**Experimental Design**

*1. Design*

To examine giving behaviour conditional on recipients' characteristics, we partner with the Salvation Army's Melbourne 614 Project and use their clients as the recipients of the donations given by the participants in the experiments. All recipients are unemployed and disadvantaged citizens living in Melbourne. For each of the three recipient characteristics, presenting (or not) with alcoholism problems (Alcohol), attending (or not) courses to improve employment possibilities (Courses), and is (or is not) disabled (Disabled), participants are either told the recipient presented with that characteristic (Yes), did not present with that characteristic (No), or are provided no information (NA). This defines a total of $3^3$=27 types of recipients.

We hypothesize that these three characteristics vary on the degree to which they reflect choice, effort, and luck. In particular, relatively speaking, Alcohol may be more associated with choice; Courses with effort; and Disabled with luck. We experimentally validate this supposition by conducting a survey experiment with 60 participants drawn from the same subject pool as the main experiment. Participants were asked for their opinions on the extent to which each of the four causes (choice, effort, luck, or other factors) contributed to the three characteristics (expressed in percent, summing to 100%).[1] The results are in line with our hypothesis; for Alcohol, the primary cause indicated by respondents was choice; for Courses, it was effort, and for Disabled, the main cause was luck. See instructions of the survey experiment and data analysis of the survey responses in Appendix D.

Building on this, our expectations were that information indicating that a recipient was disabled, was attending courses, or did not present with alcoholism would be interpreted as good news (indicating that the recipient was "deserving" of receiving the participant's support). Information indicating that a recipient was not disabled, was taking no courses, or did present with alcoholism would be interpreted as bad news (indicating that the recipient was not, or less, "deserving" of receiving the participant's support).[2] Table 1 reports how we expected participants to interpret each characteristic.

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[1] Exerting effort could be considered the result of choice, but choice is not all about effort. For instance, participants in our survey indicate that both effort and choice contribute to both attending courses and (non)alcoholism. However, relatively speaking, on average attending courses is more driven by effort than choice (43.7% vs. 36.8%) and (non)alcoholism is more driven by choice than effort (43.2% vs. 21.5%). See Table D1 in Appendix D.

[2] The general attitudes of people about those that suffer from alcoholism is mixed. Historically, alcoholism was considered a result of a weakness in character. In addition, donors may also believe that clients presenting with

**Table 1:** Expected Interpretations of Recipient Characteristics

| Information | Interpretation | | |
|:-:|:-:|:-:|:-:|
| | ALCOHOL | COURSES | DISABLED |
| Yes | Bad (A-) | Good (C+) | Good (D+) |
| No News | Neutral (NA) | Neutral (NA) | Neutral (NA) |
| No | Good(A+) | Bad(C-) | Bad(D-) |

In the rest of the paper, we denote A+ (A-) as representing good (bad) news on Alcohol, i.e., being a non-alcoholic (being an alcoholic). Similarly, we denote C+ (C-) as good (bad) news on Courses, i.e., attending courses (not attending courses); and D+ (D-) as good (bad) news on Disabled, i.e., disabled (not disabled). NA denotes no information.

In a within-subject design, each participant is endowed with $20 (AUD) facing each of the 27 theoretically possible types of recipients and decides how much, if any, of the $20 to give to each recipient. Recipients are presented in a random order. At the end of the experiment, a participant is matched with one randomly selected recipient type and the donation to this recipient type is implemented by the Salvation Army which selects at random a client matching this type.[3] Participants are informed that no recipient will receive a donation from more than one participant in each session. To further strengthen the credibility of our experiment, participants receive a hard copy of a formal letter from the Salvation Army, explicitly stating that any donations generated in the experiment will be given to clients according to the rules set in the experiment (see Appendix A).[4]

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alcoholism may be more likely to "misuse" any donation. More modern thought is that it is a disease with a possible genetic basis (Zielinski, 2020). The view that presenting with alcoholism would influence the recipient's deservingness is summarised nicely by the following quote in this article, "Instead of supporting people who have an addiction, we stigmatise them, blame them and often don't think they deserve help."

[3] Note that a participant makes a giving decision for each of the 27 theoretically possible types exactly once. Thus, there is no new information to be learnt about the distribution of types or the charity. This design feature eliminates the possibility that the participant would update his or her belief about the distribution of types or the charity when moving from one recipient to the next.

[4] Recipients receive their donations in the form of checks. In Australia, welfare payments must be paid into a bank account, thus, all recipients in this experiment have access to a personal bank account and can easily cash checks. This was the method recommended by the Melbourne 614 Project.

We conducted two such within-subject experiments. The two experiments (Donation with Priors and Donation without Priors) differ only in that, in the Donation with Priors experiment, we elicit each participant's priors by asking the following set of questions before they start to make donation decisions:

*Before we present the different recipients for your donation decisions, please answer to the best of your ability the following three questions.*

*Consider 100 randomly selected unemployed recipients of the Salvation Army's 614 project.*

*1) How many of these 100 recipients are alcoholic (Person who is addicted to intoxicating drinks/person who has alcohol dependence/suffers from alcoholism)?*

*2) How many of these 100 recipients are taking courses to improve skills so as to enhance employment opportunities?*

*3) How many of these 100 recipients are disabled (Person who has a physical or mental handicap)?*

We incentivized participants' answers by randomly selecting one of the three questions and paying $1 if the answer is the same as the true number provided by the Salvation Army.

We use the *Donation with Priors* experiment to test our hypotheses, in particular, the predictions from the rational model with respect to priors (as formalised in Section 3). The *Donation without Priors* experiment serves as a robustness test to ensure that the elicitation of beliefs does not affect giving decisions.

Finally, we conducted a between-subjects version of the main experiment (*Between-Subjects*) in which each participant was confronted with only one recipient type. To collect enough observations for statistical analysis, instead of collecting data for all 27 recipient types, we only choose types in which no information is provided in at least two of the three characteristics, totalling seven types. [5] Since this experiment was much shorter than the within-subject experiments, to ensure the incentive per unit of time remains comparable, each participant was endowed with $10, instead of $20, to make their donation decision. The *Between-Subjects* experiment serves as a further robustness test to ensure that our results cannot be attributed to any experimenter demand effect or be affected by any kind of attention decay.

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[5] The seven types are (Alcohol, Courses, Disability): (NA, NA, NA); (A+, NA, NA); (A-, NA, NA); (NA, C+, NA); (NA, C-, NA); (NA, NA, D+); (NA, NA, D-).

## 2. Procedure

The two within-subject experiments were conducted in the Monash Laboratory for Experimental Economics (MonLEE). Upon arriving at the lab, subjects were seated according to randomly allocated ID numbers. The experimental instructions, a consent form, and the letter from the Salvation Army (as described above) were provided in paper form and the instructions were read aloud by the experimenter (experimental materials are reproduced in Appendix A). At the end of a session, subjects saw their earnings and were instructed to write them on their receipts. We adopted a double-blind procedure; subjects were not asked to provide their names and signatures. The experimenter read the data from the monitor's computer, matched it with subjects' ID numbers, and placed individual cash payments in sealed envelopes marked with ID numbers. One by one, subjects privately collected their envelopes and left the lab.

For each of the within-subject experiments, we ran three computerized sessions using z-Tree (Fischbacher, 2007). In total, 68 subjects participated in the *Donation with Priors* experiment and 67 subjects participated in the *Donation without Priors* experiment. Sessions lasted approximately 45 minutes with the average payment of $16, plus $10 show-up fee.

The *Between-Subjects* experiment was conducted online during a COVID-19 pandemic lockdown. In each session, subjects were admitted into a Zoom meeting with their videos and microphones turned off. They were provided with a link for the instructions embedded in Qualtrics, and the experimenter read out the instructions in the Zoom meeting. We followed the same procedure, as closely as possible, as the within-subject experiments. Since participants' payments were processed via electronic methods, we were unable to implement the double-blind procedure in the same manner as in the other two experiments. Electronic payment was, however, handled by the MonLEE administrator who was not part of the research team.

For the *Between-Subjects* experiment, we recruited 269 subjects from the same participant pool and conducted 17 sessions. Treatments with different recipient types were randomized at the subject level within each session. The sessions lasted about 25 minutes with the average payment of $7, plus a $5 show-up fee.