Out of Sight or Out of Mind? An Experimental Study of Empathy and Social Pressure

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Abstract

Previous literature on charitable giving in the field has shown that (1) people give substantially more when asked and (2) people tend to avoid the ask if possible. There are two potential explanations for this behavior: social pressure, and empathy. The social pressure theory posits that people do not enjoy giving, but dislike saying "no". The empathy theory claims that the ask causes people to have more altruistic preferences, and thus people may avoid the ask as a self-control device. To separate these two explanations, I formulate empathy as an effect triggered by the giver seeing the ask itself, and social pressure as triggered by the recipient seeing how the giver responds. I utilize an online lab experiment to separate these two theories and test each directly. In the experiment, subjects are assigned to be either solicitors for an NYC COVID-19 relief fund, or to be attentional donors, with a $10 endowment. Solicitors write messages encouraging their partners to donate to their charity. Via a probabilistic avoidance mechanism, I vary (1) whether donors are shown the message and (2) whether solicitors see how much their donor gives. Subjects choose to avoid social pressure at a much higher rate than empathy. However, subjects give more when exposed to either. Evidence also points to sizable heterogeneity in sensitivity to and avoidance of these two effects.

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1 Introduction

Previous studies have demonstrated the power of the ask in altruistic decision making—a verbal ask tends to significantly increase both the frequency and size of donations. In addition, it has been established that people avoid the ask when it is easily avoidable. The literature presents two distinct hypotheses for *why* this avoidance occurs, but no study has disentangled them from one another. These hypotheses are empathy and social pressure. Both theories explain why verbal communication can cause increased levels of giving, as well as avoidance. The hypothesis of social pressure states that people are not altruistic, but in a social setting they feel pressured to give by others, so they avoid interactions such as the ask. The hypothesis of empathy states communication triggers an emotional state of elevated empathetic concern which causes people to become more altruistic, and so in their more selfish "cold" states people avoid the ask. The present paper formulates each hypothesis in a testable and precise way. I take the stance that the key to these two hypotheses is attention. In the empathy hypothesis, it is my attention towards the ask that motivates my giving and avoidance. In the social pressure hypothesis, others' attention towards my response to this ask is what motivates these behaviors.

The two most significant experiments to be done on avoiding the ask are by Andreoni et al (2017) and DellaVigna et al (2012). In Andreoni's paper, they position Salvation Army solicitors outside of grocery store entrances, and track giving behavior as well as the avoidance of the entrances equipped with solicitors. They find that when solicitors verbally ask for donations–as opposed to silently standing by a donation box–giving increases significantly but so does avoidance of the solicitor altogether. They explain this avoidance behavior as a result of people avoiding empathetic emotion. In a similar design, the experiment of DellaVigna et al uses door-to-door solicitors for a charity, and allows households to opt out of solicitation. They find that a significant portion of households that would have given had they been solicited choose to opt-out. They attribute this avoidance to an aversion to social pressure. In other words, they claim people simply dislike saying no to the solicitors.

However, each paper's theory is able to explain the behavior of the other. Do the grocery shoppers in Andreoni et al (2017) choose the entrance without the charity solicitor to avoid feeling empathetic towards the charity, or do they do so in order

to avoid the social pressure behind an ask for donations? Do the households in DellaVigna et al (2012) opt out of door-to-door charity solicitation to avoid saying no to these solicitors, or do they do this to control the temptation to give elicited by emotions of empathetic concern when faced with a personal ask? It becomes clear that in order to separate the two hypotheses of avoidance, one must observe something richer than mere avoidance of the ask altogether.

There are two sides to every ask. First, the askee hears the ask themselves. Second, the asker sees the askee's response. To illustrate this difference, suppose one equipped a grocery shopper in Andreoni et al (2017) with an invisibility cloak. Thus, they could see the Salvation Army solicitor saying "please give today", but the solicitor could not see them. Then it seems absurd to suggest that the invisible shoppers feel socially pressured to give to the charity. If they avoided the solicitor, then, it must be because of Andreoni's notion of empathy—the ask must trigger an emotional reaction within the shoppers, and cause them to *want* to donate more. When the shopper is visible, however, there is a social element at play as well. Now, changes in giving behavior might not be due to our subject becoming more altruistic, but may be due to our subject feeling socially pressured to give.

Another way to illustrate how the two hypotheses are often conflated in the field is a thought experiment proposed in Lise Vesterlund's handbook chapter on charitable giving. She proposes a thought experiment in which instead of being solicitors for a charitable campaign, the door-to-door solicitors from DellaVigna et al (2012) were selling ice cream. She argues that you would likely see similar levels of opting-out in this experiment. But in such an experiment, this opting-out would likely stem from temptation and self-control, rather than people feeling socially pressured to purchase ice cream. She argues a similar explanation can be underlying behavior in the charitable giving scenario, and that the existing literature does not separate the two effects. As a response to this literature, I carefully design an experiment to tease out these two often conflated aspects of the ask, and see which is more influential in behavior.

The separation of these two theories is vital to our understanding of how and why people give. If social pressure is what compels people to give, DellaVigna et al (2012) suggest welfare costs of charitable solicitation that far outweigh the benefits

accrued by the charity. If empathy is the driving factor behind giving and avoidance, these welfare calculations are no longer strongly negative. The two theories also lead to different suggestions on optimal charitable fundraising practices to maximize giving and minimize avoidance. Specifically, the two theories suggest two different types of optimal information design that lead to giving–with empathy highlighting the information the giver has about the solicitor and social pressure emphasizing the importance of the receiver's observation of the giver's response.

Thus, this project seeks to answer two main research questions. First, how much do empathy and social pressure drive giving behavior? Second, if giving increases due to these factors, are these increases welfare enhancing, in that they benefit both the charity and the donor?

In addition to Andreoni et al (2017) and DellaVigna et al (2012), there have been many other papers that study avoidance in social decision-making settings. Dana et al (2006) studies exit options in a dictator game. They find that many people are willing to forgo a small amount of money to avoid having to play a dictator game (getting $9.00 to exit vs. playing a $10.00 dictator game). Through additional manipulations, they conclude that people exit in their game in order to avoid having to meet the recipient's expectation of their giving. Thus they argue giving is often motivated by social expectations and not by genuine altruism. The present paper does not dispute these claims, but rather study whether avoidance can be motivated by things other than social expectations. The choice of whether to exit the dictator game or not is simply a choice over choice sets. Knowing that their "future self" may be tempted to give in a dictator game setting, the present self restricts the choice set of the future self in order to ensure higher utility for the present, more selfish self. Dana et al (2007) also suggest that self-image concerns may be behind such avoidance, in addition to social pressure. This theory of self-image is compatible with my hypothesis, as one can think of an individual's self-image being time-inconsistent and dependent on empathetic stimulation. Thus they propose, but do not seek to separate, the two hypotheses of avoidance that the present paper aims to address.

More generally, other papers in economics have shown that context is important in giving settings. For example, Hoffman et al (1996) argue that giving is decreasing with social distance, due to social norms and expectations. Bohnet and Frey (1999)

respond with an experiment arguing that giving is decreasing with social distance, but this is due to recipients with shorter social distances being more identifiable, in the sense laid out by Schelling (1968). Thus the debate over social distance and altruism mirror this debate in avoidance. Bohnet and Frey would argue that making a recipient more identifiable makes people care more about them, much in the same way Andreoni and co-authors argue empathetic emotion causes people to care more about others.

Small et al (2007) also studies the identifiable victim effect. They study a dictator game with a charity recipient under three treatments. In the first treatment, a stimulus is shown that describes an identifiable victim, in the second treatment the stimulus is a list of statistical facts about the population of victims, and in the third treatment both stimuli are shown. They find giving is highest in the first treatment, and equally low in the second and third treatments. This is evidence of an empathy avoidance theory. A large literature in psychology suggests that statistical victims undoubtedly procure less empathy than identifiable ones. Thus giving is higher when an identifiable victim is presented. But, when paired with statistical victim stimuli, the cost of avoidance to the empathy-inducing identifiable stimuli is lower, as people are able to focus on the low-empathy statistical stimuli instead, resulting in lower giving.

Being a paper on empathy, social pressure, and attention—this paper is heavily related to other research on the cognitive foundations for altruistic behavior. Andreoni and Rao (2011), through another paper on the power underlying the ask, demonstrate that eliciting empathetic emotion has similar effects on giving behavior as an actual ask from the recipient. Here, empathy is elicited putting subjects "in the other subject's shoes", by making them fill out hypothetical requests as if they were the recipient. While this paper doesn't study avoidance of such emotions, it shows that empathetic emotion can have a strong and positive effect of giving. Additionally, a great deal of research has recently been done on whether or not altruism in humans is "intuitive". Such studies often focus on the effects of cognitive load and time pressure on altruistic decision making. Chen and Fischbacher (2019), as well as Chen and Krajbich (2018) stress the importance of heterogeneity in preferences underlying the answer to this question. They claim that for selfish subjects, selfish motives are more intuitive, and for pro-social subjects, selfish motives are more deliberative. While obviously related,

the present study looks at responses in giving to emotional context, and the cognitive efforts to regulate these responses—whereas their study studies the more standard, context-free cognitive mechanisms behind giving. Both directions can be viewed as complementary.

This paper also relates closely to the work on "information avoidance", which is thoroughly reviewed in Golman et al (2017). Specifically, they mention inattention to information as a form of "rational inattention", which is similar to the concept I will use here. However, while this research has focused specifically on avoiding actual information, our study focuses on the avoidance of emotional states[1]. More directly, this paper follows the concept of attention described in Andrew Caplin's paper "Fear as a Policy Instrument", in which attention leads to the emotive state of fear, leading to questions of the effectiveness of and welfare-implications of fear-appeals campaigns for preventative health care. Thus, the present study not only makes important contributions to the field of social preferences, but also to the fields of temptation and information avoidance as well.

2 Theoretical Framework

I will separately model both possible forces. An agent is choosing to give some amount $g \in [0, w]$ out of their endowment of w to a solicitor for a charity. For both cases (social pressure and empathy) I will assume the agent gets linear utility in money to themselves $(w - g)$, and some concave altruistic utility $\alpha v(g)$ for the amount they give to charity. For ease of analysis, I will typically assume $v(g) = \ln g$.

For my analysis of each force, I will assume the agent acts in two sequential periods. In the fist period, they decide to avoid an effect $a_i = 1$, or to not avoid an effect $a_i = 0$, where $i \in \{E, S\}$ for Empathy and Social Pressure. In the second period, given their avoidance choice, they must choose a donation g. Below I describe the theoretical models behind each effect, and solve for optimal giving and avoidance behavior via backwards induction. In both cases, the utility of giving g when the effect is avoided is given by

$$V(g) = w - g + \alpha \ln g$$

[1] While information avoidance is often done for emotional reasons, I measure avoidance of emotion that does not necessarily stem from new information.

and thus the optimal donation is given by $g^* = \min\{w, \alpha\}$, with utility from giving this amount being $w - \alpha + \alpha \ln \alpha$ (when $\alpha \leq w$).

2.1 Effect 1: Empathy

For the empathetic appeals motivation, I will model empathy via a model of temptation and self-control, based closely on Gul and Pesendorfer (2001). An agent has some temptation altruistic utility of $(1 - a_1)(w - g + \gamma \ln g)$, $\gamma \geq \alpha$ which is activated if they do not avoid empathetic stimulation. In the spirit of temptation and self-control, agents then have a self-control cost for not choosing the g that maximizes this temptation utility $g^* = \min\{w, \gamma\}$. The full expression is then given by

$$V(a_1, g) = w - g + \alpha \ln g + (1 - a_1)(w - g + \gamma \ln g - (w - \gamma + \gamma \ln \gamma))$$

where above I assume $\gamma \leq w$. Note that if empathy is not avoided, the optimal donation will be $g^* = \frac{\alpha+\gamma}{2}$, and the utility from giving will be weakly less than that in the no empathy case. The utility is equal if and only if $\gamma = \alpha$, i.e. there is no effect of empathy. There are then two predictions from a temptation and self-control model of empathetic stimulation.

Prediction 1 If empathetic stimulation is not avoided, giving will weakly increase.

Prediction 2 If $\gamma > \alpha$ (i.e. empathy has an effect), empathy should always be avoided if it is costless.

2.2 Effect 2: Social Pressure

Theoretical modelling for this effect is adapted from DellaVigna et al (2012). The agent must also decide whether to "be seen" by the solicitor ($a_2 = 0$) or to avoid being seen by the solicitor ($a_2 = 1$). I will assume the agent faces some social pressure utility or dis-utility from being seen given a donation of size g. I will operationalize this through the following utility function,

$$V(a_2, g) = w - g + \alpha \ln g - \beta(1 - a_2)(g^S - g)$$

Here, $\beta \in [0, 1)$ acts as the weight the agent puts on their social image, and g^S is the "socially expected" amount of giving. These are identical in form to the model assumed in DellaVigna et al (2012), with the the exception that I allow for this effect to be positive when the donor chooses to give an amount exceeding that of social expectation. Social image acts as a negative ("social pressure") when giving less than expected, and as a positive when giving more than expected.

I will then proceed by backwards induction. Suppose that $a_2 = 0$, and the agent's donation will be visible. Then the agent will choose a donation of $g^* = \frac{\alpha}{1-\beta}$ which is strictly greater than the $a_2 = 0$ optimal donation of α if the social image weight is greater than 0.

Prediction 3 If social pressure is not avoided, giving will weakly increase.

The agents utility from giving this amount will then be

$$w - \frac{\alpha}{1-\beta} + \alpha \ln \frac{\alpha}{1-\beta} - \beta(g^S - \frac{\alpha}{1-\beta}).$$

Going back to the avoidance decision, then, the agent will choose to avoid if

$$w - \frac{\alpha}{1-\beta} + \alpha \ln \frac{\alpha}{1-\beta} - \beta(g^S - \frac{\alpha}{1-\beta}) < w - \alpha + \alpha \ln \alpha.$$

which follows whenever $g^S > -\frac{\alpha \ln(1-\beta)}{\beta}$. The derivative of the right hand side is increasing with α, leading to Prediction 4.

Prediction 4 Those who choose to avoid social pressure will be those with low α, i.e. those who would give less regardless of effect.

The right hand side is also increasing with respect to β, leading to Prediction 5.

Prediction 5 Those who choose to not avoid social pressure will give significantly more when seen than when not seen, versus those who choose to avoid social pressure.

The above follows because those with higher β are less likely to avoid, and the difference in optimal donations when $a_2 = 1$ and $a_2 = 0$ is larger for those individuals as well.

3 Experimental Design

The experiment utilizes a novel design to study charitable giving and solicitation. Prior to explaining the experimental design, it is important to emphasize a number of things about the experimental environment. Since my hypotheses concern the topic of social pressure, I made exhaustive efforts to control the amount of external, non-treatment social pressure present in the usual lab environment. For one, this experiment was conducted virtually over Zoom Webinar. As a webinar, subjects were unable to see or hear anything except for the experimenter and their own experimental interface (O-Tree provided over web browser). This allows us to reasonably insure subjects were unable to pressure other subjects to give either directly or indirectly, except through means provided by the experimental design. While this controls for peer-induced social pressure, I also wanted to control for experimenter-induced social pressure. In order to accomplish this, payments (Amazon gift card codes) were generated anonymously using an automated Python code at the end of the experiment. Payments were associated to subjects only by their anonymous subject code, to which it was insured the experimenter had no ability to link towards any identifiable information. Thus subjects were assured that the experimenter had no way of knowing how much they individually decided to give to charity, if any at all.

For the entirety of the experiment, subjects were assigned to one of two roles: Solicitor or Donor, with half of subjects allocated to each role. These roles remained fix throughout the experiment. At the start of the session, Solicitors were assigned to one of two NYC COVID relief charities[2]. Subjects were told that both charities were "reputable charity foundations, each of which helps support relief efforts in NYC due to the COVID-19 pandemic". I use NYC COVID-19 relief charities because the experiments were conducted on NYU students in early 2021 when the city was still facing large COVID related difficulties. Thus these funds are more likely to be seen as a universally respected charitable cause, rather than either picking specific other causes (e.g. animal rights, environmental protections) that could be more divisive, or more generic foundations (e.g. American Red Cross) the could be seen as less compelling.

[2]United Way of New York City COVID-19 Community Fund and Robin-Hood COVID-19 Relief Fund

At the start of the experiment, Solicitors are told to write a message to their future partners explaining why they should donate to their randomly assigned charity. Because I care mostly about donor behavior in the face of empathetic stimulation, I incentivize Solicitors to make empathetic appeals. Specifically, Solicitors are told "Empathetic appeals (appeals to feelings of warmth and compassion in response to someone in distress) have been shown to be effective at raising donations for charities in need. To incentivize message writers to appeal to empathy, at the end of the experiment all message writers will vote for who they think wrote the most empathetic message." Solicitors are allowed to vote for one message besides their own, and the message with the highest number of votes receives a $5.00 bonus payment.

After the message-writing stage, what followed was two rounds of a dictator game, with re-matching for each round. In each round, Donors were given 100 ECU (equal to $10 USD), and were allowed to choose how much to donate to their partner's charity. Whatever was not donated was allowed to be In both rounds, Donors were told the name of their partner's charity. From this basic setup, I allowed for the two proposed aspects of the ask. To implement the social pressure aspect of the ask, I allowed Solicitors to see how much their partner decided to give to their charity. To implement the empathetic aspect of the ask, I showed Donors the messages written by their partners. Depending on the round and choices made by Donors, I turned these effects on or off.

Because I am interested no only in the effectiveness of these two forces, but also in the avoidance of them, I allow for subjects to attempt to avoid each aspect. Because I want to directly compare how many choose to avoid empathy versus social pressure, I allow for each force to be avoided in a separate round. This avoidance methodology adapts a strategy put forth by Toussaert (2018) in their study of temptation and self-control. Specifically, in each round, Donors are presented with two options. In one option, there is no social-pressure nor empathy, and in the other option there is one of these effects. The option selected by the Donor gets implemented with probability 60%, and the option not selected gets implemented with probability 40%. Thus we are able to see counterfactual giving behavior by those who wished to avoid an effect.

In Round 1, subjects could choose between social pressure and no social pressure, whereas in Round 2, subjects could choose between empathy and no empathy. These

rounds were always presented in the above order. I chose this, rather than the more common round randomization methodology, because I was wary of the extended effects of seeing a message in one round on the subsequent round's giving behavior. Since messages could only be seen in the second round, I avoided this issue. This does, however, create the possibility of order effects which I need to account for in interpretations of my analysis.

Following the two rounds of donation games, subjects filled out a brief survey. Included in this survey were two instruments designed by psychologists to measure individual's levels of empathetic concern (the Toronto Empathy Questionnaire) and desire for social acceptance (the Social Desirability Scale-17). In addition, I asked for the subject's gender, as this has often been found to be significant in charitable giving situations, as well as subjects' familiarity and opinion of the two charities involved in the experiment.

4 Results

In total 124 subjects participated in the experiment across 13 sessions between late January 2021 and early April 2021. Sessions typically lasted between 30 and 45 minutes, and the average payment was $14, including a $10 participation fee. Subjects were all undergraduate or master's students at New York University during the Spring 2021 semester.

4.1 Solicitor Messages

An important first step is to ensure that the solicitors in the experiment wrote significant and empathetically appealing messages for their charity. This is especially important because to my knowledge this is the first experiment in which randomized student subjects write messages on behalf of an unrelated charitable organization.

The average message length was 93 words, and ranged from 33 to 280 words. These numbers suggest that solicitors took this task fairly seriously, and spent a lot of effort writing a persuasive message. In addition, I had Prolific workers categorizes message as either an "Empathetic Appeal", "Social Pressure Appeal", or "Empty Talk". Prolific workers were incentivized via the payment scheme of Houser and Xiao

Figure 1: Most frequently used words in solicitor messages

(2011) task, where they received a bonus if their classification for a randomly selected message matched the majority classification amongst other workers. Of the 62 written messages, 39 were categorized as an empathetic appeal, 15 as a social pressure appeal, and 5 as empty talk[3]. Again this shows that the majority of subjects did in fact appeal towards empathy in their message content, as instructed. Figure 1 shows a word cloud of the most common words that appear in the messages, with sizes scaled by number of uses.

4.2 Effects of Empathy and Social Pressure on Giving

Before analyzing the avoidance of social pressure and empathy, I first report how being exposed to either treatment affected donations. Figure XX reports the average donation for those who were exposed versus those who were not exposed to each of the two effects. The figure shows that the average treatment effect was positive for both effects. There was a 10 ECU ($p = 0.09$) increase in donations in the empathy treatment, and a 13 ECU increase ($p = 0.06$) in donations in the social pressure

[3] 3 messages had a tie between two of the categories for most popular classification

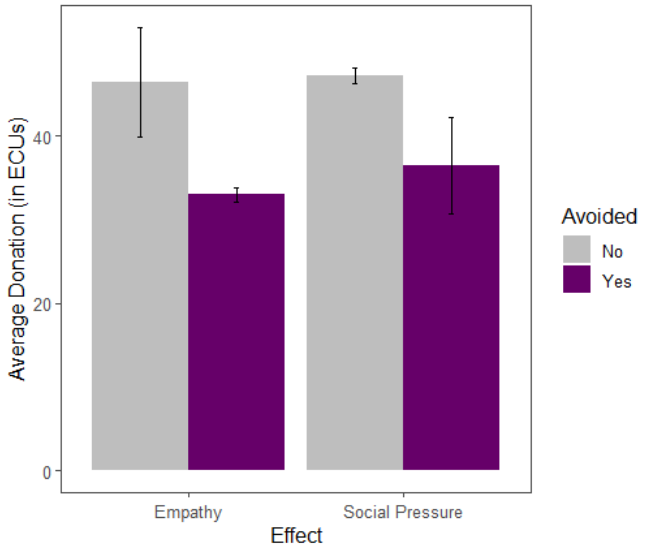

Figure 2: Average donation by whether or not each effect was present

treatment. In addition, there was no significant difference between the two rounds when the effects were not present, which is suggestive of a lack of round effects on the results. The sizes of each treatment are also not significantly different from each-other—indicating that both effects were similarly effective at increasing donations.

These effects are especially striking when one considers the larger context. Even in this highly anonymous setting, the difference between having nobody (including the experimenter) know you donated and having *somebody* know you donated substantially increasing donation amounts. Furthermore, hearing an empathetic appeal from another subject about a charity they ostensibly have the same knowledge about still causes a large increase in donations.

4.2.1 Messages as Empathetic Appeals

Given the Solicitors were given full freedom to write messages, one may be interested in which messages were most effective at increasing donations. Using the classifications above, I comparing giving behavior between those shown messages categorized as "empathetic appeals" versus those categorized as "social pressure appeals" or "empty talk"[4]. Figure XX shows the results. I find that messages with empathetic appeals

[4]Findings between empathetic appeals and social pressure appeals are similar if "empty talk" is excluded. It is here combined with social pressure appeals due to the very low proportion of messages categorized this way (5 messages out of 62).

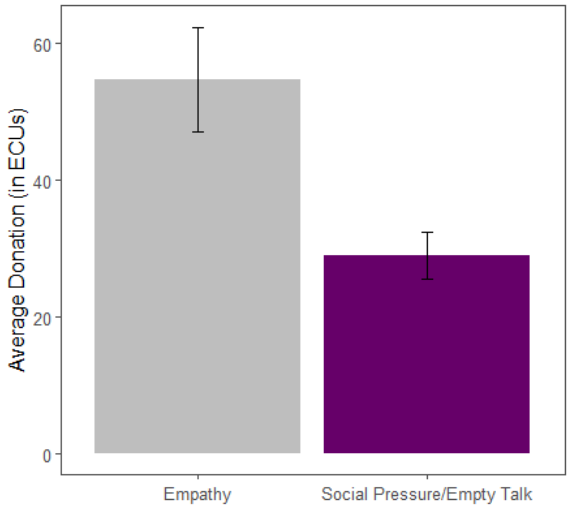

Figure 3: Average donation of subjects shown messages, by message classification

yielded far higher donations (55 ECU vs 29 ECU, p=0.03). This suggests that the message effect seen is driven almost entirely by messages which successfully made empathetic appeals, and these messages were particularly effective.

4.3 Avoidance

Given that both factors positively impact donation sizes, an important question is to what extent each factor was avoided. The findings are that 48% of subjects chose to avoid the social pressure effect, while only 21% of subjects chose to avoid the empathy effect. Give the sample sizes, this difference is significant at $p < 0.01$. Thus while social pressure is an effect that a large fraction of subjects choose to avoid, very few subjects few empathetic appeals as something they wish to avoid. This is despite the fact that such appeals have a demonstrably high effect on donation decisions. This goes against the hypothesis laid out by Andreoni et al (2017), which claims people avoid empathy out of a sophisticated understanding of their susceptibility to such effects. In my setting, while subjects are susceptible to empathetic appeals, this does not map into avoidance behavior.

4.3.1 Treatment Differences between Avoiders and Non-Avoiders

Because the proportion of subjects avoiding the empathy effect is so low, the study is under-powered to assess differences in effect sizes from those who attempted to avoid

vs did not attempt to avoid that effect. However, with approximately half of subjects avoiding social pressure, I can examine this effect for that effect.

Figure 3 shows the average donations in the social pressure round for those who attempted to avoid the effect ("Avoiders") and those who did not attempt to avoid the effect ("Seekers"). Within each category, I report the average donation of those for whom the effect was implemented and not implemented due to the probabilistic implementation device.

The findings are that the increase in giving due to the social pressure effect are driven entirely by those who chose *not* to avoid the effect. Those who attempted to avoid the effect gave approximately 30 ECU regardless of whether their avoidance was successful or not. This suggests that, for these individuals, social pressure acts as a net negative, much in the way DellaVigna et al (2012) suggested. Given these subjects chose to avoid the effect, they must receive a non-positive utility from being seen. Furthermore, when they are visible, they don't end up giving more than they otherwise would have. Thus the individual faces a welfare loss, at no gain to the charity.

The fact that those who choose not to avoid social pressure give substantially more when exposed also supports a finding in DellaVigna et al (2012), who find that those who opt-out of solicitation were largely small-dollar donors, while those who did not were the larger donors. What my experiment adds to this findings is that I can observe those who actively wished to be seen when they were not. For these people, not being seen caused them to give much *less*, by 18 ECU ($p = 0.06$). This suggests that social pressure acts as a net positive for this subset of the population, and perhaps is better referred to as a positive "social image" effect.

5 Discussion

In an online settings, I have found that both social pressure and empathetic appeals have positive effects on donations (Predictions 1 and 3 hold). However, contrary to the hypotheses of the previous literature, I only find avoidance in the case of social pressure. This is also strictly in contrast with Prediction 2, which predicts that agents should always try to avoid such an effect. An immediate conclusion is then

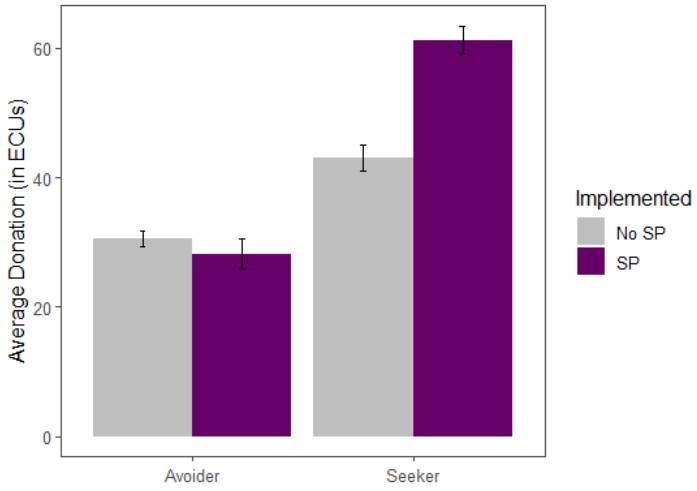

Figure 4: Average donation in the social pressure treatment, by those who attempted to avoid the effect ("Avoider"), and those who did not ("Seeker") and whether or not this avoidance was implemented.

that empathy is not best modelled by a theory of temptation and self-control, as the previous literature on empathy and giving suggests. One direction for future work is to examine why subjects choose not to avoid empathetic appeals, even when they cause a substantial increase in donations. The hypothesis described in Andreoni et al (2017) suggests that subjects should avoid such appeals precisely because they would cause them to donate more, and hence in their "cold" state before the message they would choose to avoid reading it and becoming more altruistic in a "hot" state. There are multiple reasons this could be the case that require additional research to distinguish. For one, subjects may simply be unaware of the effect this message will have on them, and so they lack the sophistication necessary to control their environment in the way Andreoni and co-authors suggest. Another possibility is that subjects are aware, but they actively *enjoy* going into the "hot" charitable state and giving more. This theory is compatible with theories of warm-glow, but not that of temptation and self-control. Perhaps in addition to these two effects, subjects may simply have a natural curiosity about what their solicitors have to say, and thus the temptation is reading the message itself (such as that found in the temptation and self control experiments of Toussaert (2018)). All of the above explanations are viable hypotheses, and future work should distinguish them and find out what causes subjects to seek out donation-increasing messaging.

Predictions 4 and 5, concerning social pressure, do seem to hold in my results. I find a positive side to the social pressure effect—those who opt-in to the effect do so *because* it makes them give more, as they enjoy being seen as charitable. Thus my findings support those of DellaVigna et al (2012), which suggest that allowing people to opt-out of solicitations is an optimal policy. It allows those who get dis-utility from the ask to avoid it, while not substantially decreasing charity revenue because these individuals are not likely to give regardless. In addition, those who choose not to opt-out receive positive social-image utility, and raise higher levels of donations.

In addition, my experiment adds to the existing literature by focusing on online methods of solicitation. While the previous literature has examined largely in-person solicitation involving professional solicitors, the present paper studies online solicitation involving peer solicitors. In the last decade, such solicitation settings have become increasingly common, with the advent of platforms such as GoFundMe and Facebook Fundraising. My results show that many of the same results found in field settings also apply in online settings. This is especially important because both social pressure and empathetic appeals may take drastically different forms in online versus in-person settings. My social pressure treatment is the most stark example of such a difference, where the only difference in treatment is whether an anonymous other views one's anonymous donation, or no one at all views the donation. Even in such an anonymous setting, a majority of subjects still true to avoid being seen. And when seen, giving increases substantially. In many real-world online settings, where giving decisions can be tied to one's identity and seen in peer social networks, this effect is likely larger (both in avoidance and in giving effect).

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Instructions

Welcome to the experiment. We ask that for the duration of the experiment, you focus on the experiment and refrain from using other electronics.

At the beginning of the experiment, you will be randomly assigned to one of two roles, called Donor and Solicitor. In the first two rounds of the experiment, you will be randomly matched with another participant who is of the other role type. You will only play with any individual participant in the lab a maximum of one time. For example, if you play a participant in round 1, you will not play them again in round 2.

At the beginning of the experiment, Solicitors will be randomly assigned to one of two reputable charity foundations, each of which helps support relief efforts in NYC due to the COVID-19 pandemic. Solicitors will then have the opportunity to write a message to their future partners. Solicitors are encouraged to explain why their future partners should donate to this cause.

Throughout the first two rounds of the experiment, Donors will be given 100 Experimental Currency Units (ECUs). Donors will then decide how to distribute that money between his/her self and their partner's charity. In addition to never partnering with the same subject twice, Donors will also never be partnered with the same charity twice.

Instructions on what information you will be presented with will vary round to round, so please make sure you read each round's instructions carefully.

After the first two rounds of the experiment, all players will fill out a brief questionnaire.

For Solicitors, your payment will be the $10.00 show-up fee, with a potential bonus, to be explained later in the instructions.

For Donors, one randomly selected round will be chosen for payment. Because only one randomly selected round is chosen for payment, participants should treat both decision rounds independently of the other decision rounds. Payments will be $0.10 per ECU, in addition to your $10.00 show-up fee.

All payments will be automatically delivered to you at the end of the experiment via an Amazon gift card code. Since these codes are generated automatically and anonymously, the experimenter has no ability to match any specific individual's actions with their identity. A computer program will generate gift card codes automatically for each subject, matched to their unique anonymous subject ID number. At the end of the experiment, you will login to a Qualtrics survey using this unique number, and the survey will then show you the gift card code in addition to your receipt. These receipts will only be associated to you by your university N -number, which the experimenter has no ability to connect to your other identifying information (i.e. your name). These receipts are collected purely for administrative purposes. Thus, all donations should be made knowing the experimenter has **no identifiable knowledge** of your individual donation amount.

At the end of the experiment, the donations for the randomly selected round will also be translated to USD at a rate of $0.10 per ECU. All randomly selected donations will be summed together and donated online.

Message Stage:

Solicitor's see:

You have been assigned the role of Solicitor. This means that each round, you will be randomly matched with a participant who is a Donor.

You have been randomly assigned to the charity **INSERT CHARITY NAME**.

Please write a message to your future partners about why they should donate to this cause. Depending on the round, your partner may or may not be able to read this message, and you will not be notified of whether or not it was read.

Empathetic appeals (appeals to feelings of warmth and compassion in response to someone in distress) have been shown to be effective at raising donations for charities in need. To incentivize message writers to appeal to empathy, at the end of the experiment all message writers will vote for who they think wrote the most empathetic message. To do so, we will randomly draw one of the three messages written by each writer. Then, each writer will be able to vote for one of the displayed messages written by the other writer's (not including themselves). The participant with the highest number of votes will be given a bonus of $5.00. In the event of a tie, we will randomly draw from those with the highest number of votes to see who gets the bonus.

ROUND 1

Donor's Screens:

Screen 1

For this round, you have the choice between two options. These options concern the information you and your partner will be presented with in this round.

The option you select will be given to you with 60% probability (i.e., a majority of the time), while the option you do not select will be given to you with 40% probability.

Please carefully read the descriptions of the two options below, and then make your choice.

- Option 1: You will not receive your partner's message. Your partner, however, will be notified of how much you decided to give to their charity.
- Option 2: You will not receive your partner's message. Your partner will not be notified of how much you decided to give to their charity.

Please select your option.

Screen 2

(If Option 1 implemented)

> Option 1 has been implemented. You will not receive your partner's message. Your partner, however, will be notified of how much you decided to give to their charity.

Your partner's charity is CHARITY.NAME.

How much would you like to donate to your partner's charity?

(If Option 2 implemented)

Option 2 has been implemented. You will not receive your partner's message. Your partner will not be notified of how much you decided to give to their charity.

Your partner's charity is CHARITY.NAME

How much would you like to donate to your partner's charity?

Solicitor's Screens:

Screen 1

Please wait while your partner reads additional instruction prior to making their donation decision.

Screen 2

(If Option 1 implemented)

Your partner is now about to determine how much of their 100 ECU endowment they wish to give to your charity. After their choice, you WILL see how much they decided to give to your charity.

(If Option 2 implemented)

Your partner is now about to determine how much of their 100 ECU endowment they wish to give to your charity. After their choice, you will NOT see how much they decided to give to your charity.

Screen 3

(If Option 1 implemented)

Your partner decided to donate ____ ECUs to your charity.

(If Option 2 implemented)

Your partner has decided how much to give to your charity. Recall, this round you will NOT see how much your partner decided to give to your charity.

FILLER GAME 1 (SEE APPENDIX)

ROUND 2

Donor's Screens:

Screen 1

For this round, you have the choice between two options. These options concern the information you and your partner will be presented with in this round.

The option you select will be given to you with 60% probability (i.e., a majority of the time), while the option you do not select will be given to you with 40% probability.

Please carefully read the descriptions of the two options below, and then make your choice.

- Option 1: You will receive your partner's message. Your partner, however, will not be notified of how much you decided to give to their charity.
- Option 2: You will not receive your partner's message. Your partner will not be notified of how much you decided to give to their charity.

Please select your option.

Screen 2

(If Option 1 implemented)

Option 1 has been implemented. You will receive your partner's message. Your partner, however, will not be notified of how much you decided to give to their charity.

Your partner's charity is CHARITY.NAME.

Partner's Message: MESSAGE

How much would you like to donate to your partner's charity?

(If Option 2 implemented)

Option 2 has been implemented. You will not receive your partner's message. Your partner will not be notified of how much you decided to give to their charity.

Your partner's charity is CHARITY.NAME

How much would you like to donate to your partner's charity?

Solicitor's Screens:

Screen 1

Please wait while your partner reads additional instruction prior to making their donation decision.

Screen 2

Your partner is now about to determine how much of their 100 ECU endowment they wish to give to your charity. After their choice, you will NOT see how much they decided to give to your charity.

Screen 3

Your partner has decided how much to give to your charity. Recall, this round you will NOT see how much your partner decided to give to your charity.

Survey Instruction Screen:

You will now fill out a short survey. Your answers to these questions will be completely anonymous, no other participant nor the experimenter will be able to match your responses to your identity. Thus, we ask you answer each question honestly.

After all have submitted their survey responses, you will see a screen showing your payment for this experiment.

Please click the button below to proceed to the survey.

Survey Screen:

Instructions for questions 1-16:

Below is a list of statements. Please read each statement carefully and rate how frequently you feel or act in the manner described. Here, use the rating scale: Never = 0; Rarely = 1; Sometimes = 2; Often =3; Always = 4. There are no right or wrong answers or trick questions. Please answer each question as honestly as you can.

1. When someone else is feeling excited, I tend to get excited too

2. Other people's misfortunes do not disturb me a great deal

3. It upsets me to see someone being treated disrespectfully

4. I remain unaffected when someone close to me is happy

5. I enjoy making other people feel better

6. I have tender, concerned feelings for people less fortunate than me

7. When a friend starts to talk about his\her problems, I try to steer the conversation towards something else

8. I can tell when others are sad even when they do not say anything

9. I find that I am "in tune" with other people's moods

10. I do not feel sympathy for people who cause their own serious illnesses

11. I become irritated when someone cries

12. I am not really interested in how other people feel

13. I get a strong urge to help when I see someone who is upset

14. When I see someone being treated unfairly, I do not feel very much pity for them

15. I find it silly for people to cry out of happiness

16. When I see someone being taken advantage of, I feel kind of protective towards him\her

Instructions for questions 17-33:

Below you will find a list of statements. Please read each statement carefully and decide if that statement describes you or not. If it describes you, check the word "true"; if not, check the word "false".

17. I sometimes litter.

18. I always admit my mistakes openly and face the potential negative consequences.

19. In traffic I am always polite and considerate of others.

20. I have tried illegal drugs (for example, marijuana, cocaine, etc.).

21. I always accept others' opinions, even when they don't agree with my own.

22. I take out my bad moods on others now and then.

23. There has been an occasion when I took advantage of someone else.

24. In conversations I always listen attentively and let others finish their sentences.

25. I never hesitate to help someone in case of emergency.

26. When I have made a promise, I keep it--no ifs, ands or buts.

27. I occasionally speak badly of others behind their back.

28. I would never live off other people.

29. I always stay friendly and courteous with other people, even when I am stressed out.

30. During arguments I always stay objective and matter-of-fact.

31. There has been at least one occasion when I failed to return an item that I borrowed.

32. I always eat a healthy diet.

33. Sometimes I only help because I expect something in return.

Instructions for questions 34-35</h5>

Below is a list of 2 COVID-19 related charities. Please rate how familiar you were with each of these charities, prior to this experiment.

Please use the following scale in your answer:

Haven't heard of the charity = 0; Know a bit about the charity = 1; Know a lot about the charity = 2

34. United Way of New York City COVID-19 Community Fund

35. Robin-Hood Covid-19 Relief Fund

Instructions for questions 36-37

Below is again a list of 2 COVID-19 related charities. Please tell us your opinion of each of these charities, prior to this experiment.

Please use the following scale in your answer:

Very Negative = 0; Somewhat Negative = 1; Neither Negative nor Positive = 2; Somewhat Positive = 4; Very Positive = 5

36. United Way of New York City COVID-19 Community Fund

37. Robin-Hood Covid-19 Relief Fund

38. With what gender do you identify? (Answers: Male, Female, Other/Prefer Not to Say)

Results Screen:

Donor's Screen:

The randomly selected round for payment was (participant.vars.round_pay).

Your earnings in this round were (participant.payoff).

In this round, you gave (participant.vars.charity_earnings) ECU for (participant.vars.charity_name).

At the rate of $0.10 per ECU, the total amount donated to the charity above is (player.charity_earnings) USD. Your earnings are the remaining ECUs from your endowment that round, in addition to your $10.00 show-up fee. Your total payment is (participant.payoff_plus_participation_fee).

Please wait for instructions from the experimenter to collect your payment.

In order to collect your payment, you will need your subject ID code. This code is (participant.code)

Solicitor's Screen

The randomly selected round for payment was (participant.vars.round_pay).

If Round_Pay was 1 & Option 1 implemented:

In this round, you raised (participant.vars.charity_earnings) ECU for (participant.vars.charity_name).

At the rate of $0.10 per ECU, this donation is equal to (player.charity_earnings) in USD.

If Else:

Recall that in this round you were not told how much money you raised for (participant.vars.charity_name).

If player not win vote:

You did not win the highest number of votes for your message, so you do not receive any bonus payment.

Your total earnings is the show-up fee of (participant.payoff_plus_participation_fee).

If player won vote:

You won the highest number of votes for your message, so in addition you receive a $5.00 bonus payment.

Your total earnings is then this bonus plus your $10.00 show-up fee, which is (participant.payoff_plus_participation_fee).

Please wait for instructions from the experimenter to collect your payment.

In order to collect your payment, you will need your subject ID code. This code is (participant.code)

APPENDIX B:

Filler Game 1

Page 1

To proceed to the next stage of the experiment, you must complete this brief task.

Please choose 4 letters from the alphabet and type them below. For example, you could choose ABTY.

Page 2

Using the four letters you chose on the previous page, please write a four word sentence or phrase where the first letter of each word corresponds to the letters you chose. For example, if you chose ABTY, you could write A Big Toad Yells.

As a reminder, the letters you chose on the previous page were _____.