask > 5)* (average Ask = 8.1)	32 (65%)	63% (Ask =7.7 if Accept) (Ask =8.6 if Reject)	9.5	11.1	30%	8.5

Table 5a

Earnings When Proposed Resource Split Is Accepted

Treatment	Average Earnings, Proposers	Average Earnings, Responders	Earnings Sum	Ratio, i.e. Prop/Resp	Mininum (=Responder)
Message 2:1	11,1	5,86	16,96	1,89	0
No Communication 2:1	9,29	6,58	15,87	1,41	4
Message 4:1	19,52	9,55	29,07	2,04	4
No Communication 4:1	19,73	8,65	28,38	2,28	0

Table 5b

Earnings Including When Proposed Resource Split Is Rejected

Treatment	Average Earnings for Proposers	Average Earnings for Responders	Earnings Sum	Ratio, i.e. Prop/Resp	Mininum (=Responder)
Message 2:1	10,38	5,76	16,14	1,80	0
No Communication 2:1	8,02	6,11	14,13	1,31	4
Message 4:1	15,67	8,34	24,01	1,88	4
No Communication 4:1	17,72	8,15	25,87	2,17	0

Table 5c

For 'Trust Requests' (Ask >5) -- Earnings When Proposed Resource Split Is Accepted

Treatment	Average Earnings, Proposers	Average Earnings, Responders	Earnings Sum	Ratio, i.e. Prop/Resp	Mininum (=Responder)
Message 2:1	11,93	5,6	17,50	2,13	0
No Communication 2:1	10,46	7,3	17,76	1,43	4
Message 4:1	21,95	11,3	33,25	1,94	4
No Communication 4:1	24,21	9,63	33,84	2,51	0

APPENDIX – REGRESSION TABLES (RTs)

RT1 – descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Acceptance	179	0.79	0.40	0	1
Askfor	179	6.79	2.09	2	10
Catolic	358	0.60	0.48	0	1
Chancetransfer	179	2.65	1.20	1	5
Education	358	15.11	2.01	8	18
Gender	358	0.52	0.50	0	1
Pc	357	0.61	0.48	0	1
Risk (risk averse =1)	358	0.54	0.49	0	1

RT2 – explaining proposed resource splits

DEPEN. VARIABLE = Askfor	OLS	# obs= 179	Rsquared= 0.0889
INDEP. VARIABLES	Coefficient	T-statistic	t-probability
Risk (risk averse =1)	-0.962	-3.00	0.003
Age	0.003	0.13	0.898
Gender	-0.115	-0.36	0.723
Pc	0.359	1.05	0.296
Catholic	-0.234	-0.72	0.470
Education	-0.140	-1.78	0.077
Message2	0.411	0.90	0.367
Message4	0.462	1.05	0.294
Trust4	0.039	0.09	0.929
Constant	9.13	6.22	0.000

RT3a – explaining acceptance of proposals – all treatments

DEPEN. VARIABLE = Acceptance	Probit	# obs= 178	Pseudo R2= 0.3128
INDEP. VARIABLES	Coefficient	T-statistic	t-probability
Askfor	-0.403	-3.87	0.000
Chance Transfer	0.531	4.26	0.000
Age	-0.003	-0.12	0.906
Gender	0.139	0.49	0.626
Pc	0.202	0.70	0.484
Catholic	0.280	1.02	0.308
Education	0.002	0.04	0.968
Risk (risk averse =1)	0.059	0.21	0.830
Dummy for Treatment with Message	-0.879	-0.76	0.446
Dummy for Treatment with Message * Askfor	0.121	0.84	0.402
Constant	2.18	1.43	0.151

RT3b – explaining acceptance of proposals – Message treatments only

DEPEN. VARIABLE =Acceptance	OLS	# obs= 91	Rsquared= 0.3238
INDEP. VARIABLES	Coefficient	T-statistic	t-probability
Askfor	-0.099	-4.01	0.000
Chance Transfer	0.113	3.30	0.001
Message	0.027	2.60	0.011
Age	0.003	0.47	0.641
Gender	0.079	0.90	0.369
Pc	0.047	0.59	0.557
Catholic	0.028	0.37	0.71
Education	-0.010	-0.61	0.541
Risk (risk averse =1)	0.079	1.01	0.316
Message4	-0.209	-2.19	0.031
Constant	1.066	2.66	0.009

RT4 – explaining trust (view of likelihood of non-zero sharing by other)

DEPEN. VARIABLE = Chance Transfer	OLS	# obs= 178	R2= 0.1008
INDEP. VARIABLES	Coefficient	T-statistic	t-probability
Risk (risk averse =1)	-0.330	-1.80	0.074
Askfor	-0.064	-1.49	0.137
Age	0.010	0.60	0.546
Gender	-0.231	-1.24	0.215
Pc	0.131	0.67	0.502
Catholic	-0.242	-1.30	0.194
Education	0.101	2.05	0.042
Treatmessage	0.437	2.38	0.019
Constant	1.445	1.56	0.121

RT5 – explaining lying (amount by which Message > Transfer)

DEPEN. VARIABLE = LiarDiff	OLS	# obs= 73	R2= 0.1654
INDEP. VARIABLES	Coefficient	T-statistic	t-probability
Askfor	-0.079	-0.35	0.73
Risk (risk averse =1)	-1.533	-1.73	0.089
Age	-0.031	-0.43	0.672
Gender	-1.484	-1.59	0.117
Pc	0.217	0.24	0.814
Catholic	1.365	1.57	0.122
Education	-0.026	-0.11	0.912
Dummy Message 4	1.361	1.56	0.123
Constant	3.675	0.81	0.424