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SIGN ME UP! A MODEL AND FIELD EXPERIMENT ON VOLUNTEERING

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Abstract: We develop and model a two-stage incentivized intervention to promote pro-sociality. In the first stage, participants are incentivized to complete a compound task consisting of a targeted pro-social activity and a complement activity. In the second stage, participants are incentivized to complete repeatedly only the complement activity. The model predicts that, conditional on compliance with the first-stage compound task, intrinsic interest in the target activity is promoted regardless of compliance with the second-stage task. To test this we design and implement a field experiment on volunteering. The results are consistent with our model. Moreover, in the one year subsequent to our experiment, those who participated in our compound-task mechanism reported volunteering systematically more than those who participated in alternative mechanisms we investigated. Our approach has useful implications for promoting positive individual and social outcomes in many behavioral domains.

JEL: C93; D02; D03; D04; D64; H41; Z13

Keywords: volunteering; incentives; pro-social attitudes; cognitive dissonance; field experiment

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1. Introduction

Volunteering refers to “any activity in which time is given freely to benefit another person, group, or organization” (Wilson, 2000). Substantial research has shown that volunteerism not only has substantial social benefits, but also various health benefits (e.g. Piliavin and Siegl, 2007; Okun et al., 2013). Additionally, it enables volunteers to develop skills and knowledge (Wilson and Musick, 1999; Meier and Stutzer, 2008; Borgonovi, 2009). Despite numerous social and personal benefits, participation in volunteering arguably remains low: about 75% of people did not volunteer in 2012 (Current Population Survey, USBLS)¹. Consequently, substantial effort continues to be directed towards finding ways to promote volunteer activity. In this paper, we model and test using a field experiment a novel compound task incentive-based approach to promoting intrinsic interest in volunteering. The key advantage to our mechanism is that it is “failsafe.” In particular, both theoretically and empirically, we show that it can promote interest in the target activity (in our case, volunteering) even when people fail to comply with the rewarded activity. This stands in sharp contrast to conventional incentive-based approaches where non-compliance can lead to reduced desire to engage in the targeted behavior.

Across the social-sciences, scholars have worked towards understanding how to increase the supply of volunteers. The two main approaches involve encouraging people to develop: (i) a favorable intrinsic attitude toward volunteering; or (ii) a habit of volunteering (Janoski et al., 1998; Wilson, 2000). The first approach argues for the importance of building institutions to disseminate positive values and attitudes toward volunteering. The idea is that an intrinsic interest in helping others is a motive for volunteer work by voluntary organizations. Regardless of previous engagement in volunteer activities, those who value helping others are more likely than those who do not to respond positively to volunteer opportunities.

In contrast, social participation emphasizes the importance of habits. Supporters of this approach point to the importance of involving young people in volunteering in order to acclimate them to pro-social routines. Indeed, many organizations, such as United Way², involve high school students in community projects. Likewise, leaders of charity organizations routinely emphasize the importance of giving small amounts when the contributors have little to give (Rosen and Sims, 2011; Meer, 2013). Thus, the habit formation approach encourages the view

¹ <http://www.bls.gov/news.release/volun.t02.htm>

² <http://www.unitedway.org/take-action/youth-volunteering>

that volunteering is “what we do,” while the former approach encourages the perception that volunteering is “what we want to do.”

Both approaches are potentially useful. For reasons described in Section 2 below, our mechanism is designed to promote intrinsic interest in volunteering. Our evidence is that it does so successfully, and that our mechanism promotes volunteering activity.

Our study offers several contributions to the economics literature. First, while mechanisms for promoting giving have been heavily studied, nearly all of this research has focused on giving tangible items, such as money and organs (List and Lucking-Reilly, 2002; Roth et al., 2004; Lacetera et al., 2012). To our knowledge, only a few studies have examined mechanisms to promote the giving of time using field experiments, and most of these focus on the effect of volunteer participation during interventions (Gneezy and Rustichini, 2000; Al-Ubaydli and Lee, 2011; Conrads et al., 2013). This study sheds light on the impact of incentive-based interventions on attitudes toward volunteering. Second, we contribute to the literature on the “crowding out” effect of monetary incentives (Deci, 1971; Frey and Jegen, 2001; Fehr and Falk, 2002; Li et al., 2009; also see Gneezy et al., 2011; Bowles and Polania-Reyes, 2012 for reviews) by pointing to another reason rewards can fail: people may become less interested in rewarded activities when they fail to achieve the reward. A key message of our paper is that it is crucial to consider the impact of low compliance rates on intrinsic interest in the targeted activity when designing incentive systems.

Next, we develop an incentive-based approach using compound tasks. The compound task includes both the target task (volunteering in our case) and a complement task (writing about the benefit of volunteering). Building on previous research, we show theoretically that as long as people can complete the compound task once, providing incentives to repeat the complement task can be more effective than the conventional approach where incentives are provided for repeating the targeted activity. The intuition behind our approach is that people learn about their own preferences in the same way that an econometrician learns about agents’ preferences from revealed preference data. In typical analyses, an econometrician learns about an agent’s preferences both from alternatives chosen and not chosen. If a person learns about their own preferences in an analogous way, then it should in principle be possible to manipulate the choice set – the alternatives not chosen – and in so doing manipulate preferences. In our case, rewarding the target task is risky in that failure to comply signals disinterest. In contrast, if we

incentivize the complement task, it is less likely that the failure to comply reveals distaste for the target activity. This is the fundamental idea behind our “failsafe” approach. We explain below that, in fact, a failure to complete the complement task will lead people to believe that they prefer the target task.

Finally, we test our proposed mechanism using a field experiment on volunteering. Although our application is volunteering, we expect our framework can be applied successfully to many behavioral domains.

Our results are consistent with the model. In particular, our proposed mechanism is better able to promote intrinsic interest in (preferences for) volunteering than any of the four natural alternative approaches to promoting volunteering we consider. Moreover, during the one year following our intervention, reported volunteering among people who participated in our proposed mechanism was greater than the volunteering reported by those who participated in the four other mechanisms. Consequently, we find that our proposed approach promotes not only intrinsic interest in volunteering but also volunteer activity.

This paper is organized as follows. Section 2 explains why we focus on promoting positive attitudes toward volunteering. We model our compound task approach to attitude change in Section 3. Section 4 describes the experiment designs. We derive the hypothesis of the experiment in Section 5. Section 6 reports our data and results and Section 7 concludes.

2. Intervention target: habit formation (practice) or attitude

Notwithstanding potential crowding-out effects of monetary incentives, several recent studies demonstrate that we can promote targeted activity if people are rewarded for engaging in the activity *repeatedly* and over an extended period (Charness and Gneezy, 2009; Acland and Levy, 2011; Royer et al., 2013). One explanation for this is that repeated engagement creates a habit of practicing the targeted activity. Consequently, it is natural to consider whether monetary rewards might be useful in creating a volunteering habit. In this case, however, there are reasons to worry that incentives may have a detrimental effect. One is that paying people to volunteer may lead people not to view themselves as engaging in volunteering. As a result, even if people comply with an incentivized task over a long period of time, it may not create a habit of volunteering.

Moreover, it may be extremely difficult to volunteer at high frequencies. Whether one is able to volunteer does not merely depend on a desire to volunteer, but on many other exogenous

factors, such as schedules, locations of activities, and the amount of time available to the potential volunteer. In particular, many short-term volunteer opportunities can be surprisingly time-intensive, in that they require planning, registering, and sometimes even background checks in advance of the actual volunteer activity. These hurdles reduce the ease with which one can volunteer, and often mean that volunteering is more of a planned than a spontaneous choice.

The complexity of social participation in volunteering contrasts with activities such as exercising, which is easier to implement spontaneously by walking, running or going the gym. Indeed, survey data suggest that differences between the frequency of exercising and volunteering is dramatic. According to Gallup 2012, about 70% of adults exercised more than 30 minutes per week (about 26 hours a year) in 2011. In contrast, survey data from the BLS (2012) indicates that only about 20% of adults volunteered more than 15 hours in 2012. This raises the concern that people may fail to comply with rewarded high-frequency volunteering activities.

It is important to note that in previous studies on reward mechanisms, participants succeeded in completing the rewarded task. For example, Charness and Gneezy (2009) report that over 90% of participants completed the exercise task and received the reward. Thus, their findings cannot inform the effect of reward when compliance rates are low. The worry is that when incentives fail to generate compliance, crowding-out may occur.

Recent studies in psychology and behavioral economics suggest that, in contrast to the neo-classical economic paradigm, people's actions are not always driven by well-structured preferences. Instead, these studies suggest that people infer their preferences (positive or negative) from the results of their previous actions or memory (DeJong, 1979; Benabou and Tirole, 2011; Ariely and Norton, 2007; Weber and Johnson, 2006). In light of these studies, we hypothesize that failure to comply with the rewarded task may lead people to believe that they do not really like to perform the task. This may have a detrimental effect on their willingness to perform the targeted activity.

In addition to the potential detrimental effect of reward, the relatively low-frequency of volunteering also suggests that it may be difficult to measure the immediate behavioral impact of incentive interventions. This raises a practical challenge for researchers hoping to investigate the effectiveness of interventions. Indeed, due to this concern, some private-sector groups working

to improve pro-social behavior instead use expressions of interest as their metric to evaluate different programs³.

In view of these concerns, we decided to focus on designing mechanisms to promote positive attitudes toward volunteering. Positive attitudes in this regard are surely important. For example, studies have shown that children who develop a positive attitude toward volunteering are more likely to volunteer later in their adult life (Astin 1993; Damico et al 1998; Janoski et al., 1998). Knowing how interventions influence attitudes of course requires a reliable attitude measure. Towards this end, we measure attitude by examining participants' choices of whether to sign up to receive information for future volunteering opportunities. The reason is that one is more likely to sign up when one is more interested in volunteering. Although signing up does not necessarily imply that one will volunteer in the future, it is an important first step towards eventual participation. Indeed, many volunteer organizations strive to obtain people's contact information and ask them to sign up to receive volunteering information.

In the next section, we model a two-stage incentivized intervention based on a "compound task" to promote a positive attitude toward volunteering. We elaborate how this approach can be "failsafe" in that it can promote intrinsic positive attitude toward volunteering regardless of whether participants comply with the second-stage rewarded task. As a result, it avoids the potential detrimental effect of reward when compliance rates are low.

3. A Compound Task Approach for Attitude Change

Our proposed compound task approach to promote a positive attitude towards a target activity is based on one of the most influential constructs in social psychology: cognitive dissonance theory (Festinger and Carlsmith, 1959). Cognitive dissonance theory famously illustrates how actions can create rather than reflect preferences (Ariely and Norton, 2007).

In their experiment, Festinger and Carlsmith (1959) asked participants to complete a boring task. Subsequently, the experimenter requested that they convince a new participant (actually a confederate) that the task was interesting. In one condition, participants were paid \$1 to lie to this person, and in another condition \$20. Finally, all participants were asked to rate their enjoyment of the original (boring) task. Festinger and Carlsmith found that those in the \$1 group

³ For example, Jon Behar's website (<http://www.apaththatsclear.com/>) uses giving games to promote charitable giving, and uses rates at which people sign-up to receive information about giving opportunities as the key measure of his intervention's success.

rated the boring task substantially more positively than those in \$20 group. They proposed cognitive dissonance theory to explain the results.

In brief, cognitive dissonance theory argues that people hold the desire to maintain consistency between their beliefs and their actions. When one is paid a very small amount (in their case \$1) to lie about the boring task, one cannot use that amount to justify the lie. Thus, participants form the belief that they actually did enjoy the task (as compared to forming unpleasant belief that they are cheap liars). In contrast, a larger payment of \$20 is sufficient to justify the lie (at least in the late 1950s). Consequently, participants in this condition did not need to change their beliefs in order to maintain consistency with their actions.

These results were influential. A substantial literature has now emerged showing that one can design paradigms to promote positive attitudes or interest towards any number of activities (Kitayama et al., 2004; Cialdini and Goldstein, 1984). An example is the “Effort Justification Paradigm.” The idea is that when one engages in a strenuous activity that s/he would not typically choose, s/he develops the perception that the activity is attractive in order to justify the effort. Axsom and Cooper (1985) successfully applied this paradigm to induce weight loss. Recently, economists have used consistency to explain economic behaviors (Falk and Zimmermann, 2013; Ellingsen and Johannesson, 2004; Matthey and Regner, 2011)

Our compound task mechanism is a novel but straightforward application of cognitive dissonance theory: it is built on the idea that people desire to maintain consistency between their beliefs and actions. We revise previous incentive approaches that promote interest in activities when people comply with incentives. Our goal is to avoid detrimental effects on interest stemming from failures to comply. We show that one can avoid risks stemming from low compliance by rewarding both a target activity and a “complement” task. We elaborate below on how to use this “compound task” as part of a broader approach to incentivizing intrinsic interest in the target activity.

3.1 The Model

Previously studied approaches to promoting positive behavioral changes, such as those described by Charness and Gneezy (2009), employ two stages. The first stage offers a short experience with the target activity, and the second stage a longer opportunity for repeated exposure to the

target activity. We do the same, with modifications to circumvent potential detrimental effects stemming from a failure to comply with second-stage incentives.

The essence of our compound task approach is that by offering second-stage rewards for repeating the complement task instead of the target task, a failure to comply no longer results in detrimental effects on attitudes towards the target activity. Instead, a failure of compliance generates an increased preference to engage in the target activity.

Like others, our compound task approach consists of two stages. In Stage 1, individuals are provided an incentive to participate in a one-time compound task. The compound task consists of both the target task and a complement task. The target is the task towards which one hopes to promote a positive attitude. The complement task should be chosen to enhance the positive attributes of the target task. In our case, the target task is volunteering. The complement task can be, for example, writing about or reading articles about the benefits of volunteering. A strong complement task might involve informing friends about the benefits of volunteering. In Stage 2, individuals are rewarded if they succeed in repeating the complement task for a certain period of time. To illustrate how this two-stage incentivized intervention can promote positive attitudes toward the target task, consider the following framework.

Let T denote the target activity, and C the complement task. Assume that C has been chosen so that performing it promotes interest in T . A person is incentivized to perform a compound task comprised of T and C ; denote this by TC . Successfully completing TC results in money earnings M_{TC} . Denote the psychic value of completing the task as $U(T,C)$. Assume preferences are additively separable between T and C , so that:

$$U(T,C) = U_T(T) + U_C(C)$$

To ease notation, below we omit the “ T ” and “ C ” subscripts from the utility function.

Next, assume further that the total value $V(TC)$ to completing the compound task successfully is:

$$V(TC) = U(T,C) + M_{TC} = U(T) + U(C) + M_{TC}$$

Without loss of generality, assume the value of the outside option (not completing TC) is zero.

Drawing on the psychology literature mentioned above, an agent is motivated to maintain consistency between her beliefs and actions. If an agent performs TC then she will hold the belief that she prefers TC to the outside option (that is, she knows the sign of V). However, the action of performing TC does not reveal the values of the components that comprise this utility.

Specifically, an agent infers her preferences by observing her own choices, in a way that is analogous to an econometrician inferring features of individual preferences from choice data. An agent knows she would choose to complete the compound task if and only if $V(TC) > 0$, or:

$$U(T) + U(C) + M_{TC} > 0 \quad (1)$$

Suppose a person completes this task.⁴ He/she thus knows that condition (1) holds although he/she does not know how $U(T)$ and $U(C)$ contribute individually to $V(TC)$.

An agent is next given an opportunity to complete only the complement task C . Suppose the agent knows they will receive money earnings $M_C > M_{TC}$ for successful completion of this task, and denote their psychic value for completing the task as $U(C)$. Again, suppose the outside option has value zero. Assume the agent knows he/she would complete the complement task if and only if

$$U(C) + M_C > 0 \quad (2)$$

Recall the complement task has been designed so that completing it leads to increased positive feelings toward the target activity. Consequently, by construction, successful completion of the complement tasks promotes interest in the target activity.

Consider now the implication of failure to comply with the complement task. An agent who fails to comply with the complement task knows that (2) does not hold. That is:

$$U(C) < -M_C < -M_{TC} \quad (3)$$

Combining (3) and (1), this agent discovers that:

$$U(T) > -U(C) - M_{TC} > 0 \quad (4)$$

Thus, an agent who fails to complete task C discovers she prefers task T over the outside option. Consequently, regardless of compliance with C , she develops a positive attitude toward the target activity. For this reason, we say the mechanism is “failsafe.”

As a practical matter, as is the case in the present paper, the complement task in Stage 2 will be a repetition of the complement task used in Stage 1. Denote by C' the second stage repetition of the initial complement task C . Suppose the utility for performing C' can be expressed by:

$$U(C') = \alpha U(C) \quad (5)$$

where $\alpha > 0$.

⁴ The model makes no prediction in cases where a person fails to complete the first-stage compound task.

The lower bound of zero imposes the condition that the sign of the utility will not change as a result of repetition. So, for example, without additional incentives such as payment for a complement task, a person who prefers the outside option to the writing task for a short time will not prefer writing for a long time over the outside option.

We now have:

a) From (1), compliance with Stage 1 implies:

$$U(C) > -U(T) - M_{TC}$$

b) Failure to comply with Stage 2 incentives implies

$$U(C) < -M_C/\alpha \quad (6)$$

Combining a) and b) reveals:

$$U(T) > M_C/\alpha - M_{TC} \quad (7)$$

Now, when $\alpha \leq M_C/M_{TC}$, then from (7) an individual draws the inference that: $U(T) > 0$. In particular, a straightforward application of Cognitive Dissonance theory reveals that, in order to maintain consistency between behaviors and beliefs, one draws the inference that the target task T is preferred to the outside option.

On the other hand, if $\alpha > M_C/M_{TC}$ then $M_C/\alpha - M_{TC} < 0$. In this case, either $U(T) > 0$ or $U(T) < 0$ can be consistent with condition (7). Thus, an individual cannot form inferences about preferences for the Target activity in relation to the outside option, and consequently the two-stage intervention is neutral. In particular, the mechanism implies no impact on one's beliefs regarding T when one fails to comply with second stage incentives. In this sense, the mechanism is "failsafe."

Overall then, so long as the mechanism is designed so that $\alpha \leq M_C/M_{TC}$ for a non-negligible fraction of the population of interest, then the compound task approach is predicted to promote a positive attitude toward T .

Three points are worth noting. First, for ease of exposition, the derivation above assumes additively separable utility (although the result holds more generally). For example, if utility takes form $U(T,C) = U_C(C)U_T(T)$, then it is easy to see that by taking logs, an analysis exactly analogous to the above can be constructed. Second, in some (perhaps most) cases, the researcher may not know the value of " α " above. As a practical matter, in order to have confidence that $\alpha \leq M_C/M_{TC}$ is satisfied for a non-negligible fraction of the population, the incentive for compliance with the second stage task M_C should typically exceed that paid for compliance with the first-

stage compound task M_{TC} . In the experiment reported below, the second-stage incentive is twice the value of the first-stage incentive.⁵ Finally, as in a typical structural econometric analysis of choice data, agents preferences are revealed (in this case not to an econometrician but rather to themselves) both from what they choose to do as well as what they do not. Consequently, agents who make the same choice from different choice sets can form different inferences about their own preferences. The key idea underlying our approach is that one can manipulate preferences by manipulating the choice sets.

4. Experiment

Our two stage approach extends the two-stage mechanism designed by Charness and Gneezy (2009) to promote exercise. Their mechanism involves an incentivized one-time first-stage activity followed by a second-stage in which the activity is repeated over time. Like their study, we incentivize the target activity in the first stage (in our case, volunteering). Our mechanism pairs the target activity with a “complement” activity in the one-time first-stage activity, and then incentivizes repeated “complement” activities only in the second stage. As we explained above, this insures against the possibility of detrimental effects stemming from non-compliance during the second-stage task. To test our hypothesis that our proposed mechanism performs better than traditional incentive mechanisms that reward only target activities, we design another two treatments where repeated volunteering is rewarded in the second stage. In yet another treatment, subjects are only incentivized to perform the one-time first-stage activity. The reason for this treatment is that it allows us to draw inferences regarding the effect of the second stage intervention. Finally, we conducted a baseline treatment in which information regarding the value of volunteering was provided but no incentives were offered.

4.1 Target activity: Volunteering

Our goal is to promote intrinsic interest in volunteering. To ease participation in our study, we chose a task that required little advance planning. We provided our participants the opportunity to volunteer at the Carnegie Library of Pittsburgh (CLP) as part of one of three programs:

⁵ We used a second-stage incentive valued at twice the first-stage because it seemed to be a large difference and was also budget feasible in the event of high rates of second-stage compliance.

“Adopt a shelf” (at the local library); “Shipping and Delivery” (at the CLP shipping center); or “Street Marketing” with any local business (Appendix B gives details of each choice).

Participants needed no special skills to volunteer at CLP, and all three activities were available on a flexible schedule. Participants could choose among multiple locations, though the CLP main library is located on the University of Pittsburgh campus, and this turned out to be the most popular location choice. Another reason we chose the CLP is their capacity to enroll volunteers: during the period of our study the CLP had hundreds of volunteer opportunities available. Finally, an important advantage of the CLP is that they do not require long-term commitments. That is, volunteering even once does much good for the CLP, and there is no detrimental impact on the CLP when volunteers do not return.

All CLP volunteers are required to sign in when they begin and sign out before they leave. These sign-in sheets serve as our record of volunteering activities. To ensure anonymity among the volunteers, each participant created a user name on the recruitment day in the lab and signed in at volunteering sites using only their unique user name.

4.2 Complement task

The complement task required only that the participant email the experimenter a line about the benefit of volunteering. We chose this task because we expected that engaging in it repeatedly would reinforce interest in the target activity, and in particular, potentially make salient both the possibility of volunteering, and its social and private benefits⁶.

The writing task was not intended to be difficult or time consuming. Participants were to simply email their message to a particular email account set up for this experiment. The benefits they listed could be written in their own words or copied (cut and pasted) directly from the web. Participants could even copy the benefits from the information sheet we distributed to all participants detailing social and individual benefits of volunteer activity. They were given no length requirement.

We viewed writing as a natural complement task, though other tasks might also be effective. For example, instead of writing to the experimenters, participants might alternatively

⁶ Psychologists have long studied the effect of writing on mental health and behavior (*e.g.*, Pennebaker, 1997). Writing is also widely used in psychology to make certain aspects of an environment more salient or accessible to subjects. For example, Weber et al. (2007) show that subjects who were asked first to provide arguments favoring immediate consumption displayed greater discounting than those who had first to provide arguments favoring delayed consumption.

be asked to send messages to a friend, or perhaps spend time reading articles describing the benefits of volunteering. It would be useful to investigate, both theoretically and empirically, what types of complement tasks might be more or less effective in promoting one's interest in volunteering.

4.3 Treatments

Our experiment consisted of five treatments. In *Baseline*, participants were not rewarded for any activities. Participants in *Baseline* were provided information regarding volunteering opportunities at CLP and were invited to participate. To maintain symmetry with the other four treatments, participants were also invited to write to the experimenter their thoughts regarding the benefits of volunteering⁷ (see Appendix A for instructions).

In each of the remaining four treatments, all participants were rewarded \$25 for completing two specific tasks (what we call a compound task) within one week. The compound task included: (i) volunteering at least one hour at CLP (the target task); and (ii) writing two messages about the benefit of volunteering (the complement task; see Appendix A for instructions). The four treatments varied after the first week. In *VWI* (volunteering and writing just one time), participants were encouraged to continue to help CLP, but were not rewarded for doing so. In the remaining three treatments, participants were rewarded \$50 (in addition to the original \$25) to complete various tasks.

In the *W* treatment (described below), participants were rewarded for completing the complement task multiple times. Our model predicts that this is a “failsafe” mechanism in that it can create a positive attitude towards volunteering regardless of compliance. In the other two treatments (also described below), rewards were provided for volunteering or volunteering and writing. As noted above, rewarding the target activity may be ineffective when compliance rates are low.

W treatment (Failsafe mechanism)

In this treatment, following the \$25 week, participants were rewarded by \$50 to email three messages (any length) about any benefit of volunteering in each of the following four weeks. The only requirement was that the three messages needed to be sent on different days and include

⁷ It turns out no one wrote any message in the baseline.

different content. This incentivized participants to consider the benefit of volunteering repeatedly over four weeks. It is worth emphasizing that, as noted above, this task was not difficult. The purpose of the task was not to *discover* benefits of volunteering, but rather to motivate *thinking* about volunteering in a positive way. This feature of the writing helped minimize the possibility that people would believe they had failed due to the difficulty in coming up with benefits of volunteering, in turn minimizing the risk that they would draw negative inferences about volunteering.

V treatment

Following the \$25 week, participants in this treatment had the opportunity to earn \$50 if they volunteered four times in four weeks. This treatment is closely analogous to Charness and Gneezy (2009)'s exercise task. Participants could volunteer any time during the four weeks, with the requirement that each time they needed to volunteer for at least one hour.

VW treatment

Participants in this treatment had the opportunity to earn \$50 if they successfully completed the compound task four times in four weeks. That is, to receive \$50, participants needed to volunteer four times (in total) and write two messages per week over four weeks.

4.4 Procedures

We recruited all the 264 participants on the same day to ensure that all participants had identical volunteer opportunities available. During the first day, participants were asked to complete a wide-ranging questionnaire and were given an information sheet describing the benefits of volunteering. Volunteer opportunities at Carnegie Library of Pittsburgh (CLP) were then provided to them. We then encouraged them to volunteer at CLP, and offered them \$2 for completing an application prior to their departure from the lab. In the application form, subjects were also asked to create their own user ID for signing in whenever they volunteered. Among the 264 subjects, 31 were randomly assigned to *Baseline*. The other 233 were offered \$25 if they completed the compound task.

Subjects who completed the \$25 task were asked to return to the lab seven days later to receive their payment. We then randomly assigned the remaining 233 subjects to the four reward

treatments (VW1, W, V and VW). The randomization was constrained to ensure that each treatment included similar numbers of participants who successfully completed the \$25 task. This procedure resulted in 58 subjects assigned to the VW1, V and W treatments and 59 assigned to the VW treatment. Each treatment included 26 to 28 people who had successfully completed the \$25 task (see Table 1).

Participants learned of the second phase of the experiment only on the seventh day, and not before. In particular, when picking up their \$25, those who were assigned to W, V or VW were told how they could now earn a \$50 reward. Subjects who were randomly assigned to the VW1 treatment received messages that encouraged them to continue to volunteer at CLP. Participants who failed to comply with initial week's \$25 task, and thus did not return to the lab to receive payment, received their treatment assignment via email. The email used language identical to that used for participants who succeeded (see Appendix C for the messages given to participants in each treatment).

Four weeks later, subjects who completed the tasks returned to the lab and received their \$50 earnings. Then, about three weeks later, we sent an email to all participants with a link to a survey. At the conclusion of this survey, participants were asked whether they would like to sign-up to receive information about volunteer opportunities at CLP. There was no default answer: they could click "yes" or "no." Their answer to this question served as a revealed preference measure of their attitude toward volunteering.

The reason we chose to send the survey several weeks after the conclusion of the experiment is that while immediate attitude changes are interesting, of greater practical importance is whether any attitude changes persist. Three weeks is long enough to demonstrate persistence, while still sufficiently temporally close to the intervention to have confidence that any observed changes are due to the experiment. Another reason not to delay beyond three weeks is that response rates may fall as time between the experiment's end and the survey administration increases. In our case response rates were strong, with answers provided by 160 subjects (61% response rate).

5. Hypothesis

Applying the model discussed in section 3 to W , consider those who complete the \$25 task in the first week ($U(T)+U(C)+25>0$). If they complete the writing task in the following four weeks and

thus earn the \$50 reward, repeatedly thinking and writing about the benefit of volunteering will leave the benefits of volunteering more accessible, and thus leave them more likely to hold a positive attitude towards volunteering (Schwarz, 1998). On the other hand, if they fail to write for \$50, then they will believe that they do not prefer the writing task to the outside option ($U(C) + 50/\alpha < 0$). To reconcile their completion of both volunteering and writing in the first stage with their failure to write in the second stage, they will hold the belief that they prefer volunteering to the outside option as long as $\alpha \leq 2$.⁸ Thus, the reward mechanism in W is failsafe in the sense that it can lead individuals to develop a positive attitude towards volunteering regardless of their second-stage compliance rate.

In V and VW , volunteering is included in the \$50 reward task. Consider those who complete the first-stage \$25 task during the first week. If subjects succeed in the \$50 task, and participate in volunteering repeatedly for four weeks, the repeated participation could lead subjects to become interested in volunteering (e.g., Charness and Gneezy, 2009). On the other hand, if subjects fail to complete the \$50 task, in the V treatment they may conclude that they do not prefer volunteering to the outside option. In VW , subjects who do not earn the \$50 reward may believe they prefer neither volunteering nor writing to the outside option. Thus, the reward mechanism is risky in both V and VW . Participants may develop a positive attitude toward volunteering if they comply with the task, but develop a negative attitude if they fail to comply.

Because volunteering is a low frequency activity and we anticipate low compliance rates, we hypothesize that the reward mechanism in W is more likely to promote a positive attitude toward volunteering than either V or VW . That is, we predict that more participants will sign up to receive volunteering information in W than in either V or VW .

6. Results

Participants could choose among three volunteering opportunities. Nearly all participants chose “Adopt a shelf” on the University of Pittsburgh library campus: among the 108 participants who completed the compound task in the first stage, two chose “Shipping and Delivery” and seven chose “Street Marketing.” In the second-stage, all but one participant who volunteered at all choose “Adopt a shelf.” Table 1 details compliance rates for each stage of each condition.

⁸ As we point out in the Model section, those with $a > 2$ are not predicted to hold any particular belief regarding their preference for T in relation to the outside option as a result of a failure to comply with writing during the second stage task.

In Baseline, where no reward was provided, only one participant volunteered. As shown in Table 1, in the \$25 reward conditions, 107 out of 233 subjects volunteered for at least for one hour. Compliance rates were much lower when repeated activities were required to earn \$50: we found 24% in *V*; 10% in *VW* and 7% in *W*.⁹ Note these rates differ greatly from those reported in Charness & Gneezy (2009), where compliance rates exceeded 90% and habit formation occurred. Further, since compliance rates are quite similar in *VW* and *W* (10% vs. 7%, Z-test, two tail $p > 0.5$) it is interesting to compare sign-up rates between these two conditions. Finally, note the compliance rate in *V* is significantly higher than either *VW* or *W* (Z-test, two tail $p < 0.05$). To test our hypothesis, below we focus on the sign up rate across different treatments.

6.1 Email Sign-Up Rate

We first report treatment differences discovered with non-parametric tests and then proceed to discuss results based on regression analyses. In short, we find systematic evidence that *W* is indeed a failsafe way to promote interest in volunteering.

6.1.1 Non-parametric analysis

Our goal is to discover the impact of incentive mechanisms on intrinsic interest in volunteering, and, in particular, whether our proposed failsafe mechanism – illustrated here with the *W* treatment – can promote positive attitudes toward volunteering even under (very) low compliance rates. One hundred sixty subjects completed the survey that ended with the sign-up opportunity. Figure 1 plots the overall signup rate among those who completed the survey in each treatment. The numbers in parentheses (on the x-axis) are failure rates. Consistent with our hypotheses, *W* achieves the greatest sign-up rate and is the only incentive treatment that achieves significantly greater sign-up rates than the baseline treatment (53% vs. 24%, Z-test, one tail p -value = 0.02). Moreover, the signup rate in *W* is significantly higher than *VW* (53% vs. 21%, Z-test, one tail p -value < 0.01), which is especially interesting in view of the similarly low compliance rate found in each. The sign-up rate in *W* is also substantially higher than in *V* and *VWI*, although with our sample sizes these differences are not statistically significant at

⁹ The extremely low compliance rate in *W* treatment may be somewhat surprising. It would be interesting to understand why most of our participants fail in this seemingly easy task. Our messages suggest that most of our participants did not try to succeed. Only four participants successfully completed the writing task; and only three others sent any messages at all. One explanation for this lack of interest is that people may find the task not meaningful (Ariely et al., 2008) despite our framing the task as “share with us your own thoughts on volunteering”.

conventional levels (53% vs. 39%, Z-test, one tail p-value=0.14; 53% vs. 38%, Z-test, one tail p-value=0.11).

The failsafe hypothesis is conditioned on participants complying with the first-stage one-time compound task. We next examine sign-up decisions among this particular set of participants. (Recall that each participant who completed the first-stage compound task was randomly assigned to one of the four incentive treatments at the end of the \$25 week.) Among this group, the difference between W and all other incentive treatments is much more apparent. Moreover, these differences are not present among those who failed to comply with the first-stage compound task.

Figure 2 reports separately the sign-up rates of those who succeeded or failed to comply with the compound task. Panel a) reveals that sign-up rates in W are significantly higher than V , VWI and VW (68% vs. 42%, Z-test, one tail p-value=0.05; 68% vs. 43%, Z-test, one tail p-value=0.05; 68% vs. 25%, Z-test, one tail p-value<0.01). In contrast, panel b) shows that for those who did not comply with the \$25 task, there are no significant differences between W and any other condition (Z-test, one tail p-value>0.10 in all cases).

Next, among those who completed the first-stage compound task, we compare across treatments the sign-up rates for those who fail to comply with \$50 task in the second stage. Sign-up rates are described by Figure 3. Panel a) shows that those participants who failed to comply during the second stage of V and VW are also significantly less likely to sign up than those who failed to comply in W (25% vs. 69%, Z-test, one tail p-value=0.02; 21% vs. 69%, Z-test, one tail p-value<0.01). Further, the sign-up rates of those who failed to comply in V and VW are (marginally significantly) lower than those in VWI where no incentive was offered in the second stage (25% vs. 43%, Z-test, one tail p-value=0.17; 21% vs. 43%, Z-test, one tail p-value=0.06). In contrast, those who failed to comply in W are marginally significantly more likely to sign-up than are those in VWI (69% vs. 43%, one tail p-value=0.06). These comparisons differ sharply from those reported panel b), which reports sign-up rates among those who complied with both the first-stage and second-stage tasks. Sign-up rates among treatments are not significantly different and, in view of our randomization procedures, there is every reason to expect this would be the case.

Figure 3 explains why, among those who succeeded in the compound task in the first stage, the sign-up rate V (Figure 2, panel a) is not as low as found in VW : compliance in the

second stage is higher in V than VW . In particular, 11 out of 19 subjects in V who completed the \$25 task and answered the survey also succeeded in the \$50 task. This sharply contrasts with VW , where only five of 24 who succeeded in the \$50 task.

A common question is whether selection effects hinder the interpretation of treatment differences revealed in Figure 3. In particular, several have suggested that sign-up rates vary because, for example, those who fail to comply in W are simply more likely to be interested in volunteering than those who fail in VW . It turns out, however, that simple selection effects cannot easily explain the patterns in Figure 3.

To see this, suppose a fraction p ($0 < p < 1$) of participants hold a pre-existing willingness to volunteer, and a fraction q ($0 < q < 1$) hold a pre-existing willingness to write about volunteering. Suppose further that these characteristics are independently distributed across our participants, and finally that people sign-up for informational emails only if they have a pre-existing interest in volunteering (that is, assume our intervention has no impact on intrinsic interest). Then, it is easy to show that the sign-up rate among those who failed in the second stage should be ordered according to $V < VW < W = VW1$, where the sign-up rates are predicted to be 0 for V , $p(1-q)/(1-pq)$ for VW , and p for both W and $VW1$. This is inconsistent with the data reported in Figure 3(a). Further, straightforward selection predicts that the sign-up rate among those who succeed in the second-stage task should be ordered according to $VW1 = W < VW = V$, with rates of p for $VW1$ and W , and rates of 100% for V and VW . While the numbers of observations are few, Figure 3(b) does not seem consistent with this ordering. Consequently, simple selection does not seem to offer a plausible alternative explanation for the patterns described in Figure 3¹⁰.

Note finally that some have suggested that those who complete the first stage compound task may be relatively more sensitive to cognitive dissonance effects than those who do not, and thus more likely to respond to our second-stage manipulation. This may be the case, and if so seems to be a distinct benefit to our approach. In particular, such selection would have the practical advantage of enabling practitioners quickly to focus attention on groups whose attitudes are more likely to be open to change.

6.1.2. Regression analysis

¹⁰ It may be possible to produce a more complex selection effect consistent with our data, but this would seem not to have any explanatory advantage over our straightforward model based on consistency.

We conducted a regression analysis to compare individual sign-up decisions across treatments. The independent variables include treatment dummies and gender. The regression results are reported in Table 2. Including all participants who answered the survey (regression (1)), the coefficient of the treatment dummy W is significantly higher than that of VW and *Baseline* (chi-square test, one-tail, $p=0.01$ and 0.04 , respectively) and also marginally significantly higher than that of $VW1$ (chi-square test, one-tail. $p=0.10$). Although the coefficient of W is higher than that of V , the difference is not significant ((chi-square test, one tail $p=0.12$). When we include only those who completed the first-stage compound task, the coefficient of W is again significantly higher than that of VW and *Baseline* (chi-square test, one-tail $p<0.01$) and marginally significantly higher than that of V and $VW1$ treatments (chi-square test, one-tail $p=0.08$ and 0.06 , respectively). Overall then, the regression analysis is consistent with the non-parametric results reported above.

Previous research finds females to be more active in volunteering than males (Menchik and Weisbrod, 1987). Consistent with this, our regression results also suggest females are more likely than males to sign up. In the next section we further explore gender differences in our experiment.

6.2 Gender differences

Figure 4 reports sign-up rates by gender in each of our treatments. Overall, female participants are substantially more interested in receiving information about volunteering than are males. Treatment effects are most pronounced for males. For example, comparing VW and W , both of which have low second-stage compliance rates, male participants are significantly less likely to sign-up in VW than in W (33% vs. 8%, Z-test, one tail $p =0.03$). Moreover, the sign-up rate for males is significantly higher in W than $VW1$ (33% vs. 7%, Z-test, one tail $p =0.04$).

Recall our failsafe hypothesis is conditioned on participants complying with the \$25 task. We find significantly more female complete the \$25 task than male (53% vs. 29%, Z-test, one tail $p<0.01$). As a result we have a relatively small number of males who finished \$25 task and filled out the survey with the signup question: 7 subjects in $VW1$ and V treatment; 4 in W treatment and 11 in VW treatment. Among these few observations on male participants, our main results still hold: male participants who completed the \$25 task have the highest sign up rate in W and lowest in VW (75% vs. 10%, Z-test, one tail $p<0.01$). On the other hand, for the

female participants who completed the \$25 task, the signup pattern across treatments is very similar to the overall pattern reported in Figure 2(a). In particular, female participants who completed the \$25 task are more likely to sign up in W than VW (67% vs. 38%, Z-test, one-tail $p=0.07$)

6.3. Volunteer Activity

During late September of 2013 we also conducted another survey to obtain evidence on participants' actual volunteering activity during the year subsequent to our intervention. Participants were asked to report the total number of hours they volunteered in all ways during the period since the study ended. Participants earned \$2 for completing the survey. Below we report data from 45 participants who both responded to our survey and who completed the \$25 task, as well as 10 respondents who participated in our Baseline condition¹¹.

Figure 5 details the self-reported volunteering hours of those who completed \$25 task in the four incentive treatments.¹² Figure 5 shows that the pattern of signup rates significantly predicts the pattern of actual volunteering hours (Fisher exact test, $p=0.04$). In particular, W demonstrates the greatest volunteering hours (21.27) and VW the lowest (10.18). Finally, note that respondents who participated in the Baseline condition reported an average of 12.8 volunteer hours over the course of the year. Taken together, these survey data and signup rates are evidence that W is indeed a failsafe mechanism that can be used effectively to promote even low frequency pro-social activities such as volunteering.

7. Discussion

We report data supporting our hypothesis that people are more likely to develop a positive attitude toward volunteering in W than other treatments. Our metric for intrinsic interest is rates at which people sign-up to receive additional information about volunteering. Consistent with

¹¹ The data reported by those who did not complete the \$25 task are not analyzed for three reasons. First, cell sizes are small, with nine or fewer observations in three of the four treatments. Second, we have no hypotheses regarding these people's behavior. Third, due to self-selection it is difficult to draw conclusions from any differences between groups that did and did not complete the \$25 task.

¹² Our analysis excludes reports of greater than 100 volunteering hours. There are two or three such cases in each treatment. The maximum report was 350 (in the W treatment). The reason for this exclusion is that extremely heavy volunteers are more likely to be responding to external incentives unrelated to our interventions (e.g., as indicated by one of our participants, court orders). Including such participants can mask the impact of our mechanism on pro-social decisions.

our hypothesis, we find highest sign-up rates in W, despite the low rates of compliance with W treatment's incentives. This outcome is predicted by a model founded in well-established behavioral economic theory, and whose intuition is simply that people are acting like econometricians for their own preferences. In particular, just as an econometrician draws inferences about agents' preferences by observing which available alternatives are chosen and not chosen, so too does a person uncover their own preferences. Building on this intuition, we show that by manipulating choice sets – alternatives not chosen – one can systematically manipulate people's preferences. Various alternative explanations for our results have been proposed.

One possibility is that subjects in W perceive writing as an easy way to earn \$50. If so, they might sign-up in the hopes of receiving other easy and lucrative future tasks. This explanation is called into doubt for two reasons. First, very few people took advantage of this opportunity to earn money, which suggests people did not perceive it as especially easy. Second, if signups are correlated with the profitability of the task, we would expect the sign up rate pattern across treatments to reflect the pattern of compliance rates. Our data make clear that this is not the case.

A related explanation is that perhaps negative emotions (e.g., guilt, shame or disappointment) were tied to failing a writing task perceived as easy. If so, then people may choose to sign-up as a way to atone for their previous decisions. There are two reasons to doubt this explanation. First, if people sign up to mitigate feelings of guilt or shame, one would again expect relatively high sign-up rates in VW (where guilt can stem not only from a failure to write but also a failure to provide socially beneficial volunteering). As noted, VW received exceptionally low sign-up rates. Second, negative emotions can have many different effects. For example, negative emotions may leave one less likely to take pro-social actions such as signing up to receive information about volunteering. Arguing for a particular impact of a particular negative emotion in a particular treatment seems rather post-hoc, especially in comparison to the theory laid out in the paper.

In sum, we designed a field experiment to test ex-ante predictions made by our behavioral economic model. Our data are consistent with our model's predictions, and we have not yet heard, nor have we been able to develop, an alternative, equally simple, theoretically sound and intuitively plausible explanation for our data.

8. Conclusion

Volunteering plays an important role in any human society. Nonetheless, for most of us, volunteering is not an activity that we can easily incorporate into our daily or even weekly routine. This raises a challenge for designing mechanisms to produce increases in volunteering frequency through habit formation. In this paper, we suggest approaching this task from an alternative direction. In particular, our goal was to design a mechanism to promote *intrinsic interest* in volunteering.

Drawing from previous theory in psychology and economics, we first modeled, and then proposed and designed a field experiment to test a “failsafe” mechanism for promoting intrinsic interest in volunteering. Like previous approaches, our mechanism involves two stages and involves incentivizing performance of a targeted activity. Our approach departs from the conventional procedure in that the first stage incentivizes performance of both the target behavior as well as a complement task. The second stage incentivizes behavior of the complement task only. We showed that, conditional on complying with the first-stage activity, this mechanism promotes positive attitudes towards the target activity regardless of second stage compliance.

Our tests yielded empirical evidence that this approach indeed holds promise. In particular, we found that people who complied with the first-stage activities demonstrated an increased interest in volunteering regardless of their compliance with the second-stage task. The increase in positive attitude was greater than that found in participants who were not given the opportunity to perform a second-stage task. Further, the increase was greater than found for those who were given a second-stage incentive to perform the target activity. The reason is that failure to comply with the target activity in the second-stage has a detrimental impact on attitudes toward that activity.

Our study used the sign-up rate as a metric of people’s intrinsic interest in volunteering. In practice, volunteer organizations often make substantial efforts in recruiting sign-ups for newsletters or other forms of announcements that help to ensure people have the information they need to take advantage of opportunities for pro-social activities. Our findings may provide insights useful for volunteer organizations interested in designing new ways to promote interest in their activities. Doing so could be particularly valuable, in that our survey data indicate the intervention that promotes greater intrinsic interest in volunteering is also more likely to increase

participation in volunteering over the course of the subsequent year. In future research, we intend to extend our findings by developing multi-year panels for the purpose of investigating connections among intrinsic interest, volunteering, life-satisfaction and social well-being.

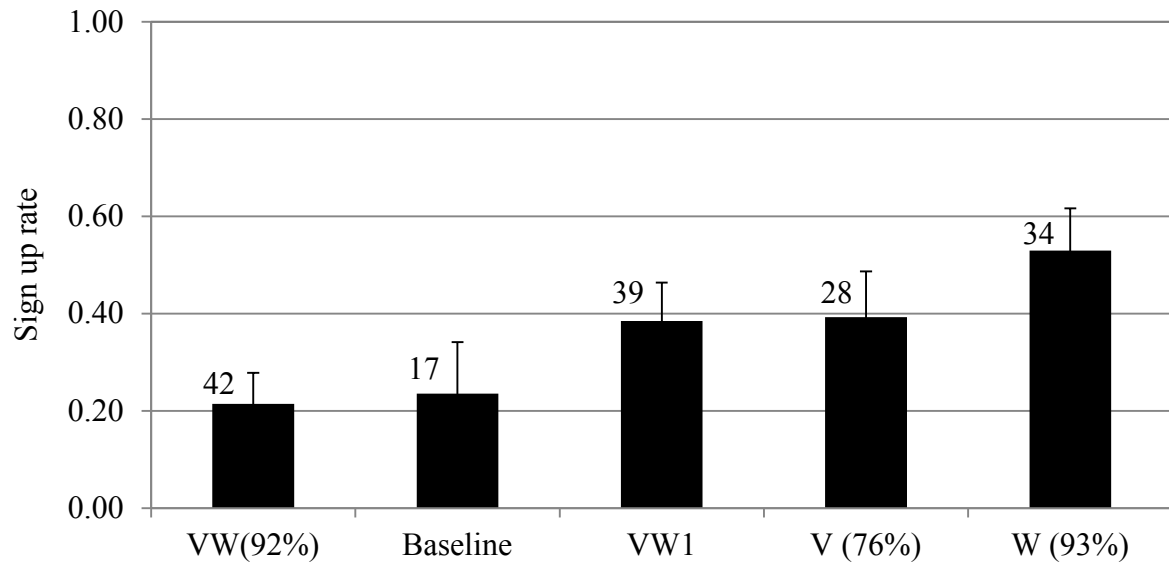
Table 1. Descriptive data of volunteering in each treatment

	# of subjects			Register for	Number	Number
	Total	Female	Male	first week volunteer	volunteered (earn \$25)	complied (earn \$50)
Baseline	31	14	17	9	1	
VW1	58	33	25	41	26	
\$25+\$50						
V	58	34	24	45	27	14
VW	59	21	38	43	28	6
W	58	25	33	43	26	4

Table 2. Probit regression analysis of sign-up rate of those who answered the survey

	Dependent variable: Signup=1 if yes; =0 if no			
	(1) Include all		(2) Include only those who completed \$25 task	
	Coef. (s.e)	p-value	Coef. (s.e)	p-value
Baseline	-0.26 (0.38)	0.49		
VW1	0.09 (0.23)	0.70	0.03 (0.28)	0.91
V	0.10 (0.26)	0.69	0.05 (0.31)	0.88
VW	-0.22 (0.25)	0.40	-0.40 (0.31)	0.19
W	0.49 (0.24)	0.04	0.63 (0.31)	0.04
male	-1.20 (0.24)	0.00	-0.71 (0.32)	0.03
# of obs.	160		85	

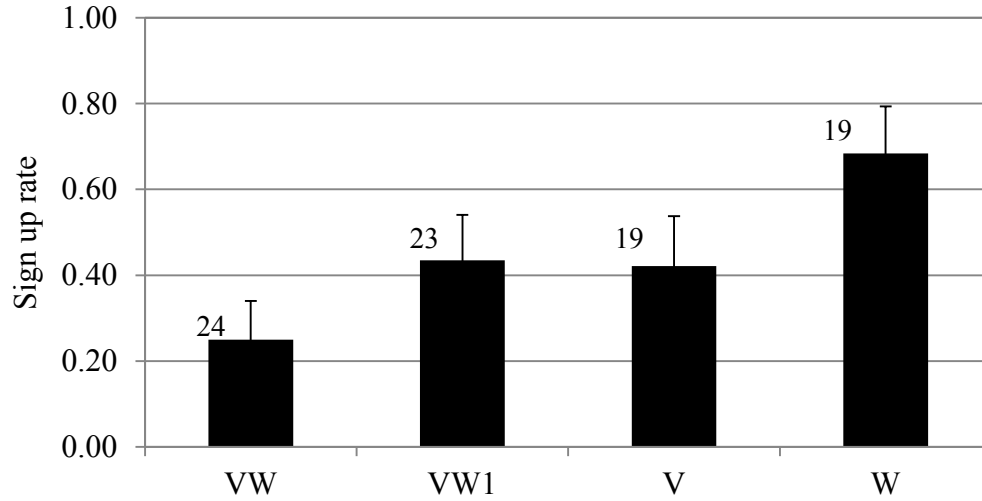
Figure 1. Sign-up rate by treatment



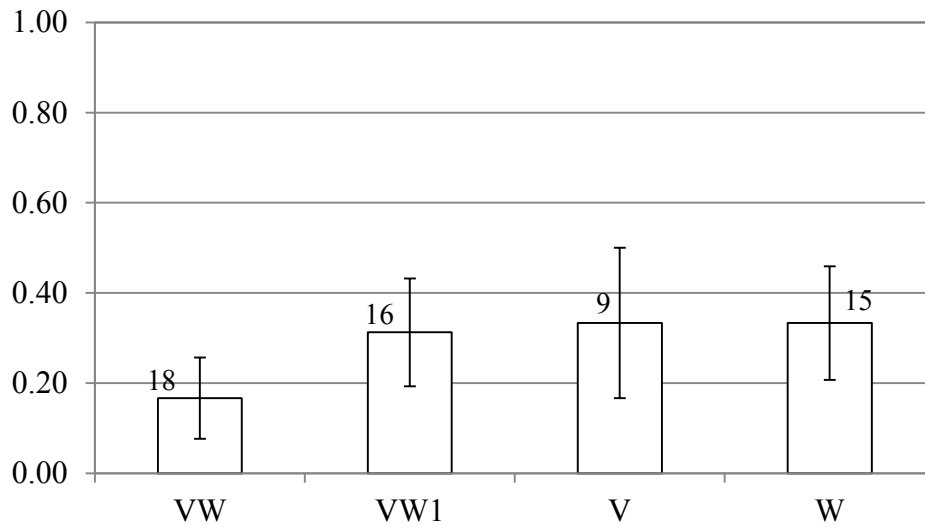
Note: The number on each bar is the number of observations in each condition. The percentage in the parenthesis is the failure rate in the \$50 task.

Figure 2. Sign-up rate by participant performance in \$25 week

a) Sign-up rate of the participants who succeeded in the \$25 week



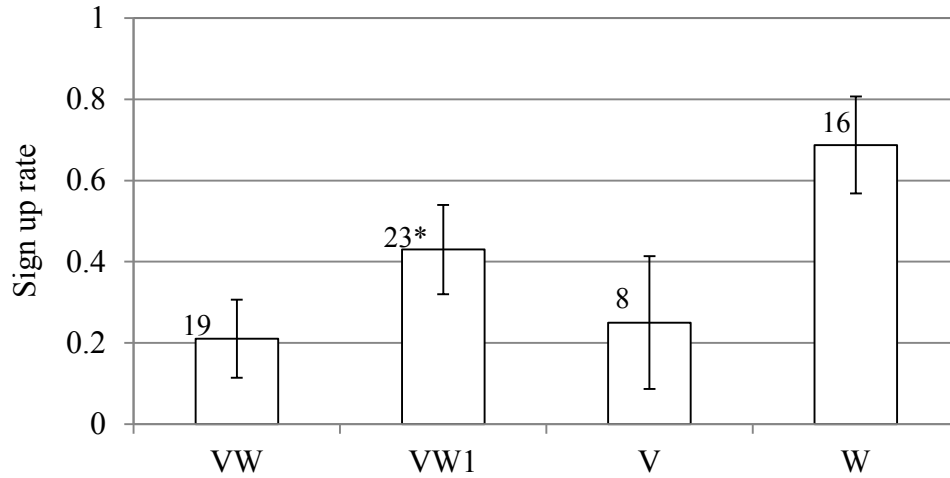
b) Sign-up rate of the participants who failed in the \$25 week



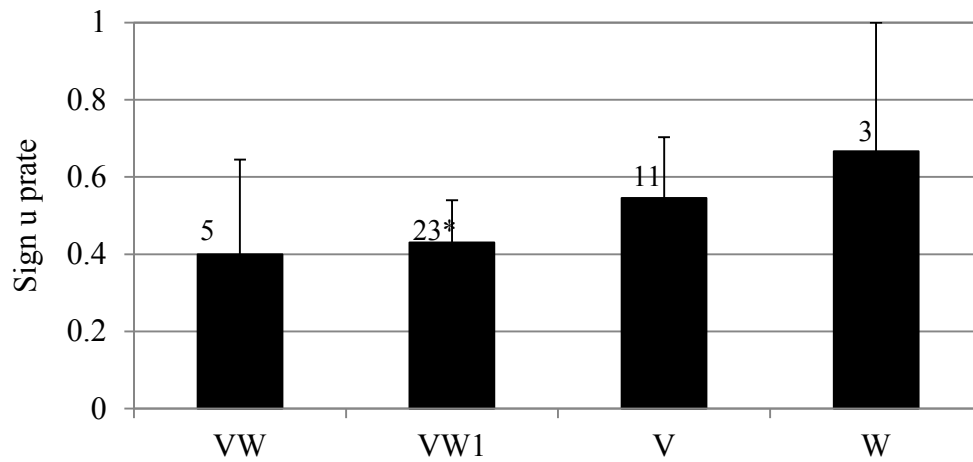
Note: The number on each bar is the number of observations in each condition

Figure 3. Sign-up rate by participants' performance in \$50 week (including only those who succeeded in \$25 week)

a) Sign-up rate of the participants who failed in the second stage task



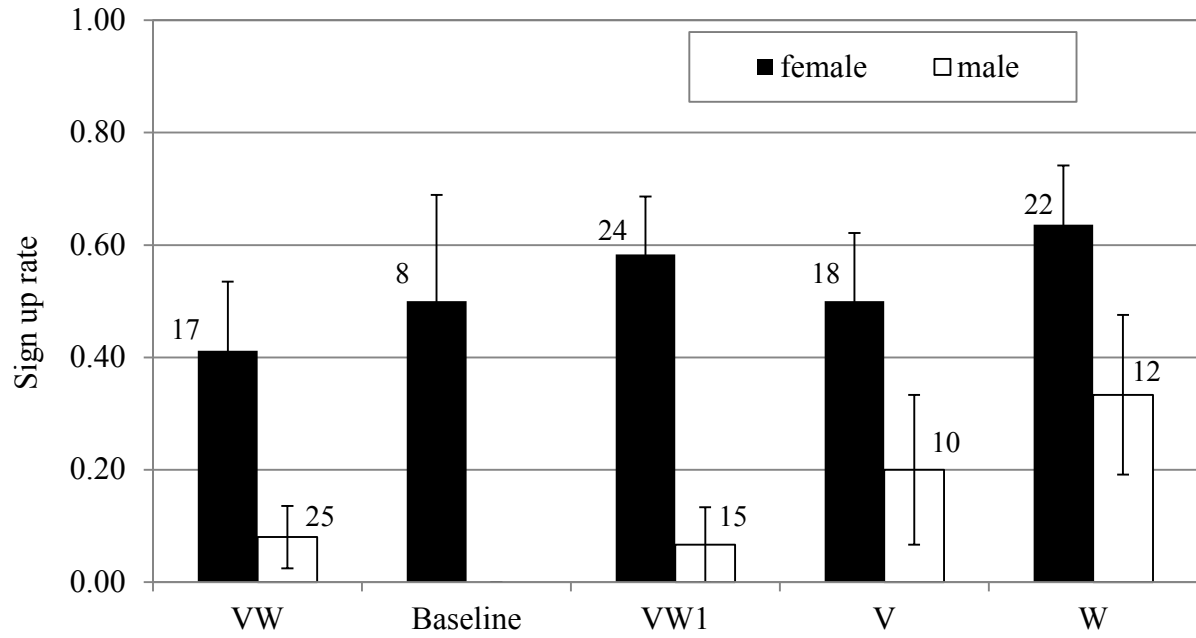
b) Sign-up rate of the participants who succeeded in the second stage task



Note: The number on each bar is the number of observations in each condition

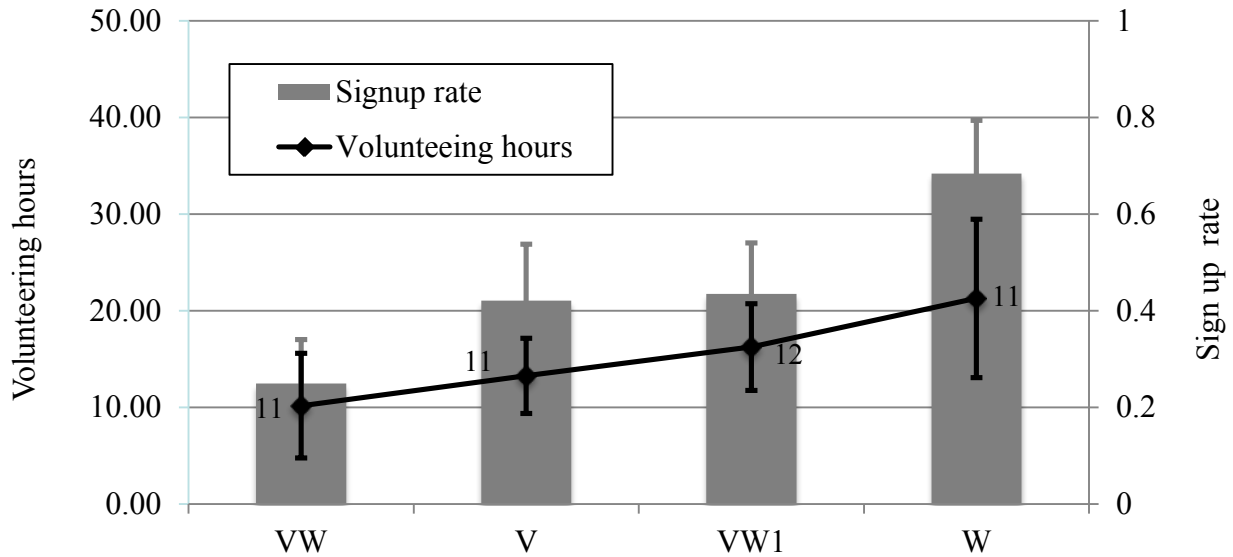
* In VW1 treatment, all participants who succeeded in \$25 week task are included in both panels.

Figure 4. Sign-Up Rate by Treatment and Gender



Note: The number on each bar is the number of observations in each condition. In Baseline, none of the eight male participants who answered the survey signed up for the email.

Figure 5. Self-reported volunteering hours



Note: The number on each bar is the number of observations of volunteering hours in each condition.

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Appendix

A. Instructions on the first day.

Instructions

(All participants)

Thanks for coming. You have received an information sheet describing the benefits of volunteering. We would like to encourage you to become involved, or to continue to be involved, in volunteering around Pittsburgh.

In particular, we would like to invite you to participate in volunteer activities at the Carnegie Library of Pittsburgh. The next several pages include detailed information about volunteer opportunities at Carnegie Library of Pittsburgh. Please read these pages carefully. Carnegie Library of Pittsburgh is "Free to the People" and volunteers help the library to provide improved services to its user community.

(Only the Participants in Baseline)

We would also like to invite you share with us your own thoughts on volunteering by emailing us (volunteer-writing@andrew.cmu.edu). In the message, you will write about: 1) why you think volunteering is important for society; and 2) how volunteers can benefit from volunteer activity. Your messages can be based on either your own experience or others' experiences. There is no length requirement for the messages. Only the experimenter will see your messages.

(Only the Participants in the four incentive treatments)

In order to promote volunteer activities, we will award you with \$25 if you complete all of the tasks below within the next seven days. For example, if today is Tuesday, you need to complete the tasks by next Tuesday.

1. Volunteer in at least one of the activities (for at least one hour) listed on the attached page.
2. We would also like to invite you to share with us your own thoughts on volunteering by emailing us (volunteer-writing@andrew.cmu.edu) two messages. In the message, you will write about: 1) why you think volunteering is important for society; and 2) how volunteers can benefit from volunteer activity. Your messages can be based on either your own experience or others' experiences. There is no length requirement for the messages, but please note (i) the two messages must be sent to the above email address on different days and (ii) the messages must include different content. Only the experimenter will see your messages.

To pick up your earnings of \$25 please come to this same lab next week at this same time. For example, if today's session is from 2pm-3pm on Tuesday, please come to this lab at 2pm next

Tuesday. If you are not able to come at that particular time, please email the experimenter (experimenter-lab@andrew.cmu.edu) as early as possible to schedule an alternative time.

(All participants)

To participate in volunteer activities, you should sign up at least one day in advance. Please note that there are limited numbers of volunteer opportunities available each day and it will take up to 72 hours for the organizer to respond to your request. Thus, in order to lock-in the day and time that works for you, we recommend that you sign-up as soon as possible.

Please see below the instructions for how to sign-up for volunteering. You are encouraged to fill out the application form and sign-up today so that the volunteer organizer can process all the request forms in a more efficient way. Signing up today also helps you to lock-in the day and time that works for you. You will receive another \$2 if you apply and sign up today.

If you do not apply today, you can still apply and sign-up later. We will email you a link to a Google calendar where you can view the available volunteer activities as well as the sign-up link. You can follow the instructions there to sign-up for volunteering activities any time that is convenient for you.

Volunteer sign up instructions: (Before signing up to volunteer, please read carefully the attached several pages about the Carnegie Library of Pittsburgh volunteer activities.)

If you are interested in participating, you will need to fill out a short online application form.

For your first volunteer activity at the library, you will be asked to provide your contact information and indicate which program(s), location and time you are available for volunteering. You may choose more than one program, more than one location, more than one time slot, and may indicate your preference over these choices. The volunteer organizer will try to make arrangements based on your preferences. (The application website also provides you instructions about how to contact the library for future sign-up opportunities.)

After receiving your application and sign-up information, the volunteer organizer will email you to confirm the schedule and the location of the activity you signed-up for, and also give you more details regarding how to volunteer. Then you will be on your way to helping our community!

Do you have any question? If so, please raise your hand.

If you have finished reading all the information sheets (volunteer benefit information sheets and the next several pages about the Carnegie Library of Pittsburgh volunteer activities) and instructions, please enter “password” in the box on your computer screen to proceed. You will be asked whether you would like to apply today. If you choose to apply today, please choose “Yes”

and fill out the information. If you choose not to apply today, please choose “No”. Again, by applying today you receive a \$2 bonus for today’s experimental earnings.

B. Information about volunteering opportunities at CLP

Carnegie Library of Pittsburgh Volunteer Opportunities

Thank you for your interest in volunteering for Carnegie Library of Pittsburgh. Volunteers provide an invaluable service to the librarians and the public. By shelving and caring for library materials, or sorting requested items destined for each of the 74 public libraries in Allegheny County, you free librarians to do collection development, reference work, program presentation and outreach. Without our volunteers we would have less time to work with the children, teens and adults, and our materials would not be as accessible for our customers.

For any questions, please email:

*Karen Meharra or Kaylee Petsch
Clpvol+volunteer@gmail.com
Volunteer Services
Carnegie Library of Pittsburgh*

Below is a list of volunteer opportunities the library needs assistance with:

Adopt-A-Shelf Volunteer Program

Locations and Times

- Main Library First Floor Department- Monday-Thursday 10:30-7:30; Friday-Saturday 10:30- 5:00; Sunday 12:30-4:30
- Main Library Music Department-Monday-Thursday 10:30-7:30; Friday-Saturday 10:30- 5:00; Sunday 12:30-4:30
- East Liberty- Monday-Wednesday 10:30-7:30; Thursday-Saturday 10:30-4:30
- Homewood- Monday-Tuesday and Friday-Saturday 10:30-4:30; Wednesday-Thursday 10:30-6:30

Customers and staff rely upon volunteers to have the books in the proper place and in good condition so that library materials can be used. The aim of the Adopt-a Shelf Program is to create a convenient way for volunteers to be able to help better maintain the stacks at the Carnegie Library of Pittsburgh.

Volunteers will be assigned a section of library stacks and shelf read to make sure the books in your adopted section are in proper order, arranged neatly, properly stickered, clean, and undamaged. Volunteers of any age, or even families can apply for this activity.

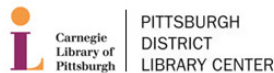
The Adopt-a-Shelf Program has the potential of ensuring that more sections of the library are properly maintained, while also making volunteers feel that they are an important part of the Library because part of the library is “theirs”.

Directions

Main Library- 4400 Forbes Ave. Pittsburgh, PA. Can take the 61A, 61B, 61C, 61D public buses to Forbes and Craig St. Library is right next to the Natural History museum.

East Liberty Library- 130 S. Whitfield St. Pittsburgh, PA. Can take the 75 Outbound public bus to Spahr St. Then walk about a 5 minute walk to the library.

Homewood Library – 7101 Hamilton Drive Pittsburgh, PA. Can Take the 71D outbound public bus to Hamilton and Lang. Then the library is next to stop.



PITTSBURGH
DISTRICT
LIBRARY CENTER



Delivery and Shipping Services

Location and Times

- Delivery Services, also known as Shipping, is located at the Library Support Center, 50 Alexander Street, Pittsburgh, PA 15220 (West End). There is a free parking lot, adjacent to the Library Support Center.
- Volunteers are welcome to help at Shipping on Monday - Friday 9:00am to 4:00pm any amount of time is appreciated

Please help Allegheny County’s Public Library Support Center sort library materials in preparation for delivery to the over 74 public libraries in Allegheny County. Last year over 4 million library items went through Shipping. Without volunteers like you we would not be able to meet the needs of Allegheny County residents.

Five times per week van delivery service is provided for all public libraries within Allegheny County. This service provides the transfer of books, audiovisual materials and mail.

Volunteers work with friendly library staff in a team environment sorting books and other library materials to prepare them for delivery. The Shipping area is well lit, comfortable (albeit on a concrete floor), with a Crystal Springs Water Cooler. The task requires standing, bending, and lifting books that can weigh up to 5 lbs.

Directions

Library Support Center: 50 Alexander Street, Pittsburgh, PA. Take the 61D inbound bus to 6th Ave and Wood St. Then walk to 7th Ave and Penn Ave and take the 31 outbound bus to S. Main St and Wabash. Then about a 2 minute walk to the Library Support Center.

Street Teams Marketing Library Programs

Locations and Times

- Various neighborhoods in Pittsburgh—(Squirrel Hill, Oakland, East Liberty, Regent Square/Point Breeze, South Side, Strip District, Shadyside, Bloomfield)
- Anytime at volunteers convenience

Explore neighborhoods and talk with the businesses and organizations owners/managers regarding hanging posters and distributing flyers advertising programs at the Carnegie Library of Pittsburgh - Main (Oakland).

Carnegie Library of Pittsburgh is "Free to the People." We would appreciate help in spreading the word about resources and programs at Carnegie Library of Pittsburgh.

C. Messages to the participants in the four incentive treatments after the \$25 week

(All participants in the VW1, V, VW and W treatments)

Please read the following information carefully.

We would like to encourage you to continue to be involved in volunteering around Pittsburgh. In particular, we would like to invite you to continue participating in volunteer activities at the Carnegie Library of Pittsburgh. Carnegie Library of Pittsburgh is "Free to the People" and volunteers help the library to provide improved services to its user community.

Please continue to use the Google calendar to sign up for volunteer activities.

(Participants assigned to V treatment)

In order to continue promoting volunteer activities, we will award you with \$50 if you complete the tasks below within the next 28 days.

Volunteer for the activities listed on the Google calendar at least four times (for at least one hour each time) within the following 28 days. For example, if today is Tuesday (Sept. 18), you need to volunteer at least four times by the Tuesday of the fourth week (Oct. 16). Although you can decide which days to volunteer, we encourage you to volunteer at least once in each of the following four seven-day cycles. For example, if today is Tuesday, we encourage you to volunteer at least once by Tuesday of each of the following four weeks.

(Participants assigned to VW treatment)

In order to continue promoting volunteer activities, we will award you with \$50 if you complete the tasks below within the next 28 days.

1. Volunteer for the activities listed on the Google calendar at least four times (for at least one hour each time) within the following 28 days. For example, if today is Tuesday (Sept. 18), you need to volunteer at least four times by the Tuesday of the fourth week (Oct. 16). Although you can decide which days to volunteer, we encourage you to volunteer at least once in each of the following four seven-day cycles. For example, if today is Tuesday, we encourage you to volunteer at least once by Tuesday of each of the following four weeks.
2. Email us (volunteer-writing@andrew.cmu.edu) two messages during each of the following four seven-day cycles. For example, if today is Tuesday, you need to email two messages by Tuesday of each of the following four weeks. In each message, you will write about: 1) why you think volunteering is important for society; and 2) how volunteers can benefit from volunteer activity. Your messages can be based on either your own experience or others' experiences. There is no length requirement for the messages, but please note (i) the two messages must be sent to the above email address on different days and (ii) the messages must include different content. Only the experimenter will see your messages.

(Participants assigned to W treatment)

In order to continue promoting volunteer activities, we will award you with \$50 if you complete the tasks below within the next 28 days.

Email us (volunteer-writing@andrew.cmu.edu) three messages during each of the following four seven-day cycles. For example, if today is Tuesday, you need to email three messages by Tuesday of each of the following four weeks. In each message, you will write about: 1) why you think volunteering is important for society; and 2) how volunteers can benefit from volunteer activity. Your messages can be based on either your own experience or others' experiences. There is no length requirement for the messages, but please note (i) the three messages must be sent to the above email address on different days and (ii) the messages must include different content. Only the experimenter will see your messages.

(All participants in the V, VW and W treatments)

To pick up your earnings of \$50 please come to this same lab at this same day and time four weeks from now. For example, if today's session is between 2pm and 3pm on Sept. 18 (Tuesday), please come to this lab between 2pm and 3pm on Oct. 16 (Tuesday). If you are not able to come at that particular time, please email the experimenter as early as possible to schedule an alternative time on that day.

(All participants in the VW1, V, VW and W treatments)

Again, to participate in the volunteer activities, you should sign up at least 24 hours in advance.

In your sign up email (clpvol+volunteer@gmail.com), **please provide specific date(s), time and program(s) for which you would like to volunteer.**

Please note that there are limited numbers of volunteer opportunities available each day and it will take up to 72 hours for the organizer to respond to your request. Thus, in order to lock-in the day and time that works for you, we recommend that you sign up as soon as possible.

Note: We will email you an electronic copy of this information sheet.