Title
Let me or let George: Motives of competing altruists

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Let Me, or Let George?
Motives of Competing Altruists

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Abstract

Simple game theoretic models suggest that when costly individual action can benefit an entire group, larger groups fare worse than smaller groups because of the free-rider problem arising from "diffusion of responsibility." Nevertheless, there are conspicuous examples of large groups in which a minority of members voluntarily supply public goods that benefit the entire group. We propose that this happens because some people get pleasure from performing a good deed, even if others would be willing and able to do it. We call such behavior *let-me-do-it altruism*. We perform an experiment designed to identify the presence of let-me-do-it altruism in a population. Our approach is to create a context-rich environment in which subjects reveal their preferences over group outcomes by their actions. Treatment variations provide insights into how cost and recognition impact behavior.

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"*The Lord above made man to help his neighbor...*
But, with a little bit of luck, with a little bit of luck,
when he comes around you won't be home!"

-From "With a Little Bit of Luck" by Alan Jay Lerner and Frederick Loewe, in the Broadway musical *My Fair Lady*.

As you drive home on a well-travelled street, you encounter a broken traffic signal or perhaps a pile of traffic-obstructing debris. You wonder whether to take the trouble to phone the authorities about this condition. You realize that many other commuters face the same choice. If someone else calls, your effort will be wasted. On the other hand, if everybody believes that someone else will call, the hazard will go unreported.

This example illustrates an interesting tension. Technology seems to offer significant economies of scale to group size—a costly action taken by a single member is sufficient to benefit the entire group, no matter how large the group. But as the example suggests, when group size increases, the "free rider problem" may become more acute, with each group member deciding to "Let George do it."

These considerations led Mancur Olson (Olson, 1965, Page 36) to conclude that:

> "The larger a group is, the further it will fall short of obtaining an optimal supply of any collective good, and the less likely that it will act to obtain even a minimal amount of such a good."

A sociologist, Andreas Diekmann, captured this tension in a simple and elegant model, with a game called the *Volunteer's Dilemma* (Diekmann, 1985). This is an n-player simultaneous-move game in which each player can choose either to volunteer to perform a costly action or not. If at least one player volunteers, all group members benefit, while only those who volunteer must pay the cost. The Volunteer's Dilemma game has a unique symmetric Nash equilibrium, in which each player volunteers with positive probability. In this model, the larger the group, the greater is the equilibrium probability that *nobody* volunteers.

There are notable examples in which large social groups appear to have overcome the free-rider problems identified by Olson and Diekmann. Wikipedia contains millions of articles, written by thousands of unpaid anonymous writers (Zhang and Zhu, 2011). Each year, in the United States, about 9.2 million people donate blood (American Red Cross, 2015). More than 10 million people in the United States and 20 million people worldwide have joined bone marrow registries, in which they promise that if needed, they will undergo a rather painful and time-consuming donation process that is likely to save the life of a needy recipient (Sheehan-Connor, Bergstrom and Garratt, 2015). More than 12,000 computer programmers have contributed unpaid volunteer coding to the Linux operating system (Cass, 2014).

As Sugden (1982) and Andreoni (1990) have persuasively argued, success stories like this cannot be satisfactorily explained as the interactions of consequentialist players who weigh the cost of contributions relative to their marginal effects. Evidence suggests that at least some individuals feel obliged to contribute to worthy causes, quite independently of their own effect on total contributions.

We suspect that many people choose to perform costly good deeds, even if they know that if they did not do it, someone else would step up to do the job. We refer to this behavior as *let-me-do-it* altruism. The nature of appeals from some charitable organizations suggests that fundraisers target let-me-do-it altruism. The first item listed by the American Red Cross web page under "Benefits of Donating" is "It feels great to donate."[1] The National Marrow Donor Program, which handles the bone marrow registry in the United States, has adopted the motto *"Be the Match, Be the One to Save a Life"*. Their publicity stresses the idea that "You could be so lucky as to be the one whose donation saves a life." In a posted video, a previous donor explains his motivation for donating, saying: "by sheer luck, you are able to do something great. . . . That is the greatest feeling in the world."(NMDP, 2017)

We have devised an experiment that is intended to distinguish two kinds of altruistic behavior: *consequential altruism* and *let-me-do-it altruism*. Someone acting out of consequential altruism is willing to do a costly good deed if no one else is available

[1] The second listed item is "You get free juice and cookies". Recognition of the public benefits from donation is relegated to fourth place as "You will help ensure blood is on the shelf when needed."

to do it, but would prefer that someone else does the job. A person acting out of let-me-do-it altruism, would rather *be the one* who does a good deed than have someone else do it. Such a person would do a costly deed even if another person was available to do it instead. The experiment also allows subjects to express non-altruistic preferences, which are reflected in what we call *no-not-me* behavior. In this case, the subject acts as if she would would rather leave the deed undone than do it herself. The central result of this paper is to show that a significant proportion of subjects act as if motivated by *let-me-do-it* altruism. The presence of such behavior in the population helps to explain why it is that adequate supplies of some public goods, but not all, can be provided by voluntary actions.

I Experimental Design

It is common practice in experimental economics to try to induce preferences with monetary payoffs. In these experiments, strategies are framed in a neutral way, so as not to evoke extraneous attitudes that subjects may bring to the laboratory from their experiences in similar situations. Such experiments are typically designed to investigate whether the outcome of the experiment is close to a Nash equilibrium for a game in which players attempt to maximize their monetary payoffs.[2]

Our approach is different. We do not assume that subjects are motivated solely by their own monetary payoffs. Instead, we seek to discover existing attitudes toward helping others, by presenting subjects with a context-rich environment that is intended to evoke subjects' instinctive responses to situations where they could help others who are in need. Our experiment is designed to determine the nature of subjects' altruistic motives and to allow us to estimate the proportion of decisions that are consistent with each type of motivation in a way that is robust to subjects'

[2]Examples of Volunteer's Dilemma experiments that use this approach include experiments by Diekmann (1986) and Franzen (1995) who motivated their subjects with hypothetical money payments. Examples in which actual money payments are used include experiments by Goeree, Holt and Smith (2017) and Pate and Healy (2016).

beliefs about other's actions.[3]

Subjects come to a computer lab and are told that they have been assigned to a group of n people. In each group, all but one of the group members are told that they have received a \$10 bonus and that one member of their group was unlucky and did not receive the \$10. Subjects are informed that if any group member volunteers to give up a small amount, $\$c$, the unlucky member will receive $\$10 - c$, which would equalize the payoff of the volunteer and the recipient. They are told that a payment from only one volunteer is needed to help the unlucky player, and this payment will be collected from the first member to volunteer. There is a 30-second time window during which subjects can volunteer to help. Before this time window opens, subjects are given an option to check a box "Volunteer at the first possible instant." If a subject does not select the first instant option, then the clock starts and a screen appears showing the number of seconds remaining, along with two buttons labelled "Volunteer Now," and "Don't Volunteer," and a check-box labeled "Volunteer me at the last possible moment"[4] Participants who have not yet volunteered are not informed when anyone volunteers. Thus all players reveal their strategies, whether or not they are first to volunteer.[5]

If there is at least one volunteer, then the group member who did not receive an initial bonus receives $\$10 - c$. If a single player volunteers before anyone else, then the volunteer pays $\$c$ and receives a net payment of $\$10 - c$. If there is a tie for first volunteer, then one of the tied volunteers is randomly selected to pay the cost $\$c$. At the end of the experiment, subjects are paid their earnings from one randomly

[3] A similar use of a "context-rich" environment to expose motivations underlying altruistic actions is found in experiments conducted by Slonim and Wang (2016) that investigate subjects' willingness to donate blood and by Crumpler and Grossman (2008) and Gangadharan et al. (2017) in which subjects are given an opportunity to contribute to a specific charitable cause.

[4] Buttons for first possible and last possible moments are included so that intentions can be registered without depending on quickness of reflexes.

[5] Dynamic models of volunteer's dilemma have been studied by Weesie (1993), Bliss and Nalebuff (1984), Bilodeau and Slivinski (1996),Shapira and Eshel (2000), Vesterlund et al. (2017), and Bergstrom (2017). In these models, the first player to volunteer is the only one to pay the cost of volunteering. While the game form in our experiment is similar to these models, we emphasize that our experiment is not an experimental examination of the dynamic volunteer's dilemma. Instead, time acts as a mechanism to allows us to determine subject's preferences through their actions. Explicit experimental investigations of the dynamic volunteer's dilemma have been conducted by Bilodeau, Childs and Mestelman (2004) and Otsubo and Rapoport (2008).

selected round. All of this information is commonly known by subjects.

We conducted four separate treatments. In a given treatment, the cost of volunteering was set at either $c = \$1$ or $c = \$4$. For each cost level, we ran one treatment in which no player's actions were revealed to other players and one treatment in which subjects were informed at the beginning of each session that at the end of the session, any volunteer who was chosen to give up $\$c$ in the paying round would be identified to everyone in the room. The identities of those who did not volunteer or who volunteered but were not announced. [6]

Each subject participated in only one of the four cost-recognition treatments, but within that treatment, subjects participated in several rounds of play. In the separate rounds, the number of potential volunteers varied from one to seven, with all subjects participating in a group of each size at least once. Each subject was a potential volunteer in nine or ten rounds and was the player who received no bonus in three or four rounds.

There were 48 subjects in sessions with \$1 costs and no recognition, and 36 subjects in the sessions with \$1 costs and recognition. In both sessions with \$4 costs there were 48 subjects.[7] Subjects were asked whether they had ever donated blood and also whether they have joined the bone marrow registry. Exactly half of our 180 subjects had ever donated blood, and 13 percent were registered as potential bone marrow donors. We recorded the gender of each subject: slightly more than half of the subjects were female. Further details can be found in appendix subsection C. Examples of the experiment screens, as well as complete instructions, are available in the online appendix.

[6] Andreoni and Petrie (2004) investigated the effect of recognition in motivating contributions in a voluntary provision of public goods game. They found that, providing the identity of potential contributors and the amount they contributed increased contributions. While our design recognizes only the chosen contributor to avoid embarrassing subjects, Savikhin Samek and Sheremeta (2014) found that identifying the bottom two contributions in a public goods game with five potential contributors increased contributions while identifying the *top* two contributors had no effect. They suggest that shame aversion appears to be a stronger motivator than desire for prestige in their experiment.

[7] We planned to run four sessions with 12 subjects for each treatment. However, one session of the \$1 cost treatment with recognition was not well-attended and had to be canceled. Due to a scheduled reconfiguration of the laboratory, we were not able to run a fourth session under the same conditions as the prior sessions.

II Experimental Results and a Simple Theory

A Experimental Results

Tables 1 and 2 show the fraction of subjects who chose each of the listed actions when they were, respectively, one of two possible donors or one of 3-7 possible donors under each of the four cost-recognition treatments.

Table 1: **Frequency, by treatment, in groups with 2 possible donors**

	Cost=$1		**Cost=$4**	
Action	**recognition**	**anonymous**	**recognition**	**anonymous**
First Moment	0.43	0.29	0.24	0.24
Intermediate	0.19	0.21	0.19	0.13
Last Moment	0.24	0.26	0.11	0.13
Not at all	0.15	0.24	0.46	0.51

Table 2: **Frequency, by treatment, in groups with 3-7 possible donors**

	Cost=$1		**Cost=$4**	
Action	**recognition**	**anonymous**	**recognition**	**anonymous**
First Moment	0.37	0.19	0.18	0.13
Intermediate	0.17	0.19	0.16	0.12
Last Moment	0.20	0.30	0.11	0.17
Not at all	0.26	0.32	0.55	0.58

B A Simple Theory of Preference-based Choice

We begin with a simple theory, that assumes that for each treatment of the experiment, subjects' actions are determined by their preference ranking of four possible outcomes. These outcomes are:

A) The subject volunteers and is selected to donate.
B) The subject volunteers, but another player is selected to donate.
C) The subject does not volunteer, but another player volunteers.
D) Nobody volunteers.

An individual's preferences among these outcomes may differ depending the values taken by our treatment variables. A lower cost of donating makes outcome A, in which the subject volunteers and is selected to donate, more attractive relative to the other possible outcomes. If players care that others observe their generosity, then recognition of selected donors also makes Outcome A more attractive. Tables 1 and 2 and the logit results in Section IV show that players are more likely to volunteer at the first possible moment when costs of donation are low and when selected donors are recognized.

Although less obvious, it is possible that preferences over outcomes A-D are influenced by the number of potential donors. For example, players may feel a stronger sense of obligation to be the one selected if there are few other possible donors. We find that subjects are more likely to volunteer when there is only one other possible donor than when there are two or more other possible donors, and those who do volunteer are more likely to volunteer before the last possible moment. However, we find no statistically significant effects as group size is varied from three to seven.[8]

III Two Types of Altruism and non-altruism

Where subjects' choices are determined by their preferences among these outcomes, we define two types of altruism:

A Let Me Do It Altruism

Someone who prefers outcome A to the other other three outcomes will be said to display *let-me-do-it altruism*. When a socially beneficial task is to be done, a let-me-do-it altruist might say "I'd like to do it," even if there are others who would be willing to do the job.

In our experiment, volunteering at the first possible moment is a weakly dominant strategy for those who prefer outcome A to the other outcomes. For those who prefer any of the other outcomes, volunteering at the first possible moment is weakly

[8]These results are shown in section IV.

dominated by other actions. Therefore if players actions are determined by their preferences over outcomes A-D, and if they never play weakly dominated strategies, the fraction of subjects who are let-me-do-it altruists is equal to the fraction of those who choose first possible moment.

Tables 1 and 2 show that whether donating is cheap or expensive, the frequency of first-possible moment volunteering is higher with recognition than without recognition. We also see that for either recognition treatment, the frequency of first-moment volunteering is higher when the cost is low than when it is high.

Examination of Tables 1 and 2 suggests that subjects are more likely to volunteer at the first possible moment if they are one of only two possible donors than if there are three or more possible donors. In Section IV, we show that this difference is statistically significant, and that our data does not allow us to reject the hypothesis that proportions are the same for groups of size three or greater.

B Consequential Altruism

Someone who prefers outcome B to outcomes A and D will be said to display *consequential altruism*. When a task is to be done, a consequential altruist might say, "If nobody else will do it, then I will, but I would rather somebody else does it."

In our experiment, subjects who are guided by preferences over options A-D, and who choose to volunteer at the last possible moment must prefer outcome B in which they volunteer and are not selected to outcome A in which they volunteer and are selected. They must also prefer outcome B to outcome D in which nobody volunteers and the task is not done. Thus all of those who choose to volunteer at the last possible moment are expressing consequential altruism.

However, not everyone with consequential altruist preferences will necessarily volunteer at the last possible moment. A consequential altruist who believes that some other player is likely to volunteer may choose not to volunteer at all, because the risk of having no volunteers is outweighed by the risk of being selected to pay the cost.

C Frequency of types of altruism and non-altruism

A subject who would rather not volunteer, even if this means that the unfortunate subject receives no help acts as a non-altruist. In the round where there is only one possible donor, both kinds of altruists will volunteer, while non-altruists will not volunteer. If we assume that those who refuse to volunteer when there are no other potential volunteers would do so regardless of group size, then we can estimate the frequency of consequential altruism by subtracting the fraction of the population who refuse to help when no other donor is available from the fraction who choose either to volunteer at the last possible moment or not at all. Tables 3 and 4 show the estimates of the proportions of consequential altruists and of non-altruists found in this way. The estimated proportions of let-me-do-it altruists are simply the proportions of subjects who chose to volunteer at the first possible moment under each treatment.

Table 3: **Estimated proportions of altruism types with 2 possible donors**

	Cost=$1		**Cost=$4**	
Altruism type	**recognition**	**anonymous**	**recognition**	**anonymous**
Let-me-do-it altruism	0.43	0.29	0.24	0.24
Consequential altruism	0.22	0.29	0.15	0.23
Non-altruism	0.17	0.21	0.40	0.42

Table 4: **Estimated proportions of altruism types with 3-7 possible donors**

	Cost=$1		**Cost=$4**	
Altruism type	**recognition**	**anonymous**	**recognition**	**anonymous**
Let-me-do-it altruism	0.37	0.19	0.18	0.13
Consequential altruism	0.29	0.41	0.24	0.35
Non-altruism	0.17	0.21	0.40	0.42

IV Logit Estimates of Variables' Effects

This section explores the simultaneous effects of several variables on the probability distribution of responses by potential volunteers. We found that varying the

number of possible donors from three to seven had no significant effects in any of our four treatments.[9] We found, however, that subjects act significantly differently when there is only one other possible donor than when there are two or more other possible donors.

Table 5 shows marginal effects on subject responses, using logit estimations with independent variables for the categorical effects, number of possible donors, cost of donation, recognition of donors, blood donor status, bone marrow registrant status, and gender.

We see from this table that when there is only one other possible donor, subjects are more likely to volunteer than when there are two or more other possible donors, and those who do volunteer are more likely to volunteer before the last possible moment. When the cost of donating is only \$1, they are more likely to volunteer at any time than when the cost is \$4, and this difference is significant at the 1% level for all categories. Recognition of donors appears to increase the likelihood of volunteering before the last possible moment and to reduce the likelihood of volunteering at the last possible moment or not at all. Those who have donated blood are no more likely to behave as let-me-do-it types than the population at large, but are significantly more likely to donate at the last possible moment than those who have not. Those who have joined the bone marrow registry are significantly more likely to volunteer at the first possible moment than those who have not.[10] There do not appear to be significant differences between the behavior of males and females.

Tables 7-10, found in the Appendix, show the results from separate logit estimations of the effects on volunteering behavior in each of the four cost-recognition treatments. In almost every category, the predicted probability of volunteering at the first possible moment is significantly greater than zero at the 1 percent level.

[9] Using a χ^2 test, we found that we could not reject the hypothesis that coefficients of each of these groups were the same. The p-values for the four treatments were, respectively, 0.68, 0.34, 0.66 and 0.29.

[10] These results suggest that the National Marrow Donor Program may be correct in directing its registry appeals toward let-me-do-it types who are motivated to be the one who makes a difference. In contrast, efforts to encourage blood donation are more aptly aimed at consequential altruists, who donate because they believe that if they do not, blood supplies will be inadequate.

Table 5: **Predicted probability of voluntary action**

Category	**First Moment**	**Before Last Moment**	**Last Moment**	**Not at All**
2 possible donors	0.278	0.464	0.167	0.340
	(0.033)	(0.036)	(0.025)	(0.034)
3-7 possible donors	0.194	0.361	0.180	0.433
	(0.023)	(0.029)	(0.020)	(0.030)
p-value of difference	0.0005	0.0003	0.5571	0.0017
Cost =$1	0.281	0.470	0.248	0.271
	(0.038)	(0.043)	(0.037)	(0.036)
Cost = $4	0.156	0.304	0.130	0.558
	(0.027)	(0.037)	(0.021)	(0.038)
p-value of difference	0.0063	0.0038	0.0030	0.0000
Recognition	0.250	0.432	0.150	0.394
	(0.029)	(0.044)	(0.025)	(0.042)
Anonymous	0.175	0.333	0.205	0.436
	(0.029)	(0.037)	(0.031)	(0.038)
p-value of difference	0.1036	0.0878	0.1799	0.4582
Blood donor	0.182	0.368	0.232	0.373
	(0.029)	(0.041)	(0.035)	(0.040)
Non-donor	0.235	0.388	0.134	0.461
	(0.036)	(0.041)	(0.023)	(0.040)
p-value	0.2560	0.7224	0.0192	0.1207
Marrow Registrant	0.339	0.431	0.161	0.386
	(0.078)	(0.075)	(0.055)	(0.074)
Non-registrant	0.191	0.370	0.180	0.421
	(0.024)	(0.031)	(0.021)	(0.031)
p-value of difference	0.0386	0.4515	0.7469	0.6624
Male	0.210	0.345	0.183	0.445
	(0.035)	(0.041)	(0.028)	(0.043)
Female	0.205	0.410	0.173	0.389
	(0.030)	(0.040)	(.029)	(0.038)
p-value of difference	0.9051	0.2573	0.8069	0.3297

Standard Errors in Parenthesis are clustered at the individual level.
p-values report tests of equality of marginal effects between each category and its complement.

V Challenges to the Simple Theory

Our research design subjects the simple preference-based theory proposed in Section II to rigorous testing. We allow subjects ample possibilities to act in ways contrary to that theory. Indeed, some of our subjects do things that can not be explained by our simple classification of behavior as let-me-do-it altruism, consequential altruism or non-altruism. These differences from the simple theory suggest that there is room for richer explanations of subjects' motives, and they point to some interesting refinements that could be further pursued.

A Volunteers at an Intermediate Time

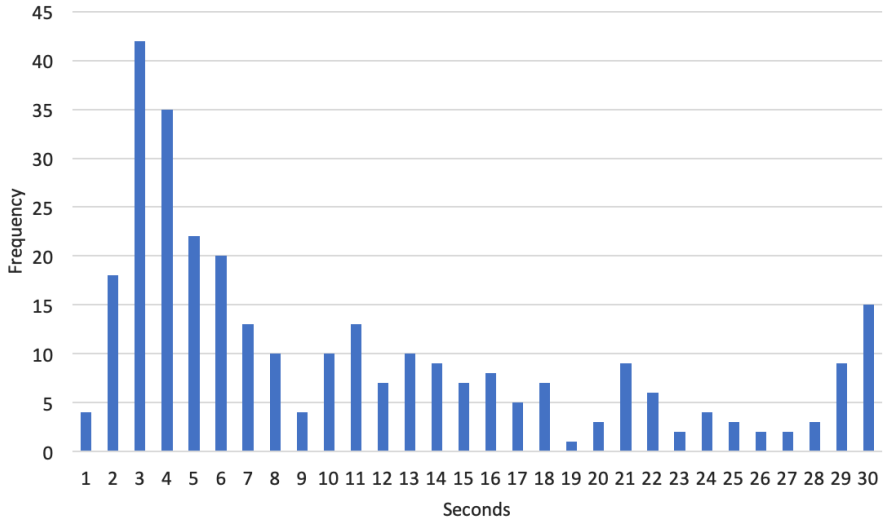
If subjects care only about the outcomes A-D listed in Section II, and if their preferences are strict, then volunteering at an intermediate time would always be a weakly dominated strategy. For those who prefer outcome A to outcome B, volunteering at the first possible moment weakly dominates volunteering at any later time. For those who prefer outcome B to outcome A, volunteering at the last possible moment dominates any earlier time. Nevertheless, Tables 1 and 2 show that between 12 and 21 percent of choices were to volunteer at an intermediate time.

A possible explanation is that subjects who are roughly indifferent between outcomes A and B, may choose an intermediate time as a way of resolving their indifference. This explanation would suggest that the distribution of waiting times should be roughly symmetric around the middle of the 30 second interval.

Figure 1 shows a histogram of response times. We see that this distribution is strongly skewed toward the beginning of the interval. More than half of responses (54 percent) occur in the first 8 seconds of the 30 second interval. The distribution also has a small peak at the very end of the interval.

Some of those who chose to volunteer in the first few seconds may prefer to be the one who contributes, but choose a small wait just to make the game more interesting. It is also possible that some players would like to be the donor, but are willing to defer if another person is even more eager.

Figure 1: Distribution of intermediate response times



Those who chose to volunteer within the last few seconds of the interval may prefer that someone else donates, but either didn't fully understand the "last possible moment" option, or wanted to make play a little more interesting.

B Consistency of Individual Behavior Across Multiple Decisions

Each subject made 8 or 9 separate choices with differing numbers of possible donors, while the cost of donation and recognition treatments were held constant.

We found that subjects were significantly more likely to volunteer and to volunteer early when there were only two possible volunteers than when there were more than two. However there was not a statistically significant difference among group sizes varying from three to seven.

If preferences over outcomes A-D do not depend on group size for groups of three or larger, then choosing first possible moment is a weakly dominant strategy for those (and only for those) who prefer option A to the other three options. Thus our simple theory would predict that in sessions with 3-7 possible donors, a subject would either always or never choose to volunteer at the first possible moment.

This is not exactly what we observe. About 7 percent of our subjects chose first possible moment in each of their 7 or 8 choices while 53 percent never chose first possible moment. Thus, 40 percent of our subjects chose first possible moment sometimes, but not always. If we relax our standard for consistency to allow a bit of experimentation, we find that 12 percent chose first possible moment either always or all but once, while 72 percent chose first possible moment at most once.[11] Thus 84 percent of our subjects chose to either almost always or almost never to volunteer at the first possible moment.

We can take some comfort in the fact that 84 percent of our subjects either almost always or almost never act as let-me-do-it altruists. However, it remains the case that a large fraction of observed first possible moment actions were taken by subjects who frequently chose not to do so. In rounds with 3-7 possible donors, subjects chose to volunteer at the first possible moment 269 times. Of these actions, 35 percent were were taken by subjects who always chose first possible moment, and 19 percent were taken by subjects who chose first possible moment all but once. Thus, almost half of the choices of first possible moment came from subjects who did so only occasionally.

These results suggest that many individuals, if presented with multiple opportunities would prefer to be the one selected to help some of the time, but not always. This behavior may reflect a view that when good deeds could be done by any of several people on a recurring basis, one's obligation is not to always be the first volunteer, but to "take one's turn" at being first.[12] This observation seems to be consistent with observed behavior. A subway passenger may sometimes choose to give up her seat to an elderly passenger, but on other occasions may expect someone else to make the sacrifice.

[11] About 12 percent of our subjects always chose either first possible moment or an intermediate time before the last possible moment. About 24 percent chose either first possible moment or an intermediate time either always or all but once.

[12] A theory of taking turns to provide a public good can be found in Leo (2017).

C Post-game Interviews and Deontological Preferences

After each round of the experiment, those subjects who volunteered at some time in the round were asked the following:

> "You volunteered to spend $x to help Person X in this round. If it turns out that someone else offered to contribute at the same time that you did, would you prefer that we take the $\$x$ needed to help Person X from you or from the other?"

If subjects answered this question truthfully with full understanding of the experiment's rules, and if their actions were determined simply by their preferences over the outcomes A,B,C, and D as in our simple theory, then those who volunteered at the first possible moment in the anonymous treatments would ask that the money be taken from them, while those who volunteered at the last possible moment would ask that it be taken from the other.

In the anonymous treatments, we found that 79 percent of first-possible-moment volunteers stated that they would rather have the money taken from them and 21 percent would rather have it taken from the other.[13] How can we explain the behavior of the 21 percent who volunteered at the first possible moment but responded that they would prefer that the money be taken from the other donor? Some of these subjects may simply have not understood the game. But it may be that some felt obliged to volunteer at the first possible moment because it was the "right thing to do," even though they would rather that someone else paid the cost of helping. According to the Stanford Encyclopedia of Philosophy, persons who are motivated in this way are classified as *deontologists*.

> "In contrast to consequentialist theories, ... for deontologists, what makes a choice right is its conformity with a moral norm. Such norms are to be simply obeyed by each moral agent" Metaphysics Research Lab (2007)

[13] In the treatments where donors are recognized, these proportions were 61 percent and 39 percent. In the treatments with recognition, subjects might interpret this question as asking whether, having been recognized as first possible moment volunteers, would they prefer to pay or not pay.

For a subject who is guided by deontological motives, it would be logically consistent to volunteer at the first possible moment, although preferring that someone else is chosen to make the contribution.

Our simple theory of preferences could be expanded to rationalize the actions of those who volunteered at the first possible moment but said that they preferred that the money be taken from another player.[14]

An additional puzzle is the fact that 45 percent of those who volunteered at the last possible moment reported that they would prefer that the money be taken from them. While it is possible that some of these respondents did not understand the rules of the experiment, it also should be noted that the question was entirely "hypothetical." There were no payoffs riding on one's answer to this question. If subjects wished to impress the interviewer about their generosity, they could do so by giving the answer that a more generous person would give.

D Response to the Challenges

Not all of our experimental results are consistent with the simple theory based on preferences over outcomes A-D. Some of these deviations are likely to be just "noise", caused by the play subjects who didn't think carefully about the game or who simply chose actions that made play more interesting. If all of these deviations were simply noise, our main conclusion would survive. A significant minority of subjects deliberately chose to bear the cost of helping even though they could have avoided this cost without reducing the chances that the unfortunate player would be helped.

But we believe that some of this divergent behavior exposes genuine human inclinations that drive real-world behavior and that deserve further attention. In this, we are inspired by Vernon Smith, who observed that:

> [Economists often take the view that] . . . "when subjects got it 'wrong'

[14] To do this, one could add the outcome A' to the list of possible outcomes, where A' is preferred to A, and A is preferred to B, C, and D, and where the outcome A' is that the subject volunteers at the first possible moment and is not selected.

> they were being 'irrational' and we should not question the theory or our interpretation of it.. . . What was important and significant was that the subjects did not have the world view that the economics profession has. . . [We should ask,] . . . what are the subjects trying to tell us about the world as they see it?" Smith (2018) (Chapter 15, pages 45-46)

The simple theory predicts that no players would volunteer at an intermediate time. We found that about 15 percent of our subjects chose to do so. Some subjects may have acted in this way to make the game more interesting. But a subject might rationally choose this action if she would like to be the one who helps but does not want to crowd out others who are more eager. More than half of those who chose an intermediate time did so in the first 8 seconds of the 30 second interval. Whatever their underlying motive, those who understand the game and deliberately choose to volunteer before the last possible moment indicate that they would prefer to be chosen even if they knew that someone else would volunteer later.

Our simple theory suggests that with three or more possible donors, subjects should either volunteer every time or none of the times when they are asked, We found that about 40 percent of our subjects chose to volunteer sometimes but not always. This behavior suggests that some subjects choose to mix their actions, wanting to be a volunteer sometimes, but not always. This seems an entirely rational behavior in an environment where one is presented with many opportunities to do costly good deeds and where accepting every opportunity would be too costly. The design of our experiment is intended to eliminate this effect, because one's payoff for the experiment depends only on the outcome of a single randomly selected round. But it is likely that, in our context-rich experiment, some subjects fail to fully internalize the incentives created by making payoff depend on only one round. Instead they may rely on rules of thumb learned outside the lab from repeated opportunities to do costly good deeds where every good deed chosen has a cost.

The observation that many subjects mix generous with less generous actions seems to coincide with much of the human behavior that we observe and probably deserves more attention than it has received so far.

We note, however, that the real-world importance of the presence of *let-me-do-it*

altruism depends on the aggregate frequency with which members of the population exhibit "let-me-do-it" altruism rather than on the proportion of individuals who always do so.

Our simple theory implies that subjects choose to volunteer at the first possible moment because they would prefer to be the one who makes the donation rather than have someone else do it. If this is the case, we would expect that in the postgame interviews, those who chose to volunteer at the first possible moment would say that they preferred that the donation be taken from them rather than from another willing donor. This was the case for 79 percent of our first-possible-moment volunteers, but the other 21 percent said they would rather it be taken from the other. Some of these subjects may have been simply confused, or behaved randomly. But it is possible that many of them acted as "deontologists", who understood the consequences of their actions, and did what they felt obliged to do, even if they would rather not have to pay the cost.

If those who volunteered at first possible moment and then said "take it from the other" were simply confused, then our estimates of the frequency of "let-me-do-it" altruism would be somewhat overstated. Instead of ranging from 13 percent to 37 percent, depending on the cost and recognition treatment, the corrected estimates would range from about 10 percent to 30 percent. But those who deliberately chose first possible moment out of a feeling of obligation, would be likely to act similarly in real world situations, and their behavior would be observationally equivalent to let-me-do-it altruism.

It is not surprising that the human instincts and motivations that support acts of kindness are more varied and subtle than those proposed in our simple theory. Indeed, the behaviors and interview responses that we observed suggest that subjects are, to paraphrase Smith, "trying to tell us some things we hadn't thought of, about the world as they see it."

People may hesitate before doing a good deed, not because they want to avoid the cost, but because they don't want to appear overeager. Some may choose to mix generous actions taken sometimes with less generous actions on other occasions. Some may bear the cost of taking a costly generous action out of a sense of duty,

although they would prefer that someone else bear the cost. Further exploration of motivations of this kind would be fertile ground for further investigation.

VI Related Literature

A Warm Glow Motivations

Bergstrom, Blume and Varian (1986) and Andreoni (1990) suggest that some people may take socially beneficial actions, not because of their effect on outcomes, but because doing so gives them a "warm glow." Andreoni and also Cornes and Sandler (1984) formulate this motivation in a model of an "impure public good," where voluntary contributors care not only about the quantity of a public good, but about the amount that they, themselves have contributed. Harbaugh (1998*a*,*b*) presents evidence that people may also be motivated to donate because they want to impress others with their generosity.

Crumpler and Grossman (2008), Gangadharan et al. (2017), and Gangadharan et al. (2017) conducted experiments that test directly for the presence of "warm glow." The experiments by Crumpler-Grossman and by Gangadharan *et al* are similar to ours, in not using money payments to induce preferences for donations, but relying on subjects' own inclinations toward generous behavior. In the experiment by Gangadharan *et al* subjects are matched to a single recipient, who will receive no payments from other subjects. Thus, as in our experiment, subject types are identified entirely from dominant strategy behavior, with no role for strategic uncertainty. Using a quite different experimental procedure form ours, they uncovered a significant number of warm glow types, whose motivations appear to be very similar to that of our let-me-do-it altruists.

B Volunteer's Dilemma Experiments

Social psychologists, Darley and Latané (1968), designed an experimental test for "diffusion of responsibility". Subjects were confronted with a simulated emer-

gency. In separate treatments, they were led to believe that 0, 1 or 4 others would witness the emergency. Subjects could not observe the actions of other witnesses. The researchers found that the fraction of observers who reported the emergency diminished sharply as the number of observers increased, while the probability that at least one observer took action remained essentially constant. Survey articles by Latané and Nida (1981) and Fischer et al. (2011) report results of many similar experiments conducted by social psychologists.

Experiments on the volunteer's dilemma in the economics literature have also studied the effect of group size. Diekmann (1986) and Franzen (1995) asked subjects to fill out a questionnaire in which they stated whether they would volunteer in Volunteer's Dilemma games of varying group sizes. Goeree, Holt and Smith (2017) conducted experiments using money payments to induce Volunteer's Dilemma games and Pate and Healy (2016) built on this by varying costs and including asymmetry of costs. In each of these studies, the probability of individual volunteering was found to decrease with group size, but in a way that leads large groups to produce a volunteer more often than is predicted by Nash equilibrium.

Vesterlund et al. (2017) conducted an experiment in which subjects were told that they belong to a group of three persons and given monetary incentives to induce a volunteer's dilemma. In some sessions, all participants were of the same sex while other sessions had approximately equal numbers of men and women. As in our experiment, subjects were given a time window in which someone could volunteer. The first to volunteer would be chosen to contribute. In the single-sex treatments, the authors found no significant difference between the sexes in volunteering behavior. But in the mixed-sex treatments, women were significantly more likely to volunteer than men. The authors suggest that this occurs because when both sexes are present, men expect women to be likely to volunteer and women expect men to expect them to volunteer.

VII Conclusion

Let us reconsider Mancur Olson's claim that the free rider problem leads to the result that "the larger a group is, the less likely that it will act to obtain even a minimal amount of a public good." Olson's observation, if correct, would be a severe obstacle to voluntary actions that exploit returns to scale in large groups. Olson's conclusion however, depends on the assumption that almost all individuals act as consequentialists, taking a costly action in a Volunteer's Dilemma only if they believe it likely that nobody else will do it.

Our experimental results suggest that in a Volunteer's Dilemma environment, a significant fraction of players act as if they prefer to be the one who takes a socially beneficial action, even if somebody else is willing to do it. This is the behavior we call let-me-do-it altruism. In our experiments with groups of three or more players, the fraction who chose to volunteer at the first possible moment ranged from 13% to 37%, depending on the cost of taking action and on whether the action is publicly observed. If all of those who chose to volunteer before the last possible moment are motivated by let-me-do-it altruism, these proportions range from 25% when volunteering is relatively costly and there is not recognition to 54% when volunteering is cheap and there is recognition.

For some public services, the actions taken by a small fraction of the population are sufficient to benefit the entire population. In these cases, the presence of a significant minority who are let-me-do-it types may be sufficient to provide adequate efforts to serve the entire population.

Wikipedia is an enormously valuable source of information supplied almost entirely by volunteer labor. For most topics covered in Wikipedia, there are a large number of individuals who could write a useful entry. Thus it is likely that most contributors to Wikipedia are driven by let-me-do-it altruism. Since only about one-tenth of one percent of Wikipedia users are active contributors, Wikipedia can be adequately served by a small minority who have strong let-me-do-it motives.

About 20 million people worldwide are registered as potential bone marrow donors. Only about 1/15 of new registrants are of an immunity type that is not already

present in the registry (Bone Marrow Donors Annual Report, 2013, Page 17.). Thus the great majority of those who undergo the pain and inconvenience of donating bone marrow or stem cells do so despite the fact that there are likely to be other equally qualified donors who are able and willing to do so.

Although the world registry is very large in absolute terms, it includes only a small fraction of those whose age and health would make them suitable donors. In most European countries, the bone marrow registry includes less than 1 percent of the eligible population. In the United States, this fraction is about 2 percent of the population and Germany it is about 5 percent. It is plausible that these registrants consist largely of those with let-me-do-it motivation, who take pleasure in saving a life, even though someone else is likely to be available to do so. Indeed our logit estimation in Table 5 finds that bone marrow registrants are significantly more likely to volunteer at the first possible moment than are those who have not registered as potential bone marrow donors.

Most high-income countries, including the United States, rely entirely on volunteers for blood donation (Slonim, Wang and Garbarino, 2014). In any year, in the U.S., about 8 percent of those who are eligible to donate blood do so. So long as freely donated blood supplies remain adequate to meet demands, it is plausible that most blood donors are motivated by let-me-do-it altruism, a desire to personally do a good deed. However, Lacetera, Macis and Slonim (2012) observe that in recent years, with an aging population and with the availability of new medical and surgical procedures, blood shortages "have become the norm rather than the exception." When there are shortages of blood, donors may realize that a decision to donate is likely to result in a blood transfusion for someone who otherwise would have to do without. In this case, we could expect that blood donors would be motivated by consequential altruism as well as let-me-do-it altruism. Our logit results, reported in Table 5 indicate that those subjects who have donated blood are significantly more likely to donate at the last possible moment than those who have not donated blood.

The lives of persons in need of a kidney transplant can be dramatically improved

if they receive a transplanted kidney.[15] Because donating a kidney is much more costly to the donor than donating blood or bone marrow, the fraction of the population that are either let-me-do-it types or last-resort types with respect to kidney donation falls far short of meeting the demand for transplanted kidneys. According to the National Kidney foundation Organ Donation and Transplantation Statistics, in the United States in 2014, there was a waiting list of about 100,000 people seeking kidney transplants, with about 36,000 new additions to this list per year. The supply of kidneys available falls far short of demand. In 2014, the number of transplants from cadavers was about 11,600 and about 5,400 were available from living donors. Every year, about 7,000 people from the waiting list either die or become too sick to receive a transplant. Thus, every kidney donor can be assured that his own donation will result in a healthy kidney for at least one patient who otherwise would not have received one at all.[16] This is a clear case in which consequential altruism is likely to motivate donors. The personal cost of donating a kidney is much higher than that of donating blood or bone marrow, and thus at a donor price of zero, demand for kidneys greatly exceeds supply. Currently, the sale of kidneys is illegal in almost all countries, but since unpaid donations do not meet demand, a strong case can be made for allowing the price mechanism to induce much larger supplies.[17]

In the classical model of voluntarily provided public goods, the utility of each player depends on the sum of the amounts of public goods voluntarily supplied by individuals. In an efficient allocation, the amount of public good supplied would be such that the *sum* of the all community members' marginal willingnesses to pay is equal to the marginal cost. But in an equilibrium with voluntary contributions, the amount supplied is such that the marginal willingness to pay of *any single contributor* is equal to the marginal cost. Thus in a large community where the benefits

[15] Live donation of kidneys is possible because people have two kidneys, and healthy people suffer little risk from donating one Roth, Sönmez and Ünver (2007).

[16] Roth, Sönmez and Ünver (2007) have developed mechanisms to facilitate multilateral kidney exchanges among pairs of people who would like to donate a kidney to a loved one but cannot because of blood-type incompatibility. This means that sometimes a volunteer donor can start a chain of several donations, none of which would have occurred without his or her donation.

[17] Becker and Elias (2007) present a closely-reasoned case for permitting paid donations of kidneys and other organs.

of the public good are widely dispersed among community members, the amount of public good supplied by voluntary contributions in equilibrium is much less than the efficient quantity. Even the increased contributions caused by the presence of a small proportion of *let-me-do-it* types who give significantly more than would be predicted by self-interested behavior would fall far short of bringing the supply to efficient levels. For public goods such as public parks, roads and highways, police, and sanitation, we would not expect adequate quantities to be supplied by voluntary contributions, even if a significant minority of the population would like to be the ones who voluntarily pay for public goods. Thus tax-financed governments have emerged as the primary suppliers of many of the standard pure public goods.

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Appendix

A Graph of Distribution of Actions by Treatment

Figures 2-5 show the results of this experiment in each of the four treatments and for each group size.[18] For each treatment, these figures show the proportions who chose each of the following four options; first possible moment, the interior of the allotted interval, last possible moment, and not at all.

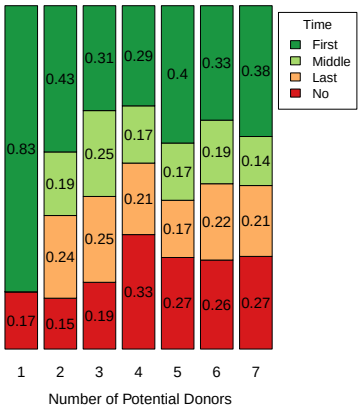

Figure 2: Cheap and Recognized

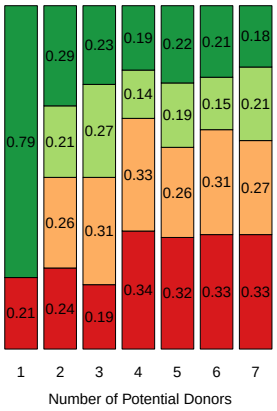

Figure 3: Cheap and Anonymous

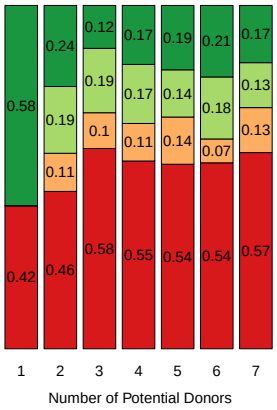

Figure 4: Costly and Recognized

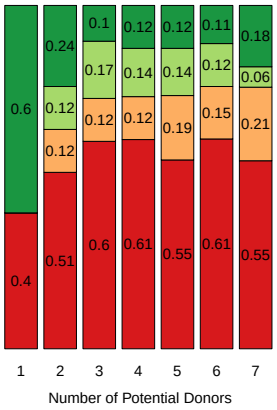

Figure 5: Costly and Anonymous istplay-4

[18] For a group of size n, the number of possible donors is $n-1$, since one group member is the unfortunate subject who is the potential beneficiary.

B Additional Logit Estimations

Table 6: **Predicted probability of not volunteering when alone**

Category	**Cost $1 recognition**	**Cost $1 anonymous**	**Cost $4 recognition**	**Cost $4 anonymous**
Male	0.255	0.204	0.425	0.411
	(0.111)	(0.091)	(0.105)	(0.113)
Female	0.093	0.187	0.383	0.365
	(.074)	(0.078)	(0.109)	(0.097)
Marrow Registrant	0.281	0.547	0.243	0.489
	(0.192)	(0.240)	(0.149)	(0.224)
Non-registrant	0.137	0.173	0.452	0.377
	(0.072)	(0.060)	(0.085)	(0.078)
Blood donor	0.157	0.143	0.294	0.272*
	(0.101)	(0.077)	(0.094)	(0.090)
Non-donor	0.144	0.260	0.534	0.531*
	(0.082)	(0.090)	(0.114)	(0.107)

Standard Errors in Parenthesis are Clustered at the Individual Level.
Significant difference between category and its complement are denoted by * for 10% level, ** for 5% level and *** for 1% level.

Table 7: **Predicted probability of volunteering at the first possible moment**

Category	**Cost $1 recognition**	**Cost $1 anonymous**	**Cost $4 recognition**	**Cost $4 anonymous**
Male	0.260	0.225	0.241	0.173
	(0.080)	(0.062)	(0.066)	(0.060)
Female	0.441	0.214	0.136	0.114
	(.083)	(0.066)	(0.049)	(0.035)
Marrow Registrant	0.578*	0.311	0.345*	0.089
	(0.122)	(0.143)	(0.124)	(0.062)
Non-registrant	0.334*	0.211	0.143*	0.156
	(0.064)	(0.047)	(0.038)	(0.036)
Blood donor	0.323	0.177	0.210	0.114
	(0.099)	(0.057)	(0.056)	(0.035)
Non-donor	0.392	0.262	0.156	0.189
	(0.066)	(0.070)	(0.059)	(0.066)
2 possible donors	0.427	0.294*	0.229	0.239**
	(0.074)	(0.062)	(0.057)	(0.054)
3-7 possible donors	0.348	0.204*	0.177	0.132**
	(0.058)	(0.046)	(0.040)	(0.035)

Standard Errors in Parenthesis are Clustered at the Individual Level.
Significant difference between category and its complement are denoted by * for 10% level, ** for 5% level and *** for 1% level.

Table 8: **Predicted probability of volunteering before the last possible moment**

Category	**Cost $1 recognition**	**Cost $1 anonymous**	**Cost $4 recognition**	**Cost $4 anonymous**
Male	0.453	0.338	0.373	0.253
	(0.108)	(0.075)	(0.074)	(0.066)
Female	0.612	0.480	0.319	0.274
	(.082)	(0.081)	(0.088)	(0.064)
Marrow Registrant	0.684	0.465	0.448	0.113**
	(0.145)	(0.182)	(0.116)	(0.052)
Non-registrant	0.524	0.404	0.320	0.286**
	(0.073)	(0.059)	(0.065)	(0.071)
Blood donor	0.473	0.402	0.397	0.243
	(0.107)	(0.080)	(0.081)	(0.060)
Non-donor	0.597	0.417	0.292	0.286
	(0.084)	(0.080)	(0.082)	(0.071)
2 possible donors	0.619	0.495*	0.423*	0.356**
	(0.078)	(0.069)	(0.074)	(0.064)
3-7 possible donors	0.527	0.392*	0.330*	0.246**
	(0.070)	(0.057)	(0.058)	(0.044)

Standard Errors in Parenthesis are Clustered at the Individual Level.
Significant difference between category and its complement are denoted by * for 10% level, ** for 5% level and *** for 1% level.

Table 9: **Predicted probability of volunteering at the last possible moment**

Category	**Cost $1 recognition**	**Cost $1 anonymous**	**Cost $4 recognition**	**Cost $4 anonymous**
Male	0.168	0.352	0.070	0.136
	(0.057)	(0.079)	(0.023)	(0.049)
Female	0.169	0.228	0.136	0.148
	(.054)	(0.073)	(0.042)	(0.036)
Marrow Registrant	0.020***	0.257	0.102	0.199
	(0.016)	(0.117)	(0.070)	(0.127)
Non-registrant	0.214***	0.286	0.098	0.136
	(0.047)	(0.059)	(0.023)	(0.032)
Blood donor	0.315***	0.261	0.143	0.226**
	(0.090)	(0.079)	(0.039)	(0.050)
Non-donor	0.096***	0.307	0.065	0.081**
	(0.030)	(0.076)	(0.026)	(0.034)
2 possible donors	0.194	0.264	0.096	0.109
	(0.065)	(0.063)	(0.036)	(0.041)
3-7 possible donors	0.164	0.288	0.099	0.149
	(0.035)	(0.056)	(0.025)	(0.034)

Standard Errors in Parenthesis are Clustered at the Individual Level.
Significant difference between category and its complement are denoted by * for 10% level, ** for 5% level and *** for 1% level.

Table 10: **Predicted probability of not volunteering**

Category	**Cost $1 recognition**	**Cost $1 anonymous**	**Cost $4 recognition**	**Cost $4 anonymous**
Male	0.337	0.308	0.548	0.586
	(0.093)	(0.072)	(0.078)	(0.076)
Female	0.165	0.289	0.531	0.552
	(.063)	(0.062)	(0.086)	(0.072)
Marrow Registrant	0.312	0.270	0.428	0.652
	(0.175)	(0.099)	(0.119)	(0.130)
Non-registrant	0.221	0.301	0.569	0.560
	(0.059)	(0.051)	(0.064)	(0.055)
Blood donor	0.171	0.329	0.450	0.521
	(0.069)	(0.067)	(0.079)	(0.076)
Non-donor	0.287	0.269	0.635	0.622
	(0.080)	(0.067)	(0.079)	(0.072)
2 possible donors	0.136**	0.235	0.462	0.515
	(0.048)	(0.058)	(0.075)	(0.067)
3-7 possible donors	0.255**	0.312	0.556	0.581
	(0.061)	(0.049)	(0.059)	(0.053)

Standard Errors in Parenthesis are Clustered at the Individual Level.
Significant difference between category and its complement are denoted by * for 10% level, ** for 5% level and *** for 1% level.

C Experimental Details

This experiment was conducted at the University of California, Santa Barbara Experimental and Behavior Economics Laboratory using ZTREE (Fischbacher, 2007). Subjects were recruited using the Online Recruitment System for Economic Experiments (Greiner, 2004). A total of 180 subjects participated in the experiment. 48 subjects participated in each treatment with the exception of the inexpensive contribution treatment with recognition (36 subjects). Each session of the experiment lasted about 45 minutes and included 12 subjects. Gender composition was controlled as closely as possible via recruiting. Subjects earned an average of $14 which includes a $5 show-up fee.

Each session consists of 13 rounds-with one being randomly chosen to determine payment. The assignments of subjects to groups are designed so that each subject participates in ten rounds in which they receive the $10 bonus and at least once in a group of each size $(n = 1-7)$. Subjects are not matched with the same group twice. Though these assignments are not random, they are unpredictable and effectively random from the subjects point-of-view.

Subjects must wait through the entire 30 second window regardless of their choices. They cannot rush through the experiment by volunteering quickly. After the 30 seconds, each is asked a followup question. Anyone choosing to volunteer is asked whether they would prefer the $x be taken from them or from someone else in the event that they tied for the earliest volunteer time. Non-volunteers are asked whether they would prefer to switch their decision in the event that all other group members also refuse to volunteer.

During the course of the experiment, subjects are not shown the outcomes of previous rounds. However, at the end of the experiment, they are shown the outcome of the round chosen as the paying round.

Once the 13 rounds end, subjects learn the outcome of the paying round, fill out a short demographic questionnaire and are given cash payments in sealed envelopes.

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Screen Shots and Instructions

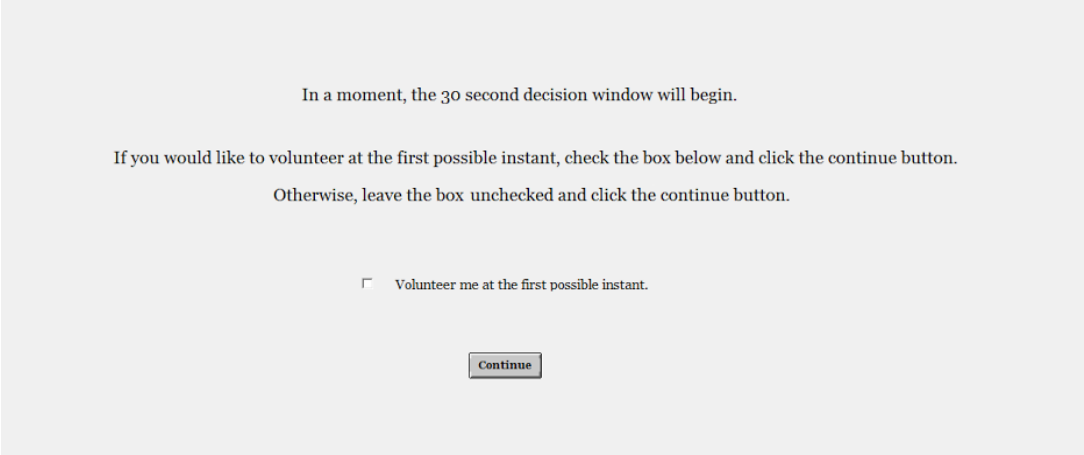

Figure 6: First Possible Moment Decision Screen

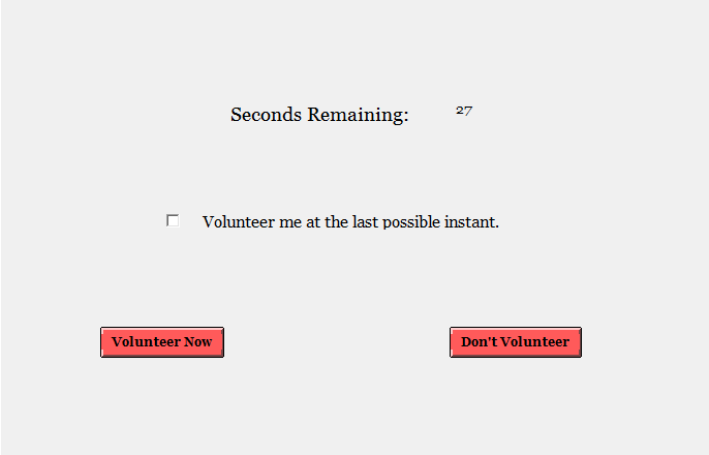

Figure 7: Main Decision Screen

Experiment Instructions

This experiment has 13 rounds. In each round, you will be assigned to a group. All members of your group, except one, will be given a payment of $10. One group member, whom we will call "Person X", will be given $0.

Please click below to continue...

If anyone in your group offers to give up $x to help Person X, then Person X will receive a payment of $10-$x. Only one volunteer is needed. If more than one person volunteers, we will select the first person to do so.

Each person has 30 seconds in which to volunteer. An on-screen clock will show how much time remains. This part of each round will take 30 seconds regardless of the choices made by everyone in your group.

If you initially received $10, and you are willing to contribute the $x, you must click the "volunteer" button before time runs out. If you don't want to volunteer, simply wait until the 30 seconds have elapsed or click the "Don't Volunteer" button.

Click below to continue...

-- If just one of the people who initially received $10 volunteers, that person pays $x, the others pay nothing, and Person X gets $10-$x.

-- If more than one of the people who initially received $10 volunteer, then Person X will get $10-$x and the person who volunteered first will pay $x. (If two or more volunteer at the same time, one person will be chosen at random to pay $x.)

-- If no one offers to contribute, then no one will have to pay, and Person X will get $0.

Click below to continue...

In each new round, you will be assigned to a new group, possibly of different size.

At the end of the experiment, one of the <Rounds|0> rounds will be randomly chosen as the "paying" round. This is the only round of which you will be informed the outcome, and your experiment earnings will be determined, as described on the previous slides, from this round only.

There will be no other opportunities to earn money in this experiment. This means that if Person X receives $0 in the round that is chosen as the "paying" round, he or she will earn nothing in the experiment.

(Recognition Treatments Only)

Notice that each of you has an ID number on the back of your chair. At the end of the session, the id numbers of anyone who was chosen to give up the $x to help person X in the paying round will be announced to everyone in the room. ID numbers of those who volunteered but were not chosen to contribute or did not volunteer will not be announced.

Click below to continue...

To Summarize:

1. During this experiment, you will participate in <Rounds|0> rounds.

2. In each round, you will be matched with a different group.

3. In each round, everyone who initially received $10 will have 30 seconds to decide if they will volunteer to give up $x so that Person X can have $10-$x instead of $0.

4. If more than one person volunteers, the person who volunteered first will be chosen to pay the $x.

5. Only one of the <Rounds|0> rounds will be randomly chosen as the "paying" round. There will be no other opportunities to earn money in this experiment. This means that if Person X receives $0 in the round that is chosen as the "paying" round, he or she will earn nothing in the experiment.

(Recognition Treatments Only)

6. At the end of the experiment the ID numbers of anyone chosen to give up the $x in the paying round will be announced to everyone in the room.

Click below to continue...

Follow-Up Questions

You offered to spend $x to help Person X at the first possible instant. If it turns out someone else also offered to contribute at the first possible instant, would you prefer that we take the $x needed to help Person X from you?

You offered to spend $x to help Person X at the last possible instant. If it turns out that someone else also offered to contribute at the last possible instant, and no one offered earlier, would you prefer that we take the $x needed to help Person X from you?

You offered to spend $x to help Person X when there were <VolunteerTime|1> seconds remaining. If it turns out that someone else also offered to contribute at the same time, and no one offered earlier, would you prefer that we take the $x needed to help Person X from you?

You did not offer to spend $x to help Person X. If it turns out that the others also refused to help Person X, would you be willing to change your decision and spend $x to help Person X get $10-$x?