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NÁRODOHOSPODÁRSKA FAKULTA**

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ALTRUISM IN ECONOMIC DECISION MAKING

Dizertačná práca

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Declaration of Honour

I hereby solemnly declare that this thesis represents my own work and all sources used are listed in Bibliography.

Sydney, date 10.5.2021

.....

Martina Fehérová

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Abstrakt

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Charitatívne organizácie podporujú širokú škálu aktivít, napríklad pomoc deťom alebo jednotlivcom, ktorý trpia rôznymi chorobami, pomoc ľuďom bez domova, znevýhodneným ľuďom alebo obetiam násilia naprieč celým svetom. V Spojených štátoch predstavujú dary jednotlivcov najväčší zdroj príspevkov (Giving USA 2019). Úspech charitatívnych organizácií preto závisí od štedrosti a ochoty širokej verejnosti poskytovať dary pre charitu, vo forme peňažných príspevkov, tovarov a služieb.

Koncept altruizmu sa líši individuálne podľa každého darcu. Niektorí darcovia sú poháňaní čisto altruistickými motívmi pomôcť, pre iných môže mať zásadný význam motivácia vo forme získania rešpektu alebo uznania od svojich rovesníkov (warm glow). Taktiež ich motivácia môže byť kombináciou čistých altruistických príčin a vidiny benefitov plunúcich z aktu darcovstva. Existujú však rozdiely v rozhodovaní, koľko darovať, v závislosti od typu darcu. Jednou z najdôležitejších otázok, ktorú si každý darca kladie, je, kto bude príjemcom jeho daru.

Cieľom dizertačnej práce je preto preskúmať vplyv odlišného počtu príjemcov na ochotu darcu darovať a preskúmať, či výber z hľadiska počtu príjemcov, ktorý má darovať, zvyšuje veľkosť a frekvenciu darcovstva. Inými slovami, sú na tom darcovia lepšie, keď majú možnosť vybrať si ich preferovaný počet príjemcov ich daru? Alebo sú na tom lepšie, ak nechcú darovať, a môžu rovno celý proces opustiť namiesto darovania.

Okrem toho sme tiež študovali (i) emocionálnu spokojnosť s darcovským procesom (typy pozitívnych a negatívnych emócií) pri rozhodovaní o pomoci jednému / trom príjemcom; a snažili sme sa definovať, či možnosť vybrať si preferované prostredie s preferovaným počtom príjemcov zvyšuje určitú emocionálnu reakciu s darom, (ii) ďalšie faktory, ktoré môžu okrem iného počtu príjemcov alebo voľbe viesť k vyššiemu záujmu o charitatívnu činnosť. Obzvlášť sme sa pýtali, či: vyšší príjem, zamestnanie, dobrovoľnícka skúsenosť, darcovstvo krvi alebo plazmy alebo identifikácia príjemcu majú vplyv na charitatívne darcovstvo darcov.

Použitím metodiky laboratórneho experimentu sme dokázali preskúmať správanie subjektov a otestovať ich motiváciu v kontrolovaných podmienkach. Výsledky boli merané dvoma spôsobmi prostredníctvom rozsiahlej marže, intenzívnej marže a boli potvrdené parametrickými regresnými analýzami a neparametrickými testami.

Hlavné zistenia ukazujú, že počet príjemcov nemá vplyv na veľkosť ani frekvenciu darcovstva. Umožnenie subjektom zvoliť si, koľko príjemcov môže darovať, zvyšuje frekvenciu pozitívnych darov pri výbere darovania jednej charite a trom charitatívnym organizáciám. Výber nemá vplyv na veľkosť darov. Možnosť opustenia procesu darovania zvyšuje frekvenciu pozitívnych darov, ale neovplyvňuje veľkosť darov.

Kľúčové slová: altruizmus, warm glow, behaviorálna ekonómia, experimentálna ekonómia, laboratórny experiment, voľba v procese darcovstva, darovanie charitám.

Abstract

FEHÉROVÁ, Martina: Altruism in economic decision making. [Dissertation thesis]. – University of Economics in Bratislava. Faculty of National Economy; Department of Finance. – Thesis supervisor: doc. Ing. Jana Péliová, PhD. – Bratislava: FNE EU, 2020, 112 p.

Charitable organizations support wide range of causes, such as donating to children or individuals who are suffering from various diseases, to homeless and disadvantaged people or victims all around the world. In The United States individual donations represents the largest single source of donations (Giving USA 2019). Therefore, the success of charitable organizations depends on the generosity and the willingness of the general public to provide gifts and donations for charities in terms of monetary donations, goods and services.

The concept of altruism varies according to each donor. Some donors are driven by pure altruistic causes to help, for others can be crucial gain respect or recognition from their peers (warm glow), or their motivation can be a mixture of pure altruistic causes and warm glow. However, there are differences in deciding how much to donate, depending on the types of donors. One of the most crucial question each donor is asking themselves is, who will be the recipient of his gift.

The goal of the dissertation is therefore to investigate the impact of a different number of recipients on the donor's willingness to donate and examine whether having a choice regarding how many recipients to donate to increases the size and frequency of donations. In other words, are donors better off when they have a chance to sort into the scenario with their preferred number of recipients? Or, are they better off if they do not want to donate and they can leave the process entirely rather than not donating.

In addition, we also study (i) emotional reaction (and types of positive and negative emotions) of subjects when deciding to help either one/ three recipients; and define whether having the option to sort into the environment with the preferred number of recipients increase certain emotional reaction with the donation, (ii) other factors that might drive charitable giving in addition to the different number of recipients or sorting. We particularly ask whether: higher income, employment status, volunteering experience, being a blood or plasma donor, or recipient identification affects donors' charitable giving.

By using the methodology of laboratory experiment we were able to examine behavior of the subjects and to test their motivation under controlled conditions.

The results were measured in two ways through extensive margin and intensive margin and were confirmed by parametric regression analyses and nonparametric tests. Main finding revealed that the number of recipients does not affect the size or the frequency of donations. Allowing subjects to choose regarding how many recipients to donate to, increases the frequency of positive donations when electing to donate to both one charity and three charities. The choice does not affect the size of donations. Having an option to opt-out from the donation process increases the frequency of positive donations but does not affect the size of the donations.

Key words: altruism, warm glow, behavioral economics, experimental economics, laboratory experiment, choice in donation, charitable giving

Contents

| | |
|---|-----|
| List of figures | 3 |
| List of tables | 4 |
| Introduction | 5 |
| 1 Relationship to the literature | 8 |
| 1.1 Pure, impure altruism, warm glow and charitable giving | 10 |
| 1.2. Giving to one recipient versus many recipients.. | 14 |
| 1.3. Choice and charitable giving | 17 |
| 1.4. Emotions and altruistic giving..... | 24 |
| 1.5. A unique type of donation - Blood/plasma donations and altruism..... | 28 |
| 1.6. Other selected factors and preferences that affect prosocial giving..... | 31 |
| 2 The Aim of the Dissertation..... | 34 |
| 3 Methodology | 36 |
| 3.1 The history of experimental testing | 36 |
| 3.1.1. Dictator game as a tool to measure altruism..... | 39 |
| 3.1.2. Theoretical predictions..... | 40 |
| 3.2. Experimental Design | 42 |
| 3.2.1. Conjectures and hypothesis..... | 49 |
| 3.3. Statistical Methods..... | 51 |
| 4 Results..... | 54 |
| 4.1 Main results: Donation choices according to different treatments | 54 |
| 4.2 Additional factors affecting charitable giving | 64 |
| 4.2.1. Self-reflecting emotions and charitable giving..... | 64 |
| 4.2.2. Other selected factors affecting charitable giving..... | 74 |
| 5 Discussion and policy recommendations..... | 86 |
| Conclusion..... | 91 |
| References..... | 92 |
| Appendix..... | 102 |
| 0.1 Spoken instructions..... | 102 |
| 0.2 Written instructions Treatment A | 102 |

| | | |
|-----|--|------------|
| 0.3 | Written instructions Treatment B | 103 |
| 0.4 | Written instructions Treatment C | 104 |
| 0.5 | Written instructions Treatment D..... | 105 |
| 0.6 | Post-experimental questionnaire | 107 |
| 0.7 | Post-experimental questionnaire | 109 |
| 0.8 | Post-experimental questionnaire | 109 |
| 0.9 | Data | 110 |

List of figures

| | |
|---|----|
| Figure 1: Contribution of the dissertation..... | 10 |
| Figure 3.2.1: How familiar is the charity | 47 |
| Figure 3.2.2: Previous donation history to Acorus, Theia, Lata..... | 47 |
| Figure 4.1.1: Treatments and divided endowment in CZK..... | 56 |
| Figure 1.A: Satisfaction in treatments with choice and without choice | 67 |
| Figure 2A: Box and Whisker plots of positive emotions across treatments | 68 |
| Figure 1B: Guilt and Tough to decide in treatments with choice and without choic..... | 71 |
| Figure 2B: Box and Whisker plots of negative emotions across treatments | 72 |
| Figure 3: Blood and plasma donors..... | 75 |
| Figure 4: Blood donors and their donations compared with other subjects..... | 76 |
| Figure 7: Monthly income and amount donated in Treatment One charity..... | 77 |
| Figure 8: Comparison of volunteering activities and charitable giving..... | 79 |
| Figure 9: Anticipated reaction of others..... | 80 |
| Figure 10: Subject's statement according to the identification of the recipient..... | 81 |
| Figure 11: Listed reasons why subjects donated..... | 83 |
| Figure 12: Type of charities subjects prefer to donate for..... | 84 |

List of tables

| | |
|---|----|
| Table 3.2.2: Male and female subjects in each treatment..... | 48 |
| Table 4.1.1: Number of observations | 54 |
| Table 4.1.2: Descriptive statistics | 55 |
| Table 4.1.3: Statistical tests for differences across treatments..... | 57 |
| Table 4.1.4: Descriptive statistics of joint treatments with Choice and No choice..... | 62 |
| Table 4.1.5: Statistical tests for differences between pooled treatments with Choice and No choice..... | 62 |
| Table 1A: Ordered-probit analysis of positive emotions across treatments..... | 66 |
| Table 1B: Ordered-probit analysis of negative emotions and differences across treatments..... | 70 |
| Table 2: OLS regression for factors affecting charitable giving..... | 75 |
| Table 3: Summary donation statistics of blood and plasma donor and other subjects..... | 75 |

Introduction

Voluntary activities often differ in many dimensions. One of the dimensions is how many people receive help as volunteers often have a choice between activities helping a different number of recipients. The list of voluntary activities from which a volunteer can choose is extensive, so the number of gift recipients can have a crucial role when deciding to help in the first place. This is the reason why the possibility of selecting the number of recipients of the gift and the overall choice architecture have become the main motivation for writing this dissertation. The basis of this work are in two dimensions: 1) whether the number of recipients matters for voluntary altruistic behavior, and 2) whether having the choice of how many recipients to help influences the extent and frequency of altruistic activities.

Voluntary activities in which the number of beneficiaries of a single donation varies, are for example: i) blood and plasma donation or ii) research and funding of new medications. Recent global pandemic led to a global emergency of development of vaccine against COVID-19. One possible solution for donors was to speed up the process of finding a vaccine by donating money for its development.¹ However, the donor has the opportunity to donate money to a specific individual to whom the vaccine will be given, who would not otherwise be able to afford it². The protection and saving of human life is always linked to blood donation, as donating blood is considered to be the purest gift of life³. A decision to donate whole blood can save the life of one recipient whereas donating plasma can save the lives of many recipients as it can be processed into pharmaceuticals⁴. While the two types of donations differ in numerous other attributes, the impact of the donation on the lives saved begs two questions: a) how the number of recipients influences the willingness to donate; b) how the option to choose the number of recipients affects the willingness to donate?

¹<https://www.vu.edu.au/donate-to-victoria-university/give-today/covid-19-vaccine-appeal> and <https://www.givewell.org/international/charities/vaccination-organizations>

² Funding vaccination for individuals <https://www.childfund.org.au/sponsor-a-child/>, <https://www.unicef.org.au/give-a-gift/choose/disease-protection> and <https://www.gavi.org/donate>

³ Australian Red Cross. Lifeblood <https://www.donateblood.com.au/gift-of-life>

⁴ Whole blood donation is used for people undergoing surgery, victims of accidents, patients treated for leukemia, cancer, blood cell diseases.

Plasma donation is used for patients suffering from blood clotting disorders, autoimmune disorders, haemophilia and is also concentrated into various pharmaceutical products which are then used to improve health and save the lives of people suffering from burns, shock, trauma and other medical emergencies. One plasma donation, once processed for its components, can be used to help potentially hundreds of people.

Literature finds these primary motivations behind donating: pure, impure altruism and warm glow, with each theory giving a prediction for what happens to donations when the number of recipients varies. From the policy perspective, the presence of pure, impure altruistic donors and donors motivated by warm glow has important implications. However, the choice architecture, how the altruistic activity is presented can be just as crucial. By distinguishing between warm glow donors and pure altruistic donors, the policymakers and charities will be able to better target the donors according to their preferences for charitable giving. But, presenting the choice in the most preferable way to each volunteer can complement and further underline the importance of voluntary giving. As a result of what, a well thought out choice architecture can possibly increase engagement of volunteers and at the same time increase volunteer's overall satisfaction with the entire process.

The goal of the thesis is to investigate the impact of a different number of recipients on the donor's willingness to donate and examine how choice architecture of the number of recipient can affect the size and frequency of donations. To answer our research questions, we chose the method of laboratory experiment based on charitable giving context. A laboratory experiment allows us to control the decision-making environment while making only one exogenous change at a time. That enables us to control important aspects of the data generating process which made it possible to answer our research questions. In our experiment, subjects receive an endowment and decide, depending on the treatment, how much to donate to either one or to three charities with each charity receiving one third of the donated amount. To increase the effectivity of the donation we give a group of subjects an option to choose whether they prefer to donate to one or to three charities, followed by a subsequent choice of how much to donate. To mimic every day instances, our experimental design also includes a treatment where subjects can easily opt out from donation process to avoid being asked to donate. Due to this feature in experimental design, the subjects are not directly place into the situation where they need to determine the donation amount, but first are asked whether they want to donate at all.

In addition, to answer the main research question, we seek to identify additional goals. Additional goals help us better understand the motivation to donate to one or three recipients, whether sorting into a situation with the preferred number of recipients increases donors' positive or negative emotions. In addition to answering our main research questions, we seek to answer: (1) whether are blood and plasma donors more willing to donate for charitable causes than other subjects of the laboratory experiment and how their motivation to donate affects the number of the gift recipient and option to sort into preferred

environments (2) whether subjects' attitude towards future donation and their expectations drive charitable giving; (3) whether higher income, employment status, and volunteering experience increase charitable giving to one or three; (4) whether subjects' preferences towards charitable giving and the motivation for donation can be affected by identification of the recipient.

The thesis is organized into five chapters. Chapter 1 analyzes the relevant literature in relation to our research questions. The first part of this chapter introduces (i) the differences between pure, impure altruism, warm glow, which is crucial for the main understanding of altruistic giving; (ii) donations to one recipient versus multiple recipients; (iii) choice in the donation process; (iv) Emotions and their role in altruistic giving. In the following subsection, we also devoted a part to the relationship between altruism and blood, plasma donation. Next, we addressed other factors that can drive charitable giving. The aim of the thesis is described in Chapter 2. The methodology of the work can be found in Chapter 3. In this chapter, we first declare the importance of experimental testing in economics; then, we focus on a specific type of measuring altruism through a dictator game. We provide a detailed explanation of the theoretical difference between pure altruist, warm glow donor, and subject motivated by self-regarding preferences. Next, the conjectures are described in detail with the design of a laboratory experiment and research questions. Chapter 4: Results, either confirm or reject each of the set research questions and drawn conclusions. We also provided additional observations that served us for a better understanding of the decision-making process of the subjects in the experiment according to a different number of recipients and the option to choose the recipient or directly opt-out from the donation.

In the last Chapter 5, we evaluate the applicability of the work results, offer recommendations for policymakers, and open up space for discussion and further research. The conclusion summarizes the main findings of the thesis.

1 Relationship to the literature

In this chapter, we address the factors that affect human motivation for charitable giving. There is an extensive amount of literature concerning the motivation of the donor. These motives are roughly divisible into three broad categories: intrinsic, extrinsic, and image motivation. Intrinsic motivation is the value of giving per se, represented by private preferences for others' well-being, such as pure altruism or other forms of prosocial preferences. Extrinsic motivation is any material reward or benefit associated with giving. Image motivation refers to an individual's tendency to be motivated partly by others' perceptions. Image motivation, therefore, captures the rule of opinion in utility, i.e., the desire to be liked and respected by others and by one's self (Ariely, 2009). Bekkers and Wiepking (2010) in their study list eight factors that drive charitable giving, namely: awareness of need, solicitation, costs and benefits, altruism, warm glow, psychological benefits, personal reasons, values, and efficiency.

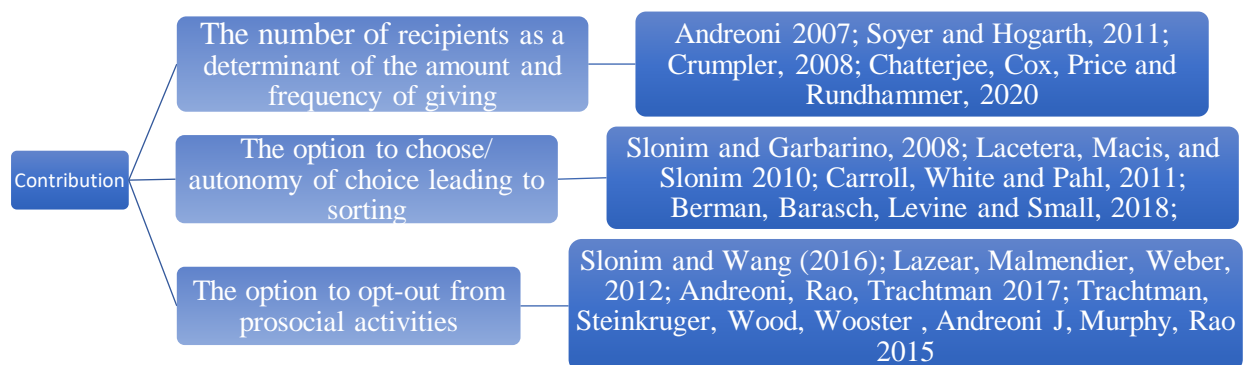
1. *Awareness of need* - people first have to realize there is a need for their support. Studies suggest that awareness of need is higher when:
 - more information is available to donors about the recipient (Bekkers and Schuyt 2008),
 - the donor has overcome a similar experience as the recipient,
 - mass media are involved (Yörük, 2012).
2. *Solicitation* - people are being requested to donate. Studies imply that people donate more when:
 - the opportunities to donate are more frequent, but at the same time the overburden factor needs to be controlled (Siminoff et al., 2015),
 - specific types of solicitations are directed to the correctly chosen target group (Diamond and Noble 2001).
3. *Costs and benefits* – every individual weighs the costs that the donation will require and the benefits that can be obtained from the donation. The willingness to donate increase when:
 - transaction costs of donation are mitigated (Knowles and Servátka 2015),

- tax benefits are introduced (Andreoni and Payne, 2003),
 - the donations are rooted in part in consumption motives, e.g. exclusive services in exchange for contribution (Falk, 2004),
 - the lottery is included (Morgan, 2000),
 - gifts are included (Lacetera et al., 2013).
4. *Altruism* – individuals care about the charitable organization's output. Altruism is described in detail in section 1.1. Pure, impure altruism, warm glow, and charitable giving.
5. *Reputation* – refers to the social consequences of donation for the donor. Social consequences including social pressure, recognition, and approval from others increase the willingness to donate. Described in detail in section 1.1. Pure, impure altruism, warm glow, and charitable giving.
6. *Psychological benefits* – the joy of giving or warm glow. All the aspects listed below are described in detail in section 1.1. Pure, impure altruism, warm glow, and charitable giving. Reasons why are positive psychological benefits related to charitable giving:
- avoidance of punishment,
 - acting in line with a social norm,
 - acting in line with specific prosocial self-image (Andreoni, 2003),
 - foot-in-the-mouth-effect (Dolinski et al., 2005).
7. *Personal reasons and values* – donor's attitude towards donation makes donation more, or less attractive. Experimental studies link attitude and values to donation according to:
- humanitarianism and egalitarianism (Bolton and Ockenfels, 2008),
 - prosocial values (Bekkers and Schuyt, 2008),
 - less materialistic oriented (Sargeant et al., 2000),
 - orientation for social justice (Schuyt et al., 2010).
8. *Efficiency* – beliefs to make a difference with a donation, support the cause of the charitable organisation. Information about financial efficiency, accountability of charitable organisation increase donations (Parsons, 2003).

Our contribution to the existing literature

As will be explained in this chapter, the value placed on saving human lives seems to follow a psychophysical function such that single life is valued much less when the at-risk population is large than when it is small. This gathered evidence based on the identification of the victim, proportion of the reference group yet contrary rational thoughts based on the theory when larger absolute numbers of victims should compel greater prosocial action. Theories of pure and impure altruism, warm glow might provide predictions about motivation to choose a different number of recipients for their gift. Andreoni (2007) and Soyer et al (2011) examined that donor cares about the average amount each recipient receive, with increasing number of recipients the extent of his help increase however at a decreasing rate. We fixed the amount of donation when donating to more recipients by each recipient receiving one-third of the donation. By this, we are able to control if the donor cares about the total amount donated or the average donation to every recipient. In order to control for subjects' preferences in our research, we do not follow the selection of different preferences as it was in Berman et al. (2018). We managed to find charities with very similar scope of their focus. These charities were not well known, that subjects were not able to give any preference to any of them. Based on this setting, we were able to pursue the subject's motivation for donation depending on the size of the individual versus the group. Moreover, we let subjects self-select into their preferred choice to create sorting. Therefore, this thesis contributes to three interrelated streams of charitable giving literature, see Figure 1 below.

Figure 1: Contribution of the dissertation



Source: Own processing

In what follows, this thesis discusses our contribution of research questions and our methodology, design to this literature streams. In addition, we also focus on how self-reflecting emotions affecting charitable giving. More precisely, we would like to examine the emotional reaction (and types of positive and negative emotions) of subjects when deciding to help either one/ three recipients and define whether having the option to sort into the environment with the preferred number of recipients increase certain emotional reaction with the donation. Whether blood or plasma donors are more altruistic towards charitable giving and how other factors such as income, employment, or donor preferences affect willingness to donate. Based on Small (2010), we also investigate how subjects respond when the gift is presented in comparison rather than isolation. Still, we also measure results in how subjects respond to gift recipients depending on donor in isolation. Moreover, by letting subjects choose the recipient, we measured the subject's emotional satisfaction with their decision and the effect of having an option on donations compared to subjects without this option. According to this design, we could measure the effect of the number of recipients and altruistic preferences of the decision-maker.

1.1 Pure, impure altruism, warm glow and charitable giving

What motivates people to voluntarily donate to charitable organizations from which they obtain no direct consumption advantage? Human willingness to help can be shown in many forms of behavior, ranging from donating money to charity, volunteering for altruistic causes, rescuing victims, or donating part of themselves (in form of whole blood, plasma, platelets, or organ donations). This is done for “the greater” moral principle in order to help those in need. Human decision-making is shaped daily by the social environment of decision-makers (e.g. by co-workers and their opinions, classmates, friends, or family). The trend of charitable giving has continued to grow during previous years. The donating public, individual donations represent the largest single source of donations. In the USA individuals gave \$427.71 billion, accounting for 68% of all charitable giving over 2018 (Giving USA 2019). Since the funding of charitable organizations is provided mainly from the source of individuals, any change in the form of income drop would have a devastating impact on the financial health of charities. Many charitable organisations operate with wafer-thin margins, little reserves, and their financial and operational flexibility is often limited by the conditions placed on funding streams. Building organisational capacity and a financial buffer are

hampered by a number of factors including societal expectations that all funds go into service delivery. Unlike corporates, charities cannot raise capital by issuing shares or taking on debt (Riddell and Flynn, 2020). So just like the beneficiaries who rely upon their services, charities are especially vulnerable to any crisis, let alone one with the repercussions of a global pandemic. As a result of a pandemic (for example caused by COVID-19), demand for charitable services rises as well as the financial pressure to collect donations. It is therefore very important to study the behavior and motivation of donors.

The number of volunteers is striking in light of the economic incentive to free-ride in the provision of public goods. There are many ways how the motivation of volunteers can be affected for example by the donation approach itself, by the subject of donation, or by the purpose of the donation. In order to increase donations, charities often motivate donors with incentive items such as pens, T-shirts, coupons, or other items they give them in return for their donation. Incentives had spatial and short-term temporal effects on donations, which indicated that rewards can successfully address temporary shortages. But in terms of long-term motivation, they become ineffective (Lacetera et al., 2013). Previous research shows a high fraction of donors, volunteers are driven by altruism and warm glow for long-term and regular donations (Piferi et al., 2006).

According to existing research, it is critical to distinguish between pure, impure altruism and warm glow motives in charitable giving. Pure altruist prefers well-being of others (e.g., reduce their suffering) at a personal cost. While if an altruist derives some utility from the act of giving that preserves good feeling from giving it results in a warm glow. Social pressure, guilt, sympathy, or simply the desire for a 'warm glow' could highly motivate donors (Becker 1976; Andreoni 1989, Andreoni et al., 2002). Crumpler and Grossman (2008) claim that when there is no incentive to donate, the only motivation to donate is a warm glow. The charitable giving literature captures also the neutrality hypothesis, where government donations to charity will crowd out private donations. The existence of a warm glow helps explain the absence of complete crowding-out of private giving by public grants, as predicted by classical economic models under the neutrality hypothesis (Andreoni 1989; Andreoni et al.2003).

Andreoni (1989) introduced a model of giving where he uses the term “impure altruism”. Here he established a model of giving that includes a warm glow where subjects supposed to provide to a public good for two reasons. The first reason is that people always demand more of the public good. The second reason explains more selfish motives, hence how people naturally get certain private goods profit from their gifts. By combining these

two reasons: (1) pure altruism (2) warm glow, the idea of impure altruism was established. In relationship to charitable giving, he has proven theoretically that, impure altruism is a simple yet powerful motivation to donate. Moreover, he claims that progressive taxation according to the model of impure altruism may increase charitable giving. He reviewed, that if people enjoy making gifts because of the warm glow effects it will always dominate toward pure altruism. Lilley and Slonim (2014) have examined, that the more agents are motivated by pure rather than impure altruism, the more they will donate in a manner that is more efficient for increasing donations to charity and pay less for a warm glow.

Crumpler and Grossman (2008) experimentally tested the warm glow hypothesis where subjects could donate part of their endowment to a charity of choice. In their design, they separate and measure the degree of a warm glow giving where a pure altruist has no incentive to donate. Therefore, for the participant, his only motivation why to donate is warm glow, reflected from the good feeling from giving. Their results confirmed the hypothesis that a warm glow does motivate charitable giving. Subjects motivated by warm glow donated, on average, 20% of their endowment, and approximately 57% of the participants donated. Thanks to their design where warm glow could be separated, from pure altruism, authors examined that there is no motivation for the donors to give under pure altruism.

The necessity to control for the curvature of the utility function has been studied before for example on the estimation of subjective probabilities (Andersen et. al., 2018). Gauriot, Heger, and Slonim (2018) in their research showed that commonly used assumption about the curvature of decision-maker's utility in the literature on social preferences leads to significantly biased estimates of impure motives to donate. They stressed the importance of controlling for the curvature of the utility function when estimating social preferences. Pure motives may be closer to linear utility function reflecting that the additional benefit from giving may not diminish rapidly given there essentially always remains a "need" (e.g., providing food, educational, and health services to people in less developed countries). Where on the other hand, utility stemming from impure motives or warm glow may have different implications for the shape of the utility function. For instance, warm glow, including status-seeking and reputational concerns, may imply a rapidly diminishing marginal utility. As making a first donation may dramatically increase warm glow, while subsequent donations could add very little in terms of warm glow. In their research they demonstrated that imposing an incorrect restriction of the equality on the curvature of the utility function for self and others. Which is ubiquitous in the economics literature, and leads to systematically biased estimates of the relative intensity of social preferences. Further, they

stressed the critical need for future empirical research on social preferences to relax assumptions on the curvature of preferences over self and others. Our research builds on this paper and incorporates multiple recipients into the prediction. In our research, we examine how the number of recipients affects the altruistic behavior of the donor. Moreover, what has not been answered in previous research is the impact of choice architecture on the altruistic preferences of subjects, which is one of our main contributions.

1.2. Giving to one recipient versus many recipients

The success of charitable organizations depends on the generosity and the willingness of the general public to provide gifts for charities. There are many ways how the motivation of volunteers can be influenced for example by the donation approach itself, by the recipient of donation or by the purpose of the donation. One of the most crucial questions each volunteer is asking themselves is, to whom he/she donates.

One recipient or multiple recipients

While there is a large body of literature on altruism, volunteering and charitable giving only a small fraction of the extant research deals with multiple recipients of help. Kogut and Ritov (2005a) provide evidence, that subjects are more altruistic towards single individuals in need than to groups of individuals with the same need. Even when all victims are identifiable individuals rather than statistical ones, a degree of emotional compassion people feel decreases as the number of people in need increases. In addition to financial cost, there is also the psychological cost of being emotionally overwhelmed. Less emotional compassion towards multiple recipients have been also underlined by lower degree of willingness to contribute as so-called “collapse of compassion”. Cameron & Payne (2011) defined, that this effect is motivated by self-interest. Their results showed effect of collapse of compassion in three different experimental settings:

- self-interest motivated donors, when were subjects directly asked to donate money to the victims,
- subjects skilled with high regulation of their emotions,
- subjects who were asked to down-regulate their emotions.

Their findings provide evidence that motivated emotion regulation drives insensitivity to mass suffering and that participants feel less altruistic towards groups. The role of emotions

in the concept of the collapse of compassion will be further explained in a subsection of this thesis: Emotions and altruistic giving.

In the case of solicitation on a local level, the gift provides high value to a few people whilst on the national level the gift can provide lower value to many recipients (Andreoni 2007). Will the donor be equally motivated for charitable giving when one single gift provides high value to one recipient but the same gift could provide less value to many recipients? The impact of a number of recipients and whether is altruism congestible was previously studied in laboratory experiments. Bolton, Katok, and Zwick (1998) laboratory examined giving to one and multiple recipients. They found no difference between the distribution of the total gift that subjects leave to multiple recipients and the distribution for the treatment where there is only one recipient. Subjects behave in a self-interest manner they act first to secure what they consider to be their own fair share. Bolton et al., claim that subjects first determine how much they will give on the basis of the total money available for the entire experimental session, not on the basis of what is available per treatment. However, when distributing a donation among several recipients, individuals show little tendency towards equal treatment. Bolton and Ockenfels (2008) in their research supported the theory of self-centered fairness. They observed, that adding multiple subjects as recipients to laboratory experiments tends to detract from the attraction of an egalitarian solution (which is the deviation from the standard perfect equilibrium where both subjects should receive half of the monetary amount received). Therefore, the more subjects are placed as recipients in the experimental setting the more it will detract the donor from an egalitarian solution.

In the case of a finite amount of product, more recipients means that each gets smaller amount. Andreoni (2007) in his experimental setting varies the price of giving and the number of recipients that receive the monetary gift. He examined, that if a donor cares only about the total amount received by the recipient, then expanding the number of recipients, will not change his decision. In the contrast, if the donor cares about the average amount received, then a rising number of recipients increases the effective price of giving. That means in a conclusion that donor may donate less. Moreover, increasing the number of recipients extends the surplus, but holds the average benefit equal. With an increasing number of recipients, any monetary donation will generate more benefits. Indicating greater generosity of donors with the increasing number of recipients (income effect). On the other hand, the same social benefit can be achieved at lower costs. This means donors may donate less which signalizes a substitution effect. Which effect dominates depends on the

preferences of each donor. Andreoni in his experiment used three designs to reveal the preferences of each donor. Specifically, he used (i) non-parametric design, where he keeps the number of receivers fixed, (ii) semi-parametric design, where he first looks for a hypothesis about a parametric “giving” function that enters utility, and then he develops a non-parametric analysis of utility to find the best parameters on the giving functions (iii) fully parametric design, where he tries to estimate utility functions of the donors. He developed a task with 24 decisions where subjects have to allocate monetary amounts within a different number of recipients. His results showed how congestible altruism is, hence, that for the average subject, a gift that results in one person receiving x is equivalent to one in which n people receive $x/n^{0.68}$ each.

The impact of the number of recipients on donors' willingness to donate has been further experimentally tested by Soyer and Hogarth (2011). They examined that donations increase as the number of recipients rises, however at a decreasing rate. Donations involve different concepts of fairness—equity and equality—and these can interact with numbers of alternatives decision maker has. In their experimental setting, they allowed the respondents to decide how they would donate the lottery winnings of 50 Euros. First by allocating funds across different numbers of NGOs, second, they investigate what happens when a single NGO solicits contributions for different numbers of campaigns. They examined the “choice overload” issue in the context of charitable donations and investigate the effects of numbers of alternatives on the amount of total donations as well as their distribution across charitable organizations and specific campaigns. Total donations increased with the increasing number of recipients at a decreasing rate.

De Oliveira, Croson, and Eckel (2011) examined the relationship of individual's giving to multiple charitable organizations by combining the control of the laboratory with the context of the field. They run an experiment in which participants have the opportunity to give to multiple neighborhood charitable organizations, as well as to make donations in a standard public goods game, the voluntary contribution mechanism (VCM). Donations were matched (doubled) to provide an incentive to donate for the donor. They conclude that participants of the experiment are donating money that they could otherwise keep to real charities.

Based on the research by Andreoni (2007) and Soyer and Hogarth (2011), in our experimental design, we focus on the effect of increasing number of gift recipients.

However, we fixed the amount of donation when donating to three charities by each recipient receiving one-third of the donation. By this, we are able to control if the donor cares about the total amount donated or average donation to every recipient.

1.3. Choice and charitable giving

Known or unknown gift recipient

Servátka (2009) arises, that information about someone can increase the likelihood of cognitive attention, and thus cause deeper consideration of giving. Eckel and Grossman (1996) also experimentally tested the role of altruism in altruistic giving when having more information about the recipient. They vary the extent to which an anonymous recipient is deserving of aid and investigate his effect on the allocation of a fixed pie by student subjects. This was accomplished by including treatments: (i) an anonymous student subject and (ii) replaced anonymous recipient with reputable charity (the American Red Cross). They find that a significant increase in donations which occurs when other anonymous subject is replaced by charitable organization.

The sympathy bias first described by the identifiable victim effect by Schelling (1968) explains why the subject expresses more sympathy towards a single identified victim than a nonidentified one. He recognized, that a single identified victim is linked to uniqueness and individuality that is missing in comparison to statistical victims. Shelling's assumptions has been further experimentally tested. Small and Loewenstein (2003) in their laboratory experiment confirmed, that subjects contributed more towards the identified victims by their number than when the victim's number was undetermined.

Soyer and Hogarth (2011) in their experiment tested altruistic giving to well known campaigns and well known charitable organizations compared to less famous ones. Moreover, how the donated amount reflects donors' knowledge and information about the recipients. Their results showed, that more was donated to non-governmental organizations and campaigns that respondents knew better. The findings of Soyer and Hogarth indicate, that with well-known charitable campaigns, the willingness to donate increases.

Chatterjee et al. (2020) also studied how the information about qualifying charities affect the selection process of potential recipients. In their modified dictator game design, they also vary the number of charities that a decision-maker could choose as recipient, simultaneously with either qualifying or non-qualifying options. Their experimental setting consists of two stages:

- subjects choose from a list of charities and select either one or two of them,
- subjects allocate their endowment between their selves and chosen charities.

Several treatments were studied which varied in: (i) information provided, subjects either received qualification requirements information about charities' focus or did not receive this information, (ii) a different number of recipient, which varies between one or two, (iii) in the option where subject selected two charities, they vary the composition of the lists and the corresponding mix of qualifying and non-qualifying charities based on their focus. Their results provided evidence for average giving being unaffected by the information of focus, qualification requirements and composition of the set of choices.

The listed studies can conclude that information about the recipient (for example, well-known charity, identified victim) can affect the donor's altruistic giving. On the other hand, only providing information about the focus that the recipient charity has, does not affect average giving. Therefore, in our experiment, we provided a detailed description of each charity's services, but we do not identify the gift recipients. The charities selected for the experiment are small and rather unknown. Therefore we were able to control donor's personal preferences towards charities, and we could measure the impact of choice architecture and preferences towards a number of recipients.

A broad body of literature indicates the importance to differentiate whether the recipient of the gift in the laboratory experiments would be another participant or charitable organization. Bettinger and Slonim (2006) find that the educational intervention positively affects students' altruism towards charitable organizations but not towards their peers. A broad number of experimental designs involve other anonymous subjects as gift recipients. For example in the experiment of Bolton, Katok, and Zwick (1998), Andreoni (2007), Bolton and Ockenfels (2008) the gift recipients are also human subjects. Having other anonymous subjects as recipients in experimental design can not clearly determine what type of preferences drive donor's decision-making. Motives other than altruism (e.g., inequality aversion, fairness, reciprocity, efficiency) influence interpersonal gift giving. On the other hand, giving to charities is characterized mostly by pure and impure altruism (Eckel & Grossman, 1996; Lilley & Slonim, 2014), potentially leading to different theoretical predictions and behavior when varying the number of recipients.

Autonomy of choice leading to sorting

Individuals often sort into and out of economic environments based on their preferences and in response to relative prices, which may result in how much altruistic behavior is observed.

Slonim and Garbarino (2008) claim that people outside the laboratory usually select who they interact with as well as how they interact with them. These selections and subsequent behavior decisions are unlikely to be independent. So, while the economic laboratory provides evidence of trust and altruism, increasing the external validity by giving people the opportunity to select who they interact with may substantially increase the level of trust and altruism. Therefore, selection may increase the amount donated due to behavioral and sorting effects. Our experimental model builds on this knowledge.

Lacetera, Macis, and Slonim (2010) examined through randomized natural field experiments that allowing sorting through a simple design change in environment can have a major impact on altruistic giving and volunteering without changing an individual's preferences or costs. They observed the donation motivation of nearly 14,000 American Red Cross blood donors incentivized by material gifts (not in the form of direct cash). And they discovered that giving a donor choice to choose between different locations and times to donate has a significantly positive effect on the number of donors presenting and units of blood collected. Slonim and Wang (2016) proposed a market-clearing mechanism, "a registry" that operates based on letting people sort into their preferred environment - either to join or not join the registry. The registry combines aggregate demand information with supplier's willingness to help and invites volunteers to help only when excess demand occurs. Their registry takes into account all possible scenarios: unmet demand, excess supply, and social preferences. In the case of unmet demand, inefficiencies occur due to the gap between the value of each potential recipient's gain (e.g., saved life or improved health) and the lower costs of the un-provided supply (e.g., the time and discomfort to donate). In the case of excess supply, inefficiencies occur due to the wasted costs associated with collecting the surplus supply (e.g., the value of donor's time donating and the costs to collect, store and destroy unneeded blood). In the case of carious social preferences, the registry informs the suppliers about unmet demand and increases their expected benefits of helping by removing the risk of wasted help. Authors experimentally tested three versions of registries, including 580 subjects across five experimental conditions. Subjects in the control condition either choose to help or not help the recipient without knowing how many

recipients actually need their help. If a subject chooses to help, he incurs his cost to help but will never learn whether his help was needed. In the "registry conditions," subjects could help directly in the same way as in the control condition and join a registry. Members of the registry will have to state their willingness to help, which will be used to determine the order they are invited to help. These registry members will only be asked to help in the case of solicitation. Condition "aggregate demand information" was identical to the control condition except that subjects were informed of the number of subjects at risk before deciding whether to help. In this condition was examined whether the provision of market demand alone could improve efficiency. This condition mimics announcing a blood shortage in real-life situations. By sort into the preferred environment and deciding to join the registry, donors increase the efficiency of their voluntary actions. All three versions of donor registries improved efficiency dramatically, which resulted in eliminating unnecessary costly help when demand is unexpectedly low and significantly increase supply when the demand was unexpectedly high.

For sharing to occur normally in economic contexts, individuals with pro-social preferences must be willing to place themselves in situations in which they have the opportunity to share. Everyday outcomes might look different from experimental settings. Unlike in many everyday life situations where an individual that does not want to donate can easily opt-out or avoid being asked in a laboratory environment, this option is not always available. Subjects in the experiments are confronted with a situation where their choice determines the donation amount but not whether they would like to donate or not. If they prefer not to donate, they can choose a zero donation, but they cannot directly leave the process entirely. Donating zero might be considered socially unacceptable in a situation where everyone else is contributing. Thus, opting into and out of these choice environments does not typically occur in the laboratory in the way that it does in the field. In their paper, Lazear et al. (2012) examined how individuals sort into and out of economic environments based on their preferences and in response to relative prices. They argue that such sorting (some individuals enter into environments in which sharing is possible while others avoid these environments) has a strong effect on how much prosocial behaviour is observed. The authors explored the sorting effect in two laboratory experiments. They allow subjects to select between an environment where the sharing is possible (the standard dictator game) and an environment in which sharing is not possible. In the non-sharing environment, the potential dictator receives money without being asked to share, and the recipient is unaware of any potential sharing. Their design introduces sorting into dictator game, where

participants are allowed to opt-out of the game. This design mimics everyday instances where the sharing occurs only if the participant decides to enter into an environment where sharing is possible. If individuals have the opportunity to enter into or opt-out of real-world sharing environments, a laboratory experiment intended to assess the influence of social preferences should allow for that option. If not, the experiment results are less likely to apply to the real world, which could significantly overestimate the level of help. Subjects often use opt-out and leave fundraisers with samples of self-selected potential donors. Self-selection has a strong sorting effect on how much sharing and donating ultimately take place. Lazear et al. (2012) also defined three types of social preferences towards sharing to understand the effect of sorting better. Subjects who are willing to share a positive amount when asked to and seek the opportunity to share (altruists). Reluctant sharers will share if they are asked to but in everyday life, avoid donating. The behavior of reluctant sharers is mainly driven by guilt or shame. And then there are subjects, non-sharers, that will not share in any circumstances. Both reluctant and non-sharers might feel social pressure to donate; however, only non-sharers can resist the pressure.

Moreover, not being able to enter or leave environments where the donating is possible had emotional response on the decision maker. Being asked to donate to charitable purposes stimulates certain emotional response – empathy. Feeling empathetic towards victim makes it difficult to rest charitable giving, therefore individuals might be naturally avoiding situations where they are being asked at the first place. Andreoni et al., (2017) conducted a field experiment to examine the role of empathy in giving. They examined, that people avoid empathic stimulation to regulate their charitable giving and guilt. In addition to this knowledge, Trachtman et al., (2015) proved, that the benefits of avoidance are big enough under most circumstances to induce changes in behavior. More importantly, avoidance effect diminishes as the costs of avoidance increases. In this thesis, the chapter: Emotions and altruistic giving, is dedicated solely to the describe emotions that affect charitable giving.

For creating an even stronger environment for self-selection, we incorporated opt-out into our experimental design as another choice option. Subjects were therefore presented with the option to leave the donation environment and avoid donating or enter the environment where the donation was possible. Our experimental design therefore consists of treatment where subjects first whether to donate to one or three charities, after which they decide how much to donate. Those that will choose to help, can self select into a situation to

help either one charity or three charities. Sorting into preferred environments ensures, should lead to subjects' higher overall satisfaction with the entire process and therefore higher level, frequency of giving.

The paradox of choice

Subjects want to maximize their utility when making decision by comparing of effectiveness across options. Small (2010) in her study explored, how subject's judgments shift when targets of need are presented in comparison, rather than in isolation. Options presented in comparison allow recipient to decide more easily and evaluate attributes that they think matter, which is the absolute quantity, or in the case of altruistic giving, the objective state of the victim. When deciding about options in isolation, absolute states are hard to evaluate and decision maker is more affected by emotional reactions that can affect the judgement and decisions by putting more weight on them. Small's results were consistent with research of Kogut and Ritov (2005b) using a joint versus separate evaluation paradigm. They find that people behave in a less utilitarian fashion, basing their evaluation on emotional responses rather than scope, when evaluating prospects separately rather than comparing them.

There is a growing body of literature that highlighted the importance of numbers of alternative choices for decision-makers. Work by Berman, Barasch and Small (2018) provide evidence, that introducing choice is associated with increased helping behavior. They studied the effect of selection between different charities that support various types of causes, in relation to welfare maximization of subjects and their emotional satisfaction. They anticipated, that people would endorse donating to causes that they feel connected to over and above causes that maximize welfare, consistent with research showing that one's personal feelings are normatively valued in prosocial behavior. By letting subjects choose between donating to charity or investing their resources they expected that individuals would maximize expected welfare just as investors should seek to maximize financial returns. They find that people remain more hesitant to maximize social welfare than financial returns. Moreover, many people view relying on subjective preferences to be normatively appropriate when choosing where to donate, even when there are transparently more effective options available to donors. The benefits of comparing charity effectiveness are limited when causes vary by type, as people often believe that it is more important to choose

an option that they emotionally connect with rather than an option that does the most good. Their findings are supporting the theory of warm glow when one reason that individuals are insensitive to the magnitude of benefits is how they construe charity, believing it is a relatively subjective decision and not one that should be made solely by consulting the numbers. Overall, participants were significantly more likely to maximize welfare when choice sets contained similar (vs. differentiated) causes.

Standard economic theory suggests that decision-makers benefit from having more options from which they choose. Having an option to choose is seen as an essential prerequisite of individual freedom (Schwartz, 2004). Individuals prefer larger amounts of choices over smaller ones. But, according to the too-much-choice effect, expanding the set of options can make a choice more difficult and could be detrimental to the amount of exerted help. Having too many options can decrease the motivation to choose as well as overall satisfaction with the chosen option. Having too many options directly correlates with higher opportunity costs which foster dissatisfaction, regret, disappointment, decreased motivation (Scheibehenne et al., 2009; Haynes, 2009). The too-much-choice effect has been studied across a various set of choices, including choices of pens (Shah et al., 2007), retirement plans (Iyengar et al., 2004), gifts (Reutskaja et al., 2009), lottery prices (Haynes, 2009), school selection (Burgess et al., 2007). The same effect can be observed in prosocial giving. Having numerous alternatives of charitable organizations has a positive effect on altruistic giving and voluntary activities. However, having too much choice is creating an adverse effect. Carroll, White, and Pahl (2011) studied the effects on people's choices of the number of alternative opportunities for volunteer work and examined the adverse effects of more choice in that decisions to defer commitment were greater when there were more alternatives.

In our experiment, we fixed the number of recipients to either one or three charities to control for this issue. Therefore having only two options is unlikely to result in choice paralysis.

1.4. Emotions and altruistic giving

Humans have a great capacity to be generous. Their generosity transforms into charitable giving, volunteering, sometimes risking their own safety to help strangers in need. Emotions drive human decision-making and play a significant role in their prosocial behavior. Thaler (1985) linked human decision-making with the dual personality self-control problem. It consists of two perspectives, the first is looking at the person as a sophisticated planner. Sophisticated planner always knows in which areas is his self-control weak, and when he is more willing to procrastinate. The second personality - is naïve, when emotions influence and drive the behavior. Individual decision-making can be described as a constant conflict between these two types of personalities. When it comes to charitable giving, human decision-making is influenced by several extrinsic and intrinsic factors. Sargeant et al. (2006) conceptually classify the non-economic intrinsic determinants of charitable giving into two categories:

- familial utility - motivation to support a charity that might benefit individuals or families close to donors' perception;
- emotional utility - when the motivation to support a charity is raising emotional benefits for the donor.

Charitable organisations depend on prosocial acts of kindness. That is why volunteers are frequently asked for monetary contributions, volunteer work, or other forms of prosocial behaviour. Whether the subject decides to donate or not donate, each donation opportunity has a certain emotional impact. There is a growing body of literature dedicated to the emotional consequences of giving. Warneken et al. (2006) examined that donating to others is an activity that is highly emotionally rewarding. Moreover, people tend to take into consideration the consequences of their future actions when making their decisions. This is also the case of the emotions that one expects to have when a certain goal is reached or not. People usually imagine feeling so-called anticipated emotions before taking action. Happiness, satisfaction, or other anticipated positive emotions can trigger human decision-making into taking action in the form of donating to charity (Bagozzi et al., 2003; Merchant et al., 2010). In their study, Andreoni and Rao (2011) explained that both forms of behavior, giving and avoiding to give, can increase utility and be consistent with a warm glow. However, only when the subject was giving he/she felt a significant increase in positive

emotion. Giving to charitable purposes made subjects happier (Borgonovi, 2008; Anik et al., 2011). In their study, Dunn et al. (2010) explained that individuals who donate to charity only by a minimal possible amount (low donors) tend to experience relatively fewer emotional benefits that are comparable with those that experience non-donors. Subjects that donated less money to other subjects reported lower levels of positive emotions and higher levels of negative emotions. Williamson et al. (1989) proved that subjects that did not have the option to help demonstrated low levels of well-being than participants that were either asked or were allowed to help. Aknin et al. (2017) further pointed out that it is not well examined what are the emotional consequences if an individual that is asked to donate, however, refuses to donate whether this non-donor faces stronger negative emotional consequences and chooses to skip the positive emotional outcome that can be a result of a donation. They investigated whether recent winnings, the presence of another person, and matching earnings could affect the emotional well-being of donors compared to non-donors. Authors used Positive and Negative Affect Scale (PANAS)⁵, to measure their subject's emotional reaction to the factors that may influence donations. They find out that a minimal amount of donors or nondonors experience some hedonic costs, such as a drop in positive affect. Opposed to high amount donors, who experience an increase in happiness and drop in negative affect.

Giving is initiated by a stimulus that elevates positive emotions - sympathy or empathy. Not giving elevate negative emotion - the feeling of guilt. Individuals who are aware of their vulnerability to stimuli of being ask to donate can control both, positive and negative emotions, and therefore control also giving to charity. Because they believe they can not donate in every opportunity, even though they might wish to do so. These type of individuals are therefore cautiously avoiding environments, where they are explicitly asked to donate. Therefore being able to avoid environments where sharing behaviour is expected, might increase overall satisfaction of those subjects that were not considering to donate at the first place (Andreoni et al., 2011).

Cialdini et al. (1987) claim that donors want to help others improve their negative mood states. This indicates that the donor wants to overcome his own negative emotions or sadness that he is experiencing by helping others. Marchand et al. (2002) also claim that

⁵ Positive and Negative Affect Scale (PANAS) was introduced by Watson, Clark, & Tellegen in 1988.

charitable giving intentions can be influenced by overcoming negative emotions when having a positive emotional outcome from donating. For this, empathy is one of the most important emotions recognized in charitable giving (Singer et al., 2004). Empathy giving (Empathy-Altruism) is being positively associated with helping. Empathic orientation is correlated with many of the same brain regions identified in experimentally induced empathy (Ferguson et al., 2012; Singer et al., 2004). Davis developed the Individual Reactivity Index (IRI), where empathy is measured by other personal characteristics on a 28 item scale. The personal distress (PD) scale, part of IRI, measures self-oriented feelings of personal anxiety and unease intense interpersonal settings (Davis, 1983). The perspective thinking (PT) scale manipulates with the psychological point of view of others. Basil et al. (2008) examined that empathy and self-efficacy generate guilt which, in turn, shapes donation intention. The results demonstrate that the impact of empathy on charitable donation intention is fully mediated by guilt. This can be facilitated by identifying emotional constructs that drive commitment and charitable giving, such as nostalgia (a longing for things, persons, or situations that are not present). Nostalgia can also be classified as one of the most powerful drivers of charitable giving. Personal nostalgia provides emotional and familial utility, which mediate the effect of personal nostalgia on the donor's commitment, which in fact increases the intentions to donate (Sargeant et al. 2006; Merchant et al., 2011). Imperfect human perception and inconsistent memories cause memory biases. Pleasant memories that evoke positive emotions are easier to remember without biases (creating the illusion of nostalgia). Said, the availability of human concrete experiences creates biases in the judgment of fault (Camerer, 1995).

Because previous research provided evidence of guilt and empathy being the two most powerful emotions that drive charitable giving, charitable giving uses these emotions to attract donors. Charitable organizations are using negative emotions, mostly guilt through storytelling, to grab the subject's attention. Using negative emotions to evoke empathy is a successful advertisement technique that helps raise subsidies for charities (Mackenzie et al., 1989). As a result, consumers are therefore expected to have a reasonable amount of persuasion towards it. Coulter et al. (1995) examined that when is a moderate level of guilt combined with other negative feelings such as anger, annoyance, irritation, sadness, the desired advertising effect to stimulate donor interest is fulfilled. Therefore, negative emotions can turn into anticipated positive ones when the subject is allowed to help the person in need through a donation.

However, emotions towards one versus many people in need tend to differ. When comparing helping to one or a group of people, each human life has irreducible value. Then compassion should increase proportionally as the number of lives in a critical situation increases. Yet when measuring actual emotional experience and altruistic behavior, a different story emerges. Subjects tend to decrease a level of emotional engagement and avoid feeling empathy. They expect that helping would involve a large commitment, or it would be hard to make a decision. Figley (1995) examined that professional caregivers tend to develop compassion, stress, and fatigue, which results in a reduction of their empathic sensitivity towards people they are in contact with. Why individuals may lack feelings toward a larger number of recipients has been termed by literature on social psychology as “collapse of compassion.” Cameron and Payne (2011) studied the effect of a collapse of compassion in three experimental settings. The first experiment was dedicated to measuring if the collapse of compassion would emerge more strongly when there is a clear motivation to avoid feeling compassion for multiple gift recipients. The second and third experiments tested whether individual emotion regulation can cause a collapse of compassion towards multiple recipients. They wanted to test whether the collapse of compassion can be reduced if a) the subjects are not motivated or trained to avoid compassion, b) subjects can not regulate their emotions well, c) subjects naturally allow themselves to be emotionally vulnerable without down-regulating the emotional compassion. They measured the subject’s compassion and distance towards the victim by varying the number of victims. In conclusion, the collapse of compassion occurs because individuals expect the needs of large groups to be potentially overwhelming, and, as a result, they engage in emotion regulation to prevent themselves from experiencing overwhelming levels of emotions. That is why groups are more likely to attenuate emotion regulation, and subjects feel less for groups than single individuals. Also, the expectation of being asked to help may serve as a financial motivation to avoid emotions toward many victims. (Kogut and Ritov, 2005b; Cameron and Payne, 2011).

From the empirical literature listed in this subsection of this thesis, one can conclude that prosocial giving is positively correlated to feelings of happiness after donation. Being able to avoid environments where sharing behavior is expected might increase the overall satisfaction of those subjects that were not considering donating in the first place. Having an option to choose and sort into a preferred environment should increase utility and at the same time increase positive emotions that one has with his decision compared with those that do

not have an option to choose. On the other hand, subjects not put into a giving environment, those deciding not to give, should not be triggered by negative emotions - the feeling of guilt. In our experiment, we fixed the number of recipients to either one or three, and we focused solely on the impact of different numbers of recipients on emotions. We measured self-reflecting emotions that subjects felt after their decision concerning the different number of recipients with or without choice option. Particularly, we tested whether emotions changed as the option to choose was presented and if the emotional response changed when subjects had an option to leave the decision-making process directly. Our scales of positive and negative emotions were based on the standardized Positive and Negative Affect Scale (PANAS). However, our scales of positive emotions were oriented more towards happiness and satisfaction with the subject's decision, while negative were focusing on the guilt, shame, and difficulties in making a decision. By this adjustment, we were able to focus more on the emotions that were reflecting the variety of making a decision when having a different number of recipients and emotions of those subjects that avoided giving environment.

1.5. A unique type of donation – Blood/ plasma donations and altruism

Classical economic theory predicts that providing any additional incentive for performing an activity will increase the supply of that activity. Previous empirical studies have examined whether altruistic behavior can be stimulated by offering extrinsic rewards. On the other hand, a large body of psychological literature provides evidence that incentives might not properly motivate when individuals are intrinsically motivated to perform the activity. The presence of tangible rewards (e.g., form of monetary reward or gifts) may undermine the intrinsic drive and therefore reduce the supply. In specific contexts, economic incentives may also attract the “wrong” type of donors. Thus if individuals perform a pro-social activity as part of which they obtain utility from being recognized by others for their good deeds, then offering an extrinsic incentive could undermine this utility by introducing confusion among others regarding the motivation for the action (Lacetera et al., 2010). Richard M. Titmuss (1970) determined, that private monetary incentives in the context of blood donation would have a negative effect on altruistic behavior and will result in a decrease in blood supply. Lacetera, Macis, and Slonim (2010, 2013) examined the effect of economic incentives and social recognition on altruistic donation. Observational studies that control for confounding factors have examined 14 incentive items ranging from small coupons to a paid day off work. They find that all incentives significantly increase the

number of donors presenting and units of blood collected, but do not increase the proportion of deferrals. They examined that attitudes towards incentives positively affect motivation to donate when they have a less clear economic connotation, such as receiving free medical testing. By measuring material incentives, other than direct cash, they found that neither crowding out of motivations nor adverse selection appear to be consequences of the presence of incentives. Heyman and Ariely (2004) further proved, that introduction of extrinsic motives could shift altruistic giving from a social structure to a monetary structure. And shifting from a social structure to a monetary structure may have detrimental effects on prosocial behavior because of interaction with image motivation. Image motivation might be affected by unclear motivations of donor's prosocial activities. To list an example, donation of whole blood and plasma might seem a similar prosocial activity, donating part of human blood to save a life. However, these two types of donations vary of numerous factors that might have fundamentally different effects on image motivation and altruism.

Non-profit organizations such as Red Cross, Transfusion centers worldwide save human lives by collecting cell components such as blood or plasma. In almost every country globally, there is a move toward achieving 100% voluntary blood donation (World Health Organisation, 2009). And without blood donors that voluntarily donate would not be possible for most health services to operate.

Donating blood, is called the purest gift of life⁶ and it is one of the most generous acts one can do for another human being. There is a great need for blood donations because of the shortages that often occur. In Australia, every third person will need blood donation in their lifetime (Australian Red Cross, 2020). In Slovakia, approximately 180,000 red blood cell transfusion units are consumed annually (NTS SR, 2020). Victims of accidents, people undergoing surgery, patients treated for leukemia, cancer, blood cell diseases all need blood. More than 26.5 million units of blood are administered to patients worldwide in one year. Blood consists of red blood cells, plasma, platelets, and they all can be used for various purposes.

Whole blood and plasma donation vary in donation interval according to gender, total donation time, donation process. The entire blood donation process takes about one hour from arrival until departure, with the needle-in time being 5-15 minutes. Donations frequency differ according to gender. Men can donate whole blood every three months and

⁶ Australian Red Cross. Lifeblood <https://www.donateblood.com.au/gift-of-life>

women every four months. A whole blood donation is typically used during transfusions in which very few or just one patient is helped. Red blood cells, oxygen carriers, save patients' lives during surgery and after injuries.

Besides whole blood, it is possible to donate other blood components like plasma. The plasma donation process takes about 1 hour 20 minutes (needle-in time is about 40 minutes) and can be donated every three months. During plasma donation, the plasma and red cells are separated; red cells are returned to the donor, and only plasma is kept for use. Therefore this type of donation may seem uncomfortable for the donor. Plasma can be used in eighteen different ways: for patients suffering from blood clotting disorders, autoimmune disorders, hemophilia, and is also concentrated into various pharmaceutical products. These medications can improve health and save people's lives suffering from burns, shock, trauma. Once processed for its components, a single plasma donation can be used to help potentially hundreds of people (NTS SR, 2020).

Because plasma is processed into pharmaceutical products, this type of donation might be negatively associated with the enrichment of pharmaceutical companies. This altruistic giving therefore might interact with image motivation by diluting the signaling value of prosocial activity (Bénabou and Tirole, 2006; Ariely et al., 2009).

In addition to the above, blood and plasma donations also differ in that plasma donors receive a financial reward for their altruistic activities in many countries around the world. Thus, it can be assumed that in the case of plasma donors, they are motivated by financial stimuli since they receive a reward for their act of altruism. Recruitment campaigns for blood donors are based on the idea that blood donation is primarily motivated by pure altruism (Piliavin et al., 1991). Andreoni (1990), in his article, gave an example of warm glow motivation for blood donation when citing an advertisement from The American Red Cross: "Feel good about yourself – Give blood!"

Ferguson et al. (2008) claim that the blood donation process is anchored by the benevolence hypothesis. This hypothesis suggests that both the donor and recipient gain from the donation process. Moreover, blood donors in comparison with non-blood donors have a strong altruistic preference that drives their motivation to donate. These preferences are thus driven by a warm glow. Hence, I give because it makes me feel good. Therefore, the author suggests that the benevolence hypothesis predicts that all charitable giving by blood donors, compared to non-blood donors, is more likely to be motivated by a warm glow. Ferguson et al. (2012) provided experimental evidence based on the hypothesis that blood donors are generally more generous because their motivation is driven by a warm

glow rather than pure altruism. They compared blood donors and non-donors in (i) experimental settings reflecting warm glow motivation and (ii) experimental settings reflecting charitable giving, to present objective measures of altruism. Their results have proven, that blood donors donated more than non-blood donors in the experimental setting based on a warm glow. They also provided evidence, that the motivation of blood donor subjects was not affected by reciprocity or empathic concerns.

In this thesis, we were also asking the subjects of the laboratory experiment whether they are blood donors and, if so, what is their blood donation history. Then we compared their donations with non-donor subjects to conclude their motivation for altruistic behavior and preferences towards the number of recipients. Importantly, in the discussion of this thesis, we provide direct policy implications for these voluntary activities.

1.6. Other selected factors and preferences that affect prosocial giving

Besides altruistic causes there are other factors that drive charitable giving. These drivers include reciprocity, the desire after equality, and the level of income or employment status of an individual.

Reciprocity

Reciprocal or conditional altruism is generally defined to include reciprocity to third parties and the principle of distributive justice known as equality. The motives are alike: they all motivate costly rewards and are willing to punish others based on what they deserve. Contrary, a gift or a favor motivated by another gift (for instance, the return of previous favor or initial gift) reflects the act of reciprocity (Fong, 2007). It is possible to distinguish between direct and indirect reciprocity in terms of the recipient. Direct reciprocal behavior is a repeated encounter between two subjects. In game theory, players can either “cooperate” or “defect.” Indirect reciprocity occurs when subjects help those who help others. And it also explains why people might develop cooperative behavior. It could explain helping behavior that occurs outside of the restrictive conditions required for direct reciprocity. According to Nowak and Sigmund (2005), there are two streams of indirect reciprocity: downstream and upstream. Upstream indirect reciprocity is based on the recent positive experience of the decision-maker. A person who has been at the receiving end of the donation decides to help another recipient/s. Downstream indirect reciprocity is based on reputation. When a person has helped someone, he will also receive help from a third party.

Inequality aversion

The results of laboratory experiments examine that several individuals are indeed willing to reward the kindness of others absent strategic incentives to do so (Kahneman et al., 1986; Charness et al., 2011). At the same time, however, the results show that the subjects of laboratory experiments do not accept unfair behavior. In addition, they are willing to give up part of their income to move toward more equitable outcomes. This behavior is a manifestation of inequality aversion (Fehr and Schmidt, 1999). Whereas pure altruism assumes that the donor gets utility purely from the well-being of the receivers, inequality aversion theories hypothesize that donors incur disutility from inequality, which motivates altruism (Chowdhury and Jeon, 2014).

Employment status, level of income and charitable giving

According to the economic literature, there is evidence of a positive relationship between income and charitable giving (Wiepking et al., 2012) and charitable giving and employment status. Generally, the subjects who are full-time or part-time employed are more willing to donate than unemployed subjects. The probability of donation is reduced by 7 percentage points when not being employed and 11 percentage points when being self-employed, compared to employed subjects (Pharoah and Tanner 1997). Also, the willingness to donate to each subject differs according to their income level (Andreoni and Miller 2002; Okten and Osili, 2004; Cowley et al., 2011). Donors with higher income and richer households are more likely to give higher amounts than poorer ones (Adloff 2009). The relation between income and giving is in economic literature listed as income elasticity of giving. An income elasticity lower than 1 represents inelastic giving; thus, donors will increase their giving but at a lower rate than their income increases. Contrary income elasticity higher than 1 represents elastic giving. Charitable gifts are considered an inelastic giving for a household (McClelland and Brooks 2004; Wiepking and Bekkers 2012). However, due to another stream of literature, higher social-economic status leads to lower levels of prosocial behaviour. Akin et al. (2017) concluded that winning a larger amount of money leads people to donate significantly more money, although the donations significantly smaller share of their total winnings.

There is a variety of orientations of charitable organizations that one can choose to support. Religious or organizations focusing on the environment, economic and community development, education, culture, and arts are often supported by high-income donors. On

the other charities protecting animals, international humanitarian organizations or animal shelters are supported by low-income donors (Banks et al., 1999). There is a significant link between religious participation and donations to charity. Higher frequency of church attendance is positively correlated with charitable giving and therefore reporting higher donations (Eckel and Grossman, 2003). More than 61 percent of contributions by U.S. households were due to religious causes (List, 2011). Subjects with a religious affiliation are more generous to the church-related causes (Pharoah and Tanner 1997; Adloff 2009). Moreover, Adloff listed in his paper an example from the working group Giving in Germany, which finds out that both the educational and religious background had a decisive influence on charitable giving patterns. Experimental results suggest solicitation, the likelihood of being asked to donate, as one of the important reasons that drive charitable giving. Other strong motivators are reputation and prosocial values (Bekkers and Schuyt, 2008).

2 The Aim of the Dissertation

The aim of the dissertation is to investigate the impact of a different number of recipients on the donor's willingness to donate and examine whether having a choice regarding how many recipients to donate increases the extent and frequency of help. Are donors better off when they have a chance to sort into the scenario with their preferred number of recipients? Or, if subjects do not want to donate, they can leave the process entirely rather than not donating.

The way we want to achieve the main goal is to test subjects' behavior in our four different experimental treatments. Experimental subjects are evenly distributed across the four treatments that differ by only one exogenous change *ceteris paribus* in design. Based on the collected data, we will determine how the change in the environment resulted in the amount and frequency of donations. We will be able to identify the treatment effects whose setting increased the motivation to donate. Through extensive and intensive (conditional on the amount donated being positive) margin analysis, we monitor the relationship between the amount of their gift and the change in the environment in which they find themselves. Then we will be able to test the following hypothesis:

Hypothesis 1:

- When donating to three charities, the extent and frequency of donations will increase than when donating to one charity.

Hypothesis 2:

- When having an option to choose the number of recipients, subjects increase the extent and frequency of help than when donating to one charity.
- When having an option to choose the number of recipients, subjects increase the extent and frequency of help than when donating to three charities.

Hypothesis 3:

- When having an option to choose the number of recipients and directly opt-out from the donation process, subjects increase the extent and frequency of help than when only having an option to choose the number of recipients. Subjects that will select the preferred number of recipients (at the first stage), will end up donating (at the second stage).

The main hypotheses, based on the literature, are described in detail and explained in Sub-Chapter 3.2.1 Conjectures and hypothesis.

In addition to the main goal of the dissertation, we have set the following additional goal:

We would like to examine emotional reaction (and types of positive and negative emotions) of subjects when deciding to help either one/ three recipients; and define whether having the option to sort into the environment with the preferred number of recipients increase certain emotional reaction with the donation. By allowing subjects to sort into categories of how many recipients they help, the possibility to meet their preferences rises as well. With the higher chance of their needs being met, the satisfaction suppose to increase as well. Negative emotions such as regret, can be caused by the fact that it is too difficult for the subject to decide. Therefore in addition to looking at overall satisfaction when having a choice to sort into preffered environment, we focused also on negative emotion regret and toughg to decide. This approach will allow us to define the subject's emotions after their decision has been made and, therefore, better understand the motivation for charitable giving.

We particularly ask:

- Does sorting into a situation with the preferred number of recipients increase donors' positive emotions?
- Does sorting into a situation with the preferred number of recipients decrease donors' negative emotions?

Questionnaire response analysis will help us understand the other factors that drive charitable giving in addition to the different number of recipients or sorting. We particularly ask whether: higher income, employment status, volunteering experience, being a blood or plasma donor, or recipient identification affects donors' charitable giving.

3 Methodology

This section of the dissertation is designed to (i) justify the importance of experiments in studying altruism; (ii) explain the reason for choosing a dictator game as the vehicle for measuring altruism; (iii) indicate the fundamental theoretical difference between the pure altruistic donor, donor-driven by a warm glow, *homo economicus* (non-donor) and identify how choice affects prosocial behaviour; (iv) state testable hypothesis divided from the conjectures within our experimental design; (v) discuss employed statistical methods.

3.1 The history of experimental testing

Experiments capture several important tasks in science. They test theories that provide the basis for scientific knowledge and, thanks to that, can be proven that the accepted theory is incorrect. Experiments can also explore the causes of a theory's failure and establish empirical regularities as a basis for new theory (Smith, 1994). While experiments stand a leading role in the natural sciences, in other spheres based on human decision-making (economics-consumers, policies-citizens) are not used sufficiently. Human decision-making is influenced by stimuli like habits, emotions, prejudice, or social pressure of the environment. Based on linear processes and predictability assumptions, current policy approaches are often inaccurate because they do not incorporate these stimuli into the models. Behavioral factors that influence human decision-making are not incorporated and thus do not have the necessary information to find a suitable solution. The usefulness of experimental testing has great potential, especially in the implementation of new policies but is currently a topical subject in the private sector. Moreover, due to the fast development of digital technologies, it is increasingly argued that many government structures and policy-making methods have been designed for the past period and less complex policy areas. Introducing new elements in the policy-making mechanism and choosing the right instrument is a key step in increasing policy effectiveness and maximizing benefits for society.

Economic experiments allow testing of individual motives of human behavior in salient laboratory conditions. In the late 1940s and 1950s economists, E. H. Chamberlin and Vernon L. Smith became interested in applying economics to laboratory settings. Therefore, economics started to use laboratory conditions that mimic real-life situations to test theories and study the subject's decision-making in a controlled environment (Smith 2002).

According to Smith (1976), the results of the laboratory studies can serve as a rigorous empirical pre-test of economic theory before the use of field data tests. Since economic hypotheses always deal with certain alleged behavioral tendencies in isolation, the experimental laboratory is uniquely well suited for testing the validity of such hypotheses. The results of the experiments can be directly relevant to the study and interpretation of field data.

Experimental testing is one way to explore the reactions and motives of people's decision-making on specific stimuli. By testing hypotheses with subjects either in the laboratory or directly in the field, it is thus possible to obtain answers, for example, on what influences subjects' decisions, how to set variables to achieve the desired results, and whether the given policies have a chance to work with that setting. Experiments thus allow us to compare environments while using the same institutions. This comparison aims to stress the theory with extreme environmental conditions under which an institution's establishment may begin to break down (Smith, 1994). The principle of both laboratory and field setting is to develop an experiment that will solve the research question and to minimize the "contamination" of the results by external factors. While laboratory experiment minimizes "contamination" in the experimental setting, field research is done in real-life natural settings. The level of control in the laboratory setting is higher as the researcher manipulates the particular factor to determine if a certain change in the setting generates a change in the subjects. If controlling all extraneous influences is successfully accomplished, any change observed in the subjects is presumed to be caused by the variable that has been changed. Moreover, laboratory experiments can be easily reproduced. On the other hand, within the field settings where the level of control is relatively lower, other advantages need to be considered. Participants of field experiments may or may not be aware that they are being observed. The conditions of the field reflect real-life contexts because they represent a greater variety of situations and environments that the subject experience in the natural habitat. The most effective research is usually to use both settings. Observations in the field create new hypotheses to be tested by controlled experiments. If hypotheses are not confirmed in the laboratory, they will not be confirmed in the field (Aziz, 2017).

The guiding principle of experimental testing is the measurability of the results of a group of subjects in which intervention was applied with a group in which no intervention was applied. Using identical environments, but varying the market rules of exchange, has been how the comparative properties of institutions have been established (Smith, 1994). One of the main principles of experimental testing is the ability to control the environment.

Many factors can drive the attention of the subject in more salient directions. In general, salience theory (Bordalo et al., 2012) states that agents overemphasize especially salient features of choices and underrate less prominent but possibly important aspects. Controlling these factors (Dertwinkel-Kalt et al., 2017) is one of the main important experimenting features. Consequently, it will be possible to conclude from the results as to whether the measure can succeed in a blanket deployment or if changes to the intervention settings and further retesting is needed. Therefore, the laboratory environment serves as an ideal testing ground for all types of institutions.

In contrast to surveys, subjects of economic laboratory experiments are always financially motivated, which increases the credibility of their responses. At the same time, the amount of financial motivation must be sufficiently interesting for the subjects. On the other hand, in a survey that does not provide financial motivation for the answers, the respondents' answers are often influenced by external factors, so-called reputation distortion⁷: "what the researcher will think when reading my answer". Initial experimentation can be carried out in the form of laboratory testing or field testing.

The experimental approach in economics is also gaining recognition thanks to The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel (Nobel Prize in Economics). In 2002 the prize was awarded to Daniel Kahneman and Vernon L. Smith. Daniel Kahneman received the prize for having integrated insights from psychology into economics, especially in human judgment and decision-making under uncertainty⁸. Vernon L. Smith for having established laboratory experiments as a tool in empirical economic analysis. He has developed an array of experimental methods, setting standards for a reliable laboratory experiment in economics. Under controlled laboratory conditions, Smith created an environment where subjects were able to determine market equilibrium price (the price which is acceptable to equally many sellers as buyers). In the experiment were subjects randomly designated roles as buyers and sellers with different valuations of a good, expressed as the lowest acceptable selling price and a highest acceptable buying price,

⁷ Smith (1982) refers to this as the dominance precept not being satisfied. Dominance is a condition sufficient to guarantee that we have not lost control over preferences. Because the most common means of rendering nonmonetary task utilities inconsequential is to use payoff levels that are judged to be high for the subjects. But high payoff levels are not the only means of satisfying the dominance precept. A second one is to pay a small "commission" for subject's transaction.

⁸ Nobel Prize. org., 2002. <https://www.nobelprize.org/prizes/economic-sciences/2002/press-release/>

respectively⁹. In 2012 Alvin Roth received the Nobel Prize in economics for “the theory of stable allocations and the practice of market design,” which he tested through laboratory experiments. He demonstrated that stability was critical to successful matching methods and has also developed systems for matching doctors with hospitals, school children with schools, and organ donors with patients¹⁰. Elinor Ostrom was awarded the Nobel prize in economics for her analysis of economic governance in 2009. In her research, she focused on rational choice theory and insights into development economics to ecological preservation¹¹. Richard H. Thaler was awarded in 2018 for his impact on the development of behavioral economics. He provided both conceptual and empirical foundations for the field. By incorporating new insights from human psychology into economic analysis, he has provided economists with a richer set of analytical and experimental tools for understanding and predicting human behaviour.¹² By developing the concept of libertarian paternalism, Thaler and Sunstein sought to point out how gentle nudge can help people, and improve their lives (Thaler et al., 2009). In 2019, Nobel prize was awarded to Duflo, Banerjee and Kremer for their experimental research that enables reliable answers to be given to new ways of combating world poverty¹³. By directly experimental testing of the hypotheses with the subjects either in laboratories or in the field, it is possible to obtain answers, for example, to what influences subjects' decisions on how to set variables to achieve the desired results and whether policies have a chance to work with the given setting.

Based on the above-mentioned facts and for high control of variables, we chose the method of laboratory experiment.

3.1.1. Dictator game as a tool to measure altruism

Dictator games are the laboratory environments that help to measure and quantify altruism (Kahneman et al., 1986). It is based on the ultimatum game (Güth et al., 1982) where a proposer makes an offer on how to divide the sum of money, and if the responder accepts the offer, both sides receive the proposed amount. (otherwise, if the responder rejects

⁹ Nobel Prize. org., 2002. <https://www.nobelprize.org/prizes/economic-sciences/2002/popular-information/>

¹⁰ Nobel Prize. org., 2012. <https://www.nobelprize.org/prizes/economic-sciences/2012/roth/facts/>

¹¹ The Library of Economics and Liberty, 2009. <https://www.econlib.org/>

¹² Nobel Prize. org., 2017. <https://www.nobelprize.org/uploads/2018/06/advanced-economicsciences2017.pdf>

¹³ Nobel Prize.org., 2019. <https://www.nobelprize.org/prizes/economicsciences/2019/summary/>

the offer, both sides get nothing). However, in dictator games, participants are randomly assigned to roles as a dictator and a recipient. The dictator receives or earns an endowment and then decides how much of the endowment (if any) to give to the recipient. The recipient does not have a say in the decision and cannot affect the dictator's outcomes. The dictator and all interactions in the laboratory are usually anonymous because nobody knows each other's identity. Hoffman et al. (1994) developed a double-blind dictator experiment. The double-blind dictator games eliminate considerations of strategic risk, subjects' interactions, and the interaction between subjects and experimenter (Eckel and Grossman, 1998). Thus, it is in the dictator's self-interest not to give any money. Any amount of money sent to the recipient is a costly act that benefits the recipient. Therefore, this setting leaves the space to show either selfish, self-regarding behavior (keeping the entire endowment for their selves) or express altruistic behavior in the form of leaving a little or a lot to the recipient. Standard economic analysis of dictator games predicts that dictators should not give anything to the recipient if they are motivated by self-regarding preferences. However, laboratory studies have proven otherwise. Some dictators do not leave anything, but some donate up to half of their monetary endowment (Engel 2011; List 2007). On average, subjects share about 25 percent of their monetary endowment, which is a base to indicate significant altruism (Durlauf et al., 2012). They do so because of their social preferences, to reduce differences between theirs and others' payoffs (difference-aversion model: Bolton and Ockenfels, 2000), to help those with lower payoffs (social-welfare models), or to raise or lower others' payoffs depend on how fairly those others are behaving (Charness et al., 2002). "Experimenters have generated data on independent variables they have not explicitly set out to test. They, for instance, have played a one-shot game with students, asking dictators to divide a pie of \$10 given to them between themselves and an anonymous recipient from the same subject pool. What looks like a perfectly standard dictator game implicitly provides data on one shot versus repeated games; on games with students versus other populations; on manna versus earned money; on stakes; on a specified degree of social distance; on dictator-recipient anonymity versus dictator identification (Engel, 2011)".

3.1.2. Theoretical predictions

The decision-making process of individuals becomes the main subject of economic research. Utility maximization is an assumption that helps us understand human decision-making based on their unobservable preferences. This assumption of consumer behavior

uses the diminishing marginal utility to explain how individuals allocate their incomes. The utility maximization model is built based on the assumption that consumers are assumed to be rational, trying to get the most value for their money. According to this theory, individuals make rational decisions based on appropriate goal setting, problem analyzing, alternative solution choosing. By selecting the proper information needed for a decision, an individual determines the alternatives when following the principle of maximization of personal well-being. Utility maximization in decision-making is proceeded by certain resource condition limitations as money, time, et cetera.

The subject has multiple options for what outcome to choose to maximize his utility. A subject maximizes his utility U , by making his decision $D \geq 0$, when dividing the endowment between himself: s , and a charity: c . Self-regarding preferences utility (own-payoff) given by $u(s)$ and utility over charity's payoff given by $v(c)$.

$$E = s + c \quad (1)$$

To choose the amount he wants to donate to the charity, the decision-maker maximizes utility:

$$u = (1-\alpha) u(s) + \alpha v(c) \quad (2)$$

where α is the weight, subject puts on the utility from other's payoff relative to the utility he gets from his own payoff. Ribar et al. (2002) argue that aggregate pure altruistic giving is smaller than it is measured in the laboratory settings and add that aggregate warm glow giving is likely to be larger as show the results of the laboratory experiments. Gauriot, Heger and Slonim (2018) claim that the curvature of the utility function differs for pure and impure altruist. Our hypothesis is based on the differences between utility maximization of pure and impure altruists and warm glow givers. And by building on altruistic giving focuses on other aspects that can increase giving - the autonomy of choice leading to sorting.

In charitable giving, each subject always decides how to distribute his funds between himself and the recipient. If a subject has the ability to donate to one recipient, he decides in the way to maximize his utility. He will, therefore, either kept the resources for himself or set aside part of his resources to help the recipient. If the number of recipients increases from one to two, the pure altruistic donor will spend the same amount of funds to help the next recipient as it was when the recipient was only one. This will be the case if there is any

additional recipient of his gift. Thus, if the number of recipients increases from one to three, the donor triplicate his donations. In the model of pure altruism, the marginal utility from giving is therefore constant. The pure altruist has the marginal utility of giving multiple recipients equal to the marginal utility of giving to one recipient.

Subjects motivated by a warm glow also want to donate. Thus, the donor allocates part of his funds to one beneficiary based on his preference to maximize his total utility. The donor is strongly motivated by a warm glow to donate part of his funds with the first recipient. However, the donor expects to be rewarded for his good deeds. Suppose the number of recipients increases from one to two, the motivation of the donor increases, however, at the decreasing rate with every additional recipient. This is because the donor knows that a larger number of recipients will no longer increase the warm glow from the donation at the same proportion as the first donation did. With each new recipient, his willingness to contribute will increase, however, at decreasing rate (due to diminishing marginal utility). Therefore, the donor motivated by warm glow will differentiate between the number of recipients. Donations by pure altruists will rise by the same amount with every additional recipient.

If subjects want to be engaged in prosocial activities, they often have a choice to decide how many recipients to help. According to the literature on the autonomy of choice, in order to increase the level of altruism observed, well-thought choice architecture is essential. The choice not only allows subjects to sort into preferred environments but also allows them to leave undesired environments if they do not want to participate in a certain activity. Opting into and out of the environments has a strong effect on how much prosocial behaviour can be observed. Letting to opt-out those subjects that are not interested in donating allows the sample to consist only of self-selected potential donors. Sorting enables the creation of an environment that consists of self-selected prosocially oriented subjects, where donating is desirable.

3.2. Experimental Design

In this section, we describe details of the laboratory experiment, which consists of four treatments; and we explain in detail how the treatments are tied to the research questions and what are the conjectures of each treatment. In the laboratory experiment, each experimental subject has the opportunity to express his attitude toward the donation. Each

of the subjects will be faced with a decision to consider donating part of the endowment for charitable purposes.

In the experiment, we employ a between-subject design for the dictator game. We implement four experimental treatments that vary the number of gift recipients.

A dictator can share endowment with:

- one recipient (Treatment One Charity)
- three recipients (Treatment Three Charities)
- choose the preferred number of recipients – either one or three (Treatment Choice)
- choose the preferred number of recipients – either one or three or directly opt-out from the game (Treatment Opt-out).

In each treatment, subjects were presented with one charity (randomly chosen from Acorus, Theia, or Lata) or three charities (Acorus, Theia, and Lata). We provided the information about charities' work focus and scope of work. The charity description contained the name, characteristics, the main idea to whom it provides help, offered services.

1. In Treatment One Charity, dictators decide how much they keep for themselves and how much they contribute to one of three randomly chosen charity (either to charity Acorus, Theia or Lata that is always assigned to the dictator randomly, maintaining the same frequency per charity). Ensuring that the decisions are not influenced by preferences (or the lack thereof) for a particular charity. Subjects make only one decision. There is only one recipient. Having only one charity as a recipient, subjects received six options from which they could choose and donate 0 CZK, 30 CZK, 60 CZK, 90 CZK, 120 CZK, or 150 CZK.

Subjects choose from the following options:

- `` Option 1, " then decision-maker will get 150 CZK and the Charity will receive 0 CZK.
- `` Option 2, " then decision-maker will get 120 CZK and the Charity will receive 30 CZK.
- `` Option 3, " then decision-maker will get 90 CZK and the Charity will receive 60 CZK.
- `` Option 4, " then decision-maker will get 60 CZK and the Charity will receive 90 CZK.
- `` Option 5, " then decision-maker will get 30 CZK and the Charity will receive 120 CZK.
- `` Option 6, " then decision-maker will get 0 CZK and the Charity will receive 150 CZK.

2. In **Treatment Three Charities**, the participant decides how much they contribute (if they decide to donate) to three charitable organizations Acorus, Theia, or Lata. Subjects make only one decision. There are always three recipients. Subjects received six options from which they could choose and donate 0 CZK, 30 CZK, 60 CZK, 90 CZK, 120 CZK, and 150 CZK. Each charity receives equal share ($1/3$) of the donation amount. This design feature allows us to control the number of donation decisions at one.

When having three recipients, subjects could choose from:

- `` Option 1, " then decision-maker will get 150 CZK and each charity will receive 0 CZK.
- `` Option 2, " then decision-maker will get 120 CZK and each charity will receive 10 CZK.
- `` Option 3, " then decision-maker will get 90 CZK and each charity will receive 20 CZK.
- `` Option 4, " then decision-maker will get 60 CZK and each charity will receive 30 CZK.
- `` Option 5, " then decision-maker will get 30 CZK and each charity will receive 40 CZK.
- `` Option 6, " then decision-maker will get 0 CZK and each charity will receive 50 CZK.

3. In **Treatment Choice** consists of two stages. In the first stage, subjects choose the number of recipients. The recipient could be either one (as in One Charity treatment) or three charities (as in Three Charities treatment). In the second stage, after choosing the number of recipients, subjects make their monetary decision and select one of the six options (similar to either Treatment One Charity or Treatment Three Charities).

4. **Treatment Opt-out** also consists of two stages. In addition to choosing the number of recipients, it provides a direct opt-out option. Opt-out means that if subjects do not want to be put into an environment where the possibility to share is available, they can leave the process entirely. After choosing this option, opt-out subjects will proceed directly to the post-experimental questionnaire. Subjects that in the first stage want to decide the number of recipients, proceed to the second stage. In the second stage they allocate a fixed amount of money between them and chosen number of charities (either one or three charities, similar to either Treatment One Charity or Treatment Three Charities), with the option donate zero still available.

The subjects are proceeding through self-selection, where the donors will separate themselves from the dictators driven by self-regarding preferences. By putting the subjects

into an economic environment that allows them to become donors, their willingness to process towards donation should lead to higher donations. Subjects that enter either the choice of (i) to donate one charity (ii) to donate three charities can still decide not to donate anything. Although subjects must decide to enter their preferred means, they still can become non-donors and keep their entire endowment. However, donors choosing to enter the donation process will be sorted from other subjects motivated by self-regarding preferences. These self-selected donors should be then more satisfied with choosing the recipient, and therefore, their willingness to donate should also increase. The total amount donated when choosing the number of recipients should be then higher compared to the settings without having this option.

This experimental design allows us to study the impact of three different dimensions of charitable giving:

- i. Different number of recipients (in every treatment the option to give one or three recipients vary)
- ii. The option to choose the recipient (we design the environment where it is possible to choose whether to donate to one or three recipients and compared it with the environment without this option)
- iii. Direct opt-out (we design the environment where subjects receive their endowment and can either directly opt-out the dictator game and keep the endowment for themselves or they can opt-in their preferred means and donate to either one or three charities)

The difference between having real recipients in the laboratory experiment and real charities has been studied by Slonim and Roth (1998). Based on their research, altruistic behavior is in the laboratory experiments measurable mostly when having charities as recipients. While with other subjects, literature has shifted more to inequality aversion, fairness, or reciprocity. To observe the altruistic behavior of the donors, we choose not well-known charities: Acorus, Theia, and Lata, to diminish the subject's association or preferences towards any of them. Charities have similar scope of their focus. Acorus¹⁴,

¹⁴ Acorus provides a comprehensive professional assistance to people at risk of domestic violence to overcome the unfavourable social situation and to integrate into everyday life without violence. The organization focuses on helping people psychologically and physically assault, sexual violence, economic constraints and social isolation, helping children and young people aged 6 to 26 years, threatened by socially undesirable phenomena. <http://www.acorus.cz/>

Theia¹⁵ and Lata¹⁶ are all a non-governmental, non-profit organizations that provide help to victims of physical and psychical abuse. The reason for selecting not well-known charities, is to reduce heterogeneity in how much people know and might have encountered with each charity and that they are unlikely to have any association with¹⁷. Otherwise can be the prosocial giving to certain charity affected by: (i) the knowledge about given charity, (ii) previous donation or volunteering history towards certain charity, (iii) knowing someone who has volunteered or received benefits from the charity. By having unknown charities as gift recipients, we are able to control the essential information about charities. Written information about charity /charities is part of the instructions. There are no other external factors (e.g., reputation, goodwill, personal ties) that can affect subjects' attitude towards any given charity. Subjects were assigned randomly to each treatment by drawing a number of their cubical. They were told to stay quiet and wait for instructions from the instructor. This information was also displayed on the monitor. Each participant was assigned to the role of the dictator, and at the beginning of the experiment, they received written and spoken instructions. Written and spoken instructions for each treatment are provided in the appendix. Subjects were informed that in addition to the show-up fee for their participation of CZK 75 in the experiment, they received a fixed amount of CZK 150, which they could retain or redistribute to charities Acorus, Theia, Lata. Therefore, the maximal amount the subject can earn per session was CZK 225¹⁸.

Subjects rated from 0 to 6 all three charities by indicating how much they knew about each prior to the experiment as follows: “1” implied that they had not heard of it, and “7” that the charity is “well known.” Approximately 76% of the subjects have never heard of

¹⁵ Theia provides crisis assistance and professional social counselling services and assistance to children and young people aged 6 to 26 years, threatened by socially undesirable phenomena. The assistance is intended in particular for: persons in crisis; persons who are or may be the victims of crime; persons who are or could be the victims of domestic violence, or who are threatened by domestic violence, or to whom they would like to help; all who find themselves in the so-called debt trap. <http://www.theia.cz/>

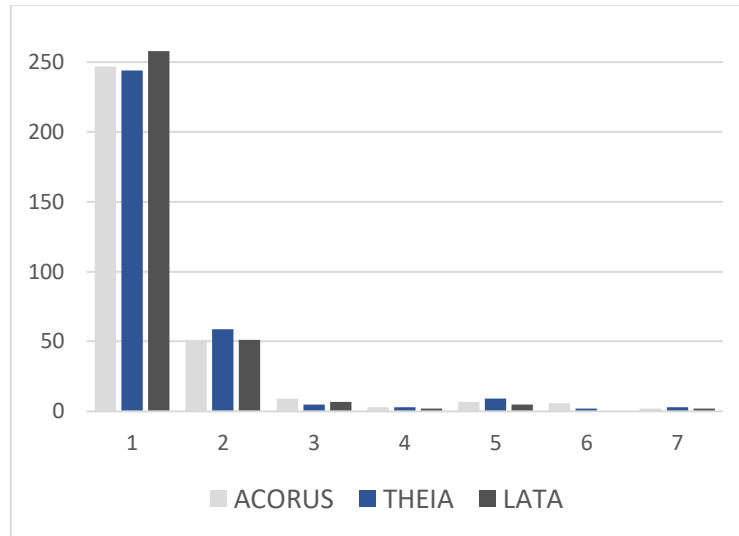
¹⁶ Lata provides help to children, young people and families whose conduct has been in conflict with the law or found themselves in a difficult life situation. The assistance is intended in particular for: persons in crisis; especially young people who cannot cope with their daily lives and fail; single-parent families, single parents who find themselves in situations where they need help. <http://www.lata.cz/>

¹⁷ Soyer & Hogarth, 2011 proved, that subjects donate more to the charities and campaigns they know better.

¹⁸ At the time of the experiment this was approximately 8 EUR. And in 2019 adult minimum wage in Czech Republic was CZK 90 per hour.

any of the three charitable organizations, and only 11 subjects have previously donated to one of the listed charities.

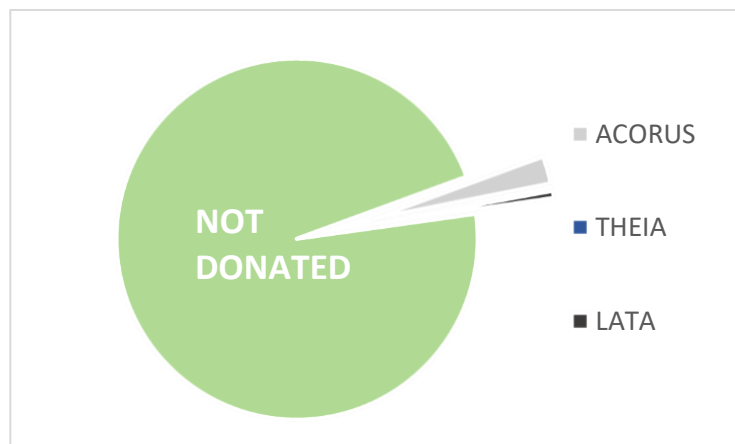
Figure 3.2.1: How familiar is the charity



Source: Own processing

When asked whether the donor in the past donated to some of the mentioned charities, more than 76% said no (Figure 3.2.2). On the other hand, if they donated, only 8 donors stated that they previously donated to Acorus, two to Lata and one to Theia.

Figure 3.2.2: Previous donation history to Acorus, Theia, Lata



Source: Own processing

Each subject made only one monetary decision during the experiment. All sessions were run under a single-blind social distance protocol. The experiment was designed in Qualtrics software. 325 participants (161 females) were recruited from current and former

students of Masaryk University in Brno, Czech Republic enrolled in the database of Masaryk University Experimental Economics Laboratory (MUEEL) who never participated in dictator game before. We used hroot recruitment software (Bock, Olaf, Ingmar Baetge and Andreas Nicklisch, 2014). Table 3.2.1. presents gender structure of experimental subjects.

After making their decision, subjects answer the post-experimental questionnaire. We ask about their age, gender, income, city of their permanent residency, blood or plasma donor status, satisfaction with their donation, the reason why they donated or not donated, charitable and voluntary activities, donation history, whether they will recommend a donation to others, whether they would like to know the recipient). Questions regarding their emotional experience with the donation (e.g., happiness, regret, guilt, satisfaction, confidence) are also included in the questionnaire. The reason was to see whether subjects that will be put into different experimental settings will also show a different range of emotions. A list of all the questions and the overall questionnaire is available in the appendix.

Table 3.2.1: Male and female subjects in each treatment

| Gender | One charity | Three charities | Choice | Opt-out |
|---------------|-------------|-----------------|--------|---------|
| <i>Male</i> | 37 | 44 | 41 | 42 |
| <i>Female</i> | 44 | 37 | 41 | 39 |

Source: own processing

The number of participants in a session varied from 12 to 24. A session lasted about 50 minutes including the payment and participants earned on average CZK 80¹⁹. We conducted 21 experimental sessions in three weeks, from September 23 to October 1, 2019. Subjects donated a total of CZK 23,190 (EUR 834,84), which we subsequently sent to the respective charity organizations. The exchange rate is 1 CZK=0.036 EUR. After filling in the post-experimental questionnaire, participants were called one by one to collect their payment in private.

¹⁹ At the time of the experiment this was approximately 3 EUR.

3.2.1. *Conjectures and hypothesis*

If the donor is more oriented towards pure altruism, an increasing number of recipients will increase the amount donated to each one of them by the same proportion. If the donor is motivated by a warm glow, an increasing number of recipients will not increase the amount donated to each of them by the same proportion. Due to these theoretical assumptions, subjects' willingness to help increases as the number of gift recipients increases. We study the effect of an increasing number of recipients on subjects' motivation to donate. When allowing subjects to help more people we anticipate, that their prosocial giving will increase as well.

Hypothesis 1:

- When donating to three charities, the extent and frequency of donations will increase than when donating to one charity.

Treatment One Charity < Treatment Three Charities

In order to observe more prosocial behaviour, well-thought choice architecture is crucial. We create this type of choice architecture, by allowing subjects to choose to enter into their preferred environment (whether to choose to help either one or three recipients). Choosing the preferred option creates sorting. We study whether sorting will increase charitable giving. When giving a subject the option to choose the number of recipients, the motivation to donate should be greater than without having this option.

Hypothesis 2:

- When having an option to choose the number of recipients, subjects increase the extent and frequency of help than when donating to one charity.

Treatment Choice > Treatment One Charity

- When having an option to choose the number of recipients, subjects increase the extent and frequency of help than when donating to three charities.

Treatment Choice > Treatment Three Charities

The choice not only allows subjects to sort into preferred environments but also allows them to leave undesired environments if they do not want to participate in a certain activity. The possibility to directly opt-out from the donation process will lead to even stronger sorting. Self-selection of subjects wanting to enter an environment where donation is possible will separate donors from non-donors. This self-selection can lead to a greater extent and frequency of donations than without having the opt-out option. Subjects self-selected to enter the donation process and choose the preferred number of recipients will identify with the role of the donor and will up donating to the charity.

Hypothesis 3:

- When having an option to choose the number of recipients and directly opt-out from the donation process, subjects increase the extent and frequency of help than when only having an option to choose the number of recipients. Subjects that will select the preferred number of recipients (at the first stage), will end up donating (at the second stage).

Treatment Choice < Treatment Opt-out

3.3. Statistical Methods

The altruistic behavior of donors is in the dissertation thesis measured along two dimensions: the extensive and the intensive margin. With extensive margin, we compared the distribution of donations using all data. With intensive margin we analyzed the frequencies of only positive donations. In the both dimensions, we used the Mann-Whitney U test (Wilcoxon rank-sum test) of statistical difference of values. **The Mann-Whitney U test** is a non-parametric test used for measuring treatments without assuming, that the values are normally distributed. We run the test at the 5% level of significance (i.e., $\alpha=0.05$). With hypothesis where H0: that the two distributions are identical, versus H1: The two distributions are not equal. Mann-Whitney U test²⁰ (U) is defined by:

$$U_{1,2} = R_{1,2} - \frac{n_{1,2}(n_{1,2}+1)}{2} \quad (3)$$

where $R_{1,2}$ is sum of the ranks for sample 1,2 and $n_{1,2}$ is the sample size for sample 1, 2.

In the case of intensive margin, measuring the frequencies of people who donated positive amount, we used **Fisher's Exact Test**. Fisher's Exact Test²¹ is using for calculation of statistical significance - contingency tables, where the significance of the deviation from a null hypothesis (e.g., p-value) is calculated exactly.

$$p = \frac{((a+b)!(c+d)!(a+c)!(b+d)!)}{a!b!c!d!N!} \quad (4)$$

where a, b, c, d are the individual frequencies of the 2x2 contingency table and N is the total frequency.

The use of statistical tests resulted in finding out which parameters are statistically significantly different, based on which it was possible to confirm or refute the hypothesis. The use of these tests allowed identification of donors who were either pure or impure altruists according to their total amount donated.

²⁰ Zar, Jerrold H. (1998). Biostatistical Analysis. New Jersey: Prentice Hall International, INC. p. 147. ISBN 978-0-13-082390-8.

²¹ Fisher, R.A. (1954). Statistical Methods for Research Workers. Oliver and Boyd. ISBN 0-05-002170-2.

For the analysis of additional observations, we used **Ordered probit model** for analyzing that type of data where subjects express their agreement or disagreement by moving the slider on ordered opinion answers on Likert scale (1-7). Dependent variable is categorical; therefore, we can arrange the response from the highest to the lowest (absolutely agree, strongly agree, agree, neutral, disagree, strongly disagree, absolutely disagree). The underlying relationship can be illustrated²² as:

$$y_i^* = x_i^T \beta + u_i \quad (5)$$

The exact but unobservable variable y_i^* can be characterized as a linear function of a vector of variables x_i^T and an unobservable random term u which is normally distributed. $i = 1, \dots, n$. And β is the vector of regression coefficients which needs to be estimated. One cannot observe y_i^* instead one observes y , which takes the values $0, 1, \dots, Y$.

$$\begin{array}{llll} \text{If } y_i^* < 0 & \iff u_i < -x_i^T \beta & \text{then } y_i^* = 0 & (6) \\ \text{" } 0 \leq y_i^* < \alpha_1 & \iff -x_i^T \beta \leq u_i < \alpha_1 - x_i^T \beta & \text{then } y_i^* = 1 & \\ \cdot & \cdot & \cdot & \\ \cdot & \cdot & \cdot & \\ \text{" } \alpha_{Y-2} \leq y_i^* < \alpha_{Y-1} & \iff \alpha_{Y-2} - x_i^T \beta \leq u_i < \alpha_{Y-1} - x_i^T \beta & \text{then } y_i^* = Y - 1 & \\ \text{" } \alpha_{Y-1} \leq y_i^* & \iff \alpha_{Y-2} - x_i^T \beta \leq u_i & \text{then } y_i^* = Y. & \end{array}$$

Ordered probit is similarly as Ordered logit, widely used as a particular method of ordinal regression.

We also used standard **Ordinary Least Squares (OLS) linear regression**, for simple or multiple depending on the number of explanatory variables, where a model is determined as:

$$Y = \beta_0 + \sum_{j=1..p} \beta_j X_j + \varepsilon \quad (7)$$

where Y is the dependent variable, β_0 is the intercept of the model X_j complement the j explanatory variable of the model. Random error is determined by ε (Michalos, 2014).

We made a **Bonferroni correction** in Multiple Linear Regression and adjusted the significance level of a statistical test when multiple tests are conducted on the same data. „As multiple linear regression is to build a model that contains only those predictors that are

²² Glewwe, P., 1997. A test of the normality assumption in ordered probit model. *Econometric Reviews*, 16(1), pp.1-19.

significantly related to the response. In so doing, tests regarding the unique contribution of individual predictors to the model are often performed (Perrett et al., 2006)". Each of these tests at the nominal $\alpha = 0.05$ level, without regard to the effect that this practice may have on the overall Type I error rate. The Bonferroni correction adjusts the p value at which a test is evaluated for significance based on the total number of tests being performed. The "Bonferroni correction directly targets the Type 1 error problem, but it does so at the expense of Type 2 error. By changing the p value needed to reject the null (or equivalently widening the uncertainty intervals) the number of claims of rejected null hypotheses will indeed decrease on average. Although this reduces the number of false rejections, it also increases the number of instances that the null is not rejected when in fact it should have been. Thus, the Bonferroni correction can severely reduce our power to detect an important effect".

Statistical testing and calculations were performed in the STATA statistical software for data science.

4 Results

The results section is divided into two subsections: (1) Main results, where the hypotheses are tested - donated amount is analyzed and compared according to individual treatments; (2) Questionnaire responses analysis, where we focus on the analysis of additional factors that influence charitable giving.

4.1. Main results: Donation choices according to different treatments

Table 4.1.1 summarizes the number of participants in each treatment and also number of subjects that either opt-into their preferred option or opt-out and kept the endowment for themselves. When having an option to choose the number of recipients (Treatment Choice and Treatment Opt-out) subjects in general preferred to donate to one charity instead of more charities.

Table 4.1.1: Number of observations

| Treatment | Total | Donate to one charity | Donate to three charities | Opt-out |
|------------------------|-------|--------------------------|------------------------------|---------|
| <i>One Charity</i> | 81 | 81 | - | - |
| <i>Three Charities</i> | 81 | - | 81 | - |
| <i>Choice</i> | 82 | 45 | 37 | - |
| <i>Opt-out</i> | 81 | 37 | 36 | 8 |

Source: Own processing

Descriptive statistics for each treatment are reported in Table 4.1.2 below. We analyzed the results through Panel A: extensive margin (all data) and Panel B: intensive margin. Extensive margin reflects all decisions of each subject across treatments, and intensive margin illustrates the monetary distributions of subjects who donated a positive amount (conditional on giving). The first row of Table 4.1.2 displays the number of observations in each treatment (respectively proportion of chosen options in the choice treatments). In the Choice and Opt-out treatments, we further break down subject behavior based on whether they chose to donate to one or three charities. If we restrict attention to the

final two treatments, Panel A shows in the parentheses that approximately 54.9% in Treatment Choice and 45.7% in Treatment Opt-Out choose to donate to one charity. A donation to three charities decided 45.1% of subjects in Treatment Choice and 44.4% subjects in Treatment Opt-Out. In the Opt-out treatment, eight subjects opted out of the experiment (9.9% of all treatment participants). The first row of Panel B, in addition to the number of positive observations, shows the distribution of positive donations according to the chosen number of charities in the treatments Choice and Opt-out.

In total, 89.23% of the subjects in the experiment donated to either one or three charities. To monitor the differences in monetary distributions across treatments, we calculated the average of donations separately for all data and only positive donations. The average donation in the experiment was 69.32 and is listed according to the treatments respectively. To measure the variation of a dataset relative to its mean, we also included the standard deviation for both panels. The last two rows of Panel A show the numbers of small (CZK 30) and large (CZK 150) donations, whereas their proportion to the total number of donations is stated in parentheses.

Table 4.1.2: Descriptive statistics

| Treatment | One Charity | Three Charities | Choice | | | Opt-out | | |
|---|---------------|-----------------|-------------------------|--------------------|------------------------|-------------------------|--------------------|------------------------|
| | | | <i>Entire Treatment</i> | <i>One charity</i> | <i>Three charities</i> | <i>Entire Treatment</i> | <i>One charity</i> | <i>Three charities</i> |
| Panel A: Extensive margin (All data) | | | | | | | | |
| <i>Number of observations</i> | 81 | 81 | 82 | 45 (54.9%) | 37 (45.1%) | 81 <i>Opt out: 8</i> | 37 (45.7%) | 36 (44.4%) |
| <i>Average</i> | 67.41 | 68.15 | 71.34 | 62.67 | 81.89 | 70.37 | 63.24 | 93.33 |
| <i>Median</i> | 60 | 60 | 60 | 60 | 90 | 60 | 60 | 90 |
| <i>Standard deviation</i> | 45.87 | 46.48 | 42.59 | 42.34 | 41.02 | 44.28 | 33 | 40.43 |
| <i>Number of donations (CZK 30)</i> | 17 (24.3%) | 15 (21.7%) | 21 (26.9%) | 13 (31.7%) | 8 (21.6%) | 19 (26.0%) | 12 (32.4%) | 7 (19.4%) |
| <i>Number of donations (CZK 150)</i> | 9 (12.9%) | 10 (14.5%) | 11 (14.1%) | 5 (12.2%) | 6 (16.2%) | 8 (11.0%) | 2 (5.4%) | 6 (16.7%) |

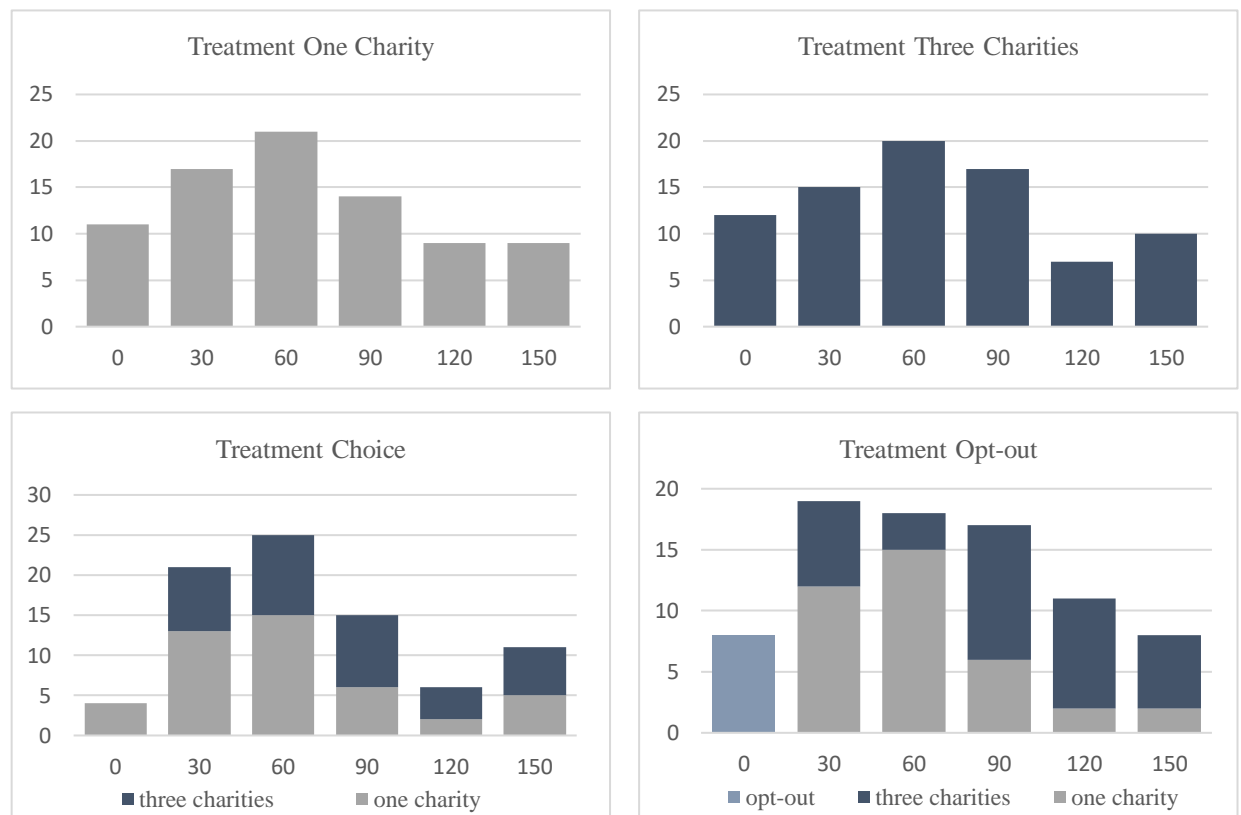
| Panel B: Intensive margin | | | | | | | | |
|-------------------------------------|---------------|---------------|---------------|--------------|--------------|---------------|---------------|---------------|
| <i>Number of positive donations</i> | 70 (86.4%) | 69 (85.2%) | 78 (95.1%) | 41 (91.1) | 37 (100%) | 73 (90.1%) | 37 (100%)* | 36 (100%)* |
| <i>Average</i> | 78.00 | 80.00 | 75.00 | 68.78 | 81.89 | 78.08 | 63.24 | 93.33 |
| <i>Median</i> | 60 | 60 | 60 | 60 | 90 | 60 | 60 | 90 |
| <i>Standard deviation</i> | 40.02 | 39.74 | 40.38 | 39.26 | 41.02 | 39.60 | 33 | 40.43 |

Note: In Panel B, the frequency of positive donations to one charity and three charities in Choice and Opt-out is calculated as the number of positive donations divided by the number of subjects who chose the respective option.

*In Opt-out all 73 subjects (90.1%) who did not opt out and proceeded to the giving stage donated positive amounts.

Figure 4.1.1 illustrates monetary distribution across treatments. The number of those who not donated anything dropped to one-third in the Treatment Coice (4 out of 81) compared to Treatment One Charity (11/81) and Treatment Three Charities (12/81).

Figure 4.1.1: Treatments and divided endowment in CZK



Source: Own processing

Two-sided non-parametric tests comparing subject behavior across treatments on the extensive margin and the intensive margin are presented in Table 4.1.3. We compared all treatments with each other. However, if we restrict attention to the treatments with the choice and opt-out, we analyzed chosen number of charities that the subject selected. We used the Mann-Whitney U test (Wilcoxon rank-sum test) of statistical difference of values in the extensive margin and intensive margin dimension. We run the test at the 5% level of significance (i.e., $\alpha=0.05$), with hypothesis where H0: that the two distributions are identical, versus H1: The two distributions are not equal. In the dimension of intensive margin, we used Fisher's Exact Test for calculation of statistical significance that uses contingency tables, where the significance of the deviation from a null hypothesis (e.g., p-value) is calculated exactly. We created dummy variables to test the frequency of positive donations for subjects that donated and those who not donated.

We also tested whether there is a relationship between small (CZK 30), big (CZK 150) donations across experimental treatments through Fisher's Exact Test in both extensive and intensive margins.

Table 4.1.3: Statistical tests for differences across treatments

| Data | Mann-Whitney U test | Fisher's exact test | Fisher's exact test for CZK 30 | Fisher's exact test for CZK 150 |
|---|---------------------|---------------------|--------------------------------|---------------------------------|
| Panel A: Extensive margin (All data) | | | | |
| <i>One Charity vs. Three Charities</i> | -0.128 (0.898) | | (0.844) | (1.000) |
| <i>Choice vs. One Charity</i> | -0.541 (0.588) | | (0.579) | (0.812) |
| - <i>Choice, one charity vs. One Charity</i> | 0.604 (0.546) | | (0.425) | (0.278) |
| <i>Choice vs. Three Charities</i> | -0.377 (0.707) | | (0.346) | (1.000) |
| - <i>Choice, three charities vs. Three Charities</i> | -1.497 (0.134) | | (0.121) | (0.306) |
| <i>Opt-out vs. One Charity</i> | -0.456 (0.649) | | (0.850) | (1.000) |
| - <i>Opt-out, one charity vs. One Charity</i> | 0.375 (0.708) | | (0.539) | (0.060) |
| <i>Opt-out vs. Three Charities</i> | -0.334 (0.738) | | (0.563) | (0.803) |
| - <i>Opt-out, three charities vs. Three Charities</i> | - 2.785 (0.005) | | (0.166) | (0.440) |
| <i>Opt-out vs. Choice</i> | 0.058 (0.954) | | (0.856) | (0.627) |
| - <i>Opt-out, sorted in vs. Choice</i> | -1.085 (0.278) | | (1.000) | (0.807) |
| - <i>Opt-out, one charity vs. Choice, one charity</i> | -0.331 (0.741) | | (1.000) | (0.448) |
| - <i>Opt-out, three charities vs. Choice, three charities</i> | -1.281 (0.200) | | (1.000) | (1.000) |

Panel B: Intensive margin

| | | | | |
|---|-----------------|---------|---------|---------|
| <i>One Charity vs. Three Charities</i> | - 0.338 (0.735) | (1.000) | (0.841) | (0.810) |
| <i>Choice vs. One Charity</i> | 0.512 (0.608) | (0.063) | (0.851) | (1.000) |
| - <i>Choice, one charity vs. One Charity</i> | 1.272 (0.203) | (0.570) | (0.307) | (0.278) |
| <i>Choice vs. Three Charities</i> | 0.875 (0.381) | (0.038) | (0.565) | (1.000) |
| - <i>Choice, three charities vs. Three Charities</i> | - 0.211 (0.832) | (0.017) | (0.070) | (0.306) |
| <i>Opt-out vs. One Charity</i> | -0.050 (0.960) | (0.626) | (0.849) | (0.799) |
| - <i>Opt-out, one charity vs. One Charity</i> | 1.807 (0.070) | (0.017) | (0.300) | (0.029) |
| <i>Opt-out vs. Three Charities</i> | 0.268 (0.788) | (0.474) | (0.563) | (0.617) |
| - <i>Opt-out, three charities vs. Three Charities</i> | -1.710 (0.087) | (0.017) | (0.063) | (0.293) |
| <i>Opt-out vs. Choice</i> | -0.571 (0.568) | (0.247) | (1.000) | (0.629) |
| - <i>Opt-out, one charity vs. Choice, one charity</i> | - 0.421 (0.674) | (0.123) | (1.000) | (0.444) |
| - <i>Opt-out, three charities vs. Choice, three charities</i> | -1.281 (0.200) | - | (1.000) | (1.000) |

* All reported tests are two-sided. p-values are in parentheses. Tests reported in lines with a dash are conducted on split samples.

Result 1

The number of recipients does not affects the size or the frequency of donations.

Support extensive margin: The average donation in the One Charity treatment and Three Charities treatment is 67.41 and 68.15, respectively. Median represents the same values in both treatments. There is no statistically significant difference in the distribution of donations between treatments One Charity and Three Charities (reported by Mann-Whitney in the first row of Table 4.1.3 by $p=0.898$).

Support intensive margin: The frequency of positive donations is lower in Treatment Three Charities 85.2% than in the Treatments One Charity 86.4%. The Fisher's exact test for intensive margin, reported in the second column of the first row of Table 4.1.3, does not detect a statistically significant difference between the two frequencies ($p=1.000$). Similarly, the Mann-Whitney test presented in the first column, comparing donations conditional on the amount being strictly positive, finds no statistical difference ($p = 0.735$).

There is no statistically significant difference between the frequencies of small or large donations between these two treatments ($p=0.841$ and 0.810 , respectively).

Table 4.1.4 illustrates that donors do not differentiate between donations to one or donations to three charities. Therefore, we reject Hypothesis 1, subjects are indifferent to the number of recipients, and a number of recipients does not affect either the size or the frequency of their donations.

Result 2

Having a choice regarding how many recipients to donate to, increases the frequency of positive donations when electing to donate to both one charity and three charities. The choice does not affect the size of donations.

Support extensive margin: In the Choice treatment, the average donation is 71.34, from which the average donation to selected one charity represents 62.67 and to three charities 81.89. The Mann-Whitney test detects no statistically significant difference in the distribution of donations between treatments Choice and One Charity ($p=0.588$). The Mann-Whitney does not detect a statistically significant difference in the distribution of donations between the Choice and Three Charities treatments either ($p=0.707$) illustrated in Table 4.1.3, row 4.

Support intensive margin: In the Choice treatment, the frequency of positive donations is 95.1%. The Mann-Whitney U test does not find a statistically significant difference in the distributions of positive donations either between the Choice and One Charity treatments ($p=0.203$) or between Choice and Three Charities treatment ($p=0.832$). Conditional on donating to one charity in the Choice treatment, the difference in frequency of positive donations is also not significant ($p=0.570$). However, Fisher's exact test for the intensive margin (presented in Panel B of Table 4.1.4) comparing the frequencies of positive donations does find a significantly higher frequency of positive donations in the Choice treatment than in the One Charity treatment ($p=0.063$). The Fisher's exact test detects a significantly higher frequency of positive donation in the Choice treatment than in the Three Charity treatment ($p=0.038$). Moreover, also conditional of donating to three charities in the Choice treatment signalizes that the difference in frequency of positive donations is also significant ($p=0.017$). Therefore, it is examined that the behavior of subjects who chose to donate to three charities drives the overall higher frequency of positive donations in the Choice treatment compared to the Three Charities treatment.

Result 3

Having an option to opt-out from the donation process increases the frequency of positive donations but does not affect the size of the donations.

Support for extensive margin: The average donation in the second stage of the Opt-out treatment (after subjects selected either to help one or three charities) is 70.37. In the first stage of the self-selecting process, eight subjects opted out from donation. In the second stage, from all subjects that entered into their preferred environment to donate to either one or three charities, 100% ended up donating. The average donation to one charity in Opt-out treatment represented 63.24 and to three charities 93.33.

The Mann-Whitney test detects no statistically significant difference in the distribution of donations between treatments Opt-out and One Charity ($p=0.649$). The Mann-Whitney does not detect a statistically significant difference in the distribution of donations between the Opt-out and Choice treatments either ($p=0.954$), in neither of the combinations when donors choose to help one charity ($p=0.741$) or three charities respectively ($p=0.200$).

The Mann-Whitney does not detect a statistically significant difference in the distribution of donations between the Three Charities treatment and the Opt-out treatment ($p=0.738$). However, the Mann-Whitney test does detect a statistically significant difference in the distribution of donations between the Opt-out treatment when donating to three charities and Three Charity Treatment ($p=0.005$).

Support intensive margin: The frequency of positive donations in the Opt-out treatment is 90.1%. The Fisher's exact test does not detect a statistically significant difference in the frequency of positive donations in the Opt-out treatment compared to the One Charity treatment ($p=0.626$). The distribution of positive donations identified by Mann-Whitney is also not statistically significantly different between the two treatments ($p=0.960$). However, conditional on donating to one charity in the Opt-out treatment, the difference in frequency is significantly higher than in the One Charity treatment ($p=0.017$).

According to the Fisher's test, there is no statistically significant difference in the frequency of positive donations ($p=0.474$) nor the difference between the distribution of positive donations detected by Mann-Whitney ($p=0.788$) when comparing Opt-out versus Three Charities treatment. The Fisher's exact test also detects a significantly higher frequency of

positive donation in the Opt-out treatment when donating to three charities than in the Three Charities treatment ($p=0.017$).

Mann-Whitney test does not detect a statistically significant difference in the positive distribution of donations between the Opt-out and Choice treatments ($p=0.568$), or neither of the combinations when donors choose to help one charity ($p=0.674$) or three charities respectively ($p=0.200$). Fisher's exact test does not detect a statistically significant difference in the frequencies of donations between the Opt-out and Choice treatments ($p=0.247$), or neither of the combinations when donors choose to help one charity ($p=0.123$).

Fisher's exact test detect a statistically significant difference in the higher frequencies of donations between Opt-out treatment when donating the entire endowment of CZK 150 to one charity versus One Charity treatment.

Result 4

Choice versus no choice - Can the option to choose the number or recipients help increase the size and frequency of donations?

From Result 1, Result 2, Result 3, we can conclude that there is no statistical difference in the size or frequency of donations between the One Charity and Three Charity treatments, in which it is not possible to choose the number of recipients. There was also no statistically significant difference in the size of donations between treatments Choice and Opt-out where subjects could choose the number of recipients and donate to either one or three charities. In order to do additional tests for sorting effects and to analyze whether the option to choose the number of recipients has an impact on the decision-maker, we pooled together treatments with choice and treatment without choice. More precisely, we joint treatments One Charity and Three Charities treatment together (No choice treatments) and compared them with pooled treatments Choice and Opt-out (Choice treatments). Table 4.1.4 represents descriptive statistics of pooled data, where we analyzed the results through Panel A: extensive margin (all data) and Panel B: intensive margin. Extensive margin reflects all decisions of each subject with or without an option to choose. The intensive margin illustrates the monetary distributions of subjects who donated a positive amount of pooled treatments (conditional on giving).

Table 4.1.4: Descriptive statistics of joint treatments with Choice and No choice

| | Choice | No choice |
|---|----------------|----------------|
| Panel A: Extensive margin (All data) | | |
| <i>Number of observations</i> | 162 | 163 |
| <i>Average</i> | 67.78 | 70.86 |
| <i>Median</i> | 60 | 60 |
| <i>Standard deviation</i> | 46.04 | 43.31 |
| Panel B: Intensive margin | | |
| <i>Number of positive donations</i> | 139 (85.8%) | 151 (92.6%) |
| <i>Average</i> | 78.99 | 76.49 |
| <i>Median</i> | 60 | 60 |
| <i>Standard deviation</i> | 39.75 | 39.9 |

Source: Own processing

For all data, the first row of Table 4.1.4 displays the number of observations in pooled treatments Choice (Treatment Choice and Treatment Opt-out) and No choice (Treatment One Charity and Treatment Three Charities). The average donation in treatments without the choice is 67.78. At the same time, the average donation in treatments with choice is 70.86. The Median is identical in both conditions. The frequency of positive donations represents 85.8% in treatments without the choice and 92.64 % in treatments with choice.

Table 4.1.5: Statistical tests for differences between pooled treatments with Choice and No choice

| | Mann-Whitney U test | Fisher's exact test |
|---|---------------------|---------------------|
| Panel A: Extensive margin (All data) | | |
| <i>Choice vs. No choice</i> | -0.605 (0.545) | (0.146) |
| Panel B: Intensive margin | | |
| <i>Choice vs. No choice</i> | 0.577 (0.563) | (0.051) |

* All reported tests are two-sided. p-values are in parentheses.

In Panel A: Extensive margin, the Mann-Whitney U test detects that $z=0.605$ (0.545). In Table 4.1.4, we compare the frequencies of positive donations in treatment with and without choice option. In treatments with choice options (Choice treatment and Opt-out treatment), 12 out of 162 subjects did not donate to one nor three charities. Comparing to the No choice

option (without an option to choose the number of recipients) represents 23 out of 163 subjects. The difference in frequency of positive donations is weakly statistically significant, which represents Fisher's exact test by $p=0.051$.

To sum up, the results from this section indicate that subjects in our experiment were indifferent to the number of recipients of their gift. They did not differentiate between donations to one charity or donations to three charities. The number of gift recipients does not affect the size or the frequency of donations. Our results did not provide evidence for the theory of “collapse of compassion.” Also, adding more subjects as gift recipients into the laboratory experiment suggest that subjects were not detracted from an egalitarian solution. Therefore we rejected Hypothesis 1.

The results show that contributions toward a single charity do not exceed contributions compared to a group of recipients when these are judged separately. But the frequency of positive donation increased when one donor could choose between contributing to a single charity or a group of charities. The frequency of positive donations increased when having an option to donate to three charities. Berman et al. (2018) documented that when giving an option to choose charities that support different types of causes, subjects are more willing to donate. Our results indicate that option to choose itself also positively affects charitable giving for charities with the same work focus, which differs only in the number of recipients. Therefore, incorporating the option to choose the number of recipients increases the frequency of donations for charitable causes. However, the choice itself does not affect the size of donations.

In the case of having an option to direct opt-out from the donation process, only 9.9% of subjects took the opportunity to exit the donation process immediately. It has been confirmed that incorporating the opt-out option into the donation process increases the frequency of positive donations but does not affect the size of the donations. This resulted that subjects self-selected into the environments that they preferred in the first step, and only those subjects that entered into donation environments end up donating in the second step. Donors with the option to choose were more generous in large value donations as the frequency of CZK 150 increased with the opt-out option and choosing to donate to one charity. We anticipate that option to choose the number of recipients gives the subjects the possibility to sort into categories based on their preferences to donate to either one or to three

charities. According to sorting, donors will increase their frequency of donation more than without having an option to choose the number of recipients.

4.2 Additional factors affecting charitable giving

To shed more light on the subject's choices, we examine additional factors known to play a role in charitable giving. For a better understanding of the motivation of subjects to donate to a charity for (i) a various number of recipients of donations, (ii) the possibility of selecting recipients, (iii) the possibility of a direct opt-out from the experiment, additional observations were conducted. In the post-experimental questionnaire, we collected survey data on subjects' emotions after making their monetary decision and other factors affecting their prosocial behaviour. We collected information on attitudes and expectations towards future donations, demographics such as income, employment status, volunteering experience, whole blood or plasma donor status if they would like to meet the actual person who is the recipient of the monetary donation, and other preferences regarding current donation.

4.2.1 Self-reflecting emotions and charitable giving

In this section, we examine the emotional aspect of donation and what subjects feel if they can or can not choose the number of recipients. We focus on answering whether sorting into a situation with the preferred number of recipients increases donor positive or negative emotions. The literature documents that positive emotions as satisfaction and happiness can trigger subjects to donate (Bagozzi et al., 2003; Merchant et al., 2010). On the other hand, negative emotions (sadness, anger, annoyance, irritation) are often used by charitable organizations to grab the subject's attention. Empathy and self-efficacy generate guilt which, in turn, shapes donation intention. As the literature indicates, being in control of choosing a preferred option in the donation process significantly increases subjects' satisfaction. However, having multiple options can cause the exact opposite. Option to choose the number of recipients in the donation process creates sorting. By allowing subjects to sort into categories of how many recipients they help, the possibility to meet their preferences rises as well. With the higher chance of their needs being met, the satisfaction increases with positive emotions (as satisfaction, happiness, confidence, and certainty with the decision). Negative emotions such as regret, tension, discomfort, or being bothered can

be caused by the fact that it is too difficult for the subject to decide. The difficulty of the decision can also result in dissatisfaction, guilt, embarrassment, or that the subject feels disgusted because he can not decide – it is too tough to make a decision. The difficulty of the decision can lead to emotional paralysis. Option to directly leave the decision-making process and let the subject decide to either omit or react to the donation task can ease the negative emotions that subjects without opt-out option feel. An opt-out option would favor not being able to decide when subjects rather leave the donation process than face the difficulty with the act of choosing. Choice options should therefore increase the effect of self-selection and: 1) increase positive emotions (satisfaction) and 2) decrease the negative emotions (guilt, tough to decide) connected with decision difficulties.

We tested how their donation decision in treatments with or without an option to choose affected their positive and negative emotions associated with the donation. Positive and negative emotions are presented and examined separately. The emotions were measured using a Likert scale. As the dependent variables: emotions, were categorical variables, we analyzed subjects' emotions in each treatment using the Ordered-probit model. We measured how the amount donated in each treatment (with or without the option to choose the number of recipients) affects donors' positive and negative emotions after the donation. In addition, we also looked at whether there are any differences between gender.

Positive emotions

The emotion of interest, hidden among the question to not prime the attention of subjects to our research question, was satisfied with the choice made in the experiment. Allowing subjects to sort into a situation with their preferred scenario should, in theory, increase (or at least not decrease) their satisfaction. We, therefore, compare the satisfaction of subjects in the One Charity and Three Charities treatments with the satisfaction of subjects in the Choice and Opt-out treatments. And we also focused if the given choice architecture, made it easier for subjects to decide and self-select into the preferred giving scenarios.

In addition to overall satisfaction, subjects were also asked about their positive feelings about their decision. They express their opinion by moving the slider as they agree/disagree with the given statement: (i) I am happy with my decision, (ii) I feel confident about my decision, (iii) I am sure about my decision (iv) I feel satisfied with my decision.

Results from the Ordered-probit model can be found in Table 1A, where the dependent variable is a positive emotion. The explanatory variable is each treatment, donated

amount, choice vs. not having a choice, the collapse of compassion, gender. Dummy variables of having choice vs. not having choice have been created by pooling treatments that allowed sorting (Treatment Choice and Opt-out) and those that did not allow sorting (Treatment One Charity and Treatment Three Charities). By looking at the dummy variable collapse of compassion, we wanted to measure the effect of different numbers of gift recipients on emotions. Therefore we pooled treatments where subjects donated to one charity (Threthemt One Charity and chosen one charity in Treatment Choice and Opt-out) and three charities (Threthemt Three Charities and chosen three charities Treatment Choice and Opt-out) together. The collapse of compassion: Donate to one charity in all treatments (dummy 01) Donate to three charities in all treatments (dummy 0). Positive monetary distribution across treatments can be found in the Appendix. Bonferroni correction was applied for multiple testing (statistically significant results are at the level of 0.05 p-value $0.05 / 4 = 0.0125$). Results are listed in the table below.

Table 1A: Ordered-probit analysis of positive emotions across treatments

| Positive emotions | Sure | Happy | Confident | Satisfied |
|---------------------------|----------------------|-----------------------|-----------------------|-----------------------|
| Treatment One Charity | 0.004 (0.001)**B | 0.01 (0.001)*** B | 0.002 (0.001) | 0.009 (0.002)*** B |
| Treatment Three Charities | 0.003 (0.001)* | 0.007 (0.001)*** B | 0.003 (0.001)* | 0.006 (0.002)***B |
| Treatment Choice | 0.003 (0.001)* | 0.009 (0.001)*** B | 0.005 (0.001)***B | 0.005 (0.002)***B |
| Treatment Opt-out | 0.002 (0.001) | 0.009 (0.002)*** B | 0.004 (0.001)**B | 0.002 (0.002)*** B |
| Collapse of compassion | 0.062 (0.119) | 0.22 (0.115)* | -0.028 (0.116) | 0.076 (0.118) |
| Donated | 0.003 (0.001)***B | 0.009 (0.001)***B | 0.004 (0.001)***B | 0.006 (0.001)***B |
| Choice / no choice | - 0.102 (0.118) | 0.106 (0.114) | 0.143 (0.115) | 0.112 (0.117) |
| Gender | 0.482 (0.119)***B | 0.105 (0.115) | 0.361 (0.116)*** B | 0.25 (0.117)* |

Source: *author's calculation*

Notes: Standard errors are in parentheses.

Benferroni correction at 0.0125

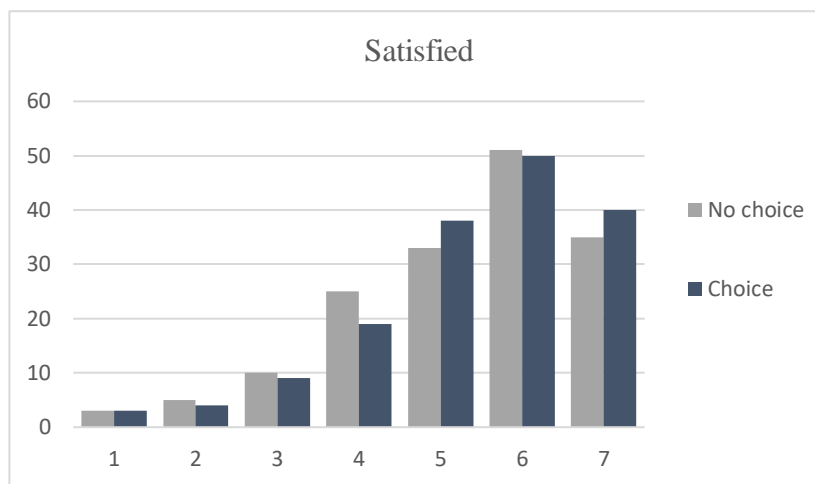
* Significant at 10%.

** Significant at 5%.

*** Significant at 1%

As Table 1A shows, subjects were more likely to feel overly happy about the decision across all treatments. When we pooled the data according to the collapse of compassion (donations to one recipient in all treatments and donations to three recipients in all treatments), donors were more likely to feel happier when donating to one recipient. They were also more likely to be more satisfied with their additional donation. However, the option to choose did not affect the satisfaction, neither had the number of recipients. And women were likely to feel more satisfied with donations than men. As we compare the satisfaction of subjects in the One Charity and Three Charities treatments with the satisfaction of subjects in the Choice and Opt-out treatments (in the latter, we only include the subjects who did not opt-out) with the respective averages being 5.30 and 5.41, respectively (Figure 1A).

Figure 1A: Satisfaction in treatments with choice and without choice



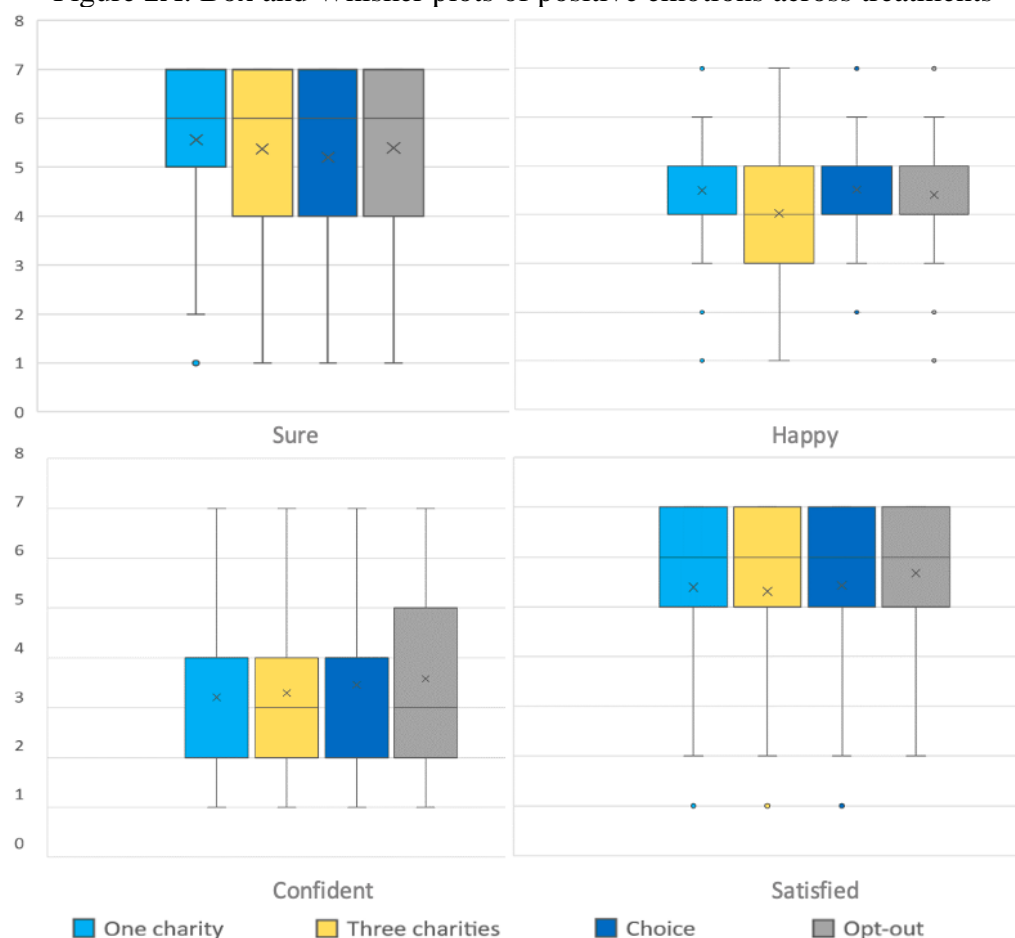
Source: Own processing

On a scale from 1 to 7, the mean satisfaction level is the possibility to sort in 5.419, which is slightly higher than 5.302 when subjects did not have the chance to choose the number of charities (Figure 1A).

On the first Box and Whisker plot on how sure were subjects with their decision, it can be seen that subjects in Treatment One charity were more sure about their decision (average mean 5.51) in comparison with the rest of the treatments. This is also proven by statistical significance at 10% in the Ordered probit model. This result, however, was not proved to be significant after applying Benferroni correction as demonstrated in Table 1A. On the last Box Plot on how satisfied were subjects with a donation (Figure 2A), it can be seen that

subjects in Opt-out treatment were more satisfied with their decision as the mean represents 5.6 out of 7. The rest of the treatments represented lower levels of satisfaction.

Figure 2A: Box and Whisker plots of positive emotions across treatments



Subjects felt very happy with their decision as the statistical significance and Benferoni correction illustrate in Table 1A. However, the Box Plot illustrates that subjects in the Treatment Three Charities felt less happy about their decision as the mean represents 4.1 which is less than an average compared with the other three treatments. In the rest of the treatments, the level of agreement with the statement represented a mean of 4.5 out of 7. Higher confidence in the Opt-out treatment (average mean 3.5) and Choice treatment (average mean 3.4) in comparison with the other two experimental treatments. Higher confidence in the Choice treatment ($P=0.002$) confirmed by the Ordered probit model and Benferroni correction is demonstrated by statistical significance.

Overall, subjects of all monetary donations felt sure about their decision. More than 33% of the total number of donors indicated that they were completely sure about their decisions (7 points out of 7). Donors who donated the full amount of their endowment for charity CZK 150 were completely sure that they made the right decision. Sure about their

decision were also those subjects that did not donate at all. With increasing happiness, the amount donated also raised. Subjects felt more than averagely satisfied with their decision (at least 5 points out of 7). Over 75% of the total value of donations was from the larger value of donations CZK 90, CZK 120, and CZK 150. All monetary distributions can be found in the Appendix.

Negative emotions

We were asking subjects about their feelings related to negative emotions after their decision. The emotion of interest, hidden among the question to not prime the attention of subjects to our research question, was guilt with the choice made in the experiment. We also focused on how tough it was for the subject to decide and whether the choice made it easier or harder for them to decide. Allowing subjects to sort into a situation with their preferred scenario should, in theory, decrease guilt. We, therefore, compare the guilt of subjects in the One Charity and Three Charities treatments with the guilt of subjects in the Choice and Opt-out treatments. And we also focused if the given choice architecture, made it easier for subjects to decide and self-select into the preferred giving scenarios.

They could express their opinion by moving the slider if they agree/ disagree with the given statement: i) I am feeling embarrassed after my decision, ii) It was a tough decision, iii) I feel disgusted about my decision, iv) I regret my decision, v) I feel tense about making my decision, vi) I feel bothered about making my decision, vii) I feel guilty after making my decision, viii) I feel dissatisfied with my decision, ix) I felt uncomfortable after making my decision. Labeling 7 expressed their absolute agreement with the statement while marking 1 absolute disagreement. Each negative emotion is illustrated and described below.

Table 2B illustrates the effect of treatments on negative emotions using Ordered-probit regression on which is applied Bonferroni correction for multiple testing (statistically significant results are at the level of 0.05 p-value $0.05 / 4 = 0.0125$). In the Ordered-probit regression, the dependent variable is a negative emotion. The explanatory variable is each treatment, donated amount, choice vs. not having a choice, the collapse of compassion, gender. Dummy variables of having choice vs. not having choice have been created by pooling treatments explained in the subsection of positive emotions with dummy variable Collapse of compassion. Positive monetary distribution across treatments can be found in the Appendix.

Table 1 B: Ordered-probit analysis of negative emotions and differences across treatments

| Negative emotions | Tough | Disgusted | Bothered | Embarrassed | Regret | Uncomfortable | Dissatisfied | Guilt | Tense |
|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|
| Treatment One Charity | -0.004 (0.001)** | -0.007 (0.002)***B | -0.004 (0.001)**B | -0.008 (0.002)***B | -0.005 (0.002)** | -0.008 (0.002)***B | -0.006 (0.002)***B | -0.011 (0.002)***B | -0.002 (0.001) |
| Treatment Three Charities | -0.004 (0.001)** | -0.004 (0.002)* | -0.001 (0.001) | -0.005 (0.001)***B | -0.004 (0.002)** | -0.003 (0.001)* | -0.003 (0.001)* | -0.003 (0.002)* | -0.001 (0.001) |
| Treatment Choice | -0.003 (0.001)** | -0.007 (0.002)***B | -0.004 (0.001)** | -0.006 (0.002)***B | -0.002 (0.002) | -0.006 (0.002)***B | -0.004 (0.002)** | -0.007 (0.002)***B | -0.003 (0.001)* |
| Treatment Opt-out | -0.005 (0.001)***B | -0.005 (0.002)* | -0.004 (0.001)** | -0.008 (0.002)***B | -0.006 (0.002)***B | -0.009 (0.002)***B | -0.006 (0.002)***B | -0.007 (0.002)***B | -0.003 (0.001)** |
| Collapse of compassion | 0.022 (0.116) | 0.065 (0.114) | -0.053 (0.123) | -0.094 (0.126) | 0.17 (0.141) | -0.067 (0.130) | 0.05 (0.13) | -0.061 (0.134) | -0.03 (0.117) |
| Donated | -0.004 (0.001)***B | -0.006 (0.001)***B | -0.003 (0.001)***B | 0.007 (0.001)***B | -0.004 (0.001)***B | -0.006 (0.001)***B | -0.005 (0.001)***B | -0.007 (0.001)***B | -0.002 (0.001)** |
| Choice / no choice | 0.108 (0.115) | -0.077 (0.144) | -0.082 (0.112) | 0.089 (0.125) | 0.141 (0.139) | -0.15 (0.129) | -0.003 (0.129) | -0.02 (0.134) | -0.044 (0.116) |
| Gender | -0.088 (0.115) | -0.278 (0.145)* | -0.262 (0.123)** | -0.307 (0.125)** | -0.243 (0.140)* | -0.204 (0.13) | -0.24 (0.13)* | -0.141 (0.134) | -0.246 (0.117)** |

Source: *author's calculation*

Notes: Standard errors are in parentheses.

Bonferroni correction at 0.0125

* Significant at 10%.

** Significant at 5%.

*** Significant at 1%

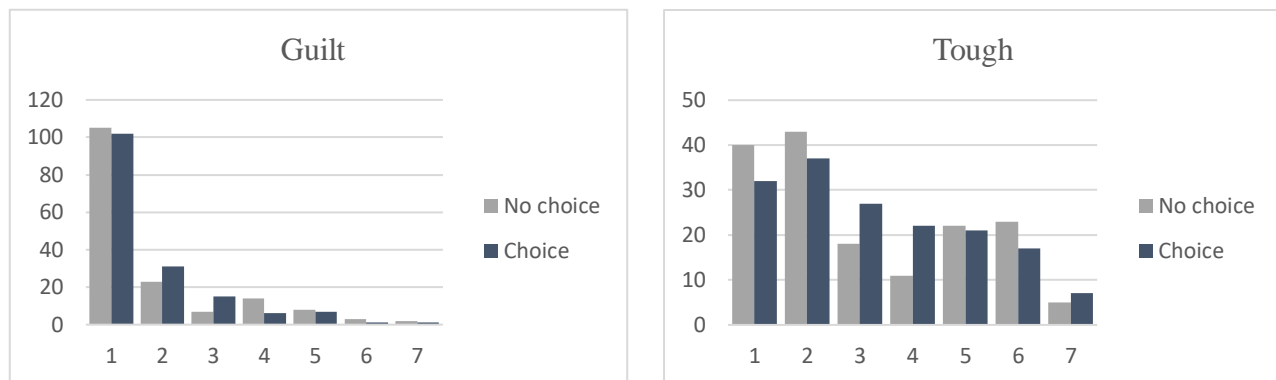
The ordered probit model did not reveal a statistically significant relation of emotions Guilt or Tough to decide and choice, no choice dummy variables. Moreover, the model did not show any statistically significant relation between the negative emotions and the Collapse of compassion. The results in Table 1B indicate that subjects were less likely to

agree with the statement “I feel embarrassed with my decision” after making their monetary decision with or without an option to choose the number of recipients. When choosing the recipients or donating to one charity, subjects felt less uncomfortable with their decision and less guilty about their decision (at statistical significance $P \leq 0.001$). Men less likely agreed with “I feel disgusted about my decision” and “I feel dissatisfied with my decision” when having a choice to choose the recipient or donate to one charity. However, in treatments when they could not choose the number of recipients or with the option when leaving the entire donation process was available, subjects felt less regret, and it was less tough for them to decide. Only with an option to donate to one charity, men agreed less with the statement, “I feel bothered about making my decision.”

As we compare subjects' guilt in the treatments without choice with the guilt of subjects with choice treatments, averages represent 1.85 and 1.72, respectively. (Figure 1B). On the scale from 1 to 7 (1 completely disagrees), the mean guilt with the possibility to sort is 1.72, which is slightly lower than 1.85 in conditions without the option to sort.

We compared how tough it was to decide in the treatments without choice, with the respective averages being 3.12 and 3.25, respectively. Option to sort made it slightly tougher to decide.

Figure 1B: Guilt and Tough to decide in treatments with choice and without choice



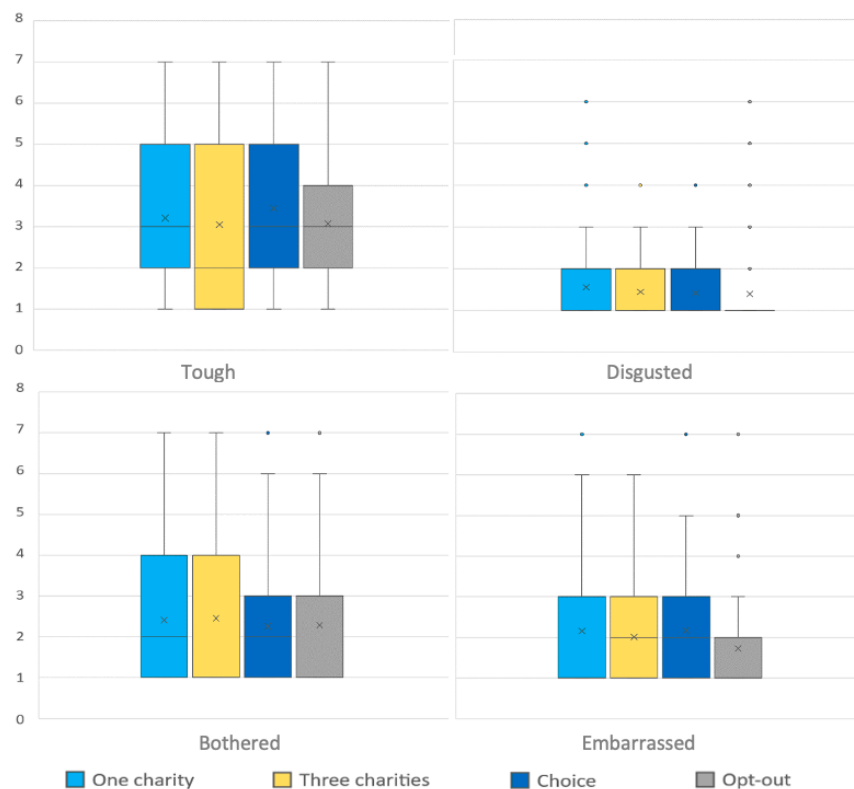
Source: Own processing

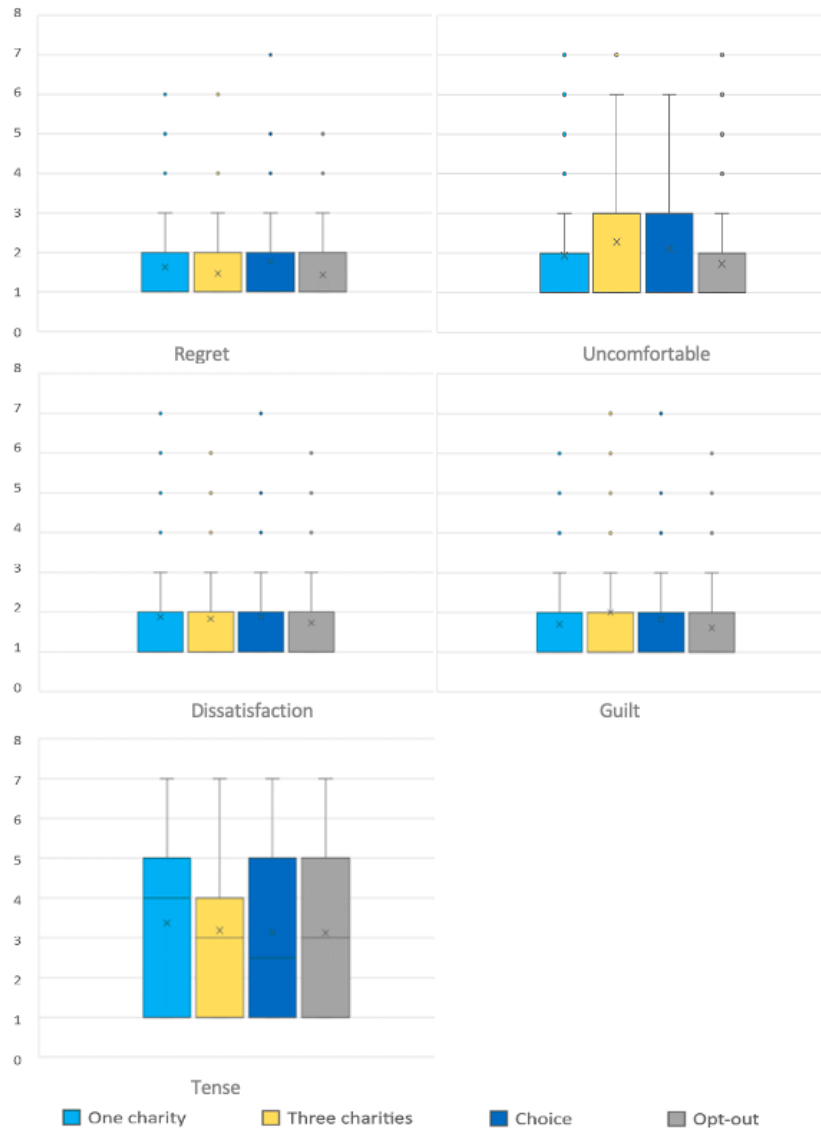
Box and whisker plots compare negative emotions through all treatments. The first Box and Whisker plot show how tough it was for subjects to make a decision. In the Opt-out treatment, subjects disagreed on average by 3.07 points. Where marking 1 meant I absolutely disagree with the statement and 7, I absolutely agree with the statement. Moreover, subjects from Opt-out treatment disagreed the most with the statement, “I regret my decision. Their answers represent means of 1.43 in the Opt-out treatment. Ordered-probit

signalized, that men were more likely to disagree with that statement. Overall, men did not feel embarrassed after their decision was made, as they strongly disagreed with "I feel embarrassed with my decision." This is especially true in the Opt-out treatment because their opinion was in the Box, and Whisker plots were represented by a mean of 1.72 out of 7.

Very similar results provided answers to the questions "I felt uncomfortable about my decision" and "I felt guilt after my decision." The results showed similar average levels of disagreement for emotions, guilt, and uncomfortable in the Opt-out treatment (1.65 out of 7) and Choice treatment (2 out of 7). The great disagreement was also expressed with "I feel disgusted with my decision" significant for One charity treatment (1.5 out of 7) and Choice treatment. In treatment, Choice subjects marked their disagreement by 1.3 out of 7, which is the lowest mean compared to all the other treatments. The Box and Whisker plots also revealed how dissatisfied subjects felt after their decision. In Opt-out treatment disagreed the most with the statement that they feel not satisfied with the decision they made. Their answers represent 1.72 out of 7. Very similar results are recorded in the treatment One charity with an average disagreement of 1.9 out of 7. Only in One charity treatment, significant results revealed strong disagreement (2.4 out of 7) with the statement " I feel bothered with my decision."

Figure 2B: Box and Whisker plots of negative emotions across treatments





Overall, all monetary donations felt it was slightly tougher to decide when having the option to choose the number of recipients. However, more than 84% of donors who donated all of their endowments strongly disagreed with the assertion that making this decision was difficult. Also, those who decided to keep the entire endowment strongly disagreed with the statement. The monetary decision was not easy to make most for the donors of small monetary donations CZK 30 and CZK 60. Subjects stated that across all the treatments, they did not feel embarrassed while making their monetary decision. More than half of the subjects expressed almost their absolute disagreement with the claim that they felt embarrassed about their decision. And more than 70% of subjects said they strongly disagreed with the claim that they regret their decision. Most subjects with the option to directly leave the donation process (Treatment Opt-out) did not regret their decision.

As one of the strongest negative emotions present in the charitable giving literature, Guilt showed interesting results. Subjects stated that they strongly disagreed (64%), and hence they did not feel guilty after their donation (mostly donating medium monetary amounts CZK 60 and CZK 90). These results were strongly significant ($P=0.001$) in three experimental treatments: One charity, Choice, and Opt-out.

Very similar results were within the question, whether they felt uncomfortable after their monetary decision (over 73%). Results from the Ordered-probit model (see Table 1B) indicate that subjects were more likely to disagree (over 58%) with the statement that they were dissatisfied with their decision. Subjects donating to one charity were more likely to disagree ($P \leq 0.05$) with the statement “I feel bothered about making my decision” (more than 53% disagreed). Strongest disagreement stated the subjects with the statement “I feel disgusted with my decision” (73%, mostly donors of financial amounts of CZK 30, CZK 60, and CZK 90). In contrast, subjects that did not donate expressed less disagreement than the donors. All monetary distributions across treatments are in Appendix.

4.2.2 Other selected factors and charitable giving

In this section, we examine how subjects responded to questions regarding current donations. We compared whether other factors like employment status, income, volunteering experience, being a blood donor, being a plasma donor, gender, recommending others to donate, wanted to meet the recipient, wanted to have more information about recipient have an impact on charitable giving.

In the second part of this section, we analyzed the results of (i) why subjects decided to donate for charitable causes, (ii) why they decided not to donate during the laboratory experiment, and (iii) what type of charity they most often support.

To examine a relationship between charitable giving and factors affecting charitable giving, we run a standard Ordinary least squares (OLS) regression. Where dependent variable was the donated amount and independent variables were: the status of whole blood donor (dummy variable), the status of plasma donor (dummy variable), employment status (dummy variable), the status of being a volunteer (dummy variable), whether subject recommends donation, gender, wanting to get more information about the recipient (identification) and wanting to meet the recipient. The results of statistical significance are illustrated in Table 2. The table confirms a positive relationship between being a blood donor

and charitable giving and a negative relationship between charitable giving and recommending donation.

Table 2: OLS regression for factors affecting charitable giving

| Data | Donations |
|---------------------------|--------------------|
| <i>WB donor</i> | 11.521 (5.537)* |
| <i>Plasma donor</i> | -6.824 (8.937) |
| <i>Employed</i> | 7.100 (4.849) |
| <i>Volunteer</i> | -7.794 (4.972) |
| <i>Recommend donation</i> | -22.546 (4.972)*** |
| <i>Gender</i> | 0.327 (5.017) |
| <i>Info</i> | -1.548 (3.125) |
| <i>Meet</i> | -0.065 (3.189) |

Source: *author's calculation*

Notes: Standard errors are in parentheses.

* *Significant at 10%.*

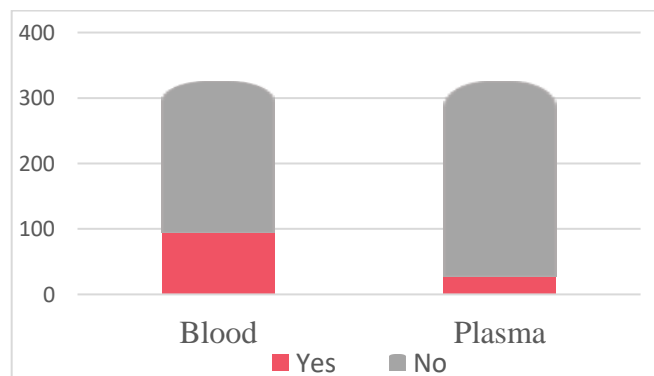
** *Significant at 5%.*

*** *Significant at 1%*

Blood, plasma donations and charitable giving

Whole blood, plasma, and other blood component donors are considered the donors of the purest gift: "the gift of life" (Red Cross, 2020). Literature suggests a strong positive relationship between blood donors and their willingness to donate for charitable causes. Thus, we have included the question in the post-experiment questionnaire of whether the subject of the laboratory experiment is also whole blood or plasma donor. We wanted to find out whether previous experience with blood donation affects generosity to donate to the charity.

Figure 3: Blood and plasma donors

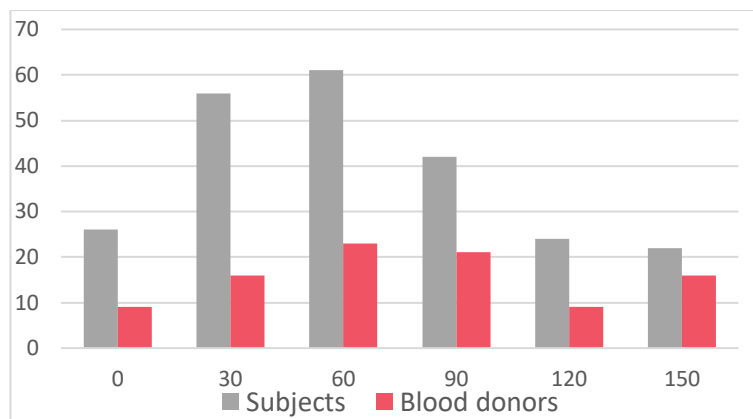


Source: *Own processing*

Figure 3: Blood and plasma donors show the distribution of blood and plasma donors in the sample composition. The number of whole blood donors in our sample was 94, while

plasma donors were only 20. The results of the OLS regression in Table 2 show a positive relationship between whole blood donation and willingness to donate for charitable causes.

Figure 4: Blood donors and their donations compared with other subjects



Source: Own processing

Figure 4 illustrates the donor's generosity represented in the amount of a one-time donation to charities. Both donor groups (either whole blood donors or subjects in the experiment) have the most noticeable donation group of CZK 60, representing their peak. For the other subjects of the experiment, the trend is significantly decreasing while the contribution amount is rising. While within blood donors, the trend is slightly decreasing until it reached a distinct group of donors who have donated all of their donations to charities (almost 20%).

Table 3: Summary donation statistics of blood and plasma donor and other subjects

| Answer | Average donation | Most common income level | Treatment in which being the most generous (donated 150 CZK) |
|----------------|------------------|--------------------------|--|
| Blood donors | 77 (46.46) | 5000-9990 CZK | Treatment Choice |
| Plasma donors | 68 (47.34) | 5000-9990 CZK | Treatment Opt-out |
| Other subjects | 66 (43.61) | 5000-9990 CZK | Treatment One charity |

Source: Own processing

All three types of donors possess the same amount of income, 5000-9990 CZK monthly. However, the summary donation table indicates that blood donors were generous the most in Treatment Choice when the option to choose the number of recipients was

available. Blood donors also donated the highest average donations compared to plasma donors or other subjects (non-blood or non-plasma donors) from the laboratory experiment.

If the subjects indicated that they were donors, we asked them whether they are active whole blood or plasma donors. And also, what is their frequency of donation, how many times they donated over the last two years. The largest group consists of whole blood donors who have donated one time (36%) over the past two years. The most populated groups of plasma donors were those who donated: (i) one time (21%), (ii) seven times or more (21%).

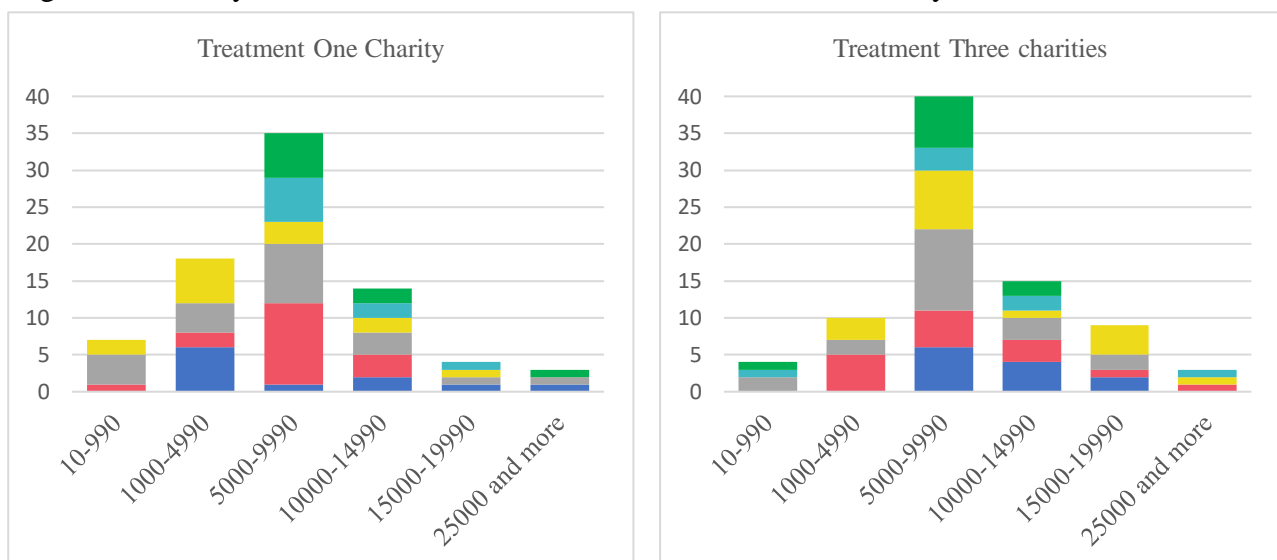
To sum up, the results show a positive relationship between being a blood donor and donating for charitable purposes. The given results thus support the literature, where blood donors are portrayed as more pro-socially oriented.

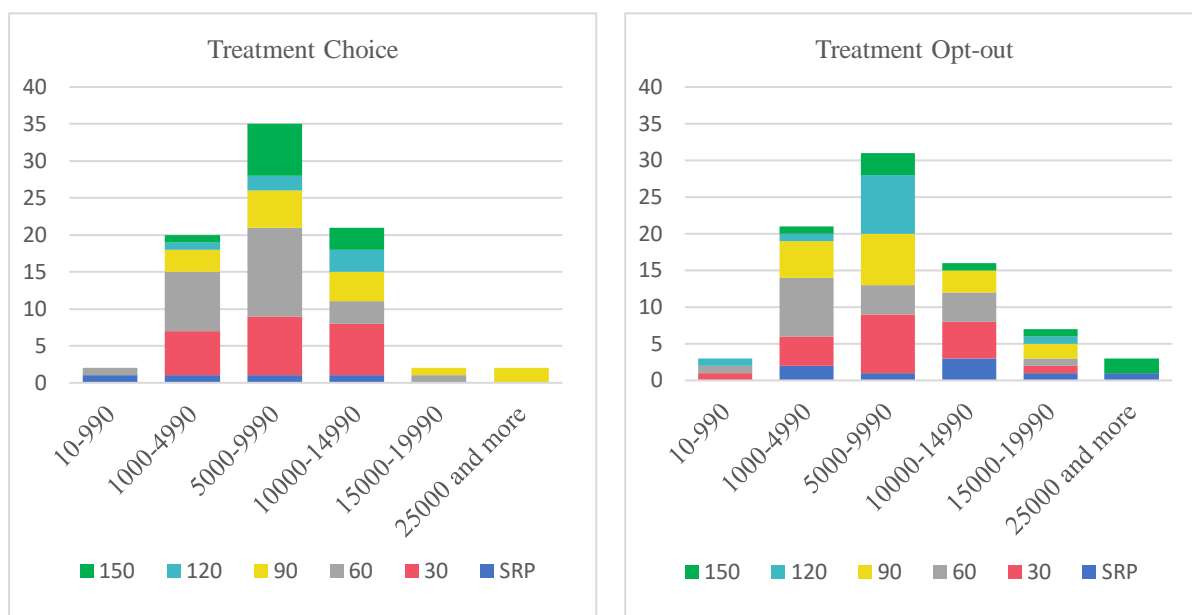
Employment status and subjects' income

The literature indicates a positive relationship between employment and charitable giving (Wiepking et al., 2012). In this section, we compare whether the subject's employment and also the choice of the number of recipients affected the amount donated in our laboratory experiment. Donors with higher income and richer households are more likely to give higher amounts than the poorer ones (Adloff, 2009).

To compare the total amount of donations with individuals' monthly income, we asked the subjects about their income in the post-experimental questionnaire. Subsequently, we compared the donor's generosity and the category of non-donors, therefore those subjects that decided according to their self-regarding preferences (SRP). More than half of subjects (58%) of laboratory experiments were employed. The monetary donations are listed in the figures below according to each treatment.

Figure 7: Monthly income and amount donated in Treatment One charity





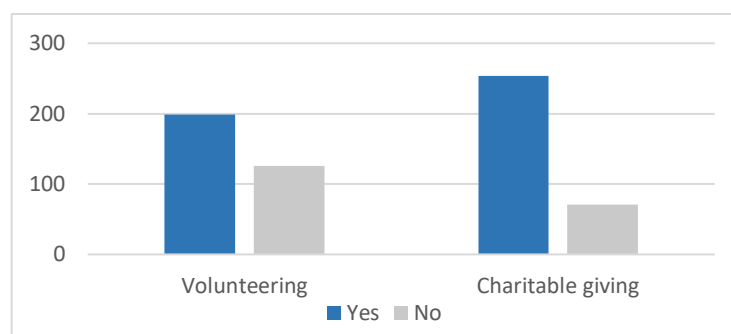
Source: Own processing

In the One Charity treatment, slightly over 40% was donated by those who belong to the category with a monthly income of CZK 5000-9990. In addition, these donors donated the lowest possible amount that could be donated to CZK 30. In this treatment, most non-donors (55%) were within the category of CZK 1000-4990 monthly income. Half of the donors who donated in Treatment Three Charities proceed from the category with a monthly income of CZK 5000-9990. On average, these donors donated CZK 60, CZK 90, and 20% even donated the full amount of their endowment to charities. The largest group (15%) of donors with self-regarding preferences (SRP) also comes from the same category with a monthly income of CZK 5000-9990. In treatment Choice, 40% of the total amount of donations (mainly CZK 30-60) donated to subjects with a monthly income of CZK 5000-9990. At least just over 2% donated subjects with either: (i) meager income (up to CZK 990), (ii) very high income (CZK 15000 or more). In the Option, most donors (38%) are from the category with a monthly income of CZK 5000-9990. This category of donors was, on average, the most generous. The second-largest group of donors who donated the most were donors with an income of CZK 1000-4990. The largest group of non-donors (SRP) comes from the category with CZK 10000-14990.

Volunteering activities

In the next part of the questionnaire, we asked subjects about their experience with volunteer work. Have they ever volunteered somewhere, if so, how many times over the last two years and how much time (hours) they spent by working as volunteers? We tested the relation between the donated amount in each treatment and volunteering experience (dummy variable) through standard Ordinary least squares (OLS) regression. The analysis did not show a relationship between volunteering and charitable giving.

Figure 8: Comparison of volunteering activities and charitable giving



Source: Own processing

Of the total number of 325 subjects, over 78% donated to charity in the past. This is 20% more than the volunteer activity, which was carried out by more than half of the subjects see Figure 8. We also compared how many times and how much time the subjects spent by working as volunteers. It turned out that those volunteers who had tried this kind of aid once were returning to it repeatedly. More than 39% of the subjects have never experienced volunteering. On the other hand, 28% of subjects that tried volunteering returned and volunteered again 5 and more times in past two years. More than 46% of the subjects spent more than 7 hours by volunteering in last two years.

Subjects' attitude towards future donation and their expectations

In this section, we will examine how subjects responded to questions regarding today's and expected donation. It can be anticipated that if the donor gains a positive attitude towards charitable giving, he will probably donate in the future or will recommend others to donate. Donors with a positive attitude towards charitable giving are more generous and donate more frequently, contrary to the donors who do not recommend donating to others or

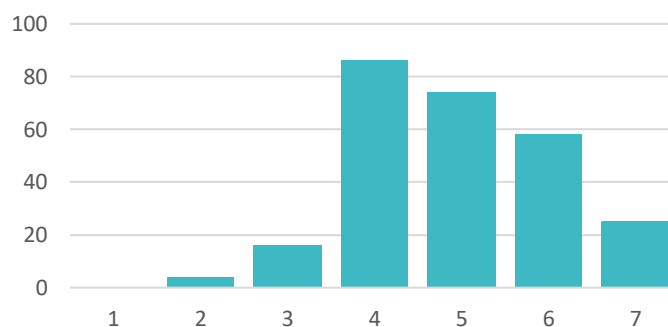
donors with a neutral attitude. Therefore, we can anticipate that donors with the option to choose the recipients will be more willing to donate.

In the total of 325 subjects, 82% stated that they would recommend others to donate, and 59.4% stated that they would like to donate in the future as well. to questions about future donations. 46% of subjects who did not donate today said they plan to donate in the future.

As Table 2 suggests, subjects across all treatments were more willing to recommend others to donate (as the regression analysis illustrated strong significance $p=0.001$). Subjects were more willing to share their experience and recommend others to donate with the increasing amount donated. Subjects that did not donate in the experiment were more willing to donate in the future. After the experiment and after sharing information about their donation with others, they expect positive reactions from the environment, which might drive their motivation to donate in the first place.

We were also interested in the donors' view of sharing their experiences with others. The main difference between the pure, impure altruistic donor and donor-driven by warm glow is the utility donor obtain from the act of giving. While a pure altruist performs a donation to help others, the warm glow donor is motivated by the benefits he can gain from the overall act of giving. Impure altruists seek recognition and respect from the environment for his act of kindness. For the impure altruist, the main motivator is often the opportunity to share their experience with others and gain their admiration, recognition, and support. Whether they will tell others about their donation, the donor's answers are shown in the figure below. Over half of the donors, 55%, will share their donations with others. Figure 9 represents the expected response of others. Subjects were able to evaluate their opinion by shifting sliders on a scale from 1 (negative reaction) to 7 (positive reaction).

Figure 9: Anticipated reaction of others



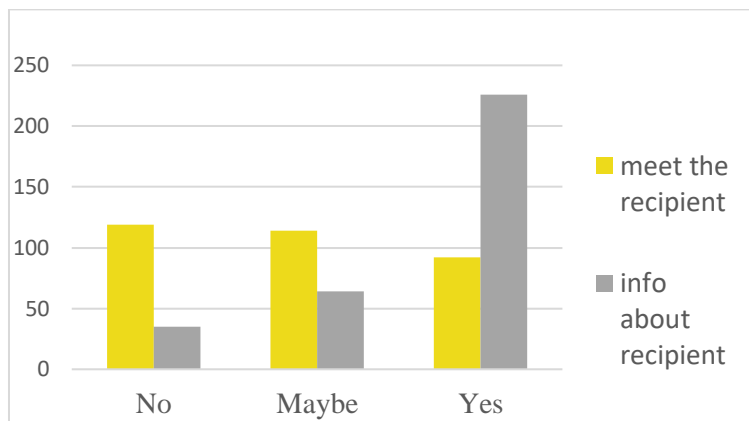
Source: Own processing

In addition, 86 donors (33%) expect their response to be neutral (4 out of 7). Almost positive response was indicated by 60% of donors. Moreover, results from Ordered-probit model also proved positive relationship between donations across all treatments and anticipated positive reaction of others after sharing the donation experience (statistically significant at 1%).

Identification of the recipient

The literature points out that identifying the recipient increases the likelihood of cognitive attention, and thus there is a higher chance for charitable giving (Kogut and Ritov, 2005; Servátka, 2009). In this section, we measured whether the willingness to donate to either one, three recipients changes when the subject can obtain information about the recipient or meet the recipient.

Figure 10: Subject's statement according to the identification of the recipient



Source: Own processing

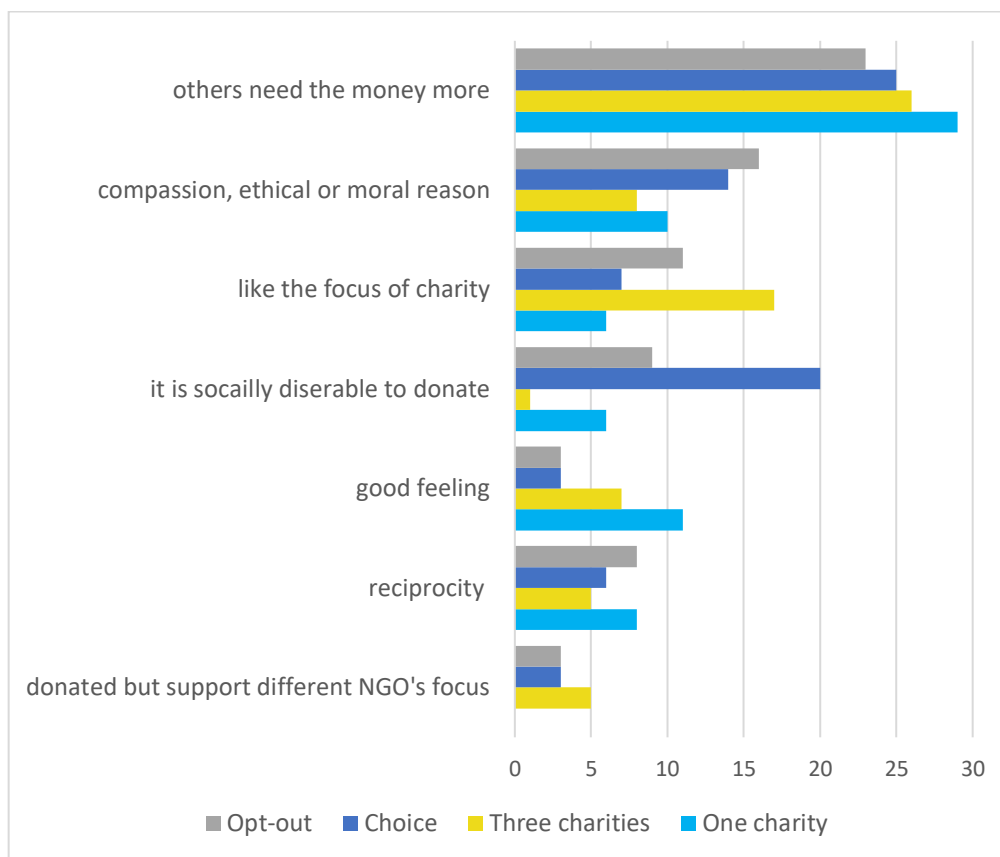
Figure 10 represents 70% of donors responded positively to the question of whether they would like to have more information about the recipient. On the other hand, questions about whether they would like to meet a recipient: negatively reacted up to 36% of subjects, positively 28%, and the remaining donors indicated the possibility of maybe.

Listed reasons why to donate and preferred type of charity

This section will look at why subjects are listed as the main important in deciding why to donate to charity. We compared the reasons for donation that stated donors of a laboratory experiment with theoretical predictions derived from the psychological and sociological literature based on altruism, reciprocity, and inequality aversion. In the first question, which is illustrated in Figure 11. we were asking their reason why they donated to charity today. Of the total number of donors, 290 more than 103 subjects (over 35% overall) listed „others need money more than me“ as one of the main reasons why they donated today. They think that financial aid in giving up a small amount of their endowment can have a big impact on life for those that need it the most. Donors realize the importance of giving and giving money to those who will help them get out of a difficult life situation they can't help themselves with. Over 16 5% of donors cited personal feelings like compassion, empathy, and ethical or moral principles as the other most important reason they chose to donate.

Over 14% of donors said they understood the importance of why these charities help people in need and saw it as a purpose to donate. Up to 42% of donors were from the Three charity treatment when subjects were given the option to donate to three charities. The donated amount will be distributed equally among all charities. Solidarity and that donation are socially desirable cited as the most important reason for donation mostly donors in Choice treatment - when they had the opportunity to choose a recipient. The other reasons given by donors were warm glow and reciprocity, mainly because they would also be grateful if others helped them; eventually, someone helped their relatives when being in a similarly difficult situation. At least only 4% of the total number of donors donated but said they did not identify themselves with charity's focus and personally prefer other types of charities.

Figure 11: Listed reasons why subjects donated



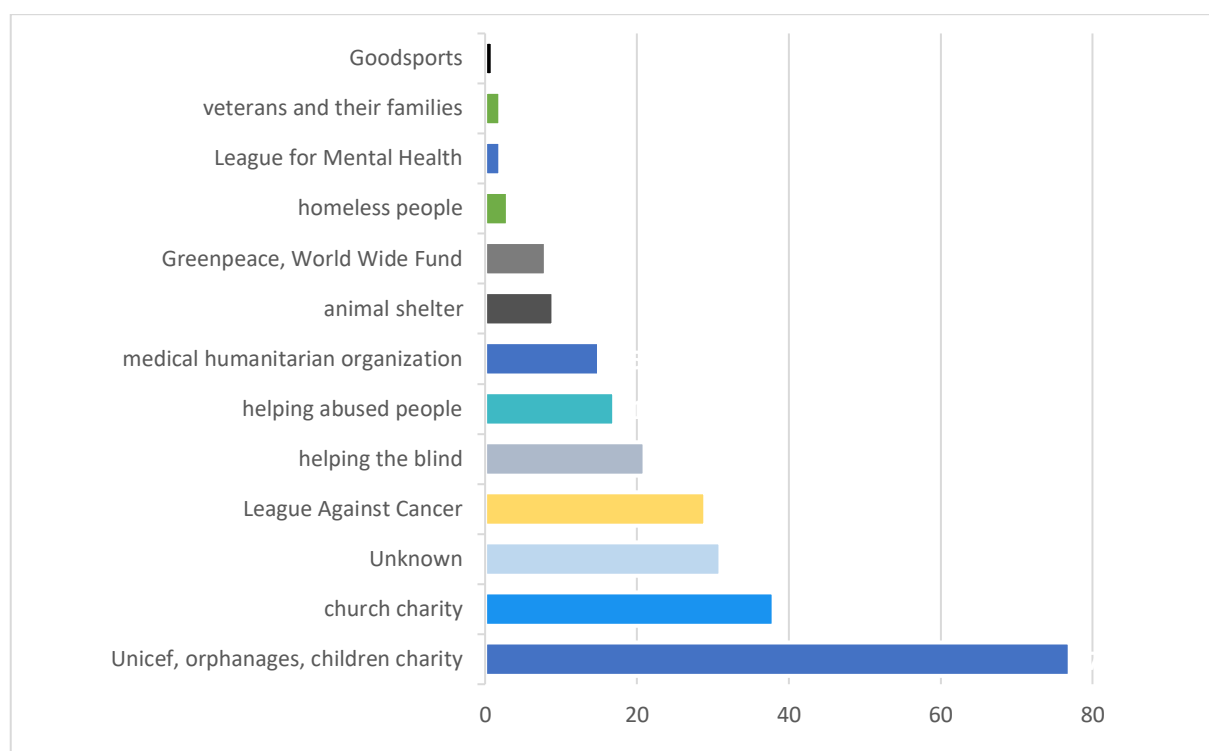
Source: Own processing

Conversely, as many as 46% of the total number of non-donors reported that they had not agreed with the focus of charities. Almost 31% reported the main reason: self-regarding preferences, that is, they came only to earn money. The remaining 23% do not believe that the money they have donated will get to people in need through the charity.

Preferred type of charity

In the following subsection, we summarize the subject's preferences of the type of charity they usually support. Hereby we try to examine whether the focus of the charities selected for the experiment was sufficiently motivating to encourage subjects' charitable behavior. Of the total number of participants, over 22% said they had never donated to charity in the past. Precisely 253 subjects from our sample (78%) have donated to charities in the past, and their statements about what type of charities they support are shown in Figure 12.

Figure 12: Type of charities subjects prefer to donate for



Source: Own processing

Figure 12 shows that 30% of subjects most often donate to charities that help children in need. For this purpose, entities most often contribute in the range of CZK 100-990. In addition to the financial assistance that most frequently goes toward UNICEF, subjects have often donated clothes, toys for children's orphanages. Non-profit organizations as Good Angel (Dobrý anjel), An hour for children (Hodina deťom), A smile as a gift (Úsmev ako dar) - that is charity collection broadcast on TV, are also included here. All of the charities mentioned above are well-known charities with a good marketing strategy and a strong group of ambassadors who support and broadcast the projects.

The second most mentioned type of charity (15% of the listed) which the subjects mentioned is either their local charity, which is established in the church they visit at their residence, or any other church charity. Donors are willing to donate their money to the church charity, they are more generous, and donations exceed CZK 3000. The most frequently mentioned was Czech charity, which is one of the largest charities in the Czech Republic; eventually, Slovak Catholic charity and then smaller local charities see Figure 12.

In the category unknown, we included those charities that subjects did not remember the names. Still, mostly it was a charity that appeals to the donor on the streets where they collected contributions.

10% of subjects reported that they contribute each year during the day of daffodils (from Slovak translation: The daffodils day (Deň narcisov), which symbolizes solidarity to cancer patients) for the League for Cancer collection. This donation collection is a tradition organized in the Slovak Republic every second week of April, while in the Czech Republic, the collection is organized in May. The collected amount then goes to cancer patients in hospitals for their treatment.

White crayon (Biela pastelka), a charity that helps blind people was another mentioned charity supported by 8% of subjects. 6.7% of the donors expressed their support for charities that have the same focus as the charities used in the experiment, e.g., to help abused victims of violence. The most listed charities were People in need (Človek v tiesni) and The white circle of security (Biely kruh bezpečia).

Among the humanitarian organizations that 5% of donors support known charities such as Doctors Without Borders, Magna, Salvation Army, and Red Cross.

International non-governmental organizations as Greenpeace and The World Wide Fund for Nature are working in wilderness preservation. The reduction of human impact on the environment financially supports more than 3% of subjects. Also included are animal shelters such as Freedom of animals (Sloboda zvierat) in Slovakia.

In addition, 1% of donors financially support non-governmental organizations which i) aims to increase mental health literacy and help people with mental health problems like the League for Mental Health ii) help war veterans and their families iii) support a healthy lifestyle by creating sports conditions (charities as GoodSports). Last but not least, this also includes voluntary contributions to homeless people.

65% of subjects expressed that they have donated an average of 1-2 charities of varying focus over the last 2 years.

5 Discussion and policy recommendations

Can an increasing number of recipients drive charitable giving? Moreover, can the well-thought choice architecture increase the size and frequency of giving?

Individuals in everyday life face decisions where they decide what environment they enter and which they would like to avoid. Whether to help others in need, volunteer its time for the greater good, or donate to charity. Not everyone is an altruist and willing to help. However, charitable organisations are greatly dependent on prosocial acts of kindness. From their perspective, understanding what drives altruistic motivation is essential. Charities might believe that if the number of people needing one's help increase, they will attract more donors which will lead to higher donations. This assumptions have been previously experimentally tested and the results state as follows: if donor cares about the average amount that each recipient receive, with increasing bumber of recipients, the extent of his help increase however at a decreasing rate (Andreoni, 2007; Soyer and Hogarth, 2011). We were also testing if the number of gift recipients affects the altruistic preferences of the donor; however, we incorporated the option to choose the preferred number of recipients. Our findings suggest that only increasing the number of recipients does not lead to higher donations.

Furthermore, we tested whether the choice of the number of recipients can affect prosocial giving. If an individual faces an option where he can choose to enter into a preferred environment, this option allows donors to sort themselves based on how many recipients they would like to help. Not everyone is an altruist, and not everyone prefers to enter into environments where prosocial giving is desired. In our model, we based our assumption on the theory of altruism and assumptions of selection that creates sorting.

We report results of a laboratory experiment where we examined whether there are other possible factors that might increase the interest from the general-public in charitable giving. In the laboratory experiment, we kept the design unambiguous, to see how the autonomy of choice can increase subject's motivation to donate. In order to control for subjects' preferences, we did not follow the selection of different preferences (as it was in Berman et al., 2018), but we find charities with very similar scope of their focus. These charities were not well known (contrary to Eckel and Grossman, 1996; Soyer and Hogarth, 2011), therefore subjects were not able to give any preference to any of them. We also controlled for the choice overload (Soyer and Hogarth, 2011) and how congestible the altruism is (Andreoni, 2007) by fixing the number of recipients to either one or three (where

each recipient received one-third of the monetary donation). To reflect on altruistic giving, the gift recipients were real charities not other subjects of laboratory experiment (Eckel and Grossman, 1996; Bettinger and Slonim, 2006; Lilley and Slonim, 2014). Based on these settings, we were able to pursue the subject's motivation for donation depending on the size of the individual versus the group and the effect of choice architecture. Subjects in the experiment were randomized into one of four treatments that varied along three main dimensions: (i) donate to one or to three charities; (ii) choose the preferred option; (iii) directly opt-out from the donation process. To examine other factors that might affect charitable giving, subjects filled up the post-experimental questionnaire at the end.

Our findings indicate that subjects in our experiment were indifferent to the number of recipients of their gift. Our study demonstrates that allowing people to enter into their preferred environment not only creates sorting but by allowing people to opt-out from the process also increases the frequency of positive donations from donors who chose to stay. Our findings enrich the literature stream about choice and sorting (Lazear et al., 2012; Andreoni et al., 2017; Trachtman et al., 2015). Therefore, well-thought choice architecture that incorporates the option to choose the number of recipients significantly increases the frequency of giving. The choice, however, does not affect the size of donations.

With the option to choose the number of recipients, donors were sorted into categories (I would like to donate to either one or three charities) to select their preferred option. Overall, subjects with the possibility to choose or opt-out (whether to donate to one charity or three charities) were driven towards charitable giving even more. If the subject decided to enter into an environment where the sharing is possible, he ended up donating after entering—the option to opt-out increases the frequency of positive donations but did not affect the size of donations. We demonstrated, that donors with the option to choose were more generous in large value donations as the frequency of CZK 150 increased with the opt-out option and choosing to donate to one charity. We conclude that option to choose the number of recipients gives the subjects the possibility to sort into categories based on their preferences to donate to either one or to three charities.

Results from questionnaire responses analysis further showed the emotional aspect of donation and what subjects feel if they can or can not choose the number of recipients. Literature stream on emotions and charitable giving represented by Bagozzi et al. (2003) and Merchant et al. (2010) clearly underlined that positive emotions could trigger charitable giving. We allowed subjects to sort into categories of how many recipients they help to meet their preferences better. We anticipated that with the higher chance of their needs being met,

the satisfaction increases with positive emotions. As a result, the option to choose did not affect the satisfaction, neither had the number of recipients. However, when we pooled the data according to the collapse of compassion (donations to one recipient in all treatments and donations to three recipients in all treatments), donors were more likely to feel happier when donating to one recipient. The results of negative emotions illustrated, that men were less likely to disagree with the statement that they felt disgusted, bothered, embarrassed, dissatisfied with their decision as well as they felt less regret and tense.

In addition, we indicated that donors are expecting a very positive reaction from their environment after they plan to share their charitable giving experience with them and recommend other to donate as well. We also provided evidence of a positive relationship between blood donation and charitable giving. Blood donors were significantly more generous in the case of donations for charitable purposes. More than half of the subjects were employed, over 78% donated to charities in the past, and more than 70% of the subjects would like to receive more information about the recipients. Donors stated that their primary motivation to donate for charitable purposes is because others need the money more and that they feel with the victim; therefore they want to help. Almost 80% of the subjects support charities helping children (Unicef, orphanages, children charities).

Limitations and space for the further research

To be able to show evidence whether the results from laboratory experiment are showing the congestibility of the altruism (as it was in Andreoni, 2007) or indicate the collapse of compassion (as proved by Kogut and Ritov, 2005; Cameron and Payne, 2011), is necessary to incorporate more gift recipients into the experimental design. Comparing a different number of the recipients will be, therefore, possible to identify the limitations of the donors being indifferent according to the number of gift recipients.

One of our main findings was that donors were indifferent according to the number of gift recipients. Another extension of experimental design could possibly be in terms of endowment. A higher amount of endowment could possibly expose subjects' motivation even more with the increasing opportunity costs of donation. With the higher opportunity cost of donation could be possibly easier to identify the motivation of the donors for charitable giving. And therefore, examine whether they are pure altruists, impure altruists, or motivated by a warm glow.

For future research, there is an importance for extending model and empirical analysis to consider other factors as frequency of donation, repetition of the same donation, and incorporating into the options to choose different types of transaction costs (time, volunteering, personal costs). This approach will be possible to observe a more narrow vision of what might be preferable for the donor and what factors will shift their motivation towards charitable giving more effectively. The reason why subjects do not differentiate between a various number of gift recipients could also possibly be caused by other factors that affect charitable giving rather than a number of recipients. Such as personal costs in the form of donating personal time instead of monetary donations. This approach based on altruism and different personal costs was previously studied examined by Lilley and Slonim, 2014. Their model of altruism introduced that subjects have separable utility over pure and impure motives that vary across monetary donations and volunteering time. The model solves the optimal allocation of time and money, and subjects could either donate their personal time on monetary donations for charity. Transaction costs in terms of personal time needed for traveling, other costs such as necessary unpleasant feelings from the donation can also prevent donors from donating. Our findings and these factors offer additional space for further research. When based on the principle of choice, the donors will have more options to choose concerning personal and transaction costs.

Another very important factor should be to find out the already revealed preferences over time, how people are satisfied with the given solution, and whether their opinion has not changed over time. The possibility of choice should always be present in the decision-making process. The authorities should always ask for the opinion of the individual and still provide him with the possibility of choice. Therefore, it is very important to incorporate the possibility of choice and repeatedly test the decision-making process of individuals. Therefore, limitations and further testing should include re-running the experiment, where it could be reaffirmed whether the subject still considers the option to be essential.

Policy recommendations

To ensure regular donations and stimulate donor interest in returning and re-donating, it is necessary to understand what stands behind donors' motivation for charitable giving. Charitable organizations can operate only if they build relationships with their donors who are satisfied and happy with their donation. Charitable giving, therefore, operates on the repetitive principle. Hence, satisfied donors will come back and donate for the same purpose

again. To build a network of repetitive donors, the charitable organizations should donate the most accessible and effective, with low donation costs. To motivate donors for charitable giving, incorporating the option to choose (controlling for the “choice overload” issue) could be a part of their operational structure. This option to choose could incorporate:

- the type of donation (whether they want to donate their money, time, volunteering),
- operational costs of donation (whether they want to keep the operational donation costs the lowest as possible if they are insignificant according to them).

Our results highlight the importance of introducing the choice option to encourage giving to a subset of targeted causes for charities and policymakers.

Charities should not rely on various measures to increase frequency of contributions due to the fact that you will be helping more people instead of one. And an example of this is the donation of blood and plasma. In the case of differences between whole blood and plasma donation, when one gift helps a different number of recipients, donors are not motivated by the number of recipients but by other factors. These factors which may stand as a barrier for charitable giving are:

- personal costs (in terms of needle thickness in case of plasma donation, pain that is caused by the donation)
- opportunity costs that in form of time spend on traveling to and from charitable organization
- preferences of volunteering (donation of personal time instead of monetary gifts).

This means that voluntary organizations should focus on other measures by which they will try to increase contributions than draw the attention of potential donors to the number of recipients. Since the given assumptions about different motivation towards donation when having one or more recipients have not been confirmed in a laboratory environment (in simple conditions where it is very salient), it is unlikely that in the situation out in the field (where it is less salient) is going to have any effect. For example, if the donor will be approached with the possibility of donating to more recipients, it is necessary to provide another option so that he can decide for himself what he prefers. He will choose the preferred option and enter into the preferred solution. By letting donors enter into the environment that suits them at a given time, it is necessary to constantly address the choice

to them and provide them the option of self-selection. We have also concluded that if we allow donors to decide whether to leave the donation process at any time, it is very likely that in the end, they will end up donating than without having this choice. Moreover, by incorporating choice into the donation process, transfusion centers and charities might see not only higher frequencies of donations, but donors who are donating the way they optimally prefer will also recommend to others to donate. Also, suggesting that campaigns and charitable drives based around the idea of moral consistency can improve the collection of donations.

Conclusion

We study how altruistic giving is affected by the number of recipients and whether having an option to choose the number of recipients increases the extent and frequency of help. In order to answer these questions, we conducted a laboratory experiment where we allowed subjects to donate to charity under four experimental treatments. Subjects could share their endowment with one recipient (Treatment One Charity), three recipients (Treatment Three Charities), choose the preferred number of recipients – either one or three (Treatment Choice), choose the preferred number of recipients – either one or three or directly opt-out from the game (Treatment Opt-out). To keep the number of recipients and choice architecture salient, we controlled for: the information that subjects received about the charitable organization, fixed the number of recipients to either one or three (control for choice overload and how congestible the altruism is), when choosing three charities each recipient received $1/3$ of a monetary donation, recipients were charities not other subjects of laboratory experiment. To examine other factors that might affect charitable giving, subjects filled up the post-experimental questionnaire at the end. We particularly asked subjects about their positive and negative emotions after monetary decision, employment status, income, gender, charitable preferences, blood or plasma status, wanting to have more information about the recipient, or meeting the recipient.

The results were analyzed through the extensive margin (all data) and the intensive margin (conditional on giving). We find that the number of recipients does not affect the size or the frequency of donations. However, choosing how many recipients to donate increases the frequency of positive donations when electing to donate to both one charity and three charities. The choice does not affect the size of donations. Moreover, having an option to opt out from the donation process increases the frequency of positive donations but does not affect the size of the donations. If an individual faces an option where he can choose to enter into a preferred environment, this option allows donors to sort themselves based on how many recipients they would like to help. Other factors that might affect the charitable giving signalize that the option to choose did not affect the satisfaction, neither had the number of recipients. However, when we pooled the data according to the collapse of compassion donors were more likely to feel happier when donating to one recipient. Our results suggest that well-thought choice architecture could potentially serve as an effective mechanism to attract more donors and increase the frequency of donations.

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Appendix

0.1 Spoken instructions

Welcome to our experiment. Each of you will receive a 75 CZK show-up fee, to be paid in cash at the end of the session. You will now have a chance to earn additional money. From now until the end of the session, unauthorized communication of any nature with other participants is prohibited. If you violate this rule we will have to exclude you from the experiment and from all payments. If you have a question, please raise your hand and we will come to you to answer your question privately. Now please proceed to next step.

0.2 Written instructions Treatment A

Instructions

Welcome to our experiment.

Each of you will receive a 75 CZK show-up fee, to be paid in cash at the end of the session. You will now have a chance to earn additional money.

From now until the end of the session, unauthorized communication of any nature with other participants is prohibited. If you violate this rule we will have to exclude you from the experiment and from all payments. If you have a question, please raise your hand and we will come to you to answer your question privately.

You have 150 CZK. During the experiment, you can donate money to charity. You as a Donor decide to distribute 150 CZK by choosing from six options. You decide how much you keep for yourself and how much you contribute to one of these three charities, which will be selected by random selection.

(Description of charities is provided)

The choice is up to you. At the end of the experiment, you will receive a cash reward according to the option you selected, along with the CZK 75 you received for participation.

After the experiment is completed, we will count all donations for charities and send them to their bank account.

You decide only once.

Your decision is private, and none of the other participants in the experiment know the amount of your earnings.

Here are the options:

- If you choose `` Option 1, " then you will get 150 CZK and the Charity will receive 0 CZK.
- If you choose `` Option 2, " then you will get 120 CZK and the Charity will receive 30 CZK.
- If you choose `` Option 3, " then you will get 90 CZK and the Charity will receive 60 CZK.
- If you choose `` Option 4, " then you will get 60 CZK and the Charity will receive 90 CZK.
- If you choose `` Option 5, " then you will get 30 CZK and the Charity will receive 120 CZK.
- If you choose `` Option 6, " then you will get 0 CZK and the Charity will receive 150 CZK.

You made your decision, now please fill in the questionnaire.

0.3 Written instructions Treatment B

Instructions

Welcome to our experiment.

Each of you will receive a 75 CZK show-up fee, to be paid in cash at the end of the session. You will now have a chance to earn additional money.

From now until the end of the session, unauthorized communication of any nature with other participants is prohibited. If you violate this rule we will have to exclude you from the experiment and from all payments. If you have a question, please raise your hand and we will come to you to answer your question privately.

You have 150 CZK. During the experiment, you can donate money to charity. You, as a Donor, decide to choose one of the six options offered and thus to distribute 150 CZK. You decide how much you keep for yourself and how much you contribute to the three Charitable Organizations ACORUS, THEIA, LATA. The contribution to charities will be divided equally.

(Discription of charities is provided)

The choice is up to you. At the end of the experiment, you will receive a cash reward according to the option you selected, along with the CZK 75 you received for participation.

After the experiment is completed, we will count all donations for charities and send them to their bank accounts.

You decide only once.

Your decision is private, and none of the other participants in the experiment know the amount of your earnings.

Here are the options:

- If you choose `` Option 1, " then you will get 150 CZK and each charity will receive 0 CZK.
- If you choose `` Option 2, " then you will get 120 CZK and each charity will receive 10 CZK.
- If you choose `` Option 3, " then you will get 90 CZK and each charity will receive 20 CZK.
- If you choose `` Option 4, " then you will get 60 CZK and each charity will receive 30 CZK.
- If you choose `` Option 5, " then you will get 30 CZK and each charity will receive 40 CZK.
- If you choose `` Option 6, " then you will get 0 CZK and each charity will receive 50 CZK.

You made your decision, now please fill in the questionnaire.

0.4 Written instructions Treatment C

Instructions

Welcome to our experiment.

Each of you will receive a 75 CZK show-up fee, to be paid in cash at the end of the session. You will now have a chance to earn additional money.

From now until the end of the session, unauthorized communication of any nature with other participants is prohibited. If you violate this rule we will have to exclude you from the experiment and from all payments. If you have a question, please raise your hand and we will come to you to answer your question privately.

You have 150 CZK. During the experiment, you can donate money to charity. You, as a Donor, decide to choose one of the six options offered and thus to distribute 150 CZK.

In the first step, you decide whether you want to contribute to one or three Charitable Organizations. In the second step, you decide how much you keep for yourself and how much you contribute to one or three charities of your choice in the first step. If you choose to contribute to three charities, the donation will be distributed equally.

(Discription of charities is provided)

The choice is up to you. At the end of the experiment, you will receive a cash reward according to the option you selected, along with the CZK 75 you received for participation.

After the experiment is completed, we will count all donations for charities and send them to their bank accounts.

You decide only once.

Your decision is private, and none of the other participants in the experiment know the amount of your earnings.

Now, please choose if you want to contribute to one or three charities:

- I want to contribute to one Charity organization
- I want to contribute to three Charitable Organizations.

Here are the options:

- If you choose `` Option 1, " then you will get 150 CZK and the Charity will receive 0 CZK.
- If you choose `` Option 2, " then you will get 120 CZK and the Charity will receive 30 CZK.
- If you choose `` Option 3, " then you will get 90 CZK and the Charity will receive 60 CZK.
- If you choose `` Option 4, " then you will get 60 CZK and the Charity will receive 90 CZK.
- If you choose `` Option 5, " then you will get 30 CZK and the Charity will receive 120 CZK.
- If you choose `` Option 6, " then you will get 0 CZK and the Charity will receive 150 CZK.

or

- If you choose `` Option 1, " then you will get 150 CZK and each charity will receive 0 CZK.
- If you choose `` Option 2, " then you will get 120 CZK and each charity will receive 10 CZK.
- If you choose `` Option 3, " then you will get 90 CZK and each charity will receive 20 CZK.
- If you choose `` Option 4, " then you will get 60 CZK and each charity will receive 30 CZK.
- If you choose `` Option 5, " then you will get 30 CZK and each charity will receive 40 CZK.
- If you choose `` Option 6, " then you will get 0 CZK and each charity will receive 50 CZK.

You made your decision, now please fill in the questionnaire.

0.5 Written instructions Treatment D

Instructions

Welcome to our experiment.

Each of you will receive a 75 CZK show-up fee, to be paid in cash at the end of the session. You will now have a chance to earn additional money.

From now until the end of the session, unauthorized communication of any nature with other participants is prohibited. If you violate this rule we will have to exclude you from the experiment and from all payments. If you have a question, please raise your hand and we will come to you to answer your question privately.

You have 150 CZK. During the experiment, you can donate money to charity.

You, as a Donor, decide to choose one of the six options offered and thus to distribute 150 CZK.

In the first step, you decide whether you want to contribute to one or three Charitable Organizations. In the second step, you decide how much you keep for yourself and how much you contribute to one or three charities of your choice in the first step.

The contribution to Charitable Organizations will be divided equally.

(Description of charities is provided)

The choice is up to you. At the end of the experiment, you will receive a cash reward according to the option you selected, along with the CZK 75 you received for participation.

After the experiment is completed, we will count all donations for charities and send them to their bank accounts.

You decide only once.

Your decision is private, and none of the other participants in the experiment know the amount of your earnings.

Now, please choose if you want to contribute to one or three charities:

- I want to contribute to one Charity organization
- I want to contribute to three Charitable Organizations.
- I do not want to contribute to any Charitable Organisation.

Here are the options:

- If you choose `` Option 1, " then you will get 150 CZK and the Charity will receive 0 CZK.
- If you choose `` Option 2, " then you will get 120 CZK and the Charity will receive 30 CZK.
- If you choose `` Option 3, " then you will get 90 CZK and the Charity will receive 60 CZK.
- If you choose `` Option 4, " then you will get 60 CZK and the Charity will receive 90 CZK.
- If you choose `` Option 5, " then you will get 30 CZK and the Charity will receive 120 CZK.
- If you choose `` Option 6, " then you will get 0 CZK and the Charity will receive 150 CZK.

or

- If you choose `` Option 1, " then you will get 150 CZK and each charity will receive 0 CZK.
- If you choose `` Option 2, " then you will get 120 CZK and each charity will receive 10 CZK.
- If you choose `` Option 3, " then you will get 90 CZK and each charity will receive 20 CZK.
- If you choose `` Option 4, " then you will get 60 CZK and each charity will receive 30 CZK.
- If you choose `` Option 5, " then you will get 30 CZK and each charity will receive 40 CZK.

• If you choose `` Option 6, " then you will get 0 CZK and each charity will receive 50 CZK.

You made your decision, now please fill in the questionnaire.

0.6 Post-experimental questionnaire

Questionnaire

State how you agree/ disagree with following statements:

| | Disagree | | | | Agree | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I feel embarrassed with my decision | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| This decision was uneasy to made | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel happy after my decision | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel disgusted with my decision | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I regret my decision | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I felt tense to make decision | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I felt bothered to make decision | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I felt guilty after I made the decision | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel satisfied with my decision | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel dissatisfied with my decision | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I felt uncomfortable after I made the decision | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel ashamed because of my decision | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel confident with my decision | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Are you male or female? _____

The town of your permanent residence _____

Year when you were born _____

Are you working while studying? Yes ☐ No ☐

If yes, part-time or full-time _____

What is your monthly income (or pocket money)? _____

State how unsatisfied/satisfied you were:

| | Unsatisfied | | | | | Satisfied | |
|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| With your overall donation today | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Have you ever donated whole blood before? Yes ☐ No ☐

If yes, are you a regular donor? Yes ☐ No ☐

Have you ever donated plasma before? Yes ☐ No ☐

If yes, are you a regular donor? Yes ☐ No ☐

Have you ever donated plasma abroad? Yes ☐ No ☐

State how familiar you were with the charity

| | Unfamiliar | | | | | Familiar | |
|--------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| ACORUS | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| THEIA | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| LATA | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Have you ever donated to these charities before? Yes ☐ No ☐

If yes, which one? _____

I have donated to the charity NOW because _____

Would you recommend others to donate? Yes ☐ No ☐ Maybe ☐

I currently have donated and I plan to continue Yes ☐ No ☐ Maybe ☐

I have never donated but I plan to in the future Yes ☐ No ☐ Maybe ☐

Do you feel the need to tell others about your donation? Yes ☐ No ☐

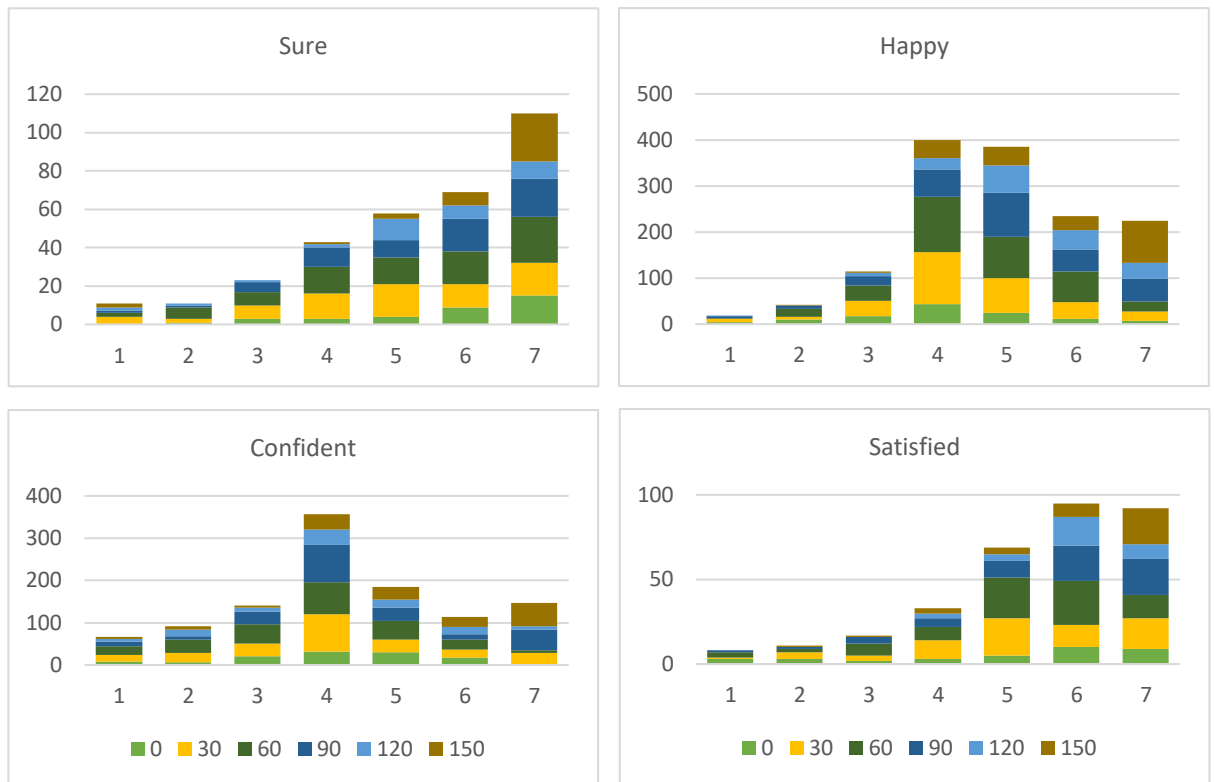
| If yes: How will others react when you tell them about your donation? | Only negative | | | | | Only Positive | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Others will react | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Yes ☐ No ☐ Maybe ☐

If it would be possible to meet the recipient, would you want to?

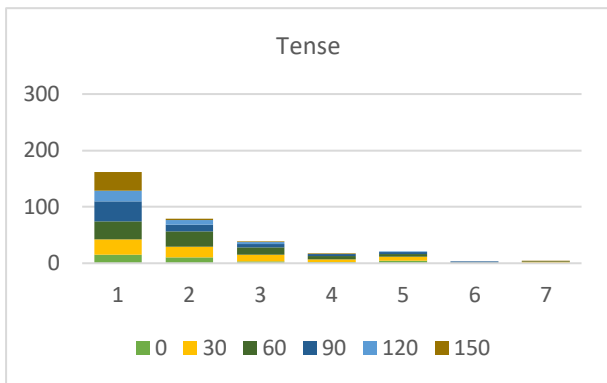
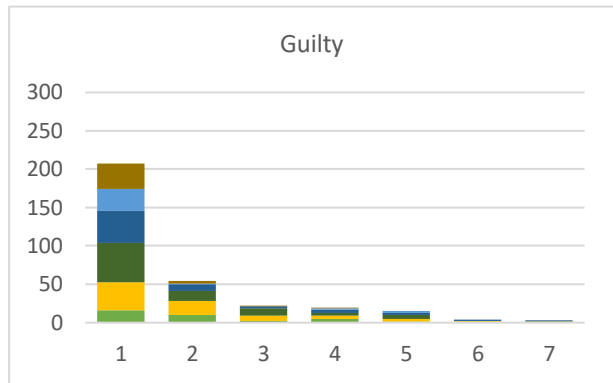
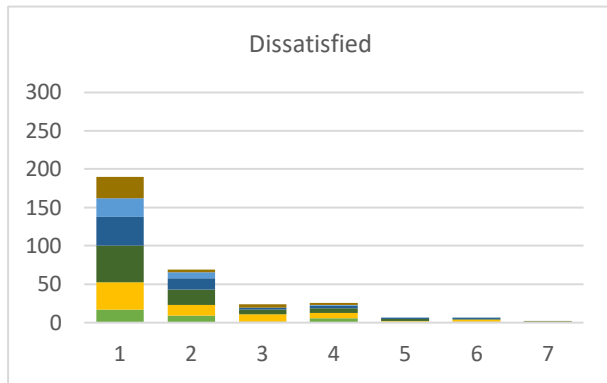
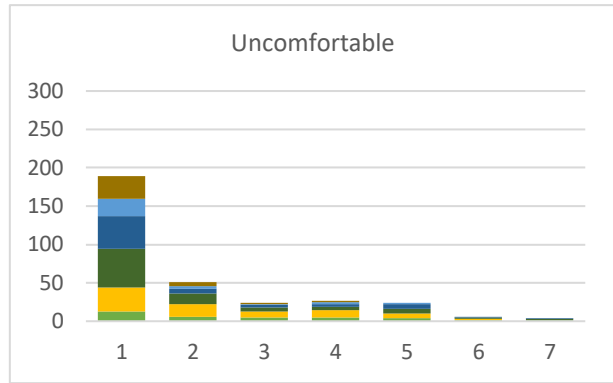
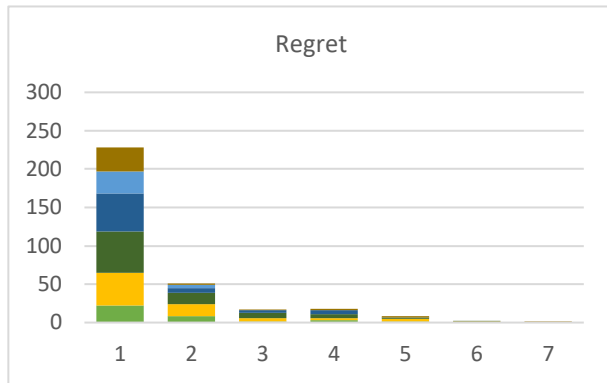
Would you like to hear or receive some information about the recipient? Yes ☐ No ☐ Maybe ☐

0.7 Positive emotions and monetary distribution across treatments



0.8 Negative emotions and monetary distribution across treatments





0.9 Data

| Subjects | Treatment | Donations | Have you donated before to Acorus, Thela, Lala | Have you ever donated to charity | How many times in past 2 years | How much you donated in last 2 years | Have you volunteered before | Would you recommend donating | Would you tell others | Their reaction will be | Meet the recipient | Info about recipient | Blood donor | Plasma donor | Embarrassed | It was tough decision | Happy | Disgusted | Regret | I felt tense | Bothered | Guilt | Satisfied | Dissatisfied | Uncomfortable | Confidently | Sure |
|----------|-----------|-----------|--|----------------------------------|--------------------------------|--------------------------------------|-----------------------------|------------------------------|-----------------------|------------------------|--------------------|----------------------|-------------|--------------|-------------|-----------------------|-------|-----------|--------|--------------|----------|-------|-----------|--------------|---------------|-------------|------|
| 1 | 1 | 0 | NO | Yes | 3-4 times | 150 | Yes | Yes | Maybe | 4 | Yes | Yes | No | No | 1 | 1 | 5 | 1 | 1 | 4 | 2 | 1 | 2 | 1 | 1 | 5 | 7 |
| 2 | 1 | 30 | NO | Yes | 1-2 times | 100 | No | Maybe | No | | Yes | Yes | No | No | 2 | 1 | 4 | 1 | 1 | 4 | 5 | 1 | 5 | 1 | 2 | 1 | 2 |
| 3 | 1 | 30 | NO | Yes | 5 and more | 8000 | No | Yes | Yes | 5 | Yes | Yes | No | No | 5 | 5 | 5 | 5 | 5 | 6 | 7 | 6 | 4 | 3 | 6 | 3 | 3 |
| 4 | 1 | 60 | NO | Yes | 3-4 times | 150 | Yes | Yes | No | | Maybe | Yes | No | No | 2 | 1 | 6 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 3 | 2 |
| 5 | 1 | 0 | NO | Yes | 0 | 0 | No | Maybe | Maybe | 4 | Yes | Yes | No | No | 1 | 3 | 4 | 4 | 1 | 3 | 3 | 1 | 7 | 1 | 1 | 4 | 7 |
| 6 | 1 | 0 | NO | Yes | 1-2 times | 200 | Yes | No | Maybe | 4 | Yes | Yes | No | No | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 1 | 7 |
| 7 | 1 | 60 | NO | Yes | 5 and more | 1000 | Yes | Yes | No | | Yes | Yes | Yes | Yes | 7 | 5 | 4 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 4 | 7 |
| 8 | 1 | 120 | NO | Yes | 3-4 times | 500 | No | Yes | Yes | 6 | Yes | Yes | No | Yes | 1 | 1 | 6 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 5 | 7 |
| 9 | 1 | 60 | NO | Yes | 1-2 times | 200 | Yes | Yes | Maybe | 4 | Maybe | Yes | No | Yes | 1 | 2 | 4 | 1 | 1 | 1 | 1 | 1 | 7 | 2 | 1 | 2 | 6 |
| 10 | 1 | 30 | NO | Yes | 1-2 times | 200 | Yes | Yes | Yes | 5 | No | Yes | No | No | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 1 | 6 | 3 | 3 | 5 | 5 |
| 11 | 1 | 30 | NO | Yes | 5 and more | 400 | No | Yes | Maybe | 6 | Maybe | Yes | No | No | 2 | 4 | 5 | 2 | 1 | 4 | 3 | 1 | 6 | 2 | 2 | 5 | 6 |
| 12 | 1 | 90 | NO | Yes | 1-2 times | 100 | No | Yes | Maybe | 6 | Maybe | No | No | No | 1 | 2 | 7 | 1 | 1 | 3 | 1 | 1 | 7 | 1 | 1 | 6 | 6 |
| 13 | 1 | 120 | NO | Yes | 5 and more | 500 | Yes | Yes | No | | Maybe | Yes | Yes | Yes | 1 | 1 | 7 | 1 | 1 | 5 | 1 | 1 | 1 | 1 | 1 | 4 | 1 |
| 14 | 1 | 30 | NO | Yes | 1-2 times | 1000 | Yes | Maybe | Maybe | 4 | Yes | Yes | No | No | 5 | 4 | 3 | 3 | 5 | 4 | 3 | 4 | 3 | 6 | 5 | 4 | 3 |
| 15 | 1 | 30 | NO | Yes | 1-2 times | 200 | Yes | Maybe | No | | No | Yes | No | No | 2 | 2 | 6 | 1 | 1 | 4 | 1 | 1 | 6 | 2 | 1 | 4 | 4 |
| 16 | 1 | 0 | NO | Yes | 1-2 times | 250 | Yes | Maybe | Yes | 4 | Yes | Yes | No | No | 2 | 6 | 5 | 1 | 1 | 6 | 4 | 2 | 6 | 1 | 2 | 5 | 5 |
| 17 | 1 | 0 | NO | Yes | 1-2 times | 300 | Yes | Maybe | Maybe | 3 | No | No | No | No | 5 | 5 | 4 | 5 | 5 | 7 | 6 | 4 | 3 | 5 | 5 | 1 | 4 |
| 18 | 1 | 0 | NO | Yes | 0 | 0 | Yes | Maybe | No | | No | No | No | No | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 1 | 6 |
| 19 | 1 | 60 | NO | Yes | 1-2 times | 300 | No | Maybe | Maybe | 5 | Yes | Yes | Yes | Yes | 1 | 4 | 5 | 1 | 2 | 5 | 1 | 1 | 6 | 1 | 1 | 4 | 6 |
| 20 | 1 | 60 | NO | Yes | 1-2 times | 50 | Yes | Yes | Yes | 4 | No | Yes | Yes | Yes | 2 | 3 | 5 | 1 | 1 | 3 | 3 | 1 | 5 | 2 | 2 | 4 | 5 |
| 21 | 1 | 60 | NO | No | | | No | Maybe | Maybe | 4 | No | Maybe | No | No | 1 | 4 | 4 | 1 | 1 | 5 | 4 | 3 | 7 | 1 | 1 | 1 | 5 |
| 22 | 1 | 60 | NO | Yes | 3-4 times | 500 | Yes | Maybe | Maybe | 4 | Maybe | Yes | Yes | No | 3 | 1 | 2 | 3 | 1 | 2 | 5 | 2 | 5 | 2 | 1 | 3 | 4 |
| 23 | 1 | 30 | NO | Yes | 1-2 times | 0 | Yes | Maybe | Yes | 6 | Yes | Yes | Yes | No | 1 | 1 | 4 | 1 | 1 | 1 | 4 | 1 | 4 | 1 | 2 | 1 | 7 |
| 24 | 1 | 150 | NO | Yes | 3-4 times | 1500 | Yes | Yes | Maybe | 6 | Maybe | Yes | Yes | No | 1 | 6 | 5 | 1 | 3 | 6 | 2 | 1 | 5 | 2 | 2 | 6 | 6 |
| 25 | 1 | 30 | NO | Yes | 1-2 times | 200 | Yes | Yes | Yes | 6 | No | Yes | Yes | Yes | 5 | 7 | 3 | 1 | 1 | 7 | 7 | 5 | 5 | 3 | 4 | 2 | 5 |
| 26 | 1 | 60 | YES | Yes | 1-2 times | 0 | Yes | Yes | Yes | 7 | Maybe | Maybe | No | Yes | 3 | 5 | 4 | 3 | 3 | 6 | 5 | 5 | 5 | 4 | 4 | 3 | 4 |
| 27 | 1 | 120 | NO | Yes | 1-2 times | 100 | No | Yes | Maybe | 6 | Maybe | Yes | No | No | 1 | 3 | 6 | 1 | 1 | 2 | 1 | 1 | 7 | 1 | 1 | 4 | 7 |
| 28 | 1 | 0 | NO | Yes | 1-2 times | 100 | No | Maybe | No | | Maybe | Maybe | Yes | No | 1 | 4 | 1 | 1 | 1 | 1 | 2 | 1 | 5 | 1 | 1 | 1 | 7 |
| 29 | 1 | 30 | NO | Yes | 1-2 times | 50 | No | Maybe | Maybe | 4 | No | Yes | No | No | 5 | 5 | 5 | 1 | 3 | 7 | 6 | 4 | 4 | 4 | 4 | 4 | 4 |
| 30 | 1 | 120 | NO | No | | | No | Yes | Yes | 6 | No | Maybe | Yes | No | 3 | 7 | 4 | 1 | 1 | 5 | 3 | 1 | 7 | 1 | 2 | 4 | 7 |
| 31 | 1 | 120 | NO | Yes | 3-4 times | 500 | Yes | Yes | No | | Yes | Yes | No | No | 2 | 2 | 4 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 1 | 4 |
| 32 | 1 | 60 | NO | Yes | 1-2 times | 100 | No | Maybe | Maybe | 4 | Maybe | Yes | No | No | 2 | 7 | 5 | 1 | 2 | 1 | 4 | 1 | 5 | 1 | 2 | 5 | 5 |
| 33 | 1 | 150 | NO | Yes | 1-2 times | 90 | No | Yes | Maybe | 7 | Yes | Yes | No | No | 1 | 1 | 6 | 1 | 1 | 4 | 1 | 1 | 6 | 1 | 1 | 4 | 7 |
| 34 | 1 | 60 | NO | Yes | 3-4 times | 100 | No | Maybe | Maybe | 4 | No | No | Yes | No | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 1 | 6 | 1 | 1 | 4 | 6 |
| 35 | 1 | 30 | NO | Yes | 1-2 times | 400 | Yes | Maybe | Yes | 4 | Maybe | Maybe | No | No | 5 | 6 | 4 | 4 | 1 | 6 | 5 | 5 | 6 | 4 | 3 | 4 | |
| 36 | 1 | 90 | NO | No | | | No | Maybe | Maybe | 4 | No | Yes | No | No | 1 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 5 | 2 | 2 | 4 | 5 |
| 37 | 1 | 0 | NO | Yes | 1-2 times | 150 | No | Maybe | Maybe | 4 | No | Maybe | No | No | 2 | 5 | 4 | 1 | 1 | 1 | 2 | 2 | 7 | 1 | 1 | 4 | 7 |
| 38 | 1 | 150 | NO | Yes | 3-4 times | 3000 | No | Yes | No | | Maybe | Yes | No | No | 1 | 2 | 5 | 1 | 1 | 2 | 1 | 1 | 4 | 1 | 1 | 4 | 7 |
| 39 | 1 | 90 | NO | Yes | 3-4 times | 300 | No | Maybe | Maybe | 4 | No | Yes | No | No | 1 | 5 | 4 | 1 | 1 | 4 | 3 | 1 | 6 | 2 | 1 | 4 | 6 |
| 40 | 1 | 150 | NO | Yes | 0 | 0 | No | Maybe | Maybe | 4 | Maybe | Yes | No | No | 1 | 2 | 4 | 1 | 1 | 1 | 1 | 1 | 6 | 3 | 1 | 1 | 5 |
| 41 | 1 | 90 | NO | Yes | 3-4 times | 2000 | No | Yes | Yes | 7 | Maybe | Maybe | No | No | 1 | 1 | 6 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 4 | 7 |
| 42 | 1 | 30 | NO | No | | | Yes | Maybe | Yes | 4 | No | Yes | No | No | 3 | 6 | 1 | 1 | 1 | 7 | 4 | 2 | 4 | 1 | 2 | 5 | 5 |
| 43 | 1 | 0 | NO | Yes | 3-4 times | 400 | Yes | Yes | No | | Yes | Yes | No | No | 5 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 4 | 2 | 3 | 2 | 6 |
| 44 | 1 | 0 | NO | Yes | 1-2 times | 100 | Yes | Maybe | Maybe | 5 | Yes | Yes | No | Yes | 5 | 3 | 2 | 6 | 4 | 2 | 2 | 5 | 4 | 6 | 5 | 2 | 4 |
| 45 | 1 | 90 | YES | Yes | 3-4 times | 400 | Yes | Yes | Yes | 4 | Yes | Yes | Yes | No | 1 | 7 | 1 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 4 | 7 |
| 46 | 1 | 60 | NO | No | | | No | Maybe | No | | No | Maybe | Yes | Yes | 2 | 4 | 4 | 2 | 3 | 4 | 2 | 2 | 5 | 2 | 2 | 4 | 4 |
| 47 | 1 | 150 | NO | Yes | 1-2 times | 100 | Yes | Maybe | Yes | 4 | Yes | Yes | No | No | 2 | 6 | 4 | 2 | 4 | 5 | 5 | 2 | 6 | 3 | 3 | 4 | 5 |
| 48 | 1 | 90 | NO | No | | | No | Maybe | Yes | 5 | No | Yes | No | No | 1 | 2 | 5 | 1 | 1 | 2 | 1 | 1 | 5 | 1 | 1 | 4 | 6 |
| 49 | 1 | 90 | NO | Yes | 1-2 times | 100 | No | Maybe | No | | Yes | Yes | Yes | No | 1 | 2 | 4 | 1 | 1 | 6 | 4 | 1 | 6 | 1 | 1 | 1 | 7 |
| 50 | 1 | 90 | YES | Yes | 1-2 times | 500 | Yes | Yes | Yes | 3 | Maybe | No | No | No | 3 | 6 | 5 | 3 | 3 | 7 | 2 | 4 | 4 | 3 | 5 | 7 | 5 |
| 51 | 1 | 60 | NO | Yes | 1-2 times | 100 | No | Yes | Maybe | 7 | Maybe | Maybe | Yes | No | 1 | 4 | 1 | 1 | 1 | 2 | 2 | 1 | 7 | 1 | 1 | 2 | 3 |
| 52 | 1 | 60 | NO | Yes | 1-2 times | 50 | Yes | Yes | Yes | 4 | No | Yes | No | No | 2 | 2 | 6 | 2 | 1 | 5 | 1 | 1 | 6 | 1 | 1 | 6 | 6 |
| 53 | 1 | 60 | NO | Yes | 1-2 times | 0 | Yes | Maybe | Maybe | 5 | Yes | Yes | No | No | 5 | 6 | 3 | 2 | 5 | 1 | 2 | 5 | 3 | 5 | 2 | 1 | 6 |
| 54 | 1 | 90 | NO | No | | | Yes | Maybe | Maybe | 2 | No | Yes | Yes | No | 4 | 6 | 2 | 2 | 1 | 6 | 5 | 5 | 6 | 2 | 7 | 1 | 4 |
| 55 | 1 | 30 | NO | Yes | 1-2 times | 150 | Yes | Maybe | Yes | 3 | Yes | Yes | Yes | No | 4 | 2 | 3 | 2 | 2 | 6 | 2 | 2 | 6 | 4 | 5 | 4 | 6 |
| 56 | 1 | 60 | NO | Yes | 1-2 times | 1000 | No | Maybe | Maybe | 5 | Yes | Yes | Yes | No | 1 | 2 | 6 | 1 | 1 | 4 | 1 | 1 | 6 | 1 | 1 | 6 | 7 |

| Subjects | Treatment | Donations | Have you donated before to Aconus, Thela, Lata | Have you ever donated to charity | How many times in past 2 years | How much you donated in last 2 years | Have you volunteered before | Would you recommend donating | Would you tell others | Their reaction will be | Meet the recipient | Info about recipient | Blood donor | Plasma donor | Embarrassed | It was tough decision | Happy | Disgusted | Regret | If felt tense | Bothered | Guilt | Satisfied | Dissatisfied | Uncomfortable | Confidently | Sure | |
|----------|-----------|-----------|--|----------------------------------|--------------------------------|--------------------------------------|-----------------------------|------------------------------|-----------------------|------------------------|--------------------|----------------------|-------------|--------------|-------------|-----------------------|-------|-----------|--------|---------------|----------|-------|-----------|--------------|---------------|-------------|------|---|
| 57 | 1 | 60 | NO | Yes | 3-4 times | 300 | Yes | Yes | Maybe | 4 | Maybe | Yes | No | No | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 2 | 7 | |
| 58 | 1 | 60 | NO | No | | | Yes | Yes | Maybe | 3 | Yes | Yes | No | No | 3 | 6 | 4 | 3 | 6 | 7 | 5 | 2 | 4 | 3 | 2 | 4 | 5 | |
| 59 | 1 | 150 | NO | Yes | 0 | 0 | | Maybe | Yes | 7 | No | No | No | No | 1 | 1 | 7 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 4 | 7 | |
| 60 | 1 | 30 | NO | No | | | Yes | Yes | Maybe | 5 | Maybe | Yes | No | No | 4 | 3 | 4 | 4 | 5 | 3 | 4 | 3 | 4 | 3 | 3 | 4 | 5 | |
| 61 | 1 | 90 | NO | Yes | 1-2 times | 600 | Yes | Yes | Yes | 6 | Yes | Yes | No | No | 6 | 6 | 5 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 1 | 4 | 6 | |
| 62 | 1 | 120 | NO | Yes | 1-2 times | 100 | No | Maybe | Yes | 5 | No | Yes | No | No | 1 | 4 | 4 | 1 | 1 | 1 | 2 | 1 | 3 | 1 | 1 | 1 | 7 | |
| 63 | 1 | 30 | NO | Yes | 0 | 0 | No | Maybe | Yes | 6 | Maybe | Yes | No | No | 2 | 2 | 4 | 1 | 1 | 1 | 1 | 1 | 5 | 2 | 2 | 3 | 6 | |
| 64 | 1 | 30 | NO | Yes | 1-2 times | 300 | Yes | Yes | Yes | 5 | Maybe | Yes | No | No | 3 | 6 | 3 | 3 | 3 | 6 | 4 | 1 | 4 | 1 | 4 | 1 | 6 | |
| 65 | 1 | 30 | NO | Yes | 1-2 times | 100 | No | Yes | Maybe | 5 | No | Yes | No | No | 1 | 3 | 4 | 1 | 1 | 4 | 4 | 1 | 6 | 1 | 2 | 3 | 5 | |
| 66 | 1 | 90 | NO | Yes | 1-2 times | 100 | Yes | Yes | Maybe | 3 | Maybe | Yes | Yes | No | 2 | 2 | 6 | 1 | 1 | 4 | 2 | 1 | 6 | 2 | 2 | 5 | 5 | |
| 67 | 1 | 60 | NO | Yes | 1-2 times | 2600 | Yes | Yes | No | | Yes | Yes | No | No | 1 | 2 | 4 | 1 | 1 | 4 | 4 | 1 | 7 | 7 | 1 | 2 | 7 | |
| 68 | 1 | 0 | NO | No | | | Yes | No | Maybe | 4 | No | No | Yes | No | 5 | 1 | 4 | 1 | 2 | 1 | 1 | 4 | 3 | 4 | 6 | 2 | 7 | |
| 69 | 1 | 60 | NO | Yes | 1-2 times | 600 | Yes | Yes | Yes | 7 | Maybe | Yes | No | No | 3 | 6 | 4 | 2 | 3 | 5 | 1 | 1 | 4 | 1 | 1 | 2 | 7 | |
| 70 | 1 | 60 | NO | Yes | 3-4 times | 1000 | No | Yes | Yes | 4 | Maybe | Yes | No | No | 1 | 5 | 6 | 1 | 1 | 4 | 1 | 1 | 6 | 1 | 1 | 2 | 7 | |
| 71 | 1 | 30 | NO | Yes | 1-2 times | 100 | Yes | Maybe | No | | No | Yes | Yes | No | 1 | 6 | 5 | 1 | 1 | 5 | 3 | 1 | 5 | 2 | 1 | 1 | 7 | |
| 72 | 1 | 60 | NO | Yes | 3-4 times | 300 | Yes | Maybe | Maybe | 6 | Yes | Yes | No | No | 1 | 2 | 6 | 1 | 1 | 5 | 2 | 1 | 2 | 1 | 1 | 2 | 7 | |
| 73 | 1 | 150 | NO | Yes | 1-2 times | 50 | No | Maybe | Maybe | 4 | Yes | Yes | No | No | 1 | 2 | 7 | 1 | 1 | 2 | 3 | 1 | 7 | 1 | 1 | 2 | 6 | |
| 74 | 1 | 120 | NO | Yes | 1-2 times | 1250 | Yes | Yes | No | | Maybe | Yes | No | No | 1 | 1 | 6 | 1 | 1 | 3 | 2 | 1 | 7 | 1 | 1 | 5 | 5 | |
| 75 | 1 | 90 | NO | Yes | 1-2 times | 300 | No | Yes | Maybe | 7 | Maybe | Yes | No | No | 1 | 2 | 6 | 1 | 1 | 4 | 1 | 1 | 7 | 1 | 1 | 3 | 6 | |
| 76 | 1 | 90 | NO | Yes | 3-4 times | 500 | Yes | Yes | Maybe | 6 | No | Yes | Yes | No | 1 | 5 | 4 | 1 | 1 | 4 | 1 | 1 | 7 | 1 | 2 | 5 | 7 | |
| 77 | 1 | 120 | NO | Yes | 1-2 times | 1000 | No | Maybe | Maybe | 5 | No | Maybe | No | No | 2 | 3 | 5 | 1 | 1 | 5 | 2 | 1 | 6 | 1 | 1 | 4 | 5 | |
| 78 | 1 | 150 | NO | No | | | Yes | Yes | Maybe | 6 | Yes | Yes | No | No | 1 | 1 | 7 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 4 | 7 | |
| 79 | 1 | 150 | NO | No | | | Yes | Maybe | Maybe | 6 | Yes | Yes | Yes | No | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 1 | 7 | |
| 80 | 1 | 90 | NO | Yes | 1-2 times | 1200 | No | Yes | Maybe | 7 | No | Yes | No | No | 1 | 2 | 5 | 1 | 1 | 2 | 1 | 1 | 6 | 1 | 1 | 3 | 7 | |
| 81 | 1 | 120 | NO | Yes | 3-4 times | 400 | No | Maybe | Yes | 6 | No | Yes | No | No | 1 | 2 | 7 | 1 | 1 | 2 | 1 | 1 | 7 | 1 | 1 | 4 | 5 | |
| 82 | 2 | 30 | NO | Yes | 1-2 times | 400 | Yes | Yes | No | | Yes | Yes | No | No | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 7 | 2 | 1 | 3 | 1 | |
| 83 | 2 | 60 | NO | Yes | 0 | 0 | No | Yes | Maybe | 4 | No | Yes | Yes | No | 4 | 5 | 3 | 4 | 4 | 5 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | |
| 84 | 2 | 30 | NO | Yes | 3-4 times | 0 | No | Maybe | Maybe | 4 | Yes | Yes | No | No | 1 | 6 | 4 | 1 | 6 | 7 | 6 | 1 | 5 | 6 | 1 | 4 | 7 | |
| 85 | 2 | 0 | NO | Yes | 0 | 0 | Yes | No | Maybe | 4 | No | Yes | No | No | 1 | 1 | 5 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 1 | 5 | 6 | |
| 86 | 2 | 0 | NO | No | | | No | No | No | | Yes | Yes | No | No | 2 | 4 | 4 | 1 | 1 | 4 | 1 | 1 | 6 | 2 | 3 | 6 | 7 | |
| 87 | 2 | 0 | NO | Yes | 1-2 times | 120 | Yes | Yes | Maybe | 4 | Maybe | Maybe | Yes | Yes | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 2 | 7 | 4 | 2 | 4 | 4 | |
| 88 | 2 | 30 | NO | Yes | 0 | 0 | No | No | Maybe | 5 | No | No | No | No | 1 | 3 | 6 | 1 | 1 | 3 | 4 | 1 | 6 | 1 | 1 | 4 | 7 | |
| 89 | 2 | 30 | NO | Yes | 1-2 times | 100 | Yes | Yes | Yes | | No | Yes | No | No | 1 | 2 | 5 | 1 | 1 | 2 | 1 | 3 | 6 | 1 | 2 | 1 | 5 | |
| 90 | 2 | 150 | NO | Yes | 0 | 0 | No | Yes | Maybe | 7 | Maybe | Yes | No | No | 1 | 2 | 6 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 7 | 7 | |
| 91 | 2 | 150 | NO | Yes | 3-4 times | 500 | No | Yes | Yes | 6 | Maybe | Yes | Yes | No | 1 | 2 | 7 | 1 | 1 | 3 | 2 | 1 | 7 | 1 | 1 | 7 | 7 | |
| 92 | 2 | 150 | NO | No | | | No | Maybe | Maybe | 4 | No | Yes | No | No | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 7 | 1 | 1 | 7 | 7 | |
| 93 | 2 | 90 | NO | Yes | 5 and more | 1500 | No | Yes | No | | No | Maybe | No | No | 2 | 3 | 2 | 1 | 1 | 3 | 2 | 2 | 6 | 1 | 2 | 1 | 6 | |
| 94 | 2 | 0 | NO | Yes | 1-2 times | 70 | Yes | Maybe | No | | No | No | Yes | No | 6 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 4 | 3 | 1 | 7 | |
| 95 | 2 | 60 | NO | Yes | 3-4 times | 200 | Yes | Yes | Maybe | 6 | Yes | Yes | No | No | 1 | 2 | 4 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 7 | 7 | |
| 96 | 2 | 30 | NO | No | | | Yes | Yes | Maybe | 5 | Yes | Yes | Yes | No | 2 | 2 | 5 | 1 | 1 | 1 | 1 | 2 | 5 | 1 | 1 | 6 | 6 | |
| 97 | 2 | 60 | NO | Yes | 0 | 0 | No | Maybe | Maybe | 4 | No | Yes | No | No | 1 | 3 | 4 | 1 | 1 | 3 | 1 | 1 | 7 | 1 | 1 | 4 | 7 | |
| 98 | 2 | 60 | NO | Yes | 3-4 times | 600 | Yes | Yes | Maybe | 5 | Yes | Yes | No | No | 2 | 6 | 4 | 2 | 4 | 4 | 2 | 3 | 5 | 2 | 3 | 3 | 3 | |
| 99 | 2 | 30 | NO | Yes | 5 and more | 1000 | Yes | Yes | No | | No | Maybe | No | No | 1 | 5 | 6 | 1 | 1 | 2 | 1 | 1 | 7 | 1 | 1 | 7 | 7 | |
| 100 | 2 | 90 | NO | Yes | 1-2 times | 60 | No | Maybe | Yes | 5 | Yes | Yes | No | No | 3 | 5 | 5 | 2 | 2 | 5 | 4 | 2 | 6 | 4 | 4 | 4 | 4 | |
| 101 | 2 | 150 | NO | Yes | 5 and more | 10000 | Yes | Yes | No | | No | No | No | No | 3 | 2 | 3 | 4 | 4 | 4 | 4 | 4 | 7 | 4 | 4 | 4 | 4 | |
| 102 | 2 | 120 | NO | Yes | 1-2 times | 3000 | Yes | Yes | Maybe | 4 | Maybe | Yes | Yes | No | 1 | 1 | 6 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 5 | 6 | |
| 103 | 2 | 0 | NO | Yes | 3-4 times | 1200 | Yes | Maybe | Yes | 4 | No | Yes | Yes | No | 3 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 5 | 1 | 7 | 1 | 3 | |
| 104 | 2 | 60 | NO | Yes | 1-2 times | 500 | No | Maybe | No | | No | Yes | No | No | 5 | 6 | 1 | 1 | 1 | 7 | 7 | 3 | 4 | 1 | 7 | 2 | 6 | |
| 105 | 2 | 30 | NO | Yes | 1-2 times | 500 | Yes | Maybe | No | | No | Yes | Yes | No | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 5 | 2 | 2 | 5 | 7 | |
| 106 | 2 | 0 | NO | No | | | Yes | Maybe | Maybe | 7 | No | No | Yes | No | 1 | 1 | 3 | 1 | 1 | 2 | 1 | 1 | 6 | 1 | 1 | 5 | 7 | |
| 107 | 2 | 30 | NO | Yes | 1-2 times | 100 | No | Maybe | Yes | 4 | Maybe | Maybe | Yes | No | 2 | 3 | 4 | 2 | 2 | 3 | 2 | 2 | 6 | 2 | 2 | 3 | 6 | |
| 108 | 2 | 90 | NO | Yes | 1-2 times | 400 | No | Yes | No | | No | Yes | Yes | No | 2 | 5 | 3 | 1 | 1 | 4 | 4 | 2 | 6 | 1 | 3 | 2 | 6 | |
| 109 | 2 | 60 | NO | No | | | No | Maybe | No | | No | Yes | Yes | No | 4 | 5 | 4 | 4 | 3 | 4 | 7 | 7 | 4 | 5 | 1 | 5 | 5 | |
| 110 | 2 | 60 | NO | Yes | 1-2 times | 200 | Yes | Yes | Yes | 5 | Maybe | Maybe | No | No | 2 | 4 | 2 | 1 | 1 | 1 | 4 | 4 | 1 | 6 | 1 | 2 | 1 | 4 |
| 111 | 2 | 90 | NO | Yes | 0 | 0 | Yes | Yes | Maybe | 4 | No | Yes | Yes | Yes | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 1 | 1 | 3 | |

| Subjects | Treatment | Donations | Have you donated before to Acorus, Thela, Lata | Have you ever donated to charity | How many times in past 2 years | How much you donated in last 2 years | Have you volunteered before | Would you recommend donating | Would you tell others | Their reaction will be | Meet the recipient | Info about recipient | Blood donor | Plasma donor | Embarrassed | It was tough decision | Happy | Disgusted | Regret | I felt tense | Bothered | Guilt | Satisfied | Uncomfortable | Confidently | Sure | | |
|----------|-----------|-----------|--|----------------------------------|--------------------------------|--------------------------------------|-----------------------------|------------------------------|-----------------------|------------------------|--------------------|----------------------|-------------|--------------|-------------|-----------------------|-------|-----------|--------|--------------|----------|-------|-----------|---------------|-------------|------|---|---|
| 112 | 2 | 90 | NO | Yes | 1-2 times | 60 | No | Yes | Yes | 4 | Maybe | Maybe | No | No | 6 | 3 | 1 | 3 | 3 | 5 | 1 | 6 | 3 | 6 | 5 | 2 | 5 | |
| 113 | 2 | 30 | NO | Yes | 1-2 times | 1000 | No | Maybe | No | | No | Yes | No | No | 4 | 3 | 5 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 4 | | |
| 114 | 2 | 60 | NO | Yes | 3-4 times | 220 | No | Yes | Yes | 5 | Maybe | Yes | No | No | 2 | 6 | 1 | 4 | 2 | 6 | 4 | 3 | 2 | 6 | 2 | 3 | | |
| 115 | 2 | 90 | NO | Yes | 3-4 times | 50 | Yes | Yes | Yes | 5 | Maybe | Yes | Yes | No | 2 | 4 | 5 | 1 | 1 | 4 | 5 | 4 | 5 | 1 | 5 | 5 | | |
| 116 | 2 | 150 | NO | Yes | 1-2 times | 100 | No | Yes | Yes | 5 | Yes | Yes | Yes | No | 1 | 1 | 7 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 7 | 7 | | |
| 117 | 2 | 30 | NO | No | | | Yes | No | No | | No | Maybe | No | No | 1 | 1 | 4 | 1 | 1 | 6 | 6 | 1 | 5 | 5 | 4 | 4 | | |
| 118 | 2 | 150 | NO | Yes | 1-2 times | 100 | No | Maybe | Maybe | 7 | Maybe | Maybe | Yes | Yes | 1 | 1 | 7 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 1 | 7 | | |
| 119 | 2 | 90 | NO | Yes | 0 | 0 | Yes | Yes | Maybe | 7 | No | Yes | No | No | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 1 | 1 | 6 | | |
| 120 | 2 | 90 | NO | Yes | 1-2 times | 200 | Yes | Yes | Maybe | 4 | Maybe | Yes | No | No | 3 | 6 | 5 | 1 | 1 | 1 | 1 | 5 | 2 | 1 | 4 | 6 | | |
| 121 | 2 | 120 | NO | Yes | 1-2 times | 100 | Yes | Maybe | Maybe | 5 | No | Yes | No | No | 3 | 2 | 4 | 1 | 1 | 6 | 4 | 6 | 2 | 5 | 2 | 5 | | |
| 122 | 2 | 0 | NO | No | | | Yes | Maybe | Maybe | 3 | Maybe | Yes | No | No | 2 | 6 | 3 | 1 | 1 | 4 | 2 | 5 | 2 | 4 | 4 | 6 | | |
| 123 | 2 | 0 | NO | No | | | Yes | Maybe | Maybe | 5 | No | No | No | No | 1 | 2 | 4 | 1 | 2 | 6 | 2 | 6 | 2 | 4 | 5 | 5 | | |
| 124 | 2 | 90 | NO | Yes | 5 and more | 3000 | Yes | Yes | Yes | 7 | Yes | Yes | Yes | No | 1 | 2 | 7 | 1 | 1 | 2 | 1 | 1 | 7 | 1 | 7 | 7 | | |
| 125 | 2 | 0 | NO | Yes | 0 | 0 | No | No | Maybe | 6 | Yes | Yes | No | No | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 4 | 7 | | |
| 126 | 2 | 30 | NO | No | | | Yes | Yes | Maybe | 4 | No | No | Yes | No | 2 | 2 | 5 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 4 | 1 | | |
| 127 | 2 | 30 | NO | Yes | 1-2 times | 1000 | Yes | Yes | No | | No | Yes | Yes | No | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 7 | | |
| 128 | 2 | 60 | NO | Yes | 3-4 times | 300 | No | Yes | Maybe | 5 | Maybe | Yes | Yes | No | 2 | 2 | 5 | 1 | 1 | 1 | 1 | 5 | 2 | 2 | 3 | 4 | | |
| 129 | 2 | 60 | NO | Yes | 1-2 times | 500 | No | Yes | Yes | 4 | Yes | Yes | No | No | 1 | 1 | 6 | 1 | 1 | 4 | 1 | 6 | 1 | 1 | 4 | 7 | | |
| 130 | 2 | 0 | NO | Yes | 5 and more | 250 | No | Maybe | Maybe | 5 | No | Yes | Yes | No | 3 | 5 | 5 | 1 | 2 | 5 | 2 | 1 | 2 | 1 | 5 | 6 | | |
| 131 | 2 | 60 | NO | Yes | 1-2 times | 100 | No | Yes | Maybe | 4 | Yes | Yes | No | No | 3 | 5 | 5 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 3 | 4 | | |
| 132 | 2 | 150 | NO | Yes | 3-4 times | 200 | Yes | Yes | No | | Maybe | Yes | Yes | No | 2 | 2 | 4 | 2 | 1 | 3 | 2 | 3 | 5 | 3 | 7 | 3 | | |
| 133 | 2 | 60 | NO | Yes | 3-4 times | 200 | No | Yes | Maybe | 4 | No | Yes | No | No | 2 | 3 | 6 | 1 | 1 | 4 | 3 | 2 | 6 | 1 | 5 | 5 | | |
| 134 | 2 | 90 | NO | Yes | 0 | 0 | Yes | Maybe | No | | No | Maybe | Yes | No | 1 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 7 | 1 | 1 | 5 | | |
| 135 | 2 | 120 | NO | Yes | 3-4 times | 300 | Yes | Yes | Maybe | 6 | Yes | Yes | No | No | 1 | 2 | 5 | 1 | 1 | 2 | 1 | 1 | 6 | 1 | 1 | 4 | 6 | |
| 136 | 2 | 150 | YES | Yes | 1-2 times | 500 | Yes | Yes | Yes | 6 | Maybe | Yes | No | No | 1 | 1 | 6 | 1 | 1 | 4 | 1 | 7 | 1 | 1 | 6 | 7 | | |
| 137 | 2 | 0 | NO | Yes | 3-4 times | 500 | Yes | Yes | No | | No | Yes | Yes | Yes | 2 | 2 | 1 | 1 | 1 | 4 | 1 | 6 | 1 | 1 | 1 | 7 | | |
| 138 | 2 | 120 | NO | Yes | 1-2 times | 100 | Yes | Yes | Maybe | 7 | No | No | No | No | 2 | 5 | 5 | 1 | 1 | 4 | 5 | 1 | 5 | 2 | 1 | 2 | 5 | |
| 139 | 2 | 90 | NO | Yes | 1-2 times | 60 | Yes | Maybe | Maybe | 3 | Maybe | Yes | No | No | 5 | 5 | 3 | 3 | 3 | 6 | 5 | 4 | 2 | 5 | 3 | 4 | | |
| 140 | 2 | 120 | NO | Yes | 3-4 times | 1000 | Yes | Yes | Yes | 6 | Yes | Yes | No | No | 2 | 2 | 5 | 1 | 1 | 2 | 1 | 1 | 6 | 2 | 3 | 2 | 6 | |
| 141 | 2 | 90 | NO | No | | | Yes | Yes | Yes | 4 | No | Yes | No | No | 5 | 7 | 1 | 3 | 4 | 6 | 7 | 4 | 5 | 6 | 1 | 1 | | |
| 142 | 2 | 90 | NO | Yes | 1-2 times | 500 | Yes | Yes | Maybe | 6 | No | Yes | No | No | 2 | 2 | 5 | 1 | 1 | 1 | 1 | 6 | 2 | 1 | 4 | 7 | 7 | |
| 143 | 2 | 120 | NO | No | | | No | Yes | Yes | 6 | No | Maybe | Yes | No | 3 | 6 | 4 | 2 | 1 | 7 | 5 | 5 | 4 | 1 | 5 | 1 | 7 | |
| 144 | 2 | 60 | NO | No | | | Yes | Yes | No | | No | Yes | No | No | 3 | 5 | 4 | 1 | 1 | 6 | 6 | 1 | 3 | 2 | 5 | 2 | 2 | |
| 145 | 2 | 60 | NO | Yes | 3-4 times | 100 | No | Maybe | No | | Maybe | Yes | No | No | 4 | 5 | 2 | 1 | 2 | 2 | 6 | 4 | 4 | 5 | 1 | 3 | 3 | |
| 146 | 2 | 60 | NO | Yes | 5 and more | 1000 | No | Maybe | Yes | 5 | No | Yes | Yes | No | 1 | 3 | 5 | 1 | 1 | 4 | 1 | 6 | 1 | 1 | 6 | 7 | 7 | |
| 147 | 2 | 30 | NO | Yes | 1-2 times | 200 | Yes | Maybe | Maybe | 4 | No | Yes | No | No | 1 | 1 | 5 | 1 | 1 | 4 | 4 | 1 | 7 | 1 | 3 | 4 | 7 | |
| 148 | 2 | 90 | NO | Yes | 1-2 times | 400 | Yes | Yes | Maybe | 6 | Maybe | Yes | No | No | 3 | 6 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 4 | 3 | 3 | |
| 149 | 2 | 90 | NO | Yes | 3-4 times | 500 | No | Yes | Yes | 5 | Yes | Yes | Yes | No | 1 | 2 | 5 | 1 | 1 | 1 | 4 | 1 | 2 | 1 | 1 | 4 | 6 | |
| 150 | 2 | 60 | NO | Yes | 3-4 times | 120 | No | No | Yes | 4 | No | Maybe | No | No | 2 | 3 | 4 | 1 | 2 | 5 | 5 | 4 | 5 | 2 | 4 | 3 | 5 | |
| 151 | 2 | 30 | NO | Yes | 3-4 times | 3000 | No | Maybe | Maybe | 7 | No | Maybe | No | No | 1 | 1 | 5 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 1 | 7 | 7 | |
| 152 | 2 | 90 | NO | Yes | 3-4 times | 1500 | Yes | Yes | Yes | 5 | Maybe | Yes | No | No | 1 | 5 | 5 | 1 | 1 | 3 | 2 | 1 | 6 | 1 | 1 | 5 | 7 | |
| 153 | 2 | 60 | NO | Yes | 3-4 times | 500 | Yes | Maybe | No | | Yes | Yes | Yes | No | 2 | 1 | 3 | 1 | 1 | 5 | 4 | 2 | 6 | 1 | 1 | 3 | 3 | |
| 154 | 2 | 90 | NO | Yes | 5 and more | 250 | Yes | Yes | Maybe | 4 | Maybe | No | Yes | Yes | 1 | 2 | 6 | 1 | 1 | 2 | 1 | 1 | 6 | 1 | 1 | 4 | 5 | |
| 155 | 2 | 30 | NO | Yes | 1-2 times | 200 | Yes | Yes | Maybe | 7 | No | Yes | No | No | 3 | 5 | 1 | 4 | 1 | 1 | 1 | 4 | 4 | 4 | 2 | 5 | 5 | |
| 156 | 2 | 60 | NO | Yes | 1-2 times | 700 | Yes | Yes | Maybe | 5 | Maybe | Yes | No | No | 3 | 4 | 4 | 2 | 1 | 4 | 1 | 3 | 2 | 1 | 2 | 5 | 5 | |
| 157 | 2 | 150 | NO | Yes | 1-2 times | 200 | Yes | Yes | Maybe | 5 | Yes | Yes | No | No | 1 | 1 | 7 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 1 | 7 | 7 | |
| 158 | 2 | 60 | NO | Yes | 1-2 times | 2500 | Yes | Maybe | Yes | 4 | No | Maybe | No | No | 1 | 6 | 5 | 1 | 1 | 3 | 3 | 1 | 5 | 1 | 1 | 3 | 6 | |
| 159 | 2 | 120 | NO | Yes | 1-2 times | 100 | No | Yes | Maybe | 5 | No | Yes | No | No | 1 | 6 | 5 | 1 | 2 | 6 | 4 | 1 | 5 | 2 | 3 | 5 | 5 | |
| 160 | 2 | 150 | NO | No | | | No | Yes | Maybe | 6 | Maybe | Maybe | No | No | 1 | 5 | 5 | 1 | 2 | 6 | 4 | 1 | 6 | 2 | 2 | 5 | 6 | |
| 161 | 2 | 60 | NO | Yes | 5 and more | 200 | No | Yes | No | | No | No | No | No | 2 | 2 | 6 | 2 | 2 | 3 | 2 | 7 | 2 | 2 | 5 | 6 | 6 | |
| 162 | 2 | 0 | NO | Yes | 1-2 times | 1000 | Yes | Maybe | Yes | 5 | Yes | Yes | No | No | 4 | 7 | 3 | 2 | 2 | 7 | 1 | 4 | 4 | 4 | 3 | 3 | 3 | |
| 163 | 3 | 60 | NO | No | | | No | Yes | Yes | 6 | Maybe | Maybe | No | No | 2 | 4 | 4 | 1 | 1 | 2 | 1 | 1 | 4 | 1 | 2 | 2 | 4 | 4 |
| 164 | 3 | 30 | NO | No | | | Yes | Maybe | Yes | 4 | No | Yes | No | No | 1 | 3 | 6 | 1 | 1 | 4 | 1 | 1 | 7 | 1 | 2 | 4 | 6 | |
| 165 | 3 | 120 | NO | Yes | 1-2 times | 200 | Yes | Yes | Maybe | 5 | Maybe | Yes | No | No | 2 | 3 | 5 | 1 | 1 | 2 | 3 | 1 | 6 | 1 | 2 | 4 | 6 | |
| 166 | 3 | 90 | NO | Yes | 5 and more | 700 | Yes | Yes | Maybe | 4 | Yes | Yes | No | No | 5 | 5 | 4 | 3 | 4 | 5 | 4 | 5 | 5 | 5 | 3 | 4 | 4 | |

| Subjects | Treatment | Donations | Have you donated before to Acorus, Thela, Lata | Have you ever donated to charity | How many times in past 2 years | How much you donated in last 2 years | Have you volunteered before | Would you recommend donating | Would you tell others | Their reaction will be | Meet the recipient | Info about recipient | Blood donor | Plasma donor | Embarrassed | It was tough decision | Happy | Disgusted | Regret | I felt tense | Bothered | Guilt | Satisfied | Disatisfied | Uncomfortable | Confidently | Sure |
|----------|-----------|-----------|--|----------------------------------|--------------------------------|--------------------------------------|-----------------------------|------------------------------|-----------------------|------------------------|--------------------|----------------------|-------------|--------------|-------------|-----------------------|-------|-----------|--------|--------------|----------|-------|-----------|-------------|---------------|-------------|------|
| 167 | 3 | 30 | NO | Yes | 1-2 times | 100 | Yes | Yes | Yes | 5 | No | Yes | No | No | 3 | 5 | 3 | 2 | 3 | 5 | 3 | 3 | 5 | 3 | 5 | 2 | 2 |
| 168 | 3 | 30 | NO | Yes | 1-2 times | 200 | Yes | Maybe | Yes | 6 | Maybe | Maybe | No | No | 1 | 6 | 4 | 1 | 1 | 5 | 5 | 1 | 5 | 1 | 2 | 1 | 3 |
| 169 | 3 | 150 | NO | Yes | 5 and more | 3000 | Yes | Yes | Maybe | 6 | Maybe | Yes | Yes | No | 1 | 2 | 6 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 2 | 7 |
| 170 | 3 | 30 | NO | Yes | 5 and more | 2000 | Yes | Yes | No | 5 | Maybe | Maybe | No | No | 7 | 1 | 4 | 1 | 1 | 2 | 2 | 1 | 6 | 1 | 1 | 4 | 6 |
| 171 | 3 | 60 | NO | No | | | No | Yes | Maybe | 5 | Yes | Yes | No | No | 3 | 2 | 6 | 1 | 2 | 4 | 2 | 1 | 6 | 2 | 1 | 5 | 6 |
| 172 | 3 | 30 | NO | No | | | No | Yes | No | 4 | No | Yes | Yes | No | 2 | 4 | 4 | 3 | 2 | 4 | 2 | 2 | 6 | 3 | 2 | 2 | 5 |
| 173 | 3 | 30 | NO | Yes | 1-2 times | 200 | No | Yes | Maybe | 4 | Yes | Maybe | No | No | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 4 | 6 |
| 174 | 3 | 60 | NO | No | | | No | Yes | Maybe | 4 | Yes | Maybe | No | No | 2 | 5 | 5 | 1 | 1 | 4 | 2 | 1 | 6 | 1 | 1 | 4 | 7 |
| 175 | 3 | 60 | NO | No | | | No | Maybe | Yes | 3 | Maybe | Yes | No | No | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 1 | 1 | 1 |
| 176 | 3 | 150 | NO | Yes | 1-2 times | 1000 | Yes | Yes | No | 5 | No | Yes | No | No | 1 | 2 | 6 | 1 | 2 | 1 | 1 | 1 | 5 | 2 | 1 | 5 | 5 |
| 177 | 3 | 60 | NO | No | | | Yes | Yes | Yes | 5 | Maybe | Yes | No | No | 1 | 1 | 7 | 1 | 1 | 2 | 1 | 1 | 7 | 1 | 2 | 4 | 6 |
| 178 | 3 | 60 | NO | Yes | 5 and more | 2400 | No | Yes | Yes | 3 | Maybe | Yes | Yes | Yes | 5 | 6 | 5 | 4 | 4 | 5 | 6 | 3 | 3 | 2 | 5 | 1 | 3 |
| 179 | 3 | 60 | NO | Yes | 1-2 times | 600 | No | Maybe | No | 6 | No | Maybe | Yes | No | 1 | 2 | 4 | 1 | 1 | 2 | 2 | 1 | 4 | 1 | 1 | 4 | 7 |
| 180 | 3 | 60 | NO | Yes | 1-2 times | 150 | Yes | Yes | Maybe | 6 | No | Yes | No | No | 2 | 4 | 4 | 1 | 1 | 2 | 1 | 2 | 6 | 2 | 2 | 3 | 4 |
| 181 | 3 | 60 | NO | Yes | 1-2 times | 650 | No | Maybe | Maybe | 4 | Maybe | No | No | No | 2 | 2 | 5 | 2 | 4 | 2 | 1 | 2 | 4 | 2 | 2 | 4 | 5 |
| 182 | 3 | 30 | NO | Yes | 1-2 times | 220 | Yes | Yes | Yes | 5 | Yes | Yes | Yes | Yes | 5 | 6 | 3 | 2 | 2 | 1 | 1 | 2 | 3 | 5 | 1 | 4 | 5 |
| 183 | 3 | 150 | NO | No | | | Yes | No | Maybe | 7 | Yes | Yes | No | No | 1 | 1 | 7 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 7 | 7 |
| 184 | 3 | 60 | NO | Yes | 3-4 times | 400 | Yes | Yes | Yes | 4 | Yes | Yes | No | No | 2 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 5 | 7 |
| 185 | 3 | 30 | NO | Yes | 1-2 times | 350 | Yes | Yes | Yes | 2 | Yes | Yes | Yes | Yes | 5 | 7 | 6 | 2 | 5 | 7 | 6 | 7 | 4 | 7 | 6 | 1 | 1 |
| 186 | 3 | 30 | NO | No | | | No | Maybe | No | 5 | No | No | No | No | 2 | 5 | 3 | 3 | 3 | 5 | 4 | 4 | 6 | 3 | 4 | 3 | 5 |
| 187 | 3 | 60 | NO | Yes | 3-4 times | 100 | No | Yes | Yes | 5 | Maybe | Yes | Yes | No | 1 | 4 | 4 | 1 | 2 | 4 | 2 | 1 | 5 | 2 | 1 | 3 | 4 |
| 188 | 3 | 30 | NO | Yes | 1-2 times | 200 | Yes | Yes | Maybe | 5 | Maybe | Yes | Yes | No | 3 | 5 | 3 | 2 | 2 | 3 | 2 | 2 | 5 | 3 | 2 | 2 | 4 |
| 189 | 3 | 30 | NO | No | | | Yes | Maybe | Maybe | 4 | No | Maybe | No | No | 2 | 4 | 4 | 1 | 2 | 5 | 1 | 2 | 5 | 2 | 2 | 4 | 5 |
| 190 | 3 | 0 | NO | Yes | 1-2 times | 200 | Yes | Yes | Yes | 5 | Maybe | Maybe | No | No | 4 | 6 | 3 | 4 | 4 | 5 | 5 | 4 | 3 | 4 | 4 | 3 | 4 |
| 191 | 3 | 90 | NO | Yes | 1-2 times | 200 | Yes | Yes | Maybe | 6 | Yes | Yes | Yes | No | 1 | 2 | 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 7 |
| 192 | 3 | 90 | NO | No | | | No | Yes | Maybe | 4 | No | No | No | No | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 7 | 7 |
| 193 | 3 | 30 | NO | Yes | 1-2 times | 30 | No | Yes | Maybe | 4 | Maybe | No | No | No | 3 | 4 | 4 | 3 | 4 | 5 | 1 | 3 | 4 | 4 | 3 | 1 | 4 |
| 194 | 3 | 30 | NO | No | | | No | Maybe | Yes | 5 | No | Maybe | No | No | 4 | 5 | 3 | 2 | 2 | 5 | 4 | 3 | 5 | 3 | 3 | 2 | 5 |
| 195 | 3 | 150 | NO | Yes | 1-2 times | 2000 | No | Maybe | No | 5 | Maybe | Maybe | Yes | No | 1 | 7 | 4 | 1 | 1 | 7 | 5 | 1 | 4 | 3 | 2 | 3 | 6 |
| 196 | 3 | 60 | NO | No | | | Yes | No | Yes | 5 | No | Yes | Yes | Yes | 1 | 3 | 2 | 1 | 1 | 1 | 3 | 1 | 6 | 1 | 1 | 1 | 7 |
| 197 | 3 | 30 | NO | Yes | 1-2 times | 400 | Yes | Maybe | Maybe | 5 | No | Maybe | No | No | 1 | 5 | 2 | 1 | 1 | 3 | 1 | 2 | 5 | 1 | 1 | 1 | 7 |
| 198 | 3 | 120 | NO | Yes | 1-2 times | 1000 | No | Yes | Yes | 5 | Yes | Yes | No | No | 1 | 2 | 7 | 1 | 1 | 6 | 5 | 4 | 6 | 1 | 4 | 5 | 6 |
| 199 | 3 | 60 | NO | No | | | No | Yes | Yes | 5 | No | Maybe | No | No | 3 | 5 | 3 | 1 | 1 | 4 | 4 | 3 | 6 | 3 | 3 | 4 | 4 |
| 200 | 3 | 30 | NO | Yes | 1-2 times | 100 | No | Maybe | Maybe | 4 | No | No | No | No | 1 | 5 | 4 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 1 | 6 |
| 201 | 3 | 90 | NO | Yes | 5 and more | 1250 | Yes | Yes | Yes | 6 | Yes | Yes | No | No | 1 | 1 | 7 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 7 | 7 |
| 202 | 3 | 150 | NO | Yes | 3-4 times | 400 | No | Yes | Maybe | 5 | Maybe | Yes | No | No | 1 | 1 | 5 | 1 | 1 | 5 | 2 | 1 | 7 | 1 | 1 | 5 | 1 |
| 203 | 3 | 30 | NO | Yes | 1-2 times | 150 | No | Maybe | No | 4 | Maybe | Maybe | No | No | 3 | 6 | 4 | 2 | 2 | 5 | 3 | 3 | 5 | 2 | 3 | 4 | 6 |
| 204 | 3 | 60 | NO | Yes | 1-2 times | 0 | No | Maybe | Yes | 4 | Yes | Yes | No | No | 1 | 4 | 5 | 1 | 1 | 3 | 1 | 1 | 5 | 2 | 1 | 1 | 6 |
| 205 | 3 | 60 | NO | No | | | No | Maybe | Yes | 5 | No | No | No | No | 4 | 7 | 2 | 2 | 3 | 5 | 4 | 3 | 5 | 5 | 5 | 1 | 4 |
| 206 | 3 | 60 | NO | Yes | 3-4 times | 800 | Yes | Yes | Yes | 5 | Maybe | Yes | No | No | 1 | 2 | 5 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 4 | 7 |
| 207 | 3 | 120 | NO | Yes | 3-4 times | 3000 | Yes | Yes | Maybe | 4 | Maybe | Yes | Yes | No | 1 | 3 | 5 | 1 | 1 | 2 | 2 | 1 | 5 | 1 | 1 | 2 | 5 |
| 208 | 3 | 150 | NO | Yes | 3-4 times | 100 | Yes | Yes | Maybe | 6 | Yes | Yes | No | No | 1 | 3 | 5 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 5 | 7 |
| 209 | 3 | 150 | NO | Yes | 0 | | Yes | Maybe | Maybe | 4 | Maybe | Yes | No | No | 4 | 2 | 4 | 2 | 1 | 2 | 4 | 2 | 3 | 4 | 3 | 4 | 6 |
| 210 | 3 | 90 | NO | Yes | 1-2 times | 250 | Yes | Yes | Maybe | 3 | Yes | Maybe | Yes | Yes | 5 | 3 | 4 | 2 | 4 | 3 | 1 | 2 | 5 | 2 | 3 | 4 | 4 |
| 211 | 3 | 30 | NO | No | | | Yes | No | Maybe | 4 | No | Maybe | No | No | 1 | 4 | 4 | 1 | 2 | 3 | 3 | 1 | 2 | 2 | 3 | 5 | 3 |
| 212 | 3 | 60 | NO | Yes | 1-2 times | 300 | Yes | Yes | No | 4 | No | No | No | No | 4 | 1 | 2 | 2 | 5 | 4 | 6 | 4 | 3 | 4 | 3 | 2 | 6 |
| 213 | 3 | 30 | NO | Yes | 1-2 times | 200 | Yes | Maybe | Maybe | 4 | No | Yes | No | No | 1 | 7 | 4 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 5 | 4 | 1 |
| 214 | 3 | 90 | NO | Yes | 1-2 times | 900 | Yes | Yes | Yes | 6 | Maybe | Yes | No | No | 2 | 3 | 7 | 2 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 6 | 6 |
| 215 | 3 | 150 | NO | Yes | 1-2 times | 50 | No | Yes | Maybe | 6 | Maybe | Yes | No | No | 1 | 2 | 5 | 1 | 1 | 5 | 1 | 1 | 7 | 1 | 1 | 6 | 7 |
| 216 | 3 | 90 | NO | No | | | Yes | Yes | Maybe | 4 | Maybe | Yes | No | No | 4 | 4 | 4 | 1 | 1 | 2 | 2 | 2 | 7 | 1 | 1 | 4 | 6 |
| 217 | 3 | 90 | NO | Yes | 3-4 times | 600 | Yes | Yes | Maybe | 5 | Maybe | Yes | No | No | 2 | 6 | 5 | 1 | 2 | 6 | 4 | 1 | 6 | 2 | 1 | 4 | 3 |
| 218 | 3 | 0 | NO | Yes | 3-4 times | 1500 | Yes | Yes | Maybe | 2 | Maybe | Yes | No | No | 1 | 1 | 7 | 1 | 1 | 2 | 3 | 3 | 6 | 4 | 3 | 2 | 2 |
| 219 | 3 | 60 | NO | Yes | 5 and more | 1000 | Yes | Yes | Yes | 6 | Maybe | Maybe | No | No | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 7 | 1 | 1 | 5 | 7 |
| 220 | 3 | 90 | NO | Yes | 1-2 times | 250 | Yes | Yes | Maybe | 5 | Yes | Yes | No | No | 1 | 2 | 2 | 1 | 1 | 2 | 3 | 2 | 7 | 2 | 1 | 1 | 6 |
| 221 | 3 | 150 | NO | No | | | No | Yes | Maybe | 4 | No | Maybe | No | No | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 4 | 7 |

| Subjects | Treatment | Donations | Have you donated before to Acorus, Thela, Iala | Have you ever donated to charity | How many times in past 2 years | How much you donated in last 2 years | Have you volunteered before | Would you recommend donating | Would you tell others | Their reaction will be | Meet the recipient | Info about recipient | Blood donor | Plasma donor | Embarrassed | It was tough decision | Happy | Disputed | Regret | I felt tense | Bothered | Guilt | Satisfied | Disatisfied | Uncomfortable | Confidently | Sure |
|----------|-----------|-----------|--|----------------------------------|--------------------------------|--------------------------------------|-----------------------------|------------------------------|-----------------------|------------------------|--------------------|----------------------|-------------|--------------|-------------|-----------------------|-------|----------|--------|--------------|----------|-------|-----------|-------------|---------------|-------------|------|
| 222 | 3 | 120 | NO | Yes | 5 and more | 2000 | Yes | Yes | Yes | 6 | No | No | No | No | 2 | 2 | 5 | 1 | 2 | 4 | 1 | 1 | 6 | 2 | 1 | 1 | 2 |
| 223 | 3 | 0 | NO | Yes | 0 | 0 | No | Maybe | Maybe | 6 | Yes | Yes | No | No | 1 | 2 | 6 | 1 | 1 | 7 | 3 | 1 | 6 | 1 | 4 | 3 | 5 |
| 224 | 3 | 30 | NO | Yes | 1-2 times | 40 | Yes | Yes | No | | Yes | Yes | No | No | 4 | 7 | 4 | 1 | 1 | 7 | 7 | 5 | 5 | 4 | 4 | 4 | 7 |
| 225 | 3 | 60 | NO | No | | | Yes | Maybe | Maybe | 6 | Yes | Yes | No | No | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 4 | 7 |
| 226 | 3 | 60 | NO | Yes | 5 and more | 400 | Yes | Yes | Maybe | 6 | Maybe | Yes | No | No | 5 | 7 | 3 | 3 | 2 | 7 | 6 | 5 | 4 | 2 | 4 | 1 | 2 |
| 227 | 3 | 90 | NO | Yes | 0 | 100 | No | Yes | Maybe | 5 | No | Maybe | No | No | 1 | 1 | 5 | 1 | 1 | 2 | 2 | 1 | 6 | 1 | 1 | 4 | 6 |
| 228 | 3 | 150 | NO | Yes | 1-2 times | 350 | Yes | Yes | Yes | 7 | No | Maybe | Yes | No | 1 | 1 | 7 | 1 | 7 | 7 | 1 | 1 | 7 | 1 | 1 | 7 | 7 |
| 229 | 3 | 90 | NO | Yes | 0 | 0 | Yes | Yes | Yes | 5 | Yes | Yes | Yes | No | 1 | 3 | 4 | 1 | 1 | 4 | 4 | 1 | 5 | 1 | 1 | 3 | 4 |
| 230 | 3 | 90 | NO | No | | | No | No | Yes | 5 | No | Yes | Yes | No | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 1 | 7 |
| 231 | 3 | 120 | NO | Yes | 3-4 times | 1000 | Yes | Yes | Yes | 7 | Yes | Yes | No | No | 5 | 2 | 5 | 2 | 2 | 2 | 2 | 1 | 7 | 4 | 4 | 4 | 4 |
| 232 | 3 | 90 | NO | Yes | 1-2 times | 500 | Yes | Yes | Yes | 5 | Maybe | Yes | No | No | 1 | 6 | 6 | 1 | 1 | 4 | 2 | 1 | 7 | 1 | 1 | 4 | 7 |
| 233 | 3 | 60 | NO | Yes | 0 | 0 | Yes | Maybe | No | | Maybe | Yes | Yes | Yes | 3 | 6 | 4 | 3 | 2 | 5 | 4 | 5 | 5 | 3 | 5 | 3 | 3 |
| 234 | 3 | 60 | NO | Yes | 5 and more | 500 | No | Maybe | Maybe | 4 | Yes | Yes | No | No | 2 | 5 | 4 | 1 | 1 | 2 | 2 | 1 | 6 | 1 | 1 | 2 | 6 |
| 235 | 3 | 90 | NO | No | | | Yes | Yes | Yes | 5 | No | Maybe | No | No | 2 | 4 | 3 | 1 | 2 | 5 | 1 | 2 | 5 | 2 | 2 | 4 | 5 |
| 236 | 3 | 60 | NO | Yes | 0 | 0 | No | Maybe | Maybe | 4 | Yes | Yes | No | No | 1 | 4 | 2 | 1 | 1 | 5 | 1 | 1 | 4 | 1 | 1 | 2 | 4 |
| 237 | 3 | 90 | YES | Yes | 3-4 times | 9000 | Yes | Yes | Yes | 4 | Maybe | Yes | No | No | 1 | 2 | 4 | 1 | 1 | 2 | 1 | 1 | 6 | 1 | 2 | 7 | 7 |
| 238 | 3 | 30 | NO | Yes | 1-2 times | 125 | No | Yes | Yes | 4 | Maybe | Yes | No | No | 2 | 3 | 6 | 1 | 3 | 4 | 1 | 1 | 6 | 1 | 4 | 1 | 5 |
| 239 | 3 | 120 | NO | Yes | 3-4 times | 400 | No | Maybe | Maybe | 5 | Yes | Yes | No | No | 2 | 4 | 6 | 1 | 1 | 2 | 2 | 1 | 6 | 2 | 1 | 6 | 7 |
| 240 | 3 | 150 | NO | Yes | 1-2 times | 500 | Yes | Maybe | Maybe | 6 | Maybe | Yes | Yes | Yes | 1 | 4 | 5 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 5 | 6 |
| 241 | 3 | 30 | NO | Yes | 0 | 0 | No | Yes | Yes | 5 | Maybe | Yes | Yes | Yes | 7 | 1 | 7 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 5 | 7 |
| 242 | 3 | 60 | NO | Yes | 3-4 times | 600 | Yes | Yes | Yes | 5 | Maybe | Maybe | No | No | 4 | 6 | 7 | 1 | 2 | 4 | 2 | 3 | 5 | 1 | 4 | 4 | 6 |
| 243 | 3 | 0 | YES | Yes | 5 and more | 500 | No | Yes | No | | No | No | No | No | 2 | 4 | 4 | 4 | 4 | 1 | 2 | 4 | 6 | 2 | 5 | 3 | 5 |
| 244 | 3 | 60 | NO | Yes | 5 and more | 200 | Yes | Yes | Maybe | 4 | No | No | Yes | No | 1 | 3 | 7 | 1 | 1 | 2 | 1 | 1 | 7 | 1 | 1 | 7 | 7 |
| 245 | 4 | 150 | NO | No | | | Yes | Yes | No | | Maybe | Yes | No | No | 1 | 2 | 4 | 1 | 1 | 2 | 1 | 1 | 6 | 1 | 1 | 1 | 7 |
| 246 | 4 | 30 | NO | Yes | 1-2 times | 100 | Yes | Yes | Yes | 3 | Yes | Yes | No | No | 2 | 5 | 5 | 1 | 1 | 2 | 1 | 2 | 4 | 2 | 1 | 4 | 5 |
| 247 | 4 | 150 | NO | Yes | 1-2 times | 500 | Yes | Yes | No | | No | Maybe | Yes | Yes | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 2 | 7 |
| 248 | 4 | 90 | NO | No | | | Yes | Maybe | Yes | 7 | Maybe | Maybe | No | Yes | 1 | 1 | 7 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 7 | 7 |
| 249 | 4 | 90 | NO | Yes | 1-2 times | 2000 | Yes | Yes | Maybe | 6 | No | Yes | No | No | 3 | 5 | 3 | 2 | 2 | 6 | 5 | 4 | 5 | 3 | 5 | 3 | 3 |
| 250 | 4 | 90 | NO | No | | | Yes | Maybe | Maybe | 6 | Maybe | Maybe | No | No | 1 | 4 | 5 | 1 | 1 | 1 | 2 | 2 | 6 | 1 | 1 | 3 | 6 |
| 251 | 4 | 30 | NO | Yes | 0 | 0 | Yes | Maybe | No | | No | Yes | No | No | 3 | 6 | 1 | 1 | 2 | 6 | 6 | 1 | 5 | 1 | 1 | 1 | 4 |
| 252 | 4 | 60 | NO | No | | | No | No | No | | No | Yes | Yes | Yes | 2 | 5 | 3 | 1 | 1 | 2 | 3 | 2 | 5 | 1 | 1 | 4 | 4 |
| 253 | 4 | 90 | NO | No | | | Yes | Yes | No | | Maybe | Maybe | No | No | 1 | 5 | 5 | 1 | 1 | 2 | 1 | 1 | 7 | 1 | 1 | 4 | 7 |
| 254 | 4 | 30 | YES | Yes | 1-2 times | 200 | No | Yes | Yes | 4 | Maybe | Yes | No | No | 1 | 7 | 7 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 7 | 7 |
| 255 | 4 | 30 | NO | Yes | 1-2 times | 200 | Yes | Maybe | Yes | 6 | Maybe | No | Yes | No | 1 | 5 | 4 | 1 | 1 | 5 | 1 | 1 | 5 | 1 | 1 | 7 | 7 |
| 256 | 4 | 30 | NO | Yes | 1-2 times | 200 | Yes | Maybe | Maybe | 5 | No | Maybe | No | No | 2 | 2 | 4 | 3 | 2 | 3 | 2 | 2 | 5 | 2 | 2 | 4 | 5 |
| 257 | 4 | 120 | NO | Yes | 1-2 times | 25 | Yes | Yes | Maybe | 6 | Maybe | Yes | No | No | 2 | 3 | 3 | 2 | 1 | 2 | 6 | 5 | 6 | 2 | 2 | 2 | 3 |
| 258 | 4 | 90 | NO | Yes | 1-2 times | 100 | No | Yes | Maybe | 5 | Maybe | Yes | Yes | No | 2 | 4 | 5 | 1 | 1 | 3 | 1 | 1 | 2 | 1 | 1 | 5 | 5 |
| 259 | 4 | 60 | NO | Yes | 5 and more | 600 | Yes | Yes | Yes | 4 | Maybe | Maybe | Yes | No | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 4 | 3 | 1 | 1 | 5 | 7 |
| 260 | 4 | 60 | NO | No | | | Yes | Maybe | Yes | 6 | No | Yes | No | No | 1 | 2 | 6 | 1 | 1 | 6 | 2 | 1 | 6 | 1 | 2 | 5 | 5 |
| 261 | 4 | 90 | NO | Yes | 1-2 times | 200 | Yes | Yes | Maybe | 5 | No | Yes | No | No | 3 | 1 | 5 | 1 | 1 | 1 | 1 | 1 | 4 | 2 | 1 | 2 | 4 |
| 262 | 4 | 30 | NO | No | | | Yes | Maybe | Yes | 6 | Maybe | Yes | Yes | No | 3 | 6 | 4 | 2 | 2 | 3 | 4 | 3 | 3 | 5 | 4 | 2 | 5 |
| 263 | 4 | 60 | NO | No | | | Yes | Maybe | Maybe | 5 | Maybe | Yes | Yes | No | 3 | 6 | 4 | 4 | 2 | 2 | 3 | 4 | 3 | 5 | 4 | 2 | 5 |
| 264 | 4 | 60 | NO | Yes | 3-4 times | 600 | Yes | No | Yes | 4 | No | Yes | No | No | 3 | 6 | 2 | 6 | 2 | 7 | 4 | 2 | 4 | 3 | 3 | 1 | 1 |
| 265 | 4 | 90 | NO | Yes | 3-4 times | 500 | Yes | Yes | Maybe | 3 | No | No | No | No | 1 | 2 | 7 | 1 | 1 | 1 | 3 | 1 | 6 | 3 | 1 | 1 | 6 |
| 266 | 4 | 150 | NO | Yes | 1-2 times | 200 | Yes | Yes | Yes | 4 | Maybe | Yes | Yes | No | 1 | 2 | 7 | 1 | 1 | 3 | 1 | 1 | 7 | 1 | 1 | 5 | 7 |
| 267 | 4 | 30 | NO | Yes | 3-4 times | 500 | Yes | Yes | Yes | 5 | Yes | Yes | No | No | 1 | 4 | 7 | 1 | 1 | 4 | 1 | 1 | 7 | 1 | 1 | 6 | 7 |
| 268 | 4 | 120 | NO | Yes | 0 | 0 | Yes | Yes | Yes | 5 | No | Yes | No | No | 3 | 2 | 3 | 2 | 2 | 6 | 3 | 2 | 5 | 2 | 4 | 2 | 5 |
| 269 | 4 | 120 | NO | Yes | 3-4 times | 200 | No | Yes | Maybe | 7 | Yes | Yes | No | No | 1 | 2 | 7 | 1 | 1 | 2 | 1 | 1 | 7 | 1 | 1 | 4 | 7 |
| 270 | 4 | 30 | NO | Yes | 1-2 times | 200 | Yes | Yes | Maybe | 4 | Yes | Yes | No | No | 2 | 4 | 2 | 2 | 2 | 3 | 2 | 2 | 5 | 2 | 1 | 3 | 4 |
| 271 | 4 | 150 | YES | Yes | 5 and more | 1000 | Yes | Yes | Maybe | 6 | Yes | Yes | Yes | Yes | 1 | 1 | 7 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 6 | 7 |
| 272 | 4 | 90 | NO | Yes | 1-2 times | 200 | Yes | Yes | Maybe | 5 | No | No | No | No | 2 | 3 | 5 | 1 | 1 | 2 | 2 | 3 | 4 | 2 | 1 | 3 | 4 |
| 273 | 4 | 150 | NO | Yes | 5 and more | 1000 | Yes | Yes | No | | No | Yes | Yes | No | 7 | 2 | 4 | 5 | 5 | 2 | 2 | 5 | 4 | 4 | 2 | 1 | 7 |
| 274 | 4 | 150 | NO | Yes | 1-2 times | 300 | No | Yes | Yes | 7 | No | No | No | No | 1 | 1 | 7 | 1 | 1 | 3 | 1 | 1 | 7 | 1 | 1 | 7 | 7 |
| 275 | 4 | 30 | NO | Yes | 1-2 times | 300 | Yes | Yes | Maybe | 3 | Yes | Yes | No | No | 1 | 2 | 4 | 1 | 1 | 1 | 2 | 1 | 5 | 1 | 1 | 5 | 4 |
| 276 | 4 | 90 | NO | Yes | 1-2 times | 200 | Yes | Yes | Yes | 6 | Yes | Yes | Yes | Yes | 1 | 6 | 5 | 1 | 1 | 1 | 4 | 2 | 1 | 5 | 2 | 1 | 4 |

| Subjects | Treatment | Donations | Have you donated before to Acorus, Thelia, Lala | Have you ever donated to charity | How many times in past 2 years | How much you donated in last 2 years | Have you volunteered before | Would you recommend donating | Would you tell others | Their reaction will be | Meet the recipient | Info about recipient | Blood donor | Plasma donor | Embarrassed | It was tough decision | Happy | Disgusted | Regret | I felt tense | Bothered | Guilt | Satisfied | Dissatisfied | Uncomfortable | Confidently | Sure |
|----------|-----------|-----------|---|----------------------------------|--------------------------------|--------------------------------------|-----------------------------|------------------------------|-----------------------|------------------------|--------------------|----------------------|-------------|--------------|-------------|-----------------------|-------|-----------|--------|--------------|----------|-------|-----------|--------------|---------------|-------------|------|
| 277 | 4 | 120 | NO | Yes | 0 | 0 | Yes | Maybe | Maybe | 5 | Maybe | Yes | No | No | 2 | 2 | 5 | 2 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 3 | 1 |
| 278 | 4 | 30 | NO | No | | | No | Maybe | Yes | 6 | Yes | Yes | Yes | No | 2 | 3 | 5 | 2 | 1 | 6 | 6 | 3 | 4 | 4 | 5 | 3 | 4 |
| 279 | 4 | 90 | NO | No | | | No | Yes | Yes | 5 | Yes | Yes | No | No | 4 | 3 | 3 | 2 | 4 | 6 | 6 | 6 | 4 | 6 | 5 | 3 | 2 |
| 280 | 4 | 0 | NO | No | | | Yes | Maybe | Maybe | 4 | Maybe | Yes | No | No | 3 | 3 | 3 | 3 | 2 | 4 | 5 | 2 | 4 | 2 | 1 | 3 | 7 |
| 281 | 4 | 120 | NO | Yes | 5 and more | 500 | Yes | Yes | Maybe | 6 | Yes | Yes | Yes | No | 1 | 3 | 4 | 1 | 1 | 6 | 3 | 1 | 6 | 1 | 1 | 6 | 7 |
| 282 | 4 | 30 | NO | No | | | No | Maybe | Maybe | 3 | Yes | Yes | No | No | 3 | 2 | 5 | 1 | 1 | 1 | 4 | 1 | 6 | 1 | 1 | 3 | 3 |
| 283 | 4 | 0 | NO | Yes | 1 - 2 times | 1500 | Yes | Yes | Yes | 6 | Maybe | Yes | Yes | No | 2 | 5 | 5 | 2 | 1 | 5 | 3 | 2 | 6 | 1 | 2 | 5 | 6 |
| 284 | 4 | 150 | NO | Yes | 1 - 2 times | 150 | Yes | Maybe | No | | Yes | Yes | No | No | 1 | 1 | 5 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 4 | 7 |
| 285 | 4 | 60 | NO | Yes | 1 - 2 times | 500 | Yes | Yes | No | | Maybe | Maybe | No | No | 1 | 2 | 5 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 4 | 7 |
| 286 | 4 | 90 | NO | Yes | 0 | 0 | No | Yes | Yes | 5 | No | Yes | No | No | 1 | 2 | 6 | 1 | 1 | 3 | 1 | 1 | 7 | 1 | 1 | 1 | 7 |
| 287 | 4 | 90 | NO | No | | | Yes | Yes | Maybe | 6 | Maybe | Yes | No | No | 2 | 3 | 6 | 1 | 1 | 5 | 2 | 1 | 6 | 1 | 1 | 5 | 6 |
| 288 | 4 | 120 | NO | No | | | No | Maybe | Yes | 5 | No | Yes | No | No | 1 | 3 | 1 | 1 | 1 | 3 | 1 | 1 | 5 | 1 | 1 | 2 | 5 |
| 289 | 4 | 30 | NO | Yes | 1 - 2 times | 300 | Yes | Yes | Maybe | 6 | Maybe | Maybe | No | No | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 1 | 6 | 6 |
| 290 | 4 | 60 | NO | Yes | 1 - 2 times | 300 | Yes | Yes | Maybe | 6 | Maybe | Maybe | No | No | 2 | 2 | 5 | 1 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 1 | 6 |
| 291 | 4 | 60 | NO | Yes | 1 - 2 times | 120 | No | Maybe | Maybe | 4 | Yes | Yes | No | No | 1 | 1 | 4 | 1 | 1 | 2 | 2 | 1 | 5 | 1 | 1 | 3 | 5 |
| 292 | 4 | 90 | NO | Yes | 1 - 2 times | 200 | Yes | Maybe | Yes | 5 | Yes | Yes | No | No | 1 | 1 | 5 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 5 | 7 |
| 293 | 4 | 60 | NO | Yes | 1 - 2 times | 150 | No | Yes | Maybe | 5 | No | Maybe | No | No | 2 | 3 | 4 | 1 | 1 | 3 | 1 | 1 | 6 | 1 | 1 | 1 | 7 |
| 294 | 4 | 60 | NO | No | | | No | Yes | Yes | 5 | Maybe | Yes | No | No | 3 | 6 | 5 | 1 | 2 | 2 | 5 | 2 | 5 | 3 | 2 | 5 | 5 |
| 295 | 4 | 90 | YES | Yes | 5 and more | 700 | Yes | Yes | No | | Maybe | Maybe | Yes | No | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 7 | 7 |
| 296 | 4 | 150 | NO | No | | | No | Maybe | Yes | 3 | Yes | Maybe | No | No | 1 | 2 | 7 | 1 | 1 | 5 | 3 | 1 | 7 | 1 | 2 | 7 | 6 |
| 297 | 4 | 30 | NO | Yes | 3 - 4 times | 280 | Yes | Maybe | Yes | 4 | No | No | No | No | 1 | 3 | 4 | 1 | 2 | 2 | 2 | 1 | 6 | 1 | 1 | 2 | 3 |
| 298 | 4 | 30 | NO | No | | | Yes | Yes | Yes | 4 | Maybe | Maybe | No | No | 2 | 4 | 3 | 1 | 2 | 5 | 4 | 5 | 4 | 4 | 4 | 1 | 4 |
| 299 | 4 | 30 | NO | No | | | No | No | No | | No | No | No | No | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 3 | 2 | 1 | 7 | 7 |
| 300 | 4 | 0 | NO | Yes | 1 - 2 times | 200 | Yes | Maybe | Yes | 4 | No | Yes | No | No | 2 | 4 | 3 | 2 | 2 | 4 | 2 | 2 | 6 | 2 | 2 | 6 | 6 |
| 301 | 4 | 120 | NO | Yes | 1 - 2 times | 500 | Yes | Yes | Maybe | 4 | Maybe | Maybe | No | No | 1 | 1 | 5 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 4 | 6 |
| 302 | 4 | 0 | NO | Yes | 1 - 2 times | 500 | No | Maybe | Maybe | 2 | Maybe | Yes | No | No | 3 | 3 | 4 | 1 | 1 | 1 | 2 | 3 | 5 | 3 | 2 | 4 | 6 |
| 303 | 4 | 60 | NO | Yes | 5 and more | 300 | Yes | Yes | Yes | 3 | Maybe | Yes | Yes | No | 2 | 6 | 5 | 1 | 1 | 3 | 1 | 2 | 5 | 1 | 1 | 3 | 6 |
| 304 | 4 | 60 | NO | Yes | 1 - 2 times | 40 | Yes | Maybe | Yes | 4 | No | Yes | Yes | No | 5 | 3 | 4 | 4 | 3 | 6 | 5 | 5 | 6 | 4 | 6 | 1 | 2 |
| 305 | 4 | 60 | NO | Yes | 1 - 2 times | 100 | No | Yes | No | | Maybe | Yes | No | Yes | 1 | 3 | 3 | 1 | 1 | 3 | 1 | 1 | 6 | 1 | 1 | 1 | 7 |
| 306 | 4 | 120 | NO | No | | | Yes | Yes | Maybe | 6 | Maybe | Yes | Yes | No | 1 | 3 | 5 | 1 | 1 | 2 | 7 | 1 | 6 | 1 | 1 | 3 | 5 |
| 307 | 4 | 120 | NO | No | | | Yes | Yes | Yes | 7 | Maybe | Yes | Yes | No | 1 | 4 | 6 | 1 | 1 | 4 | 2 | 1 | 7 | 1 | 1 | 6 | 6 |
| 308 | 4 | 60 | NO | Yes | 1 - 2 times | 200 | No | Yes | Maybe | 4 | Yes | Yes | No | No | 1 | 1 | 4 | 1 | 1 | 3 | 1 | 1 | 7 | 1 | 1 | 4 | 6 |
| 309 | 4 | 30 | NO | No | | | No | Maybe | Yes | 7 | Maybe | Yes | No | No | 3 | 5 | 5 | 2 | 4 | 5 | 1 | 2 | 5 | 3 | 3 | 1 | 4 |
| 310 | 4 | 30 | NO | Yes | 0 | 0 | No | Maybe | Maybe | 4 | Yes | Yes | No | No | 1 | 2 | 4 | 1 | 1 | 2 | 1 | 1 | 7 | 1 | 1 | 2 | 5 |
| 311 | 4 | 90 | NO | No | | | No | Yes | Maybe | 4 | Yes | Yes | No | No | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 1 | 1 | 7 |
| 312 | 4 | 0 | YES | Yes | 3 - 4 times | 200 | Yes | Maybe | Maybe | 6 | Yes | Yes | No | No | 2 | 3 | 4 | 2 | 3 | 6 | 3 | 2 | 5 | 2 | 3 | 3 | 7 |
| 313 | 4 | 120 | NO | Yes | 0 | 0 | Yes | Maybe | No | | No | Maybe | No | No | 1 | 5 | 6 | 1 | 1 | 2 | 1 | 1 | 6 | 1 | 1 | 1 | 5 |
| 314 | 4 | 60 | NO | No | | | Yes | Maybe | Maybe | 4 | Yes | Yes | No | No | 2 | 6 | 3 | 3 | 4 | 7 | 7 | 3 | 6 | 7 | 1 | 2 | 2 |
| 315 | 4 | 60 | NO | Yes | 1 - 2 times | 250 | Yes | Yes | Maybe | 4 | No | Maybe | Yes | No | 1 | 5 | 5 | 1 | 1 | 5 | 1 | 1 | 2 | 2 | 1 | 6 | 7 |
| 316 | 4 | 30 | NO | Yes | 1 - 2 times | 100 | Yes | Maybe | Maybe | 4 | Yes | Yes | No | No | 2 | 5 | 4 | 1 | 2 | 2 | 4 | 2 | 4 | 1 | 1 | 4 | 3 |
| 317 | 4 | 90 | NO | Yes | 1 - 2 times | 300 | Yes | Yes | Yes | 5 | Yes | Yes | No | No | 2 | 4 | 4 | 2 | 2 | 4 | 4 | 3 | 6 | 2 | 4 | 4 | 4 |
| 318 | 4 | 30 | NO | Yes | 5 and more | 400 | Yes | Maybe | Yes | 7 | Maybe | Maybe | No | No | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 7 |
| 319 | 4 | 60 | NO | Yes | 1 - 2 times | 100 | Yes | Yes | Maybe | 6 | Maybe | Yes | No | No | 2 | 5 | 5 | 2 | 3 | 5 | 5 | 2 | 6 | 2 | 1 | 4 | 5 |
| 320 | 4 | 0 | NO | Yes | 1 - 2 times | 800 | Yes | Yes | Maybe | 5 | Yes | Yes | Yes | No | 2 | 3 | 6 | 1 | 2 | 5 | 3 | 1 | 6 | 2 | 2 | 6 | 6 |
| 321 | 4 | 90 | NO | No | | | Yes | Yes | Yes | 6 | Maybe | Yes | Yes | No | 1 | 3 | 3 | 1 | 2 | 6 | 1 | 2 | 4 | 4 | 3 | 3 | 3 |
| 322 | 4 | 60 | NO | Yes | 1 - 2 times | 2500 | Yes | Yes | No | | Yes | Maybe | No | No | 1 | 2 | 6 | 1 | 1 | 2 | 1 | 1 | 6 | 1 | 1 | 2 | 7 |
| 323 | 4 | 0 | YES | Yes | 1 - 2 times | 30 | No | Maybe | No | | Maybe | Maybe | No | No | 1 | 2 | 4 | 1 | 1 | 4 | 1 | 1 | 6 | 1 | 1 | 3 | 7 |
| 324 | 4 | 120 | NO | Yes | 3 - 4 times | 500 | Yes | Yes | Yes | 5 | Maybe | Maybe | No | No | 1 | 1 | 7 | 1 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 7 | 7 |
| 325 | 4 | 0 | NO | No | | | No | Maybe | No | | Yes | Yes | No | No | 1 | 2 | 2 | 1 | 1 | 3 | 1 | 1 | 6 | 1 | 5 | 1 | 7 |