E C O N O M I C S B U L L E T I N

Conditional cooperation and voluntary contributions to a public good

Ananish Chaudhuri
University of Auckland

Tirnud Paichayontvijit
University of Auckland

Abstract

We explore facets of conditional cooperation in a public goods game. First, we replicate the Fischbacher, Gächter and Fehr (2001) result that the majority of subjects in public goods experiments are conditional cooperators. Next, given that the majority of subjects in our study are conditional cooperators, we look at what happens when subjects are given additional information about the presence of conditional cooperators in the group. We find that such information about the presence of conditional cooperators leads to an increase in contributions overall. However this increase in contributions is most pronounced for the conditional cooperators.

We are grateful to the University of Auckland Research Council for providing the funds to conduct the experiments for this study. We thank Professor Charles Holt for providing us access to the Veconlab website at the University of Virginia for carrying out our experiments. An anonymous referee provided extremely useful feedback which is much appreciated. We thank Ankit Shah for helping us with the running of experimental sessions. The usual disclaimer applies.
Citation: Chaudhuri, Ananish and Tirnud Paichayontvijit, (2006) "Conditional cooperation and voluntary contributions to a public good." *Economics Bulletin,* Vol. 3, No. 8 pp. 1−14
Submitted: January 23, 2006. **Accepted:** April 3, 2006.
URL: http://www.economicsbulletin.com/2006/volume3/EB−06C90001A.pdf

1. Introduction

There is now a large body of work which uses a voluntary contributions mechanism to study the inherent tension between contributing to a public good and free riding on others' contributions.[1] Prior experimental research looking at voluntary contributions to a public good reports two empirical regularities. First, in one-shot public goods games, the average contribution to the public account ranges between 40% and 60% of the total endowment with wide variations in individual contributions ranging between 0% and 100%. Second, in repeated public goods games, the average contributions in the initial rounds range between 40% and 60% but then the contributions decline over time even though the strong free-riding hypothesis of zero contribution is seldom borne out.

Fischbacher, Gächter and Fehr (2001) find that a majority of subjects in these experiments are "conditional cooperators". They define conditional cooperators as subjects whose contributions are positively correlated with the expected contribution of others and whose behaviour, therefore, is not consistent with the free riding hypothesis. Fischbacher et al. report that 50% of the participants in their study are conditional cooperators. This finding that a majority of subjects are conditional cooperators has been replicated by Burlando and Guala (2005), Chaudhuri, Graziano and Maitra (2005), Croson (2002), Houser and Kurzban (2005), Keser and van Winden (2000) and Kocher (2004).

In this study we explore the issue of conditional cooperation. We aim to do the following. First, we replicate the Fischbacher et al. (2001) result that a majority of subjects in our study are indeed conditional cooperators. The next question we explore is whether eliciting this information about conditional cooperation affects subsequent behavior. Third, we look at what happens when subjects are given additional information about the presence of conditional cooperators in the group. As Chaudhuri et al. (2005) point out additional information about the presence of conditional cooperators may or may not enhance efficiency. There are two possible arguments. First, given common information about the presence of conditional cooperators, non-cooperators have more of an incentive to imitate the cooperators initially and free-ride later in the game. Hence common information about the presence of conditional cooperators may induce more free riding. On the other hand, in the presence of conditional cooperators and common information about their presence, it is possible that the game is effectively transformed into a coordination problem with multiple equilibria; full defection is an equilibrium, full cooperation another equilibrium and there are other equilibria in between.

Like Fischbacher et al. (2001) we find that a majority (62%) of our subjects are conditional cooperators. We find that eliciting information about conditional cooperation leads to an increase in average contributions in two of our three experimental conditions, but the significance of any such increase does depend on the model specification. However, if we look at the behaviour of the conditional cooperators exclusively, then we find a robust

[1] Ledyard (1995) describes a generic linear public goods game as follows. Subjects are grouped into fours and given an endowment of $5 each. They can choose either to contribute all or some of their endowment to a public account with any remaining amount going into a private account. The money contributed to the public account is doubled by the experimenter and redistributed equally among the four group members. Money put in the private account remains unchanged. The Pareto optimal solution is for everyone to contribute her entire endowment to the public account. The total amount in the public account is $20, which gets doubled to $40 by the experimenter. The $40 gets divided equally among the four group members and hence each member gets $10 - a return of 100%. However individual rationality predicts that no one would contribute to the public account. Suppose an individual contributes $1 to the public account, but no one else does. The $1 gets doubled to $2 which is then redistributed equally among the four group members giving each member $0.50. The individual who contributes $1 loses $0.50 while the other players (who did not contribute) gain $0.50. Given this game, theory suggests that a self-interested individual will not contribute to the public account.

increase in their contributions with additional information about the presence of conditional cooperators.

We proceed as follows: Section 2 outlines the experimental design. Section 3 reports our results. Section 4 contains a discussion of our results and Section 5 concludes.

2. Experimental design

We have 88 subjects who are undergraduate students in Commerce at the University of Auckland. All experiments were conducted in a computer laboratory using the Veconlab software developed by Charles Holt at the University of Virginia.[2, 3]

Subjects are anonymously put into groups of 4 and randomly re-matched at the end of each round. At the beginning of each round, each subject is endowed with 10 tokens. In each round a subject can choose to put her money into either a public account or a private account. Total amount contributed to the public account is doubled and redistributed equally among the four members of the group. Money put into the private account remains unchanged. At the end of each round, subjects get to see (1) the contribution made by each member of the group and (2) their total earnings. The next round proceeds in the same way. Subjects played the game for ten rounds. A subject's total earnings equal the sum of the per-round earnings for ten rounds.

This experiment consists of 4 treatments. The first treatment is a Control Treatment where 20 subjects play the public goods game described above for 10 rounds. We then have three more treatments which build on the control treatment by providing progressively more information to the subjects.

The second treatment – which we will call the Conditional Cooperation (henceforth "*CC*") Treatment - builds on the control treatment by asking subjects to complete a "conditional cooperation questionnaire" prior to playing the public goods game. See Table 1 for a copy of this questionnaire. The questionnaire asked each participant to state how much she will contribute to the public account if the average contribution by the other group members is between 0 - 0.99 tokens, 1 - 1.99 tokens, 2 - 2.99 tokens and so on. There are 24 subjects in the *CC* treatment. In order to make sure that the responses on this questionnaire were credible, we pick one subject in the session and this subject has to play the public goods game according to her responses on the questionnaire. In fact once this subject is picked her decisions for the actual game are entered by an assistant. For each round of the game, after all the other subjects have entered their decisions, we look at the average contribution of the others and then enter the appropriate contribution for this subject using her questionnaire responses. For instance suppose the group average for a particular round is 2.5 tokens and this subject said she would contribute 1 token if the average was between 2 and 2.99 tokens then we enter a "1" for her contribution for that particular round. Prior to the beginning of the session we put a red X on the back of one of the instruction sheets. Whoever gets the instruction sheet with the red X is the person who has to play in accordance with her questionnaire responses. Subjects are not told about this method of picking the conditional cooperator till after they have filled out the questionnaire. We use these responses to classify subjects into different types as in Fishbacher et al. (2001).

The third treatment builds on the second by adding common information regarding the responses provided by the subjects on the conditional cooperation questionnaire. Here

[2] http://veconlab.econ.virginia.edu/admin.htm

[3] We rely mostly on the on-line instructions. We do use some supplementary instructions to gather the conditional cooperation information. These are available from the corresponding author upon request.

subjects fill out the conditional cooperation questionnaire prior to playing the public goods game exactly as in the *CC* treatment. After collecting subjects' answers, we take the average of all the responses for each category 0 – 0.99, 1 - 1.99, 2 - 2.99 and so on. Then we write down this average information publicly on the board in front of the room and read aloud the same information to the subjects prior to beginning the actual public goods game. Table 2 illustrates what we mean. The number 0.625 which appears next to the category 0 – 0.99 implies the following. If we take the responses as to how much each subject will contribute if the average group contribution is between 0 and 0.99 and then *take the average of all those responses* then we get a value of 0.625. Similarly if we look at the responses as to how much each subject will contribute if the average group contribution is between 1 and 1.99 tokens then the average of all those responses is 1.208. As can be seen from Table 2, the average hypothetical contributions increase as the average contribution by the other group members increase, which suggests the existence of conditional cooperators in the group. We will refer to this treatment as the Conditional Cooperation plus Information (henceforth *CC+Info*) treatment. There are 24 subjects in this treatment.

The aim here is the following. We know from past studies that the majority of people in such public goods games behave as conditional cooperators and they are willing to contribute more if others are also willing to do so. Thus we fully expected the responses of a majority of subjects on the conditional cooperation questionnaire to exhibit an upward trend. The question is – how does one convey information about the presence of other conditional cooperators to the subjects as a whole? We felt that providing the average of the hypothetical responses would demonstrate the upward trend in those responses to the subjects and would convince conditional cooperators about the presence of others with similar preferences. Chaudhuri, Graziano and Maitra (2005) point out that there is a strong positive correlation between a subject's beliefs about the cooperativeness of others and her contributions in round 1 of a public goods game. Given the strong path dependence of contributions which typically show a declining pattern over time, it is imperative that contributions start at a high level for a group to be able to sustain high contributions over time. If subjects possess more optimistic beliefs about others' contributions then it is more likely that they will start with high contributions. We conjecture that providing them with the aggregate information about the presence of conditional cooperators via the average response of the group might help in fostering such optimistic beliefs and lead to greater cooperation.

The fourth and final treatment has subjects fill out the conditional cooperation questionnaire as in *CC* and also provides them with the information regarding the average of hypothetical contributions as in *CC+Info*. In addition to the above, in this treatment the experimenter makes a further announcement which reads as follows:

> *"You should invest all 10 tokens in each period.*
>
> *As you can see, a majority of people in your group have indicated that they will invest more if others in the group invest more. If each participant in your group invests 10 tokens in every period, then the average choice of others will be 10 tokens and each participant will earn 20 tokens in every period."*

We expected the average responses in this session to exhibit an upward trend which they did. In fact Table 2 provides those responses. The announcement we use in this fourth treatment is similar in spirit and language to the "Assign 80/Trigger 0" treatment in Seely, Van Huyck and Battalio (2005). The idea here is to drive home the point about the presence of conditional cooperators in case the average information showing the upward trend of

responses in *CC+Info* does not succeed in conveying the appropriate message. We call this treatment Conditional Cooperation plus Information plus Announcement (henceforth *CC+Info+Ann*) treatment. There are 20 subjects in this treatment. In the rest of the paper we use the abbreviations for the different treatments. Table 3 provides a handy guide to these abbreviations.

Over 4 different treatments we have a total of 88 subjects. Each of them makes 10 decisions with random re-matching at the end of each round. This gives us 880 observations in all. Each session lasts about an hour. Subjects are not allowed to communicate with each other in any way during the session. Each experimental token is equivalent to NZ $0.75. Average total earnings were 12.8 tokens or NZ $9.60.[4]

3. Results

Result 1: *The majority of the subjects are conditional cooperators.*

Figure 1 shows the information obtained from the conditional cooperation questionnaire. In creating this chart we use the data provided by the 68 subject responses in *CC*, *CC+Info* and *CC+Info+Ann* treatments and take the average of all responses for each subject type. (We do not have this information from the 20 subjects in the control treatment.) We define "free riders" as those who contribute less than 1 token into the public account regardless of what others contribute. "Conditional cooperators" are those who increase their contribution as the average contribution of other group members increases. "Weak cooperators" are those who increase their contribution weakly as the average contribution by other group members increases but their contributions are not very high in general and far less than the conditional cooperators' contributions. The "hump-shaped contributors" are those who increase their contribution as the average contribution by others increases but as the contribution by others reaches 5 tokens or more, the contribution by hump-shaped contributors starts to decrease steadily.

As illustrated in Figure 1, 42 out of 68 subjects (about 62%) are conditional cooperators. This result is consistent with that of Fischbacher, Gächter and Fehr (2001), who found that 50% of their 42 subjects are conditional cooperators. 5 subjects (7%) are weak cooperators, 11 (16%) are free riders and 6 (9%) are hump-shaped contributors. The remaining 4 subjects show various different patterns which do not fit easily into the above categories and we leave them out of Figure 1.

Result 2: *Providing additional information about the presence of conditional cooperators increases contributions.*

Figure 2 shows the behavior of contributions over time. For all four treatments, the contribution into the public account declines over time. The overall average contribution is 19.2% in the control treatment, 27.7% in *CC*, 31.5% in *CC+Info* and 31.1% in *CC+Info+Ann.* See Table 4.

A non-parametric Kruskal-Wallis test for the equality of distributions finds a significant difference between the four treatments ($\chi^2 = 17.194$ (3 d.f.), $p = 0.00$). In Table 5 we use the non-parametric Wilcoxon ranksum test with the null hypothesis that the contributions in any two treatments came from the same distribution. Each cell provides the value of the test-statistic and the corresponding p-value. The results suggest that the null hypothesis can be

[4] At the time the experiments were carried out the approximate exchange rate was NZ $1 = US $0.72.

rejected for the *CC* and control comparison as well as the *CC+Info* and control comparison. Other differences do not appear to be significant.

Next we use regression analysis to understand the pattern of contributions in the various treatments. What we have here is a cross-section of subjects making a series of decisions over time. Thus the appropriate way to treat the data generated is to use a panel data model. Let C_{it} be the contribution of player i in round t. This observed contribution C_{it} equals the desired contribution, C_{it}^* (which is a latent variable), if and only if $0 \le C_{it}^* \le 10$. Therefore we have:

$$C_{it} = \begin{cases} 0 & \text{if } C_{it}^* < 0 \\ C_{it}^* & \text{if } 0 \le C_{it}^* \le 10 \\ 10 & \text{if } C_{it}^* > 10 \end{cases}$$

and C_{it}^* is determined by the following equation:

$$C_{it}^* = X_{it}\beta + \nu_i + \varepsilon_{it}$$

for $i = 1,\ldots,n$ and $t = 1,\ldots,T$. The random effects (ν_i) are IID $N(0,\sigma_\nu^2)$ and the errors (ε_{it}) are $N(0,\sigma_\varepsilon^2)$ independent of ν_i. Each subject's contribution is bounded by zero from below and by ten (the token endowment) from above and thus we estimate this model as a random effects Tobit. For the sake of comparison we also compute the corresponding random effects GLS regression but the latter does not account for the lower and upper censoring of the dependent variable. We look at two different specifications. In the first we include among the independent variables (1) round and (2) three dummies – one each for *CC*, *CC+Info* and *CC+Info+Ann* with the control treatment being the reference category. In the second specification we add (3) lag own contribution i.e. contributions made by subject *i* at time *t-1* and (4) lag average contribution of other group members, i.e., the average contribution made by the other three members of the group (that includes subject *i*) at time *t-1*. The results of the random effects Tobit regression and the random effects GLS regression are presented in Table 6.[5]

The results for both the Tobit and the random effects regression are similar. The coefficient on the round variable is negative and statistically significant. Compared to the control treatment (which is the reference category), contributions are significantly higher in the *CC+Info* treatment in the specifications which do not include the lagged contributions variables. But the coefficients for the *CC* treatment and the *CC+Info+Ann* treatment dummies are not significantly different from that for the control treatment. The coefficients for the lagged contributions variables are positive and strongly significant. If a subject contributed more in the previous round then she will contribute more in the current round and also if a subject's group members contributed more in the previous round then she will contribute more in the current round. Once we include these lagged contributions variables the coefficient for the *CC+Info* treatment dummy is not significant any more. In retrospect we found the fact that contributions are not higher in *CC+Info+Ann* surprising and we address this in more detail below where we focus exclusively on the behaviour of conditional cooperators.

[5] When we include the lagged variables as regressors we lose 1 observation for each subject. So we lose 88 observations in total leaving us with 792 observations.

Result 3*: If we focus on the behaviour of conditional cooperators only, then we find that they contribute the most in the CC+Info+Ann treatment.*

Given that a majority of our subjects are conditional cooperators, we now focus exclusively on their behaviour in the three treatments: *CC, CC+Info* and *CC+Info+Ann*. There are 16 conditional cooperators out of 24 subjects in the *CC* treatment, 17 out of 24 in the *CC+Info* treatment and 9 out of 20 in the *CC+Info+Ann* treatment. Figure 3 shows the average contribution by conditional cooperators over time. Their average contribution in round 1 is 53.3% in the *CC* treatment, 39.1% in the *CC+Info* treatment and 84.4% in the *CC+Info+Ann* treatment and their overall average contribution is 33.1% in the *CC* Treatment, 39.3% in the *CC+Info* Treatment and 52.9% in the *CC+Info+Ann* treatment.

If we carry out pair-wise Wilcoxon ranksum tests then we find that contributions are significantly higher in the *CC+Info+Ann* treatment compared to the *CC* Treatment ($z = 3.70$, $p = 0.00$) and also the *CC+Info* treatment ($z = 3.00$, $p = 0.00$). Differences in contributions by conditional cooperators in the *CC* treatment and *CC+Info* treatment are not statistically significant.

Once again we use regression analysis to understand the pattern of contributions by conditional cooperators in various treatments. As we did above, we look at both a random effects Tobit regression and a random effects regression. We look at two different specifications. In the first we include among the independent variables (1) round and (2) two dummies – one each for *CC+Info* and *CC+Info+Ann* with the *CC* treatment being the reference category. In the second specification we add (3) lag own contribution i.e. contributions made by subject *i* at time *t-1* and (4) lag average contribution of other group members, i.e., the contributions made by the other three members of the group (that includes subject *i*) at time *t-1*.

The results of random effects Tobit regression and the random effects GLS regression are presented in Table 7. The coefficient for the *CC+Info+Ann* treatment dummy is positive and significant in all specifications. But the dummy for *CC+Info* treatment is not significant. This implies that compared to the *CC* treatment, which is the reference category, contributions by conditional cooperators are higher in the *CC+info+Ann* treatment but not in the *CC+Info* treatment. As in Table 6, both the lagged variables are positive and significant.

4. Discussion of our results

Our results then suggest that providing additional information to subjects about the presence of conditional cooperators does enhance cooperation – especially among conditional cooperators - possibly by creating more optimistic beliefs. However we also find that overall contributions are not higher in the *CC+Info+Ann* treatment compared to the control treatment, even though *ex ante* we expected this to be the case. We conjecture that a couple of factors contributed to this. First, when we look at Figure 2 we find that contributions start at a relatively high level in round 1 (62%) in the *CC+Info+Ann* treatment but they decay rapidly so that by round 4 contributions in this treatment have dropped to around 20%. If we now look at Figure 3 then we find that part of this sharp drop can be attributed to the reduction in contribution by the conditional cooperators. The conditional cooperators start out at contributions of 84% in round 1 but by round 4 their contributions fall to about 40%. We believe that the *CC+Info+Ann* treatment does generate optimistic beliefs among the conditional cooperators about the contributions of others but once the conditional cooperators find that others are not contributing as much there is a greater sense of disillusionment in this treatment which results in the sharp drop in contributions especially between rounds 3 and 4. If we look at the other types of subjects we find that in the

CC+Info+Ann treatment there are 7 subjects who are classified as free-riders (n = 5) or weak cooperators (n = 2). These subjects contribute less in the *CC+Info+Ann* treatment compared to the *CC* or *CC+Info* treatments. The free-riders contribute only 12% on average in the *CC+Info+Ann* treatment compared to 22.5% in the *CC+Info* treatment and 18% in the *CC* treatment while the weak cooperators contribute only 5% on average as compared to 9% in *CC+Info* and 16% in *CC*. It is possible that these subjects reason as follows. They believe that the public announcement will generate more optimistic beliefs among the conditional cooperators who will contribute more in the *CC+Info+Ann* treatment. Therefore the free riders and weak cooperators mimic the cooperators in the beginning and then bail out and start free-riding much earlier in this treatment, compared to the other treatments, which in turn nullify the higher contribution of the conditional cooperators. Thus whether additional information about the presence of conditional cooperators will increase cooperation or not depends on the proportion of conditional cooperators among the subject pool and also the exact nature of the information being provided.

We do need to qualify the results presented above with a caveat.[6] A number of prior studies, such as Andreoni (1995), Carpenter (2004), Goeree, Holt and Laury (2002), Houser and Kurzban (2002) and Palfrey and Prisbrey (1997) find that a significant amount of the contributions to the public good can be attributed to confusion or a desire for conformity. In our study we are not able to distinguish between a particular treatment's influence on conditional cooperation *per se* as opposed to that treatment's effect on subject confusion or a subject's willingness to engage in herding. Thus when a subject states that she will contribute more if others contribute more this *may* reflect conditional cooperation but it might also reflect a general tendency to herd.

5. Conclusion

In this study we have shown the following. First, we show that the majority (62%) of subjects in our study are conditional cooperators, which is consistent with the results found in Fischbacher et al. (2001). Second, we find that in some cases additional information about the presence of conditional cooperators shown to subjects helps to generate higher contributions compared to the control treatment. Finally, we find that if we look at conditional cooperators exclusively, these subjects are the most cooperative in the *CC+Info+Ann* treatment compared to the others.

[6] We thank an anonymous referee for drawing our attention to this issue.

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Table 1: Conditional Cooperation Questionnaire

Please answer the following question:

If the average of tokens contributed by the other people in my group is between	Then I will contribute
0 - 0.99	
1 - 1.99	
2 - 2.99	
3 - 3.99	
4 - 4.99	
5 - 5.99	
6 - 6.99	
7 - 7.99	
8 - 8.99	
9 - 9.99	
10	

Table 2: Example of Average Hypothetical Contributions in *CC+Info* and *CC+Info+Ann* Treatments

If the average of tokens contributed by the other people in my group is between	Average of Subject Responses
0 - 0.99	0.625
1 - 1.99	1.208
2 - 2.99	1.625
3 - 3.99	2.292
4 - 4.99	3.125
5 - 5.99	4.875
6 - 6.99	5.458
7 - 7.99	6.208
8 - 8.99	6.682
9 - 9.99	6.458
10	6.917

Table 3: An Overview of the Different Treatments and Abbreviations

Abbreviation	Referring to	Number of subjects
Control	**Control Treatment** with subjects playing the public goods game.	20
CC	**Conditional Cooperation Treatment:** Subjects fill out the conditional cooperation questionnaire prior to playing the public goods game.	24
CC+Info	**Conditional Cooperation plus Information Treatment:** Subjects (1) fill out the conditional cooperation questionnaire and (2) *also* receive common information about average responses prior to playing the public goods game.	24
CC+Info+Ann	**Conditional Cooperation plus Information plus Announcement Treatment:** Subjects (1) fill out the conditional cooperation questionnaire and (2) *also* receive common information about average responses and (3) *also* hear an announcement about those average responses prior to playing the public goods game.	20
Total		88

Table 4: Average Contribution (Percentages)

	Control	***CC***	***CC+Info***	***CC+Info+Ann***
Overall Average	19.2	27.7	31.5	31.1
Round 1	28.5	46	37.7	62
Round 10	4.5	9.4	12.1	13.6
Rounds 1 – 5	25.4	37.3	39.6	37.7
Rounds 6 – 10	12.9	18.1	23.4	24.4

Table 5: Wilcoxon Ranksum Test of Significance

	Control	***CC***	***CC+Info***	***CC+Info+Ann***
Control	---	**-4.07 (0.00)**	**-3.82 (0.00)**	-1.39 (0.16)
CC	---	---	-0.17 (0.87)	1.51 (0.13)
CC+Info	---	---	---	1.61 (0.11)

Table 6: Regression Results for Contributions in the Different Treatments with the Control Treatment as the Reference Category

	RE Tobit	**RE Tobit**	**RE Regression**	**RE Regression**
Round	-0.64 *** (0.06)	-0.36 *** (0.07)	-0.32 *** (0.03)	-0.09** (0.04)
CC	2.06* (1.25)	1.11 (1.16)	0.85 (0.64)	0.09 (0.26)
CC+Info	2.17 ** (0.96)	0.98 (1.02)	1.23 ** (0.64)	0.31 (0.26)
CC+Info+Ann	0.90 (1.24)	-0.48 (1.22)	1.19* (0.67)	0.05 (0.27)
Lag Own Contribution		0.32*** (0.07)		0.47*** (0.03)
Lag Average Contribution of Other Group Members		0.53*** (0.09)		0.27*** (0.04)
Constant	3.38 *** (0.83)	0.02 (1.00)	3.68 *** (0.50)	0.79** (0.34)
Wald χ^2	132.10***	160.17***	130.89***	468.67
Number of Observations	880	792	880	792
Number Uncensored	435	386	--	--
Number Lower Censored	370	349	--	--
Number Upper Censored	75	57	--	--

Note: ***,**,* denote 1, 5 and 10 percent significance respectively.
Standard errors are presented in parentheses.

Table 7: Regression Results for Contributions by the Conditional Cooperators only in the Different Treatments with the *CC* Treatment as the Reference Category

	RE Tobit	**RE Tobit**	**RE Regression**	**RE Regression**
Round	-0.61 *** (0.07)	-0.28*** (0.08)	-0.39 *** (0.04)	-0.13*** (0.05)
CC+Info	0.25 (1.04)	-0.20 (0.69)	0.41 (0.71)	0.01 (0.30)
CC+Info+Ann	2.92** (1.33)	1.71** (0.84)	1.98** (0.84)	0.98*** (0.36)
Lag Own Contribution		0.44*** (0.08)		0.43*** (0.04)
Lag Average Contribution of Other Group Members		0.63*** (0.10)		0.41*** (0.06)
Constant	6.18 *** (0.79)	0.71 (0.85)	5.46 *** (0.56)	1.18** (0.47)
Wald χ^2	74.01***	157.94***	83.20***	322.98
Number of Observations	420	378	420	378
Number Uncensored	257	231	--	--
Number Lower Censored	107	103	--	--
Number Upper Censored	56	44	--	--

Note: ***,**,* denote 1, 5 and 10 percent significance respectively.
Standard errors are presented in parentheses.

Figure 1: Different Types of Subjects

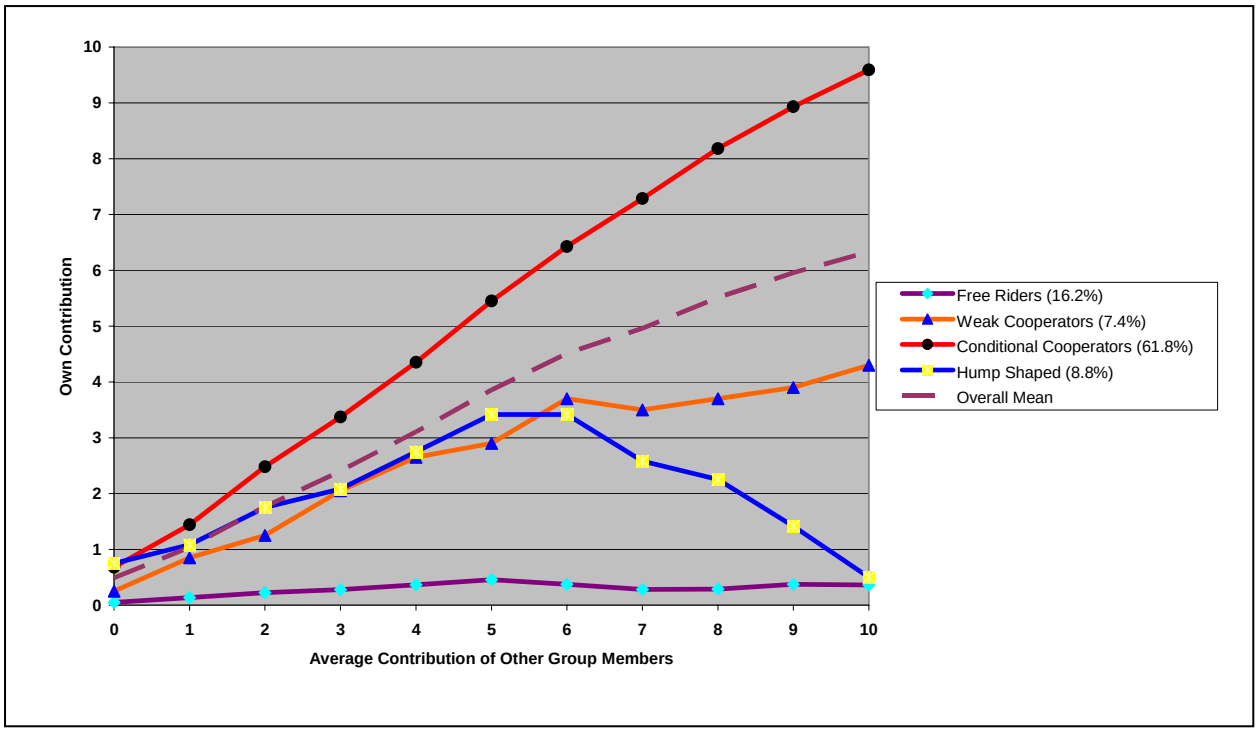

Figure 2: Average Contributions over Time in Different Treatments

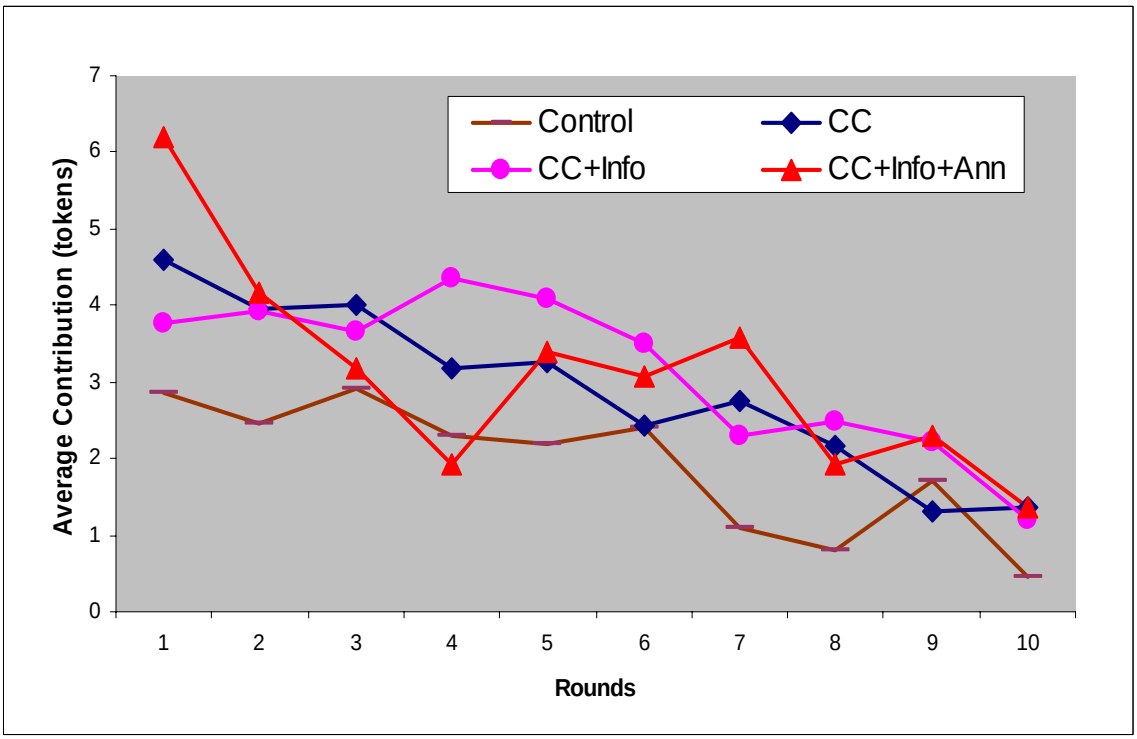

Figure 3: Average Contributions by Conditional Cooperators Only Over Time in Different Treatments