Argument-inconsistency in charity appeals: Statistical information about the scope of the problem decrease helping toward a single identified victim but not helping toward many non-identified victims in a refugee crisis context

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Abstract

It is known that both the characteristics of the victims one can help and the existence of victims one cannot help influence economic helping decisions in suboptimal ways. The aim of this study was to systematically test if these two aspects interact with each other. In Studies 1 and 2, we created hypothetical charity appeals related to the Syrian refugee crisis and factorially manipulated characteristics of victims possible to help (one identified child/nine non-identified children) and presence of statistical information about the scope and nature of the problem (information-box absent/present). We found a significant interaction effect both when using self-rated helping intention (Study 1), and when using actual donation behavior as the dependent variable (Study 2). Statistical information decreased helping intentions toward a single identified child but had no, or even a small positive effect on helping nine non-identified children. In Study 3, non-student participants reading a charity appeal with *both* a story about one identified child *and* statistical information donated less often than participants reading appeals with *either* only a story about one identified child *or* only statistical information. We suggest that both emotional arguments (e.g., a story and picture of an identified child in need) and analytical arguments (e.g., detailed statistical information about the scope and nature of the problem) can make us more motivated to help refugees, but that mixing different argument-types can make charity appeals internally inconsistent and decrease donations.

Keywords: charity appeals; helping refugees; identified victim effect; pseudoinefficacy; anticipated warm glow; argument-inconsistency.

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It is well established that people's economic decision making often is flawed and result in suboptimal outcomes (Baron, 2008). Although poor decision making in regard to one's own life is problematic, poor decision making concerning other people's lives and health is, arguably, even worse. Both the decision not to help others in great need despite the personal costs of helping being comparably small (e.g. Singer, 2009), and the decision to donate money to a small number of victims rather than a large number of victims (e.g. Slovic, 2007) could be considered decision making biases. Understanding these biases, and how to rectify them, could be one of the most important tasks for the field of economic psychology.

This paper is inspired by a study by Small, Loewenstein and Slovic (2007). In their Study 3, participants were given \$5 for an unrelated task and later asked to read a charity appeal. For one third of the participants, the charity appeal included only statistical information about different needs in various African countries. For another third of the participants, the appeal included only a story about the 7-year old girl Rokia from Mali who was desperately poor and needed help from private sponsors. For the last third of the participants, the appeal included both the statistical information and the story about Rokia. As predicted by the identifiable victim effect, participants reading only the story about Rokia donated more money ($M = \$2.38$) compared to participants reading only the statistical information ($M = \$1.14$). Interestingly, the appeal including both the Rokia-story and the statistical information rendered significantly less donations ($M = \$1.43$) than the appeal with only the Rokia-story. Thus, adding statistical information about the scope of the problem decreased helping towards an appeal with a single identified victim.

In the current study we aim to conceptually replicate the study by Small and colleagues but in a refugee crisis context. Moreover, whereas their study manipulated only the existence of statistical information and kept the victim one could help constant, our first two studies manipulate both the *characteristic of victim(s) one can help* (one identified child/multiple non-identified children), and the *existence of statistical information about the scope and nature of the problem* (information-box absent/present). Below, we review previous research on these two aspects and suggest that over and above influencing helping separately, the interaction of these aspects could further clarify how people make decisions in charitable situations.

1.1. Characteristics of the victim(s) one can help

Both the identity (e.g. ingroup vs. outgroup victims) and the presentation of victims influence how much people help. In this paper we focus on presentation and portray victims possible to help as either single identified or many non-identified. Identifiability can range from a fully identified victim (e.g., you can help Marielle, a 4-year old girl currently in acute need of a blood transfusion), via a determined but anonymous victim (e.g., you can help a child currently in acute need of a blood transfusion), to a totally non-identified (statistical) victim (e.g., you can help a child that will be in

acute need of a blood transfusion in the future; Small & Loewenstein, 2003; Kogut & Ritov, 2005a, 2005b, 2007, 2015; Slovic, 2007). Previous research suggest that people are more motivated to help an identified victim than a non-identified victim and it has been shown that this is because an identified victim increase emotional reactions (distress and sympathy) more than a non-identified victim (Kogut & Ritov 2005a; Dickert & Slovic, 2009; Small et al., 2007; Erlandsson, Björklund & Bäckström, 2015). Importantly, the identifiability effect primarily works when one can help a single victim, but less so when one can help many victims (Kogut & Ritov, 2005a; 2007). In fact, eight identified victims do not elicit more help intentions than eight non-identified victims. The *number* of victims one can help is an important situational aspect in itself, and in sharp contrast to utility-maximizing theories, it seems that people are more motivated to help one identified victim than eight identified victims as long as these are evaluated separately (Kogut & Ritov, 2005b). However, if the victims are non-identified, the number of victims does not influence, or slightly increase, helping intentions (Kogut & Ritov, 2005a, 2005b).

Although number and identifiability of victims are sometimes manipulated factorially (e.g. Kogut & Ritov, 2005a, 2005b), it has been suggested that the core identified victim effect paradigm embodies the single identified victim condition versus the multiple non-identified victims condition (Friedrich & McGuire, 2010, Kogut, 2011). Helping is generally the highest toward a single identified victim, but this can easily be considered a bias (Baron & Szymanska, 2011). From a normative perspective, identifiability of victims should be irrelevant, and the amount of helping should be proportional to the number of victims one can save per resource unit.

1.2. Existence of statistical information about the scope and nature of the problem

Another aspect that influence helping is information that indicate that there exist victims that cannot be saved. In the studies by Kogut and Ritov (2005a, 2005b, 2007) where identifiability and number of victims possible to save was manipulated, there was no mention of victims that could not be helped thus suggesting that one could always help 100% of the victims at risk. Although there exist some charity projects where all victims at risk can be saved (e.g., raising money to pay for a specific child's organ transplant or to rescue a group of miners trapped underground), this is not realistic for charities trying to reduce grand-scale suffering caused by e.g. refugee crises, nature disasters, war or poverty. In these need situations, there will always be some victims that one cannot save.

Previous research has showed that people who are told that the total number of victims at risk is small (e.g., you can help 300 out of 320 sea otters at risk) are more motivated to help than people who are told that the total number of victims at risk is large (e.g., you can help 310 out of 5000 sea otters at risk; Bartels, 2006). This proportion dominance effect, or drop in the bucket-effect, implies that people are more motivated to help when they can help a large proportion of the victims at risk. For example, Friedrich et al., (1999) showed that most people think that more lives has to be saved in

order to justify a fixed expenditure if 41000 lives are at risk compared to when 9000 lives are at risk (see also Fetherstonehaugh et al., 1997; Baron, 1997; Bartels & Burnett, 2011 for related findings). More recent studies have suggested that the proportion dominance effect is mediated by perceived impact rather than by emotional reactions or by perceived responsibility (Erlandsson, Björklund & Bäckström, 2014; 2015). Thus, people believe that a project saving 25 out of 25 victims at risk is doing more good than a project saving 30 out of 400 despite the number of lives possible to save is higher in the later project. From a normative perspective, number of victims not possible to save is irrelevant and should not influence the amount of helping towards those one can save (Baron & Szymanska, 2011).

A related phenomenon is pseudoinefficacy (Västfjäll, Slovic & Mayorga, 2015), which suggests that the existence of victims not possible to help can demotivate us from helping victims that we can help. The proposed psychological mechanism for this phenomenon is that negative affect elicited by victims we cannot help dampens the positive affect (warm glow) we feel toward victims we can help. Västfjäll et al. (2015) show that helping motivation, as well as anticipated warm glow, when helping a single identified child, is lower when one also learns that there exists an additional identified child for whom help is not available. They also separate two types of pseudoinefficacy. The “fast” type of pseudoinefficacy means that the victims are few and identified (e.g. you can help Rokia, but there is no way you can help Moussa). The slow type of pseudoinefficacy means that the victims are many and statistical (e.g., this medicine can cure approximately 40,000 children, but for 20,000 other children there are no known cure). If read from a pseudoinefficacy-perspective, this study is one of the first that includes manipulations of both the fast type (i.e. you can help one identified child), and the slow type of pseudoinefficacy (i.e. statistical information about the many you cannot help).

For crises in the real world, it is rarely possible to manipulate the actual scope of the problem. However, there are techniques to manipulate the *perceived* scope of real problems. First, one can frame the problem either as something grand-scale (e.g., there are currently 4300000 Syrian refugees in the world) or as something smaller (e.g., 17 Syrian unaccompanied minors are looking for foster homes in our municipality). In one study, people were less motivated to support a project that could save 25 of the 50000 lives annually lost at the entire highway than an equally costly project that could save 25 of the 25 lives annually lost at a specific highway intersection (Jenni & Loewenstein, 1997). Second, it is possible to manipulate the perceived scope of the problem by mentioning or not mentioning statistical information about it. This was exactly what was done in the aforementioned study by Small et al. (2007), and as noted, the results suggested that mentioning statistical information decreased helping. Nevertheless, many charitable organizations keep using statistical information about the scope of the problems in their charity appeals, often in the form of a statistics-packed “information-box” being included in charity appeals next to a narrative story about victims possible to save.

It is important to notice that statistical information-boxes in actual charity appeals rarely include information exclusively about the scope of the problem. For example, appeals often include information about the nature of the problem, information about its cause, information about possible ways to solve the problem, and numerical information about the chance of success or risk of failure. Although we are aiming to manipulate the perceived scope of the problem with the information-boxes, we also want to keep the charity somehow realistic. Therefore, our statistical information-manipulation includes not exclusively information about the scope of the problem, but also information about the problem in general.

1.3. Interaction between victim-characteristics and existence of statistical information.

As noted, both characteristics of the victim(s) possible to help and existence of statistical information about the scope and nature of the problem have been shown to influence helping. In this study, we are primarily interested in the interaction between these aspects. We expect to replicate the findings by Small et al., (2007) in that as long one can help a single identified victim, adding statistical information in the form of an information-box will decrease helping. However, when one can help several statistical victims, we do not expect the statistical information to decrease helping. On the contrary, we suspect that including statistical information even could *increase* helping if the victims possible to help are many and non-identified or unspecified.

One reason for this is that a statistical information-box can contain tangible details which in turn can increase generosity (e.g. Bachke, Alfnes & Wik, 2016). In a study by Cryder, Loewenstein & Scheines (2013), including details about a charity intervention (e.g., we help by providing mosquito-nets) made people donate more money compared to not including details (e.g., we help in various ways). The authors further suggested that this effect was mediated primarily by perceived impact of helping rather than by emotional reactions toward the victims. Although the details in their study concerned the solution of the problem rather than the scope of the problem, one could argue that the very nature of providing statistical information in a charity appeal where the scope of the problem is already salient (as it tends to be when reading about non-identified victims possible to help) might increase the credibility and trustworthiness of the charitable project and the organization behind it, thus increasing donations (Bekkers, 2003).

Another way to illustrate the hypothesis is by introducing the concept of argument-inconsistency. Previous studies have shown that mixing different types of arguments can reduce compliance. For example, providing both egoistic and altruistic reasons for giving reduced actual donations compared to presenting only one type of argument (Feiler, Tost & Grant, 2012; see also Chang & Lee, 2010 and Lee & Aaker, 2004 for other types of argument-inconsistency). We propose that charitable appeals can try to persuade potential donors either by using emotional arguments or by using analytical arguments. Presenting a single identified victim possible to help is a good example of an emotional

argument. On the other hand, including a statistical information-box packed with details about the scope and nature of the problem is an example of an analytical argument. Although both emotional arguments and analytical arguments can convince people to donate more money, we argue that charity appeals using both types of arguments could be perceived as inconsistent and that this might reduce helping motivation.

In sum, we predict an interaction effect when factorially manipulating characteristic of the victim(s) possible to help and existence of statistical information about the scope and nature of the problem. We expect that participants reading about one identified child possible to help will help more if the appeal does not include statistical information than if it does. On the contrary, we expect that participants reading about nine non-identified children possible to help will help equally much, and possibly even more, if the appeal includes statistical information about the problem.

1.4 Anticipated warm glow if helping

According to economic theories about charitable giving, people donate money to unknown others either because of prestige (social rewards as a result of helping publicly; Glazer & Konrad, 1996) or because of warm glow (a reward in the form of positive emotions as a result of helping publicly or privately; Andreoni, 1990; Harbaugh, 1998; Bischoff & Krauskopf, 2015). Although social-psychological theories such as the empathy-altruism hypothesis (Batson, 2011) suggest that there exist other, more altruistic, motivations for helping others, it is generally accepted in both fields, that one important reason for helping others is to avoid negative and approach positive emotions (Cialdini et al., 1987; Batson, 2011). Because of this and because fast pseudoinefficacy has been linked to a reduction in expected positive emotions (Västfjäll et al., 2015), we included measures of anticipated warm glow in our first two studies. Based on previous research (e.g., Västfjäll, Slovic, Mayorga & Peters, 2014; Västfjäll et al., 2015), we expect that anticipated warm glow will predict helping the best when it is possible to help a single identified child and when no information about the scope of the problem is provided. We also expect that anticipated warm glow will mediate the negative effect statistical information has on helping an identified victim.

2. Study 1

This study was conducted in the context of the Syrian refugee crisis. This helping context was chosen because at the time of data collection (spring 2015) this was the most prominent charity project in Europe.

The main purpose of the study was to factorially manipulate victim characteristics (you can help one identified child/nine non-identified children) and presence of statistical information about the scope of

the problem (information-box absent/present) in a 2×2 between-subject design and use helping intention as the main dependent variable. A secondary purpose of this study was to test how anticipated warm glow is influenced by the included manipulations, whether or not anticipated warm glow mediates the negative effect of statistical information, and to investigate if the correlation between anticipated warm glow and helping intention differ between the experimental conditions.

2.1. Method

Two hundred and ninety-eight Swedish students (210 female, 84 male, 4 with unmarked gender; $M_{\text{age}} = 24.54$, $SD = 3.85$) completed a paper and pen questionnaire.¹ Originally, the study was designed to allow both between-subject and within-subject analyses so all participants read three hypothetical charity appeals, and responded to questions about their thoughts and feelings about each appeal. The three appeals all concerned Syrian children suffering from an inheritable kidney disease and participants were told that these children could be helped by private donations. All participants read one appeal with one identified child, one appeal with nine identified children and one appeal with nine non-identified children. Importantly, we manipulated the order of presentation of the appeals so that half of the participants first read and responded to the appeal with one identified victim, and the other half first read and responded to the appeal with nine non-identified victims. This procedure allowed us to test the hypotheses with a 2×2 between-group design (by focusing only on the responses toward the appeal participants read first). This is the analysis that will be reported here.²

The first between-subject factor was victim characteristic. The identified child appeal included a story about Ranim, a sick Syrian girl currently living in a refugee camp. Readers were told that Ranim needed regular dialysis to survive and that that her life would change for the better as a result of their donation. The appeal also included a picture of Ranim.³ The nine non-identified children appeal was similar but the victims possible to help were here illustrated with nine silhouettes and question marks instead of names. Readers were told that the silhouettes represented nine unknown sick children currently living in refugee camps and needing dialysis to survive (see Figure 1 and supplementary material). Readers were told that nine children's lives would change for the better if they received donations.

---Insert Figure 1 about here---

¹ Power analyses using G*Power 3 (Faul, Erdfelder, Lang & Buchner, 2007) indicated that this sample size has a 97.7% chance of detecting a medium effect size and 73.3% chance of detecting a small effect size. As the study by Small et al. (2007) found a medium-sized effect ($\eta^2_p = .07$), the estimated power of this study seems sufficient.

² For the sake of brevity, the within-subject analyses are omitted here but available upon request.

³ Five different pictures were used to illustrate Ranim, but as each picture appeared equally many times, type of picture was not included in any analyses.

The second between-subject factor was absence or existence of statistical information. Half of the participants read an information-box placed above the story about Ranim/the nine non-identified children. The information-box contained several pieces of statistical information about the nature of the refugee crisis, the number of refugees in different countries, and common causes of death for refugees (see Figure 2). The other half did not see this statistical information-box.

---Insert Figure 2 about here---

After reading the charity appeal, participants first responded to two questions measuring anticipated warm glow if helping: 1) “I would experience an extremely strong warm pleasant feeling if I donated money”, and 2) “I would feel extreme happiness if I donated money”. Both questions were responded to on a seven-point Likert scale where (1) represented no anticipated warm glow if helping and (7) represented extremely much warm glow if helping. A third item “I would experience myself as an extremely good person if I donated money” was included but as this item is measuring anticipated positive self-image if helping rather than anticipated emotional warm glow it was not included in the analyses.

Participants then responded to three items measuring helping intention: 1) “How likely is it that you would donate money to this cause?” 2) “How motivated would you be to donate money to this cause?” 3) “Imagine that you would win 1000SEK ($\approx$ \$900) in a lottery, how much of this money would you donate to this cause?” Each question was responded to on a seven point Likert-scale where (1) represented no helping intention at all and (7) represented an extremely high helping intention.⁴

Participants then responded to the question “If a humanitarian organization used this ad, how would you feel about the organization?” by circling a number between (1) = extremely negative to (7) = extremely positive. Finally, they responded to the question “How much factual information do you think the ad included” by circling a number between (1) = extremely little to (7) = extremely much. After reading and responding to all three appeals, participants were debriefed and excused.

⁴ The willingness to donate variable was rated on a 7-point Likert scale just like the other variables. The low extreme value (1) was labeled 0 SEK, the mid value (4) was labeled 500 SEK and the high value (7) was labeled 1000 SEK. One can thus interpret this Likert scale as a willingness to donate measure where each step on the scale represents an additional donation of 142.86 SEK. The results reported are based on the Likert-scale.

2.2. Results

Six participants were excluded either for not completing the questionnaire or for being univariate outliers using a cutoff of $Z > 3.29$.⁵ The manipulation check showed that participants reading the appeals with the statistical information felt that the appeal included more factual information ($M = 4.58$, $SD = 1.45$) than the participants reading the appeal without the statistical information ($M = 3.70$, $SD = 1.44$; $F(1, 288) = 26.87$, $p < .001$, $\eta^2_p = .085$). Neither the victim characteristic manipulation nor the interaction effect was significant (both F 's < 0.7 , ns). There were no significant main effects or interaction effect when testing attitudes toward the organization (see Table 1).

2.2.1. Helping intentions

We used a 2×2 factorial ANOVA to analyze how the manipulations influenced helping intentions. The three helping intention items showed a good inter-correlation ($\alpha = .82$) so they were aggregated into a single variable. Neither the main effect of victim characteristic, $F(1, 288) = 0.30$, $p = .586$, nor the main effect of statistical information, $F(1, 288) = 0.99$, $p = .322$, were significant. However, the interaction effect was clearly significant $F(1, 288) = 7.65$, $p = .006$, $\eta^2_p = .026$ (see Figure 3). For participants who could help Ranim, helping intention was significantly higher when the statistical information was absent ($M = 3.35$) than when it was present ($M = 2.82$; $t[142] = 2.75$, $p = .007$). In contrast, for participants who could help nine non-identified children, helping intention was non-significantly lower when the statistical information was absent ($M = 3.03$) than when it was present ($M = 3.28$; $t[137.13] = -1.22$, $p = .226$, equal variances not assumed). Also, whereas participants not exposed to the statistical information reported a slightly higher helping intention toward Ranim than toward nine non-identified children, $t(145) = -1.69$, $p = .094$, participants exposed to the statistical information reported a significantly higher helping intention toward nine non-identified children than toward Ranim, $t(143) = 2.20$, $p = .030$.

---Insert Figure 3 about here---

2.2.2. Anticipated warm glow

The two included warm glow items showed an acceptable inter-correlation ($\alpha = .79$), so they were aggregated. Again, a 2×2 factorial ANOVA was used to analyze how our manipulations influenced anticipated warm glow if helping. Neither the main effect of victim characteristic, $F(1, 288) = 1.31$, $p = .254$, or the main effect of statistical information, $F(1, 288) = 2.67$, $p = .103$, was significant. The interaction effect approached significance $F(1, 288) = 2.82$, $p = .094$. For participants reading about

⁵ Including these participants did not change the results in any substantial way.

one identified child, anticipated warm glow was higher when the statistical information was absent ($M = 4.43$) than when it was present ($M = 3.94$; $t[142] = 2.44$, $p = .016$). The statistical information did not influence anticipated warm glow for participants reading about nine non-identified children ($M = 4.36$ when present and $M = 4.35$ when absent; $t[146] = -0.03$, $p = .975$).

We used model 8 of the PROCESS macro by Hayes (2013) to test moderated mediation. Existence of statistical information (0 = No, 1 = Yes) was the independent variable; helping intention was the dependent variable; anticipated warm glow was the mediating variable; and victim characteristic (0 = nine non-identified children, 1 = one identified child) was the moderating variable. Bootstrap analysis with 10000 iterations showed a significant indirect effect when it was possible to help one identified child (CI95: low = -0.482 , high = -0.055), but not when it was possible to help nine non-identified children (CI95: low = -0.218 , high = -0.225). Thus, anticipated warm glow mediated the negative effect statistical information had on helping intentions towards an identified child in this study.

The bivariate Pearson correlations between anticipated warm glow and helping intentions can be seen in Table 2. The correlation coefficients indicate that anticipated warm glow is a slightly better predictor of helping intentions when it is possible to help a single identified victim ($r = .63$) than when it is possible to help nine non-identified victims ($r = .50$; Fisher's $Z = 1.62$, $p = .11$).

---Insert Table 1 about here---

---Insert Table 2 about here---

2.3. Additional study A

An underlying assumption in Study 1 was that a charity appeal including one identified child possible to help is perceived as using more emotional arguments than an appeal including several non-identified victims possible to help. Another assumption is that a charity appeal including statistical information about the scope and nature of the problem will be perceived as using more analytical arguments than an appeal without the statistical information. To test these assumptions, we let 134 Swedish students (52.6% male, $M_{\text{age}} = 24.41$, $SD = 4.78$) read six versions of a charity appeal online, and rate to which extent they perceived that each appeal tried to persuade people to donate with emotional arguments and with analytical arguments respectively. Participants responded on Likert-scales ranging from 1 (not at all) to 10 (extremely much). All participants read all six versions of the charity appeal but the order of presentation was randomized. One appeal included no information (except a logo of a well-known charity organization with a request to donate), and one appeal

included only the statistical information-box, but the other four versions were identical to the four appeals used in Study 1. The reported results are based on these four appeals.

As assumed, participants believed that the appeals with one identified child possible to save used more emotional arguments ($M = 7.80$, $SD = 1.51$), than the appeals with nine non-identified children ($M = 6.16$, $SD = 2.05$; $t[134] = 11.05$, $p < .001$, Cohen's $d = 0.99$). Also, participants believed that the appeals including the statistical information used more analytical arguments ($M = 7.41$, $SD = 1.61$) than the appeals not including it ($M = 4.94$, $SD = 1.94$; $t[134] = 15.06$, $p < .001$, Cohen's $d = 1.31$, see Table 3). The results supports our a priori assumption that identifying a victim possible to save is perceived as an emotional argument whereas adding statistical information about the scope and nature of the problem is seen as an analytical argument.

---Insert Table 3 about here---

3. Study 2

Although the hypothesis was supported in Study 1, one could argue that the absence of a real donation measure poses a problem. Therefore, the aim of Study 2 was to replicate the study and to use real donation choices as the main dependent variable.

3.1. Method

Two hundred Swedish students (130 female, 51 male, 19 with unmarked gender; $M_{\text{age}} = 24.95$, $SD = 4.92$) completed a short paper and pen questionnaire in return for three lottery scratch ticket each worth 10 SEK ($\approx$ \$1.23 or 1€). The content of the charity appeal and the two manipulations were identical to the ones used in Study 1, but in this study participants read and responded to only one appeal thus creating a traditional 2×2 between-group design. Participants first read one of the four charity appeals and responded to the same items as in Study 1. They then turned the page and first obtained the three promised lottery tickets, and then read that they had the opportunity to donate money to the organization behind the appeal they just read. The donation was made by giving up the buying price of the lottery tickets they just received. Participants marked a box indicating their choice (donating 0, 1, 2 or all 3 tickets) and then put the donated lottery tickets as well as the questionnaire in an envelope before sealing it and handing it back to the experimenter. This procedure made the

donation decision totally anonymous. The value of the donated lottery tickets were later donated to Save the Children.⁶

3.2. Results

The manipulation check showed that participants reading the appeal with the statistical information-box felt there were more facts in the appeal than the participants reading the appeal without the statistical information-box, ($F[1,196] = 4.88, p = .028, \eta^2_p = .024$, see Table 1). Neither the main effect of victim characteristic nor the interaction effect was significant (both F 's $< 0.5, ns$). We also tested if the attitude toward the charity organization differed as a result of the manipulations. In this study, there was a small main effect of victim characteristic $F(1, 196) = 3.87, p = .050$, meaning that the attitude toward the organization was slightly less positive when the appeal included Ranim ($M = 4.15$) than when it included nine non-identified children ($M = 4.46$). There was no effect of statistical information and no interaction effect (both F 's $< 0.4, ns$; see Table 1).

Like in Study 1, the three self-rated helping intention items were aggregated ($\alpha = .83$). In this study, the interaction effect was not significant $F(1, 196) = 0.08, p = .775$. There was also no main effect of victim characteristic, $F(1, 196) = 0.13, p = .721$, but there was a tendency of a main effect of statistical information, $F(1, 196) = 3.20, p = .075, \eta^2_p = .016$, meaning that those who read the appeal without statistical information reported slightly higher help intentions (see Table 1).

3.2.1. Donation likelihood

The main dependent variable in Study 2 was real donations, and more specifically the likelihood of the participant donating something. In total, 377 of the 600 distributed lottery tickets were donated ($M_{\text{lottery tickets}} = 1.89, SD = 1.24$).

A binary logistic regression was used to test if our charity appeal manipulations predicted whether or not participants donated lottery tickets to the organization behind the appeal. The dependent variable was whether or not the participant donated any of the lottery tickets and the independent variables were victim characteristic (you can help Ranim/nine non-identified children), existence of statistical information about the scope of the problem (information-box absent/present) and the victim characteristic $\times$ statistical information interaction term. The main effect of statistical information was not significant, $B = 0.72, SE.B = .463, \text{Wald}(1, N = 200) = 2.44, p = .118$, but there was a main effect of victim characteristic, $B = 1.15, SE.B = .505, \text{Wald}(1, N = 200) = 5.20, p = .023$, meaning that those reading about Ranim donated more often than those reading about nine non-identified children. Moreover, we found a significant interaction effect, $B = -1.39, SE.B = .700, \text{Wald}(1, N = 200) = 3.92, p = .048$. As can be seen in Figure 4, the obtained interaction pattern is similar to the one found

⁶ Lottery tickets was preferred over actual money because pilot studies showed that almost all participants receiving this small amount in coins, donate everything thus not creating any variance in the dependent variable.

for self-rated helping intention in Study 1. Although the simple effect Chi²-tests did not reach significance, $\chi^2(1, N = 100) = 1.64, p = .202$ (for those reading about Ranim) and $\chi^2(1, N = 100) = 2.49, p = .115$ (for those reading about nine non-identified children), the obtained interaction effect indicates that statistical information have a different effect on helping for those reading about one identified child, than for those reading about nine non-identified children.

---Insert Figure 4 about here---

3.2.2. Anticipated warm glow

As in Study 1, the two warm glow items were aggregated ($\alpha = .88$). The 2×2 ANOVA showed that neither the main effect of victim characteristic, $F(1, 196) = 0.72, p = .398$, the main effect of statistical information, $F(1, 196) = 1.90, p = .169$, nor the interaction effect, $F(1, 196) = 0.03, p = .866$, was significant in this study (see Table 1). We also conducted the same moderated mediation analysis as in Study 1 using either self-rated helping intention or donation decision (0 = no donation, 1 = donation) as the dependent variable. Bootstrap analysis with 10000 iterations indicated no indirect effect neither when it was possible to help Ranim (CI95: low = -0.466 , high = 0.084 for self-rated helping intention and CI95: low = -0.465 , high = 0.107 for donation decision) nor when it was possible to help nine non-identified children (CI95: low = -0.468 , high = 0.144 for self-rated helping intention and CI95: low = -0.477 , high = 0.177 for donation decision). This means that unlike Study 1, we found no support for the idea that anticipated warm glow differs as a function of charity appeal or the idea that anticipated warm glow mediates the negative effect statistical information has on helping an identified victim.

The bivariate correlations between anticipated warm glow and actual donations can be seen in Table 2. Replicating the pattern found in Study 1, the Spearman correlation coefficients between anticipated warm glow and number of donated lottery tickets was overall higher for participants who could help Ranim ($r_s = .377$) than for those who could help nine non-identified victims ($r_s = .097$, Fisher's $Z = 2.08, p = .036$). In addition, the correlation between anticipated warm glow and donating something (0 = did not donate anything, 1 = donated something) was overall higher for participants who could help Ranim ($r_s = .407$) than for participants who could help nine non-identified victims ($r_s = .091$, Fisher's $Z = 2.37, p = .002$, see Table 2).

4. Study 3

Although we found the anticipated interaction effect in Study 2 when using actual donation likelihood as the dependent variable, both the robustness of the obtained effect as well as our argument-inconsistency explanation can surely be questioned. We therefore conducted a third study that was a conceptual replication of the previous two studies, but used a different set of stimuli material and recruited participants from a non-student sample. Participants read either a charity appeal with an identified child (i.e. only an emotional argument), a charity appeal with only statistical information about the scope and nature of the problem (i.e. only an analytical argument), or a charity appeal with both an identified child and statistical information (i.e. a mixed appeal including both types of argument). We hypothesized that people would donate more often after reading appeals using only one type of argument than after reading appeals with both types of arguments.

4.1 Method

One hundred seventy-eight Swedish participants (86 female, 85 male, 7 with unmarked gender; $M_{\text{age}} = 35.88$, $SD = 13.79$) were recruited individually while having a break from work. The participants were predominantly employees at Greater Stockholm Local Transit Company (SL). Participants completed a short paper and pen questionnaire in return for one lottery scratch ticket worth 10 SEK as well as coffee and cookie. All participants first read a small introduction about UNHCR that ostensibly was the organization behind the charity appeal. The short text stated that among other things, UNHCR collect money in order to prevent and treat cancer in refugee children and to provide support to their families. On the following page, participants were randomly allocated to read one of three charity appeals: (1) the identified child-appeal, (2) the statistical information-appeal, (3) the mixed appeal.

The *identified child-appeal* contained a story about Fara, a refugee girl diagnosed with Leukemia. The story was ostensibly written by Fara's grandmother and described how the illness affected Fara and the whole family living in a refugee camp. The story ended with a wish that Fara's story would make people donate money to UNHCR in order to help Fara and other children like her. The *statistical information-appeal* included information about Leukemia, its prevalence and the estimated survival-rate. The *mixed appeal* included all the information in the statistical appeal as well as all the information in the identified appeal. English translations of the three appeals can be found in the supplementary material.

After reading the appeal, participants first responded, on nine-point Likert scales, to three help intention questions; (1) how probable is it that you would donate money after reading the appeal, (2) how motivated would you be to donate money after reading the appeal, (3) how important is it for you to support UNHCR after reading the appeal? They were then told that they could anonymously donate the buying price of the scratch ticket (10 SEK) to UNHCR, and/or donate a higher amount by giving

cash money. As in Study 2, participants anonymously donated the lottery ticket or cash by putting it in an envelope. After the donation task, participants responded to questions about how they perceived the appeal and the organization, how emotionally touched they were from reading the appeal, the perceived impact of helping, and their perceived personal responsibility to help. They also reported their sex, age and political preferences on an 11-point Likert scale.⁷ Means and standard deviations are reported in Table 1. After completion, participants put the questionnaire, together with the lottery ticket and/or cash money, in a blank envelope, sealed it and returned it to the experimenters.

4.2. Results

Manipulation checks showed that compared to the statistical information-appeal, participants believed that the identified child-appeal and the mixed appeal contained a personal story to a higher degree ($F[2,171] = 94.64, p < .001$, see Table 1). Also, compared to the identified child-appeal, participants believed that the statistical information-appeal and the mixed appeal contained more statistics ($F[2, 172] = 57.78, p < .001$). The perceived in-groupness, ($F[2, 169] = 1.51, p = .223$); perceived impact of helping ($F[2,172] = 0.52, p = .595$); and perceived personal responsibility of helping ($F[2, 172] = 1.07, p = .345$) did not differ significantly between the three appeals. Also, the appeals did not influence participants' opinion about the organizations differently, ($F[2,172] = 0.63, p = .535$).

We aggregated the three questions about helping probability, helping motivation and helping importance into a single self-rated helping intention variable ($\alpha = .92$). Like Study 2 (but unlike Study 1), there were no differences in self-rated helping intention between the three appeals, $F(2, 175) = 0.31, p = .734$ (see Table 1).

4.2.1 Donation likelihood

Among the 178 participants, 46.1% choose to keep the lottery ticket, 44.9% choose to donate the lottery ticket and 9% choose to donate more than 10 SEK. The total amount of money donated was 1425 SEK and this sum was later transferred to UNHCR by the first author. As in Study 2, we divided participants into donors (i.e. those donating the lottery ticket and/or putting cash money in the envelope, $n = 96$) and non-donors ($n = 82$).

56.9% of the participants reading the identified child-appeal and 61.4% of the participants reading the statistical information-appeal donated something. In contrast, only 43.3% of the participants reading the mixed appeal donated something. A Chi²-test showed that participants reading an appeal with only

⁷ Anticipated warm glow if helping was not measured in this study. The reasons for this was: (a) That the main aim in this study was to test the argument-inconsistency hypothesis rather than warm-glow mediation; and (b) that the reaction questions were asked after, rather than before, the donation decision in this study. Asking someone about her anticipated warm glow if helping *after* the helping decision risks confounding anticipated with experienced warm glow. In order to include a more natural measure of emotional reactions, Study 3 measured to what extent the charity appeal made participants emotionally touched.

one type of argument (emotional or analytical) donated significantly more often than participants reading an appeal with both types of arguments, $\chi^2(1) = 4.09, p = .043$. The odds of donating were 1.11 times higher if participants read an appeal with only one type of argument.

4.2.2 Emotional sensitivity

Unlike Studies 1 and 2, anticipated warm glow was not measured in this study. Instead, one item (presented after the donation decision) asked participants to what extent they became emotionally touched from reading the appeal. Surprisingly, the results showed that the degree to which participants felt emotionally touched did not significantly differ between the three appeals, $F(2, 172) = 1.42, p = .245$.

Like with anticipated warm glow in Studies 1 and 2, we tested if the relation between becoming emotionally touched and actual donations differed as a function of the appeal participants read. The bivariate rank-ordered correlation between being emotionally touched and donations were $r_s = .253$ for the identified child-appeal, $r_s = .214$ for the mixed appeal but $r_s = -.105$ for the statistical information appeal. The relation between being emotionally touched and donation likelihood was significantly stronger when the appeal included a single identified victim (Fisher's $Z = 2.13, p = .003$). This result is consistent with the results from the previous studies and suggests that not only anticipated warm glow but emotions in general are more related to helping when reading an appeal with an identified victim.

5. General discussion

This study is first and foremost a conceptual replication of Study 3 in Small, et al., (2007). In their study, adding statistical information about the scope of a problem made people less likely to help a single identified victim. The findings obtained in this study are consistent with those results.

Moreover, this study also demonstrated a boundary condition of the abovementioned effect. Specifically, statistical information only decreased helping in situations where one could help a single identified victim. In fact, statistical information about the scope and nature of the problem even had a directionally positive (although non-significant) effect on helping when the appeal included nine non-identified victims possible to help (in Study 1 and 2), or when there were no specified victims possible to help (in Study 3).

We explain this interaction effect by suggesting that charity appeals can use emotional or analytical arguments to persuade us to donate to charity. Although obviously simplified, this way of classifying different types of arguments as well as mental processes is very influential in both marketing and in the judgment and decision making literature (e.g., central or peripheral route to persuasion and dual-

process theories; Petty, Cacioppo & Schumann, 1983; Evans, 2003; Kahneman, 2011; Samson & Voyer, 2012). As illustrated in the additional Study A, a picture and a story of a single identified child is perceived as an emotional argument, and previous research has shown that single identified victims elicit more intense emotional reactions and are subsequently helped more than multiple non-identified victims (e.g. Kogut & Ritov, 2005a). On the contrary, the statistical information-box is an example of an analytical argument. It contains plenty of information and details, and uses numbers to educate the reader about the scope and nature of the problem. Previous research has shown that adding information about a helping project can increase helping motivation (Bachke et al., 2016), and that this effect is mediated by an analytical, rather than an emotional, psychological mechanism (i.e. perceived impact, Cryder et al., 2013).

Based on our results and on previous research related to argument-inconsistency (e.g. Feiler, Tost & Grant, 2012; Chang & Lee, 2010), we argue that both emotional and analytical arguments can work, but that mixing them in a single charity appeal can have detrimental effects on helping. This is very much in line with the results from a field experiment in Denmark where a campaign letter focusing on one identified victim elicited similar amount of donations as a campaign letter focusing on statistical victims, but where both these letters elicited more donations than a campaign letter that mixed information about identified and statistical victims (Lesner & Rasmussen, 2014).

In this interpretation, an appeal with one identified child possible to help and with no statistical information about the scope of the problem worked relatively well because it included an emotional argument. An appeal with non-identified children (or unspecified victims) possible to help and with statistical information about the scope of the problem also worked relatively well because it included an analytical argument. An appeal with non-identified children and without statistical information did not provide any type of argument and did therefore not work very well. Finally, an appeal with one identified child and statistical information did not work well because it used both an emotional and an analytical argument, thus making the appeal inconsistent.

5.2. Anticipated warm glow, emotional sensitivity and its relation to helping

In Study 1, anticipated warm glow if helping was the lowest for participants who could help a single identified child but also read statistical information about the scope of the problem. Statistical information did however, not decrease anticipated warm glow for those who could help several statistical victims. In addition, anticipated warm glow mediated the negative effect the information-box had on helping an identified victim. This pattern was however not replicated in Study 2 and anticipated warm glow was not measured in Study 3, so we are hesitant to draw any major conclusions about the mediating psychological mechanisms of the obtained effect.

Still, our results suggest that anticipated warm glow is a better predictor of helping intentions (in Study 1) and actual helping (in Study 2) when it is possible to help an identified victim. The same pattern emerged in Study 3 using a different type of emotional reaction (being emotionally touched). Although our results were mixed regarding the core identifiable victim effect (supported only in Study 2), emotional reactions were consistently a better predictor of helping in situations where one could help a single identified child compared to situations where one could help non-identified children. It thus seems like the picture of one identified girl possible to help strengthened the relation between anticipated and experienced emotions and helping intentions. Against expectations, including statistical information about the scope of the problem did not weaken the relation between anticipated warm glow and actual donations. On the contrary, including statistical information to the appeal where it was possible to help nine non-identified children slightly increased the correlation. This suggests that although warm-glow driven helping is primarily induced by emotional arguments (e.g., pictures of identified children possible to help), analytical arguments (e.g., statistical information) is not detrimental and might even be beneficial for warm-glow driven helping.

These results are in large congruent with the results obtained in Small et al., (2007, Study 1) where “feelings” had a stronger correlation with donations when the victim possible to help was identified and donors had not previously learned about the identified victim effect. It should be noted however, that whereas Small et al., (2007) used a “feeling-scale” which consisted of five broad questions about their affective and moral reactions to the situation, we focused on only two types of emotional reactions, namely anticipated warm glow if helping (Studies 1 and 2), and being emotionally touched after reading the appeal (Study 3). Importantly, neither anticipated warm glow nor being emotionally touched is the same thing as helping intentions. There are many types of emotions, thoughts and beliefs that can increase or decrease our likelihood to help, and although these two are important motivators for helping, there are several other important motivators as well (e.g. Erlandsson, Björklund & Bäckström, 2015).

5.3. Theoretical implications: Linking the results to pseudoinefficacy

As noted in the introduction, although this study can be seen as a continuation on previous work on pseudoinefficacy, it also include some important differences. First, this study manipulated characteristics of victims one can help and information about victims one cannot help separately and did so while mixing fast and slow pseudoinefficacy (Västfjäll et al., 2015). Importantly, it is possible to describe victims possible to help as either one identified (fast) or many statistical (slow). At the same time, it is possible to describe victims one cannot help as either few identified (fast), many statistical (slow), or simply refrain from mentioning their existence. In the current study, we did manipulate characteristic of victims possible to help, but we did not include a condition where one identified child could not be helped. Although not tested here, the identified victim effect would

predict that a single identified victim *not* possible to save would demotivate helping towards victims possible to save more than many statistical victims not possible to save.

Second, another important difference between previous pseudoinefficacy-studies and the current study is that we did not explicitly state that there are victims who cannot be helped. Instead, as in the study it tried to replicate, participants were provided with statistical information simply illustrating the scope of the problem. Although it is reasonable to assume that this information increased the perception of not being able to help all victims (Small et al., 2007), there are important differences between including statistical information about the scope of the problem and explicitly stating that there are a specific number of victims “for whom help is not available” (Västfjäll et al., 2015). Whereas information about the scope and nature of the problem can provide useful and relevant information, seemingly irrelevant but disturbing information about victims one cannot save might very well cause anger among participants if it is perceived to be included purposely to induce a negative feeling (psychological reactance; e.g. Berkowitz, 1973). In addition, there is an inherent vagueness in saying that there are victims who cannot be helped by you. Does this mean that the victims already are dead, dying or beyond help or that the victims can be helped by others but not by you? One can even imagine that there are victims that you cannot help because they have already been helped. These type of questions should be an interesting future path for studies on pseudoinefficacy.

Relatedly and as noted in the introduction, information given in a charity appeal is not a unitary thing. Our statistical information manipulations were conceptually similar to the statistics-manipulation used in study by Small et al. (2007) and included information primarily about the scope of the problem (e.g. number of people in need) and nature of the problem (how the problem occurred and what it implies). The included statistical information-boxes were written to resemble the ones often seen in actual charity appeals, rather than to isolate a single type of information. Admittedly, this makes it difficult to pinpoint what type of information that is the most relevant and we encourage future studies to manipulate different types of information separately. Nevertheless, as shown in the pilot study, whereas identifying a single child possible to help was primarily perceived as an emotional argument, adding statistical information was primarily perceived as an analytical argument. This distinction is central to the idea about argument-inconsistency.

5.4. Limitations

A cause for concern is that although the obtained interaction effect in Study 1 was replicated when using donation likelihood as the dependent variable in Studies 2 and 3, it was not replicated when using the self-rated helping intention variable. From the outset, the aim of Studies 2 and 3 was to replicate the obtained effect but to operationalize helping as actual donation likelihood. Nevertheless, we still asked participants questions about their helping intention in Studies 2 and 3, and expected to (but did not) find the interaction effect using this operationalization of helping as well. In fact, the

relation between self-rated helping intentions and donation likelihood was remarkable low in both Study 2 ($r_s = .235, p = .001$) and Study 3 ($r_s = .194, p = .009$).

Speculatively, there were some procedural differences that might explain the diverging results. First, participants in Study 1 read and responded to three charity appeals whereas participants in Studies 2 and 3 only read and rated a single charity appeal. Second, whereas participants in Study 1 participated without compensation, participants in Studies 2 and 3 knew that they would obtain lottery tickets if participating. These factors taken together make it likely that the participants in the three studies embraced their task in different ways. Possibly, participants in Study 1 who had to complete a longer questionnaire for free responded to the helping intention task in a quicker and more intuitive way than the participants in Studies 2 and 3 who was economically compensated for filling out a very short questionnaire. Some support for this notion come from the observation that participants in Study 2 spent an equally long time responding to a single charity appeal as participants in Study 1 did to respond to three appeals. Filling out the questionnaire at a slower pace and using more deliberation could have increased the relative influence of pre-existing individual differences in values and worldviews and reduced the relative influence of situational factors (i.e., aspects of the appeal) when responding to the hypothetical helping intention variable. Combined with the fact that Studies 2 and 3 had fewer participants (due to time and financial constraints), the minor methodological differences in the three studies could conceivably explain why the expected effect on self-rated helping intention was found in Study 1, but not in Studies 2 and 3. As noted by e.g. Baumeister, Vohs and Funder (2007), actual behavior and introspective self-reports about behavior are not necessarily the same thing. Also, actual behavior is arguably a more important measure than self-reports, especially in studies about helping.

In the current study, we varied both the singularity aspect (one rather than many victims) and the identifiability aspect (identified rather than non-identified victims) when manipulating characteristics of victims possible to help. These aspects are sometimes seen as two separate effects and our design admittedly confounds these aspects. The reason we did this was that both singularity and identifiability have been intimately linked to increased emotional reactions (e.g. Slovic, 2007) and claimed to together make up the core identified victim effect paradigm (Friedrich & McGuire, 2010, Kogut, 2011).

Although the original Small et al. study from 2007 was in the context of poverty in Africa, our study took place in the context of the Syrian refugee crisis. This context was chosen because the civil war and the refugee crisis that followed was the most prominent helping context at the time of data collection (spring 2015 for Studies 1 and 2 and spring 2016 for Study 3). Importantly, Studies 1 and 2 were conducted before the disturbing picture of Alan Kurdi became public and before volunteering

and private donations to help Syrian refugees increased dramatically in Sweden.⁸ Also, at around the same time (September, 2015) the number of refugees arriving to Sweden began to escalate intensely.⁹ Without doubt, being exposed to refugees much more directly than before influenced the way Swedish people perceived them. Study 3 was conducted around one year later (spring 2016) but during a period when the public debate about refugees were back to moderate levels.

Descriptive norms influence charitable giving (e.g. Agerström, Carlsson, Nicklasson & Guntell, 2016) and it is likely that the events in September 2015 influenced the perceived norms about helping refugees in general, and possibly also the way our manipulations influenced helping. In order to generalize obtained findings of the single identified victim effect, the effect of statistical information, and the identified victim $\times$ statistical information interaction effect, it might be necessary to test it in different helping contexts (e.g. poverty in Africa, the Syrian refugee crisis and sick children from one's own country) and at different times (e.g. before or right after an event such as the picture of Alan Kurdi). For this reason, both the current study and the study by Small et al. (2007), should be seen as pieces of the puzzle rather than conclusive evidence of a universal helping effect.

6. Conclusion

This study used a refugee crisis context and conceptually replicated the finding from Small et al. (2007) meaning that statistical information about the scope and nature of the problem decreased helping toward a single identified child possible to help. Still, our result suggests that statistical information about the scope and nature of the problem is not always detrimental for helping. When there are several non-identified children possible to help or when there are no specified victims possible to help, statistical information does not decrease helping at all. Moreover, our results indicate that anticipated warm glow and being emotionally touched are better predictors of helping when it is possible to help a single identified child than when it is possible to help many statistical children. We suggest that both emotional and analytical arguments can motivate people to help, but that it might be detrimental to mix different types of arguments within a single charity appeal.

⁸ Alan Kurdi is the dead Syrian boy who was washed ashore on a beach in Turkey after drowning in an attempt to cross the Mediterranean Sea together with his family. https://en.wikipedia.org/wiki/Death_of_Alan_Kurdi. The photo of Kurdi was presented in Swedish media on September 3rd, 2015. Private donations to the Swedish fundraiser Radiohjälpen the two days before the photo was published was 175000 SEK and 345000 SEK respectively. Donations to Radiohjälpen the two days after the photo was published was 3455000 SEK and 2115000 SEK respectively, indicating a 971% increase in private donations (personal communication, February 1st, 2016).

⁹ Although the number of people seeking asylum during the period January-August was similar in 2014 and 2015, the steep increase of refugees in September, 2015, made the total number of asylum seekers in Sweden over the whole year, more than twice as high in 2015 compared to 2014 (Swedish Migration Agency, 2016).

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Figure captions

Figure 1: The 1 identified child appeal, and the 9 statistical children appeal in Studies 1 and 2. See supplementary material for English translations.

Figure 2: The statistical information-box in Studies 1 and 2 (translated from Swedish)

Figure 3. Helping intention in each condition in Study 1. Error bars = 95% confidence intervals

Figure 4: The percentage of participants donating something in each condition in Study 2.

Figure 1

Annons 1.

DU KAN HJÄLPA RANIM

Tioåriga Ranim har flytt våldet i Syrien och saknar nu sjukvård för en allvarlig njursjukdom. Under det senaste halvåret har hon tagit skydd i ett flyktingläger.

Ranim

Prognosen som de läkare som kommer att gå till Ranim, en 10-årig flicka från Syrien, Ranim lider av Alporters syndrom, en ärftlig njursjukdom. Sjukdomen är progressiv och leder till en försämrad njurkapacitet. Ranim behöver regelbunden dialysbehandling för att överleva. Med ditt stöd, och med stöd från andra kommer Rikda Barnen att arbeta i flyktinglägret för att kunna erbjuda Ranim den sjukvård som hon behöver. Ranimns liv kommer garanterat att ändras till det bättre som ett resultat av din gåva.

Annons 3.

DU KAN HJÄLPA BARN

Bilderna representerar nio barn som saknar sjukvård för en allvarlig njursjukdom, de tillhör gruppen av barn som flytt våldet i Syrien. Under det senaste halvåret har de tagit skydd i flyktingläger.

Prognosen som de läkare som kommer att gå till nio barn med Alport syndrom, en ärftlig njursjukdom. Sjukdomen är progressiv och leder till en försämrad njurkapacitet. Barn med Alporters syndrom behöver regelbunden dialysbehandling för att överleva. Med ditt stöd, och med stöd från andra kommer Rikda Barnen att arbeta i flyktingläger för att kunna erbjuda den sjukvård som behövs. Nio barns liv kommer garanterat att ändras till det bättre som ett resultat av din gåva.

Figure 2

INFORMATION

The current state for refugees affected by the war in Syria.

The Syrian civil war is an ongoing conflict between the supporters of Bashar al-Assad's Baath government and the people that want it overthrown. The soon to be four year long conflict in Syria has escalated and almost **11 million people** are in need of humanitarian aid. FN estimates that there is almost **6.5 million** internal refugees in Syria and over **3 million** on the run in Syria's neighboring countries; Lebanon (**1 185 000**), Turkey (**850 000**), Jordan (**615 000**), Iraq (**215 000**) and Egypt (**140 000**). The most commonly reported causes of death amongst the refugees include **diarrheal diseases, measles, acute respiratory infections, malaria, and malnutrition.**

Figure 3

Figure 4

Table 1: Means (standard deviations) and percentage of participants donating something as a function of type of appeal in all three studies.

	You can help 1 identified child		You can help 9 non-identified children	
	No statistical information	Statistical information	No statistical information	Statistical information
Study 1				
Facts in the appeal (1-7)	3.64 (1.48)	4.66 (1.31)	3.76 (1.41)	4.50 (1.58)
Attitude toward organization (1-7)	4.32 (1.12)	4.15 (1.17)	3.91 (1.26)	4.20 (1.33)
Anticipated warm glow (1-7)	4.43 (1.25)	3.94 (1.18)	4.35 (1.35)	4.36 (1.31)
Self-rated helping intention (1-7)	3.35 (1.17)	2.82 (1.14)	3.03 (1.08)	3.28 (1.40)
	You can help 1 identified child		You can help 9 non-identified children	
	No statistical information	Statistical information	No statistical information	Statistical information
Study 2				
Facts in the appeal (1-7)	4.12 (1.52)	4.48 (1.47)	3.90 (1.37)	4.40 (1.39)
Attitude toward organization (1-7)	4.10 (1.20)	4.20 (1.20)	4.42 (0.99)	4.50 (1.05)
Anticipated warm glow (1-7)	4.33 (1.36)	4.01 (1.38)	4.47 (1.71)	4.22 (1.36)
Self-rated helping intention (1-7)	3.41 (1.18)	3.02 (1.27)	3.29 (1.53)	3.00 (1.26)
Percentage donating	86%	76%	66%	80%
	Identified child-appeal		Statistical information-appeal	
Study 3				
Facts in the appeal (0-8)	1.60 (1.95)	4.98 (1.98)	4.63 (1.62)	
Attitude change toward organization (-4 – 4)	1.09 (1.30)	0.92 (1.32)	1.19 (1.37)	
Personal story (0-8)	5.98 (2.18)	1.44 (2.05)	6.00 (1.96)	
Perceived ingroup of victims (0-8)	1.16 (1.85)	1.68 (2.11)	1.83 (2.13)	
Perceived impact (0-8)	6.19 (1.91)	5.92 (2.12)	6.25 (1.71)	
Perceived personal responsibility (0-8)	3.54 (2.25)	3.39 (2.41)	3.98 (2.18)	
Touched me emotionally	4.67 (1.84)	4.03 (2.09)	4.36 (2.12)	
Self-rated helping intention (0-8)	4.13 (1.92)	4.26 (1.74)	4.39 (1.77)	
Percentage donating	56.9%	61.4%	43.3%	

Table 2: Correlation coefficients showing the bivariate relation between anticipated warm glow and different measures of helping in each of the four conditions

	You can help 1 identified child		You can help 9 non-identified children	
	No statistical information	Statistical information	No statistical information	Statistical information
Study 1: self-rated helping intention	$r = .601$	$r = .623$	$r = .530$	$r = .488$
Study 2: number of donated lottery tickets	$r_s = .427$	$r_s = .331$	$r_s = -.002$	$r_s = .251$
Study 2: donation decision, [0= no donation, 1= donation]	$r_s = .397$	$r_s = .399$	$r_s = .069$	$r_s = .157$

Table 3: Mean (*SD*) perceived emotional arguments and analytical arguments for the six versions of the charity appeal tested in the additional study. The four columns on the left are the conditions used in Studies 1 and 2.

	You can help 1 identified child		You can help 9 non-identified children		Victims you can save not mentioned	
	No statistical information	Statistical information	No statistical information	Statistical information	No statistical information	Statistical information
Perceived emotional arguments	8.14 (1.64)	7.49 (1.68)	6.51 (2.27)	5.79 (2.15)	6.72 (2.90)	3.39 (2.14)
Perceived analytical arguments	4.59 (2.24)	7.16 (1.74)	5.30 (2.33)	7.68 (1.79)	2.15 (1.75)	8.10 (1.88)