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UNIVERSITET

DEPARTMENT of PSYCHOLOGY

When knowing more about a crisis decreases charitable aid: Victim statistics causes lower anticipated warm glow and help efforts for specifically single identifiable victims.

Oskar Sundfelt

Master's Thesis (30 hp)
Spring 2015

Supervisor: Arvid Erlandsson

Abstract

Prior research indicates that the increase in help towards 1 identified victim (identifiable victim effect) is partly driven by affective reasoning. When negative affective information is salient, help towards victims that can be helped decline, an effect known as pseudoinefficacy. However, the affective component has not been clearly defined, and help efforts has been used interchangeably with measures of affect. In 2 studies, I measured 1. An affective component clearly defined as anticipated warm glow for hypothetically donating toward victims, 2. Help efforts (help intention and donation). The experiments manipulated victim stories and negative affective information in the form of victim statistics. Field experiments were conducted using pen-and-paper packages where participants rated humanitarian aid advertisements. Victim statistics caused lower help intention and anticipated warm glow for specifically 1 identified victim. However, these results were not replicated in the follow-up. The second study demonstrated lower donations for 1 identified victim presented with victim statistics. Anticipated warm glow had a slightly stronger relation to help intention and donations for specifically 1 identified victim compared to 9 statistical victims. Results indicate that evaluating the help efforts toward a victim is related to anticipated warm glow. Introducing victims that cannot be helped can lead to lower anticipated warm glow. Differences in anticipated warm glow might be one of the underlying factors for both pseudoinefficacy and the identifiable victim effect.

Keywords: identifiable victim effect, pseudoinefficacy, anticipated warm glow, proportion dominance, charitable aid, willingness to pay, help effects, anticipated emotion

When Knowing More About a Crisis Decreases Charitable Aid: Victim Statistics Causes Lower Anticipated Warm Glow and Help Efforts for Specifically Single Identifiable Victims.

Millions of people are affected by crisis every year. On a global scale over 50 million humans are currently fleeing conflict, environmental disaster, famine, and disease. There is a great demand for humanitarian aid, and in 2013 a record amount of resources were redistributed. Governments contributed \$16.4 billion, and private donations reached \$5.6 billion (Global humanitarian assistance, 2014). One of the current targets of humanitarian aid are the victims of the Syrian civil war. The UN reports great consequences for the civilian population, violations against children include bombing of schools, hospitals, and forced recruitment of child soldiers (UN Security Council, 2015). The seriousness of the humanitarian crisis in Syria is known to the world, yet only 65% of the UN appeals towards the conflict were funded in 2013 (Global humanitarian assistance, 2014).

Since resources are limited, Governmental bodies and private donors are forced to make judgments of both the size of contributions and where to target the aid. These decisions are partially based on information about the victim; the way of presenting a victim is here referred to as a victim context. The following context is a victim story taken directly from Save the Children's web page:

11-year-old Ghofran hasn't been to school for a year – even though she's living in one. She enjoyed going to school in Syria, but conflict erupted and forced Ghofran and her family to leave their home and country, and flee to Lebanon. Now a refugee, Ghofran sleeps on the floor of an abandoned classroom, and hasn't been to school in over a year. (Save the children, 2013)

Ghofran is described using her name, age, and personal information, including where she is from, where she fled from, her current situation and ambitions. In comparison this media report presents a different context, victim statistics:

Empty out Boston; starve Moscow, and you may understand some of Syria's hell. The death toll there has doubled in a year's time, if an opposition group is right. Since civil war broke out there, 310,000 people have been killed, the Syrian Observatory for Human Rights said Thursday. A year earlier, SOHR's tally stood at 162,402. And the year before, the United Nations put the death toll at 70,000. (Blumfield, 2015, Cnn.com)

When comparing Ghofran to one of the statistical victims reported by CNN, these victims are arguably perceived in different ways. The statistical victim with number 237.001 in the CNN article does not lend us many details compared to what we know about Ghofran. In the victim story about Ghofran no victim is outside the reach of help, and in the CNN victim statistics hundreds of thousands are already dead. The focus of this thesis is about how both information regarding Ghofran (victim story) *and* the victims reported by CNN (victim statistics) is impacting judgment about help efforts. When more victims of the Syrian civil war are salient, what is the impact for help efforts concerning Ghofran?

Recent research demonstrates that help efforts decrease rapidly for small number of victims when other victims that cannot be helped are salient, something that is referred to as pseudoinefficacy (Västfjäll, Slovic & Mayorga, 2015). This thesis will build on the recent findings concerning pseudoinefficacy. I will demonstrate how exposure to victims that are out of reach impacts the anticipation of post-judgment emotion and help efforts with clear definitions for both possible underlying mechanisms and help efforts. This will be accomplished by systematically manipulating both types of victim contexts: 1. The victim story (i.e. Ghofran) where all the victims can be helped, and 2. Whether or not victim statistics (i.e. CNN statistics) with victims that cannot be helped are presented.

Contexts where all victims can be helped

One identified victim like Ghofran has an increased chance to receive donations compared to a victim without identifying information (Kogut & Ritov, 2005a, b, 2007). This increase in contributions is related to presenting personal information about a victim (Sah & Loewenstein, 2012). When help efforts are increasing because of personal information, the increase is commonly referred to as the identifiable victim effect (Jenni & Loewenstein, 1997). However, the victim stories that are compared do not need to be as extreme as the example in the introduction. An identified victim compared to a victim with the same amount of personal information, but not yet selected from a pool of victims elicited less hypothetical help compared to if the victim was already selected. A victim elicit increased help efforts by just being determined, a very weak form of identifiability. This also demonstrates that help efforts can increase incrementally with increasing identifying information (Small & Loewenstein, 2003). A similar increase in contributions has also been shown using the ultimatum game, where additional personal information of the recipient increased the sharing of resources (Bohnet & Frey, 1999).

Kogut and Ritov (2005b) found that the identifiable victim effect was absent when comparing groups of victims. When manipulating both identifiability (identified vs. unidentified) and victim number (1 victim vs. 8 victims) identifying information had no effect on donations for the groups of eight victims, it only had an effect when comparing one identified victim to statistical victims. The identifiable victim effect is constrained to single identified victims, something that is referred to as the singularity effect (Kogut & Ritov, 2005a, b, 2007). This singularity effect was also observed by Redelmeier and Tversky (1990), physicians evaluated interventions and their cost for individual patients and patients in groups. Physicians were more willing to spend resources on expensive interventions for individual identified patients compared to identifiable individuals in a group of patients.

Although there are theoretical and experimental separations of the identifiable victim effect and the singularity effect, in many experiments hybrids are used where the single victim is identified and compared to many, hundreds, or thousands of statistical victims (Friedrich & McGuire, 2010; Small, Loewenstein & Slovic, 2007). These kinds of studies used both identifiability and the singularity effect, and are arguably more similar to donation pleas outside the laboratory.

Building on this research, the experiments used for this thesis will manipulate the victim story in three levels using humanitarian aid ads concerning victims of the current conflict in Syria; 1 identified victim that is pictured and presented with name and age, 9 identified victims all pictured and named, and 9 statistical victims that were presented with silhouettes instead of pictures, question marks instead of names. The statistical victims were also undetermined, the participants read that their potential donation will reach nine children, but the victims are not yet determined.

Contexts where all victims cannot be helped

In the aforementioned studies primarily focused on the identifiable victim effect, all of the presented victims could be helped. For instance, Kogut and Ritov (2005) compared saving 1 identified victim to saving 8 identified victims. When facing donation pleas there is often additional statistical information or knowledge that describes humans at risk that cannot be helped. For example, statistical information about the conflict in Syria introduces thousands or even millions of victims for which help might be out of reach.

In a series of experiments, Bartels (2006) demonstrated that saving a greater proportion of victims were preferred over absolute number of victims. When deciding between interventions that could possibly save 230 of 300 (76%) victims, compared to 230 of 920 (25%) victims, the former intervention with the largest proportion was preferred by a

majority of participants. This preference for proportion as an evaluative basis for judgments compared to absolute numbers of victims is referred to as the proportion dominance effect (Slovic, Finucane, Peters & Macgregor, 2007). This effect has been demonstrated many times and using varied scenarios (Fetherstonaugh, Slovic, Johnson and Friedrich 1997; Baron, 1997; Jenni & Loewenstein, 1997). The effect is present when the units of interest are relatively hard to evaluate, one example of this is the importance of saving 230 lives in one camp compared to 230 lives in another camp (Fetherstonaugh et al., 1997). In addition, when the absolute victim number you can save is manipulated and participants are deciding between a project saving 225 of 300 (76%) victims or 230 of 920 (25.56%) victims, there is a preference for the former project with the largest proportion, even though fewer lives are saved (Bartels, 2006).

A closely related construct to proportion dominance is pseudoinefficacy, a decrease in help efforts for victims when other victims that cannot be helped are salient (Västfjäll et al., 2015). The term pseudoinefficacy denotes help efforts that are seen as inefficient when they in fact are efficient, in other words pseudoinefficient. Whereas proportion dominance scenarios concerns larger amounts of victims, pseudoinefficacy is demonstrated using scenarios with small numbers and with less emphasis on proportional changes. Västfjäll, Slovic, Mayorga and Peters (2014) demonstrated this by presenting a plea for donations using two starving children. In one condition the participants indicated how much money they were willing to donate to one child. In the other condition participants were asked to select and donate towards one of two children, the other child will not get help. The victim presented together with a victim that could not be helped elicited 33% lower donation amounts. In comparison with proportion dominance were small proportions decrease help efforts; pseudoinefficacy is here shown for a larger proportion of victim helped (50% or 1 of 2 victims). There are several experiments that demonstrate this decrease when victims that cannot be helped are present (Västfjäll et al., 2014, 2015; Small et al., 2007). Descriptively proportion dominance and pseudoinefficacy are quite similar, in both cases there is a preference for the largest proportion (1 of 1 victim or 100% compared to 1 of 2 victims or 50%) but the hypothesized underlying causes are different. This is something I will address later in this thesis.

Building on this research, the experiments in this thesis will as a second manipulation present half of the participants with statistical information that includes a large number of victims for which help is out of reach.

The interaction between victim stories and victim statistics

The earlier two sections presented studies that used two different context types: victim stories (i.e. 1 identified victim, 9 statistical victims) where all victims can be helped and preferences are shown for identifiable victims and/or single victims compared to greater number of victims. The second context participants are facing victims that cannot be helped (i.e. victim statistics), and show preference for the greater proportion of victims compared to absolute numbers. In this section I will describe a study in more detail that manipulated both the victim story and victim statistics.

In a series of experiments Small et al.,(2007) examined the impact of deliberation on the identifiable victim effect. In the first experiment participants received \$5.00 for completing an unrelated survey. When the participants were paid, they also received an envelope and a letter soliciting for donations. The solicitation letter manipulated the victim stories. Half of the participants read a victim story about one identified victim:

Any money that you donate will go to Rokia, a 7-year-old girl from Mali, Africa. Rokia is desperately poor, and faces a threat of severe hunger or even starvation. Her life will be changed for the better as a result of your financial gift. With your support, and the support of other caring sponsors, Save the Children will work with Rokia's family and other members of the community to help feed her, provide her with education, as well as basic medical care and hygiene education.

Whereas the other half read victim statistics:

Food shortages in Malawi are affecting more than three million children. In Zambia, severe rainfall deficits have resulted in a 42 percent drop in maize production from 2000. As a result, an estimated three million Zambians face hunger. Four million Angolans—one third of the population—have been forced to flee their homes. More than 11 million people in Ethiopia need immediate food assistance.

In addition, half of the participants read about the identified victim effect hence forming a 2 (victim story vs. victim statistics) x 2 (knowledge about the identified victim effect vs. no knowledge) between-group design. After reading about the victims they could chose to donate any of the received \$5.00 towards the victims. The identifiable victim effect was replicated in the groups without knowledge about the effect, however when participants

knew that help usually increases for one identified victim, the help decreased significantly for one identified victim. What is especially noteworthy here is that help did not increase for the statistical victims in the groups that knew about the identifiable victim effect, i.e. help towards statistical victims were unaffected by the manipulation.

In the next experiment, three victim stories were used: 1 identified victim, statistical victims, and 1 identified victim + statistical victims. Again the identified victim effect was replicated, donations were higher for one identified victim. Interestingly, donations for one identified victim presented alongside statistics was only slightly higher than for the pure statistical victims. It is however clear that something happened to the evaluation of the identified victim that decreased donations when deliberating, or when participants also faced other statistical victims. One hypothesis was that deliberate thought decreased the dependence on affect for evaluating the one identified victim. A scale that measured self-reported affective reactions was used with items such as: "How upsetting is this situation to you?" and "How touched were you by the situation described?". These items had a slightly increased correlation with the one identified victim presented without the analytical thought interventions. The implications of this experiment is that when adding one identified victim to victim statistics help efforts increased slightly, in contrast when adding victim statistics to one identified victim help efforts decreased significantly.

Although the article presented evidence for some sort of affective reasoning that causes the valuation of one identified victim to be lower, the exact affective construct the experiments tried to capture is unclear. The direction of valence is unclear, i.e. the question of how touched you were could be interpreted as either negative or positive in valence. In addition arguably more cognitively oriented questions like: "How much do you feel that it is your moral responsibility to help with this cause?" was mixed with affective items: "How upsetting is this situation for you?" The items produced a relatively high alpha value of .87. However, it is possible that this alpha value is reflecting demand effects and not actual reliability.

In this thesis I aim to fill the gaps of these studies by: 1. Partially replicate their third experiment, but instead of using three conditions, my experiments will manipulate victims you can save (1 identified victim, 9 identified victims, and 9 statistical victims) and exposure to statistical information that includes victims you cannot save (statistics vs. no statistics). This will make it possible to examine if victim statistics have a different impact on help efforts depending on the victim/victims you can save in the victim story. In addition more reliable measures for possible underlying causes will be implemented. Until now I have

mostly discussed contextual differences in how victims can be presented and descriptive results of how different victim contexts impact help efforts, in the next section I will review proposed underlying causes of how victim contexts are evaluated.

Explanations of the identified victim effect, singularity effect, proportion dominance, and pseudoinefficacy

Many authors have argued for a greater emphasis on emotion in judgment and decision-making (Loewenstein, Weber, Hsee and Welch, 2001) and in moral judgment (Haidt, 2000). Affect is broadly defined as a feeling or emotion ranging from extremely negative to extremely positive in valence, and varying in complexity (A.P.A. Dictionary of Psychology, 2006, p. 26). Västfjäll et al.,(2014) used a more narrow definition where affect is an emotional valuation of an experience, object, or behavior: “a feeling (not necessarily conscious) that something is good or bad”. In a similar way Finucane, Peters, & Slovic (2003) defines affect as experiencing a positive or negative quality of a stimulus with or without consciousness, where stimulus can refer to internal or external events and objects. This thesis uses the same definition of affect, with the additional note that the main interest here is valence and not arousal levels related to a certain stimulus. This distinction is important since affect defined this way does not make a distinction between cognitive or emotional evaluations; the focus of this thesis is how negative or positive stimulus is perceived regardless of the amount of deliberation or affective evaluation of quality. In this thesis the evaluated stimulus is anticipated post-decision emotion, something I will come back to in the section on anticipated emotion.

Many underlying causes for the identified victim, and the singularity effect have been suggested. Among these suggestions are: helping a single individual has a more certain outcome and therefore a larger perceived impact (Cryder, Loewenstein & Scheines, 2012), a single individual is the largest possible proportion of victims helped (Jenni & Loewenstein, 1997), or that the effects mainly are mediated by increased sympathy elicited by a single identified victim (Erlandsson, Björklund & Bäckström, 2014). Slovic (2007) suggested that evaluations of human life are reliant on positive or negative affect. Where the single identified victim carries an affective value that cannot be multiplied for victims in groups. This hypothetically causes a steady decrease in valuation for victims when their numbers increase. The same author and colleagues argue that when help efforts are valued using affect as information, help efforts for statistical victims become relatively lower. The statistical victims carry less affective value per person than the single identified victim (Slovic, et al., 2007). Reading this research it is not always clear exact what stimulus that is related to a

certain affective value. In this thesis, when evaluating the importance of aid with the help of affect, the outcome of the judgment is carrying different affective values depending on victim type. In other words outcome *plus* victim is the evaluated stimulus.

A strong relation between increased affect for one identified victim and increased donations for the same victim compared to statistical victims has been demonstrated. Kogut and Ritov (2007) measured self-reported negative affect elicited by the victims that followed a similar pattern as help efforts. Ratings of distress increased when the participants faced a single sick child compared to a group of sick children. And contributions towards expensive life-saving interventions were higher for the single identified victim. More evidence of evaluations based on affect comes from neuroimaging and electrophysiologic measurements. When donating to a child displayed with a photo was contrasted to a silhouette of a child, activity of the nucleus accumbens was related to increased donations (Genevsky, Västfjäll, Slovic & Knutson, 2013). Activity in this area is often related to approach behavior (Harbaugh, Mayr & Burghart, 2007).

Affect seems to be higher for individual victims, but what is different about how single individuals are processed compared to groups? Hamilton and Sherman (1996) proposed a model where individuals are processed as coherent units and groups are processed on a relatively more abstract level. Groups are more diverse than individuals and according to the model we seek less coherence when processing groups. Individuals are however processed as coherent units, and will therefore be processed more extensively. This relatively more extensive processing can lead to stronger impressions, and increased affective processing. There is some experimental evidence supporting this notion, when a group of victims are presented as a coherent unit the measured self reported affect was at the same level as for one individual (Smith, Faro & Burson, 2013; Västfjäll et al., 2014). In addition individuals in groups are perceived as having less beliefs, desires, consciousness, and intelligence (Morewedge, Chandler, Smith, Schwarz & Schooler, 2013), something that is also backed up neuroimaging evidence in the form of more activation of mentalizing networks when processing behavior of an individual compared to an individual in a group (Van der Cruyssen, Heleven, Vandekerckhove & Overwalle, 2015).

In contexts where there are victims that cannot be helped, perceived impact is one of the main candidates as an underlying cause. A high perceived impact of donations has also been directly linked to higher donation amounts (Cryder & Loewenstein, 2012; Gneezy, Gneezy, Nelson & Brown; 2010). When the proportion dominance effect is present (preference for helping 230 of 300 victims compared to 230 of 900 victims) helping the

largest proportion is perceived as being more impactful (Jenni & Loewenstein, 1997) and in mediation analyses, perceived impact is the main mediator of the proportion dominance effect (Erlandsson et al., 2014; Erlandsson, Björklund & Bäckström, 2015). It is important to note that increased perceived impact does not exclude affective evaluations of help efforts. The decision to help in itself can be perceived as highly positive or negative depending on perceived impact.

When victims receive less help because of a low impact or low perceived impact there is a risk for pseudoinefficacy, an intervention can be seen as being low in impact even though lives are saved. Västfjäll et al. (2014) observed a decrease in self-reported positive affect for donating and donations when facing two victims where one could be helped, compared to only facing one victim that could be helped. The authors argue that proportional reasoning, or drop-in-the-bucket thinking, is not feasible, since in the case with the two victims the proportion of victims helped are still 50%, relatively high compared to the studies investigating proportion dominance (25% in the low proportion). Physiological responses linked to positive affect decreased when not all victims could be helped. The physiological measure was activity of the Zygomaticus Major (a facial muscle used for smiling). Increased activity was linked to actual increase in donations, in other words, degrees of smiling was linked to magnitude of donations. Smiling activity decreased as more than one victim was viewed, and lower donations was related to less of a smile. This decrease in positive affect when facing victims that cannot be helped has been demonstrated with both human lives at risk (Västfjäll et al., 2014) and with non-human victims (Markowitz, Slovic, Västfjäll & Hodges, 2013).

In the research on pseudoinefficacy problems arise that this thesis will address experimentally. First, active or aroused emotion and the anticipation of future emotion are frequently used interchangeably. Västfjäll et al. (2015) writes: “We hypothesize that knowledge of those “out of reach” may have triggered negative feelings that countered the good feelings anticipated from giving aid, thus demotivating action.” and “even when the numbers of affected individuals are small, negative affect associated with awareness of those not helped reduces the warm glow arising from doing good things”. These quotes might describe three different things: 1. Active or aroused emotion where a reduction in positive emotion is elicited by thinking of a future event. The current emotional state is changed by eliciting negative emotion. 2. A mix, where non-affective deliberation of possible future emotion is affected by elicited active negative emotion. 3. A non-affective cognitive process where the anticipation of emotion changes, i.e. instead of thinking that the outcome will lead

to positive emotion, the outcome is now believed to be leading to negative emotion. To put this in simpler terms, it is unclear if the affective process is referring to aroused emotion or cognitive processes that refers to emotional states.

This confusion between active or anticipated emotion is present in the experimentation. One of the dependent variables is: “how do you feel about donating to Rokia/Moussa/the child?” where the participants rated this on a scale ranging from Negative (-1) to positive (+5). It is unclear if this measure targets the participants current feeling when thinking about donating, or a more cognitive target were the question is probing what the participant thinks he/she will experience emotionally post-decision. This is somewhat redeemed in the follow up study when measuring anticipated emotion: “If I donated money, I would experience a warm glow feeling.”, but the measure for positive affect suffers from the same confusion: “I have positive feelings when I think about Nayani/the child.”. Here it is unclear if this positive feeling is related to donating towards Nayani or the current emotion about her situation (which probably is negative in affect). A similar argument can be made of the beforementioned studies measuring smiling, is the target of interest the impact of current emotion, or anticipated emotion? I argue that smiling can be attributed to both, which makes it hard to know if the participant is thinking specifically about post-decision emotion.

Another problem is that warm glow and help intention is used interchangeably in the experimentation. The pseudoinefficacy effect is according to the authors own definition when help intention or help efforts is decreasing. As an example of this confusion, one of the experiments demonstrated decreased warm glow when thinking about helping a victim when irrelevant negative stimuli was presented, the authors conclude that pseudoinefficacy was replicated. It is unclear if the pseudoinefficacy effect denotes decreasing warm glow or decreasing help intention when only examining the experimentation. Keeping these constructs separate are important since other factors besides warm glow can affect help intention or donations, examples of these factors are perceived duty (Baron, Ritov & Greene, 2011) and the anticipation of guilt if not helping (Shepherd, Spears & Manstead, 2012).

In this thesis pseudoinefficacy will be further examined using a clear definition of what positive affect denotes (anticipated warm glow) and hopefully there will be no confusion in the constructs surrounding emotional impact on help efforts. In addition the affective component will be clearly separated from help intention and behavioral output in both the theoretical approach and in experimentation. In this thesis both help efforts and anticipated emotion are tested as separate constructs, if these constructs follow a similar pattern, anticipated positive emotion can be used as a proxy for help efforts. If the constructs

do not follow a similar pattern, it will indicate that anticipated warm glow and help efforts should be viewed and treated as different constructs.

Anticipated emotion

There is an ongoing debate on the predictive power of aroused or active emotion compared to the anticipation of emotions that are outcome dependent. A recent meta-analysis showed that current emotion as a predictor for judgment or behavior was only significant in 22% of the studies that were included in the analysis, on the other hand in the few cases when anticipation of emotion was measured, 87% of the experiments were significant (DeWall, Baumeister, Chester & Bushman, 2015). The theories that put emphasis on anticipated emotions argue that behavior pursue emotion, and that emotion acts as feedback to evaluate outcomes of behavior. Anticipating these outcomes with the help of affective values connected to a certain outcome is an anticipated emotion (Baumeister, Vohs, DeWall & Zhang, 2007). There is however also evidence for active emotion and its impact on judgment (Lerner, Small & Loewenstein, 2004), but the differences between active and anticipated emotion, and the debate surrounding which one is the most impactful are outside the scope of this thesis. This difference is brought up to make it clear that specifically affective evaluation in the form of anticipated warm glow is of interest here, and not aroused emotion or actual experiences of emotion after donating (or not donating).

Mellers, Schwartz and ritov (1999) developed decision affect theory, where the subjective expected pleasure of an outcome predicts a preference for certain decisions. In a series of gambling experiments the authors showed that both the anticipation of negative emotion such as regret if not winning, and anticipation of positive emotion if winning predicted choices. Options with greater mean post-choice positive emotion were preferred choices. In addition, predictions of future emotion in gambling contexts seem accurate (Mellers, 2000) and participants report more intense emotions when thinking about the future than when remembering emotion (Van Boven & Ashworth, 2007). Although negative anticipated emotion such as guilt or fear can successfully predict sharing (Nelissen, Leliveld, Van Dijk & Zeelenberg, 2011) in this thesis emphasis is on positive anticipated emotion.

Anticipated warm glow. The concept of warm glow stems from the field of economics. When economic models of charity without self-interest or so called pure altruism failed to describe charity, James Andreoni (1990) proposed a model including self-interest. Impure altruism or giving with some self-interest was a better predictor for charitable donations, where feeling good about donating is partly the value that is paid for. The model was also experimentally successful in predicting behavior when the distribution of goods was

framed as charitable (Andreoni, 1995). Other studies from the field of economics have successfully used the warm glow model to predict differences in charitable behavior depending on group size of recipients (Andreoni, 2007), and connecting giving to psychological well being, increase in positive affect, and less related to negative affect (Konow & Earley, 2008).

In a modified version of the dictator game pure altruism was tested against warm glow giving. The dictator game has two players, one is the dictator and the other one is the recipient. The dictator divides resources between herself and the recipient. What most often happens when using this paradigm is that the dictator elects to share even though there are no economical consequences for keeping all the resources. In this particular version, the dictator was informed that the other part would receive the same amount regardless if they elect to share or not. Participants shared around 25% of the resources even though this had no financial impact for the recipient. The authors argued that this sharing must therefore be because of self-interest, or warm glow. To clarify this, sharing cannot be other focused without any impact on an anonymous other. In addition, other explanations as direct social pressure or anticipated praise was controlled for (Crumpler & Grossman, 2008). Closely related to Andreoni's warm glow giving, Duncan (2004) introduced a model where the perceived impact of giving is important for donors, it is theorized that for the donor the impact is important to experience fulfillment.

Outside the field of pure economics, Kahneman and Knetsch (1992) investigated the valuation of environmental interventions such as cleaning up oil spills, saving endangered animals, and research on tropical diseases. Participants were generally more willing to contribute to causes that lead to higher warm glow, i.e participants were willing to contribute 3x the amount towards replanting trees in British Columbia compared to western Canada, even though British Columbia is a part of western Canada. Willingness to pay was successfully predicted by the warm glow that was anticipated for contributing to the project. It seems like being able to perceive a personal impact is an important predecessor for anticipating warm glow, more specific interventions (replanting in British Columbia) might be easier to attribute to a personal impact, i.e. *I helped replant trees in this specific area, I feel like a good person*. Similarly experiments noted an increase in donations when there were possibilities for making a relatively greater personal impact (Gneezy et al., 2010), Gneezy, Keenan & Gneezy, 2014 also found increasing donations in a large field study ($N = 40\ 000$), participants were informed that prior donors had already paid for the overhead costs, 100% of their personal donation would now go towards the project where clean water would

be supplied in developing nations. The project with no overhead cost for the donor raised over twice as much funds as the control project.

Furthermore, personal impact is fully mediated by personal satisfaction (Cryder, Loewenstein & Seltman 2013), a construct closely related to warm glow. When participants were personally responsible for sharing, donations were higher compared to when individuals shared responsibility in a group (Cryder & Loewenstein, 2012.) The authors argued that being able to take credit for sharing increases donations; this effect is possibly driven by warm glow since there is no reason for selfless donations to show this pattern. You could argue that anticipating guilt, or anticipating negative self-focused emotion could drive this behavior. It is important to note that anticipated warm glow is probably not the only important factor, it is however the focus of this thesis. If donations were primarily driven by selfless acts or pure altruism, personal impact would arguably have a smaller effect regardless of the self-focused anticipated emotions are positive or negative.

Warm glow has also been established as a motivating factor for donating blood. For blood donors there was no relation between reported warm glow if donating blood and donating for the sake of helping society (Ferguson, Farrell & Lawrence, 2008). This is further evidence indicating that warm glow is a motivating factor for experienced donors, whereas pure altruism or a selfless motivation was not a plausible cause.

In a large Dutch sample ($N = 12000$) of donors, the same authors found that warm glow important for repeated donations. Warm glow mediated the relation between intention to donate and actual blood donation. In additional experimentations participants that gave most to a aid organization also experienced warm glow (Ferguson, Atsma, De Kort & Veldhuizen, 2012), however the measurement used for warm glow was a dichotomous yes/no question if the donation made them feel good about themselves, this measurement is something that the authors themselves acknowledge as lacking in reliability.

In conclusion to this theoretical background I want to bring up the different views of the warm glow construct, Harbaugh et al., 2007 uses anticipated warm glow synonymously with anticipated praise. In this thesis the aim of how anticipated warm glow is measured is only anticipation of active positive emotion and not anticipated praise or increased social status. An example of this distinction is to ask about expected future happiness or warm glow compared to asking about how other people will view your behavior or how the decision will affect social status.

Hypotheses

I will manipulate victim stories where all victims can be helped (1 identified victim, 9 identified victims, 9 statistical victims), and victim statistics where there are victims that cannot be helped (victim statistics vs. no statistics). Help intention (self reported help effort) and anticipated warm glow will be measured. In accordance with the presented theory and descriptive findings, I hypothesize that:

1. The identified victim effect (Kogut & Ritov, 1995a, b) will be replicated but only when no victim statistics are presented. Specifically, higher help intention for the victim stories with identified victims (1 identified victim, 9 identified victims) compared to the victim story with a group of statistical victims (9 statistical victims).
2. Pseudoinefficacy (Västfjäll et al., 2014, 2015) will be replicated, this means that help intention will decrease for victim stories when victim statistics are presented. In addition, pseudoinefficacy will be greatest for 1 identified victim.
3. Anticipated warm glow is here hypothesized to be an important factor related to pseudoinefficacy, therefore anticipated warm glow will be lower for all victim stories, but will be lowest for 1 identified victim when victim statistics are presented.
4. Changes in anticipated warm glow will be more strongly related to 1 identified victim than 9 statistical victims. In accordance with the model presented by Hamilton and Sherman (1996). Therefore, the relations between anticipated warm glow and help intentions will be stronger when reading about 1 identified victim compared to 9 statistical victims.

Study 1

This experiment was partially based on the paradigm used by Small, Loewenstein & Slovic (2007). Fictitious humanitarian aid ads were used that described victims of the current civil war in Syria. The design of this experiment allows for two ways of analyzing the results one mixed within-between analysis where the same participant rates both statistical and identified victims, but different groups are exposed to victim statistics. The second analysis is a full between-group analysis where both victim types and being exposed to victim statistics is manipulated.

Method

Ethics. This study was conducted in accordance with the principles of the declaration of Helsinki. All participants read and agreed to informed consent and was briefed on the both the procedure and the aim of the study. The participants had the opportunity to abort at any time and being fully debriefed after participation. All participants were compensated as agreed upon.

Participants. Two hundred and ninety-six students from four Swedish universities¹ ($M_{\text{age}} = 24.53$, $SD_{\text{age}} = 3.85$; 71.7% women, 3 failed to report sex) completed a 5-minute pen-and-paper package. As compensation the participants could elect to participate in a raffle for a gift card worth 100 Swedish kronor (SEK). Participants were randomly assigned to groups by being handed questionnaires with varying content. The experimenter was aware of the hypotheses but blinded to group assignment. Eligible participants were Swedish-speaking students over the age of 18 years.

A power analysis was conducted to determine the sample size using Gpower software (Faul, Erdfelder & Lang, 2007). In a prior study where victim identifiability was manipulated in a 2 x 2 design, the effect sizes of donations where, $\eta^2 = .06$ (Small et al., 2007). In addition, a pilot study was conducted ($N = 16$), and the estimated effect size was lowered to $\eta^2 = .04$. The power analysis indicated that a total sample size of $N = 255$ would be sufficient to detect interaction effects at $\eta^2 = .04$ with 90% power and $\alpha .05$, for a between subject 2 x 2 design measuring help effort.

Procedure and materials. First, the participants were informed that they would answer a 4-5 minute questionnaire about their attitudes and feelings towards proposals of ads for humanitarian aid. The participants were instructed to individually complete the questionnaire in silence without discussing the content or their answers with anyone before completion. Participants were instructed to complete the survey in order, judging one ad at the time, and that it was forbidden to go back in the questionnaire to directly compare the ads. These instructions were repeated in text on the cover sheet of the questionnaire. Both of these instructions and experimenter observation were used to lower the risk of completing the questionnaire in wrong order.

Secondly, the participants read an informed consent form; 1. “We investigate attitudes, decisions, and feelings. The purpose of the study is to examine how different

¹ Participants were recruited in public areas at Chalmers University of Technology, University of Gothenburg, Lund University (Campus Helsingborg), and Malmö University.

proposed ads for humanitarian aid are perceived.”; 2. Anonymity, no personal information will be collected, and no answers can be linked to a certain participant; 3. Instructions: “How is this study conducted? You will read three different proposed ads and answer questions after reading each ad. It is important that you answer all of the questions. The questionnaire will take about 5 minutes to complete.”; 4. Participation is voluntary; “you can abort at any time without losing the compensation.” After reading the instructions and signing informed consent, the participants filled in the questionnaire.

Third, all participants read three ads and answered questions after each one. The victim story was varied over three levels of identifiability; the first level depicts one Syrian refugee girl with name and age (1 identified victim = 1IV). The second level depicts nine named Syrian refugee girls (9 identified victims = 9IV). The third level depicts nine statistical victims that are yet to be determined with silhouettes of girls and question marks substituting names (9 statistical victims = 9SV), see Figure 2. Half of the participants read the ads in the 1IV, 9IV, 9SV order, whereas the other half read the ads in the opposite order. The picture of the singular victim was balanced using five different depicted victims of the Syrian conflict; this was to ensure that measured differences between conditions are due to the singular identified victim effect and not changes in effect caused by a particular child, facial expression or image type, similar balancing has been successfully implemented in earlier experiments (Kogut & Ritov, 1995a, b). The singular identified victim image was also always one of the images for the nine identified victims, this means that the nine identified victim condition consists of eight additional victims, differences in measurement cannot be attributed to different victim pictures. The victim story was described using the headline: “You can help Ranim”, followed by:

This is Ranim, who has escaped the violence in Syria. Ranim lacks health care for a serious kidney disease. During the last six months, Ranim has taken shelter in a refugee camp. The money you donate will go to Ranim, a former resident of Syria suffering from Alport disease, an inheritable kidney disease. The disease is progressive and leads to declining kidney function. Ranim needs regular dialysis to survive. With your support and the support of other people, Save the Children will

work in refugee camps to offer the care Ranim needs. It is guaranteed that Ranim's life will change for the better as a result of your donation.²

The name "Ranim" was used in the 1IV condition and changed to "The nine children" in the 9IV condition, and "children" in the 9SV condition.

Fourth, for half of the participants, all three ads included a statistics box with victim statistics, whereas for the other half, no victim statistics was presented in any of the ads. The statistics box was placed on the same page before information about the particular victims. It included victim statistics concerning the Syrian conflict see Figure 1.

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 1. Statistics box containing victim statistics that were displayed for half of the participants. The text is translated from Swedish.

Fifth, the participants filled in questions about each ad separately and ended the participation by filling in demographic questions. The participants were given the opportunity to be debriefed and to ask questions. Lastly the participants that wanted to be part of the lottery for gift cards could leave their email addresses separated from the questionnaires to ensure anonymity.

Independent variables. Type of victim story was manipulated in three levels (1IV, 9IV, 9SV). In the between-group analysis only 1IV vs. 9SV was used. The strongest form of identifiability is one singular victim and this level is 1IV (Kogut & Ritov, 2005a, b, 2007). The weakest form of identifiability is if the victim is non-determined (Jenni & Loewenstein,

² Increasing the perceived impact to avoid floor effects, by insuring the participants that the donation will reach the victim (Cryder, Loewenstein & Scheines, 2013).

1997), therefore the 9SV are here purely statistical by making them undetermined. As seen in the procedure and materials section, this is manipulated by letting the participants know that the help will reach victims that are not decided yet, i.e. the intervention will help nine children, but we don't know who they are yet.

The second manipulation was the inclusion of a statistics box (victim statistics vs. no statistics). The information in the statistics box includes victims that cannot be helped. See Figure 1. This information is similar to what was successfully used as statistics manipulation in Small et al., (2007).

Dependent variables. Anticipated warm glow was measured using two 7-grade Likert scale, the items consisted of: 1. "I would experience an extremely strong feeling of warm glow if I donated money to Ranim/The 9 children/9 children" anchored at 1 (No warm glow at all), 4 (Warm glow), and 7 (Extreme warm glow); 2. "I would feel extreme happiness if I donated money to Ranim/The 9 children/9 children" anchored at 1 (No happiness at all), 4 (Happiness), and 7 (Extreme happiness). The items were aggregated using means to form the anticipated warm glow scale.

Anticipated experience as a good person if donating was measured using a 7-grade Likert scale, "I would experience myself as a extremely good person if I donated money to Ranim/The 9 children/9 children" anchored at 1 (No good person at all), 4 (Good person), and 7 (Extremely good person). This item tried to capture more cognitive aspects of how other people would perceive the judgment. This item was collected for purposes outside of the scope of this paper and will not be analyzed as a part of the result section; the measurement is however reported in appendix A.

Help intention was measured using three 7-grade Likert scales. The items consisted of: 1. "How probable is it that you would donate money to Ranim/The 9 children/9children in this specific case?" anchored at 1 (0%), 4 (Around 50%), and 7 (100%); 2. "How motivated would you be to donate money for Ranim/The 9 children/9children in this specific case?" anchored at 1 (Not motivated at all), 4 (motivated), and 7 (extremely motivated); 3. "Imagine that you would win 1000 SEK in a lottery, how much of the prize would you donate to Ranim/The 9 Children/9 Children in this specific case?" anchored at 1 (0 SEK), 4 (500 SEK), and 7 (1000 SEK). Hypothetical donations are often used to successfully to measure differences in valuations between victim types (Baron, 1997). Hypothetical donations are also related to real donations, often 2-8 times larger than real donations (Brown, Champ, Bishop & McCollum, 1996), but in some trials actual donations were larger than the hypothetical ones (MacMillan, Smart & Thorburn, 1999).

Lastly, two variables were measured: 1. Perception of the humanitarian aid organization behind the ad, “If a humanitarian aid organization used this specific ad, how would you perceive the humanitarian aid organization?” anchored at 1 (extremely negative), 4 (neutral), 7 (extremely positive); 2. Manipulation control for the presenting a statistics box vs. no statistics, “How many facts do you experience that this particular ad contains?” anchored at 1 (extremely few), and 7 (extremely many). In addition, basic demographics were measured; the participants checked a box for male/female and filled in their age.

Design. As mentioned in the experimental overview, the experiment consisted of one between-group, and one mixed between-within-group design. Two ways of analyzing the experiment were made possible by only using the first level from the balanced orders of presentation from the three within-group factors (1IV or 9SV), see red boxes in Figure 2 for clarification. Primarily, a 2 x 2 between-group design with two factors. The first factor varied victim identifiability (1IV vs. 9SV), and the second factor was presenting a statistics box (victim statistics vs. no statistics). Secondly, a 2 x 3 mixed within-between subject design with three factors. The within-group factor varied victim story (1IV; 9IV; 9SV). The between-group factor was presenting a statistics box (victim statistics vs. no statistics).

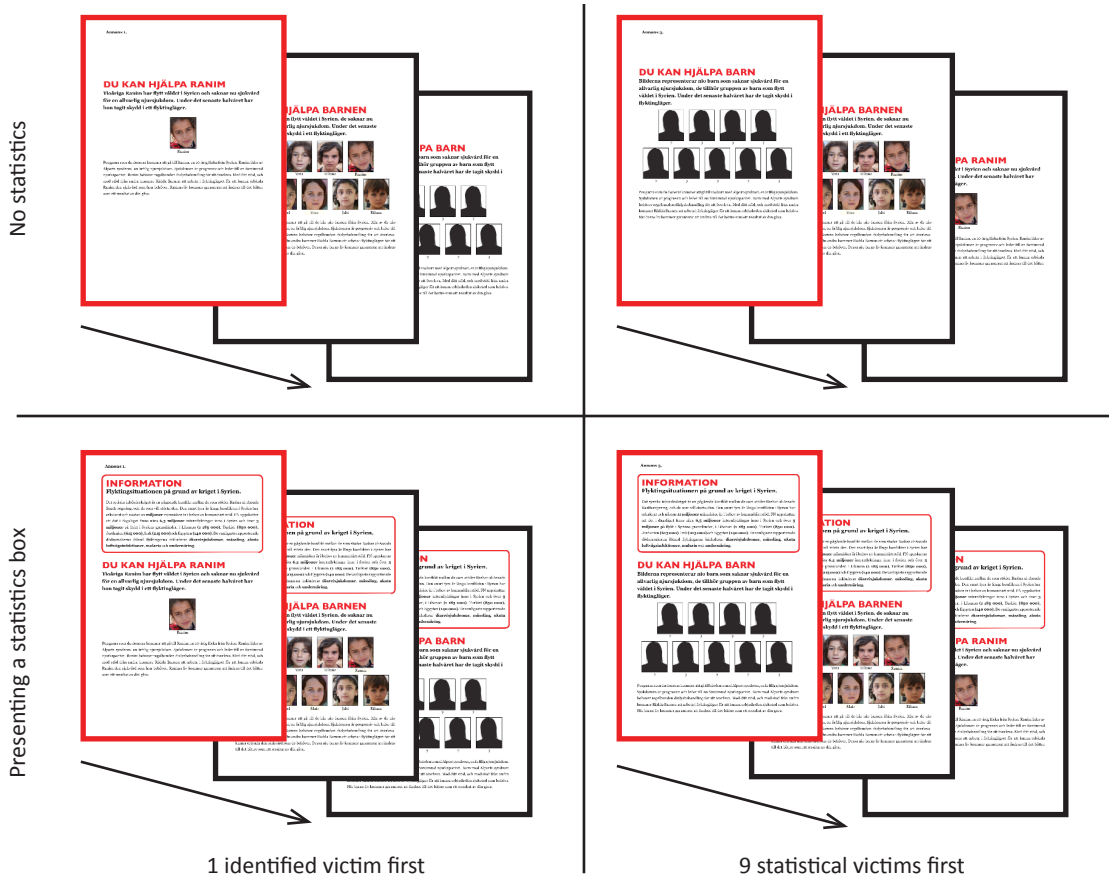


Figure 2. Design of Study 1. This figure illustrates the mixed within-group design, between-group design, and the order of presentation. The four cells represent the between-group factors. In the 2 x 2 between-group design the ads represented by red boxes were used (only the first ads). Arrows indicate order of presentation.

This design also allows for comparison of the identifiable victim effect and differences in anticipated warm glow for both joint evaluation (within-group) and separate evaluation (between-group). Evaluations made within-group can sometimes differ from between group since in the within-group design you have external reference points, which here is the ads the participants already have seen. In the between-group design there is no direct external reference points for the evaluations. For instance the identifiable victim effect is sometimes not found in joint-evaluation, but found in separate evaluation (Kogut & Ritov, 2005b), whereas the proportion dominance effect is present in both (Bartels, 2006). In addition there is evidence of reversals of preferences depending on joint or separate evaluations (Zhee & Zhang, 2010).

Results

Data control. All items were examined for parameters. Outliers were examined, 1 case was removed due to missing values (filled in less than 50% of the items) and 5 univariate outliers were removed using a cut off value of absolute $Z > 3.29$. Multivariate outliers were examined using SPSS Regression, standardized residuals were $< 3.3 \sigma$, 1 outlier were found using Mahalanobis distance with a cut off value of $p < .001$. The two items for the anticipated warm glow scale, and the three items for the help intention scale was screened for reliability using Cronbach's α and the items were aggregated using means, Cronbach's α values are seen in Table 1. Attitude towards the aid organisation behind the ad only had a minor impact on results and will not be analyzed in the result section see Appendix A.

Table 1.
Alpha values for anticipated warm glow and help intention.

Victim story	Anticipated Warm Glow		Help Intention	
	Statistics box	No statistics	Statistics box	No statistics
1 Identified victim	.74	.88	.85	.79
9 Statistical victims	.79	.75	.86	.78

Manipulations-check. Participants who read the humanitarian aid ads with a statistics box reported that they experienced more facts ($M = 4.60$, $SD = 1.45$) than participants who read the ads without a box ($M = 3.7$, $SD = 1.44$), $t(289) = -5.29$, $p < .001$, $r = .30$. This indicates that presenting a statistics box increased the experienced amount of facts in the ad.

Between-subject analysis. To examine main effects and interaction effects for victim story and presenting victim statistics on; anticipated warm glow if donating and help intention, a series of 2 (1IV vs. 9SV) x 2 (victim statistics vs. no statistics) between-group ANOVAs were conducted.

Anticipated warm glow. There was no main effect of reading an ad with 1IV or 9SV on anticipated warm glow, $F(1, 292) = 1.31, p = .254, \eta^2 = .01$. When testing the overall impact of the statistics box on anticipated warm glow there was a non-significant main effect, $F(1, 292) = 2.67, p = .103, \eta^2 = .01$, this tendency indicated lower anticipated warm glow for the groups being exposed to victim statistics. When inspecting graphs, see Figure 3, anticipated warm glow was only lower for 1IV presented with statistics, this interaction was approaching significance, $F(1, 292) = 2.79, p = .096, \eta^2 = .01$. Although this interaction effect was non-significant, this tendency indicated that presenting victim statistics had a different effect on anticipated warm glow depending on victim story. Sidak corrected contrasts revealed that presenting a statistics box did not have any effect on anticipated warm glow for 9SV, $F(1, 288) = .00, p = .974, \eta^2 = .00$. However, in line with hypothesis, anticipated warm glow for 1IV was significantly lower when presented with victim statistics, $F(1, 288) = 5.42, p = .021, \eta^2 = .02$.³

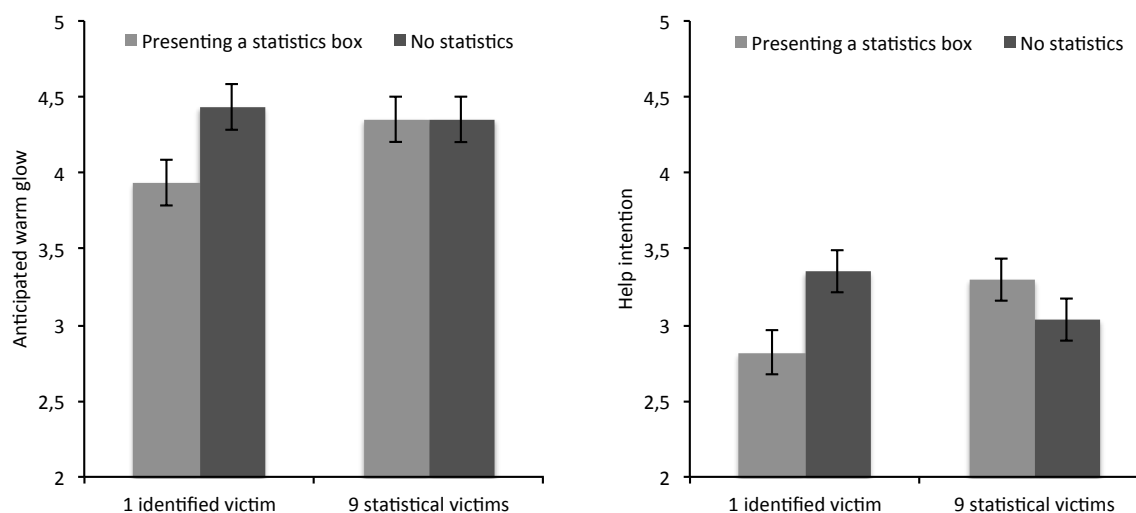


Figure 3. Means for anticipated warm glow, and help intention for; 1 identified victim, and 9 statistical victims for the reading statistics group and the no statistics group. Error bars represents standard errors.

³ Anticipated warm glow decreased slightly for 1 identified victim compared to 9 statistical victims when presented with a victim statistics, $F(1, 288) = 6.44, p = .048, \eta^2 = .01$. This decrease was absent without statistics, $F(1, 288) = .15, p = .704, \eta^2 = .00$.

Help intention. The impact of presenting different victim stories on help intention was analyzed in a similar manner, there was no main effect on help intention for type of victim possible to help, $F(1, 293) = .35, p = .552, \eta^2 = .00$. Presenting victim statistics lead to no overall decrease in help intention, $F(1, 293) = .89, p = .345, \eta^2 = .00$. In other words, when the victim story type is disregarded, participants' help intention was similar for ads with or without victim statistics. However, the interaction effect was highly significant between 1IV or 9SV stories and presenting victim statistics, see Figure 3, $F(1, 293) = 7.96, p = .005, \eta^2 = .03$. To examine how help intention for 1IV compared to 9SV differed depending on if a statistics box was presented, contrasts were performed. In accordance with the hypothesis, participants were less willing to donate for 1IV when victim statistics were included, $F(1, 289) = 6.97, p = .009, \eta^2 = .02$. This effect was in the opposite direction for 9SV, but non-significant, $F(1, 289) = 1.79, p = .182, \eta^2 = .01$, indicating that presenting victim statistics affected ratings of 1IV more than the 9SV and in the opposite direction. Participants were more willing to donate towards 9SV compared to 1IV when presenting victim statistics, $F(1, 289) = 5.81, p = .017, \eta^2 = .02$.

The expected identifiable victim effect (see dark bars in Figure 3.), when no victim statistics were presented was non-significant, $F(1, 289) = 2.49, p = .116, \eta^2 = .003$, although the identifiable victim effect was non-significant, there was a tendency in the direction of the hypothesis. Participants with no exposure to victim statistics had a slightly lower intention to help 9SV compared to 1IV.

The relation between anticipated warm glow and help intention. To explore relations between anticipated warm glow and help intention depending on group, the data were split and anticipated warm glow was correlated with help intention, see Table 2. The analysis indicated slightly higher correlational strength between anticipated warm glow and help intention in the groups reading the victim story about 1IV compared to 9SV. This is in line with expected results since it was hypothesized that judgments on help intention for 1IV would be more dependent on anticipated warm glow.

Table 2.

Correlations between anticipated warm glow and help intention in Study 1.

Measure	1 identified victim		9 statistical victims	
	No statistics	Statistics box	No statistics	Statistics box
Help intention	.60**	.62**	.53**	.50**

Note ** $p < .001$

Within-between-subject analysis. To examine main effects and interaction effects for victim story and presenting a statistics box on; anticipated warm glow if donating and help intention, a series of: 2 between (victim statistics vs. no statistics) x 3 (1IV, 9IV, 9SV) mixed within-between-group ANOVAs were conducted. All reported items are Greenhouse-Geisser corrected were appropriate.

First potential order effects were analyzed and there was no significant within-between group 3-way interaction between presenting a statistics box, order and different victim stories on anticipated warm glow, $F(1.79, 512.99) = .31, p = .709, \eta^2 = .00$, and help intention, $F(1.94, 274.28) = .03, p = .759, \eta^2 = .00$. This indicates that there is no order-effect that significantly influences changes over victim stories dependent on exposure to victim statistics. There was however order effects for ratings on both anticipated warm glow and help intention on victim stories, these are reported in the Appendix A, and had no greater impact on the reported results.

Anticipated warm glow. The overall effect of exposure to statistics showed a between-group main effect that was approaching significance on anticipated warm glow, $F(1, 289) = 3.37, p = .067, \eta^2 = .01$. The group being presented with victim statistics rated overall lower anticipated warm glow, see darker line in Figure 4.

Regardless of exposure to victim statistics, there was a large significant within-group main effect for victim stories on anticipated warm glow, $F(1.78, 512.99) = 107.35, p < .001, \eta^2 = .27$. Bonferroni corrected contrasts revealed that anticipated warm glow was significantly lower for 9SV compared to 9IV, $F(1, 289) = 190.45, p < .001, \eta^2 = .40$, and compared to 1IV, $F(1, 289) = 102.88, p < .001, \eta^2 = .26$. This indicates that participants anticipated considerably less warm glow for the statistical victims compared to the same number of identified victims (identifiability), and also less than 1IV(singularity effect). Anticipated warm glow was higher for 9IV compared to 1IV. However, this difference was not significant, $F(1, 289) = 4.57, p = .10, \eta^2 = .02$. When inspecting graphs, see Figure 4, the differences in ratings depending on if victim statistics were presented is symmetric, and analysis confirmed that there was no interaction, $F(1.79, 512.99) = .18, p = .811, \eta^2 = .00$. This indicates that being presented with victim statistics does not affect differences in ratings of anticipated warm glow for the victim stories. This goes against the hypothesis in the within-group design with joint evaluation of the victim stories.

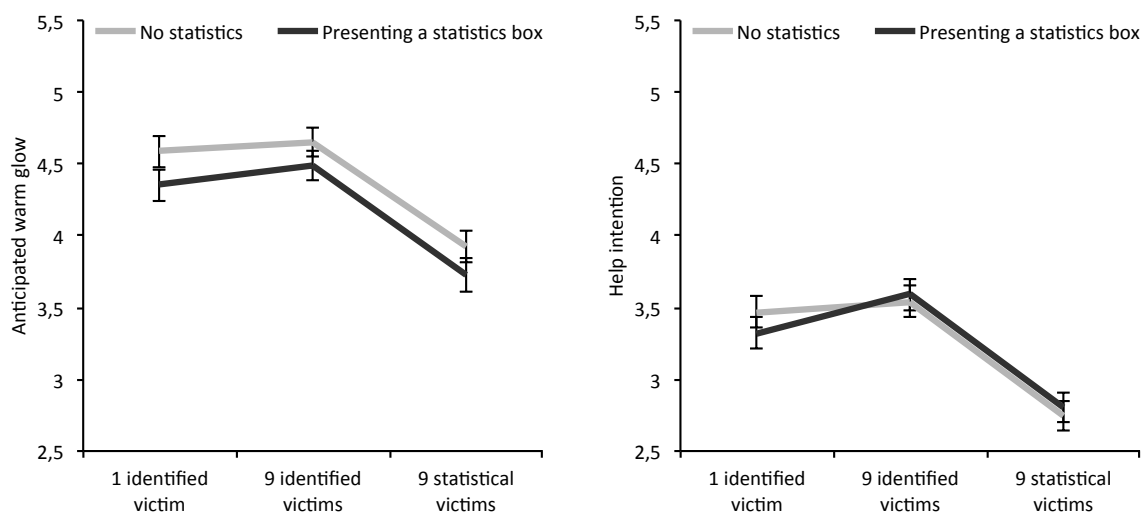


Figure 4. Means for anticipated warm glow and help intention towards 1 identified victim, 9 identified victims, and 9 statistical victims for the group presented with a statistics box and for the no statistics group. Error bars represents standard errors.

Help intention. Help intention showed a similar pattern within-group as anticipated warm glow, but not within-between, see Figure 4, where there was no between-group effect of presenting victim statistics on help intention, $F(1, 289) = .01, p = .926, \eta^2 = .00$, and no significant significant within-between interaction of presenting victim statistics and different victim stories on help intention, $F(1.90, 549.17) = 2.10, p = .126, \eta^2 = .01$. This indicates that when the same participant rated help intention for different victim stories, the statistics box had no influence. In addition, overall ratings for the victim stories were similar when presenting victim statistics. The between group effect of decreased anticipated warm glow when presenting victim statistics were absent for help intention.

In addition, regardless if presenting the victim stories with victim statistics, there was a large significant within-group main effect for victim stories on help intention, $F(1.90, 549.17) = 115.78, p < .001, \eta^2 = .29$. Bonferroni corrected contrasts revealed that help intention increased slightly for 9IV compared to 1IV, $F(1, 289) = 11.29, p < .001, \eta^2 = .04$. In contrast, help intention decreased steeply for 9SV, $F(1, 289) = 225.72, p < .001, \eta^2 = .44$. This replicates the identifiable victim effect within-group, but not the singularity effect.

Summary

When no victim statistics were presented there was a tendency of the identifiable victim effect between-group (separate evaluation) and the effect was replicated within-group (joint evaluation). This is important because it sets up a baseline to compare how victim statistics will affect the higher help intention for 1IV compared to 9SV (or 1IV, 9IV compared to 9SV

within subject). As expected introducing victim statistics between-subject led to decreasing help intention for specifically 1IV, therefore no identifiable victim effect was found when victims that cannot be helped was salient. In line with Västfjäll et al., (2014, 2015) pseudoinefficacy was demonstrated, but here I show that pseudoinefficacy specifically affects the evaluation for 1IV and not for 9SV. There was however no pseudoinefficacy dependent on victim statistics in the mixed within-between analysis, both the victim statistics group and the no statistics group replicated the identifiable victim effect. I expected no identifiable victim effect in the within-group (joint evaluation) when victim statistics were presented. In addition participants rated 1IV slightly lower than 9IV within-group similar to what was found by Kogut and Ritov (2005b).

In line with hypothesis, anticipated warm glow did decrease specifically for 1IV presented with victim statistics between-group. However compared to the other conditions, see Figure 3, the lowest measured anticipated warm glow was for 1IV. In comparison the highest levels of affect measured in Small et al.,(2007) was for the 1IV without statistics, here 1IV without statistics is at the same level as for both 9SV conditions. This indicates that decreasing anticipated warm glow for 1IV with victim stats is responsible for the difference and not increased levels for 1IV presented with no stats. In other words, it is the lack of anticipated warm glow that is responsible for this effect and not increasing levels.

In this study both help intention and anticipated warm glow was measured simultaneous and not manipulated, there can be no causal claims between the constructs. However the relations can be explored, and if anticipated warm glow is a more important factor for help intention for particularly 1IV these relations would be stronger, this was precisely what was found. Although the difference in relations for 1IV and 9SV was small, and not directly tested, this is an indication of the importance of anticipated warm glow for help intentions more so for 1IV than for 9SV. A slightly stronger relation between affect ratings and help efforts was found by Small et al.,(2007) for 1IV presented without statistics. Here the result is in the same direction, but for specifically anticipated warm glow. This relation was shown to be weaker for 9SV, this shows that specifically 1IV is more related to anticipated warm glow, something Small et al., did not find since there was no manipulation of the victims that can be helped in their experimentation.

I also showed that ratings of anticipated warm glow and help intentions did not follow the same pattern and therefore anticipated warm glow cannot be considered a proxy for measuring help intentions. For instance there were no changes in anticipated warm glow for 9SV depending on victim statistics, whereas this level was different for help intention. The

indication of an increase in help intention for 9SV presented with statistics is a never before seen effect that will be brought up in the general discussion.

A weakness of this study is the use of hypothetical help or self reported help intention and therefore a second study will be conducted using real donations. In addition the new study will see if the results from Study 1 are robust.

Study 2

In the second experiment the 2 (victim statistics vs. no statistics) x 2 (IIV vs. 9SV) between-group part of the design from Study 1 is replicated with the addition of measuring real donations. Real donations are not possible to measure in repeated measure using this design, so the within-group part was removed.⁴ Not only will the stability of the former result be tested using the same dependent variables, the constraining effect of victim statistics on the identifiable victim effect will also be tested with real donations.

Method

Ethics. This study was conducted in accordance with the principles of the declaration of Helsinki. All participants read and agreed to informed consent and was briefed on the both the procedure and the aim of the study. The participants had the opportunity to abort at any time and being fully debriefed after participation. All participants were compensated as agreed upon.

Participants. Two hundred students from five Swedish universities ($M_{\text{age}} = 24.95$, $SD_{\text{age}} = 4.92$; 65% women, 13 failed to report sex) completed a pen-and-paper package. I recruited participants individually in public campus areas⁵, as compensation they received 3 state lottery tickets (Mini Trisslott) with a total value of 30 SEK. The participants were randomly assigned and the experimenter was blinded to group assignments, see Study 1 for details. Eligible participants were Swedish-speaking students over the age of 18 years.

Design. The experiment was a partial replication of Study 1; this study only used the 2 x 2 between-groups design. The first factor varied victim story (IIV vs. 9SV), and the second factor were presenting a statistics box (victim statistics vs. no statistics).

Procedure and materials. The experiment used the same procedure and materials as the between-group design of Study 1 with some adjustments made for measuring real donations. The participants were informed that they would receive 3 lottery tickets worth

⁴ The donation part is not known to the participants prior to encountering it, hence repetition of donations are impossible. There is also difficulties with resources since donating in earlier rounds decreases available resources in later conditions.

⁵ Participants were recruited at: Chalmers University of Technology (Gothenburg), University of Gothenburg, Lund University (Campus Helsingborg), Halmstad University, and Malmö University

10SEK each, with a total value of 30SEK, for participating. The participants were shown to a pre-set table in public campus areas where they could sit alone. After rating the ad and finalizing the donation decision participants deposited the completed package in a clearly marked answer box placed on the table. Participants were informed that the answer box insured anonymity, and that they do not have to meet the experimenter, or explain their decisions when the trial is over. This step was implemented to decrease possible demand effects for donating in all conditions to avoid a ceiling effect (in Study 1 the experimenter was given the completed questionnaire personally). In addition anticipated praise is closely related to anticipated warm glow, anonymity might lower the risk of confounding anticipated praise with anticipated warm glow for the participants.

The experimenter informed all participants of the importance to read the instructions, and to complete the questionnaire in order. This was to insure that rating the ad was as similar as possible compared to Study 1 and not affected by the addition of a donation decision.

The second spread included the rewarded lottery tickets, secured to the first page with a clip. On the same page was an instruction text for making a donation to Save the Children, and an envelope glued at the bottom of the page, see Figure 5. The instructions read:

You can now chose to donate with the help of the lottery tickets you got as a reward for your participation. Place the number of lottery tickets you want to donate to Ranim/9 children in the envelope at the bottom of the page. The value of the lottery tickets will be transferred to Save the Children when the study is over. Every lottery ticket is valued at 10 SEK. Your decision to donate is anonymous, you will not have to explain your decision or meet the experimenter when you have completed the questionnaire. Kindly glue the envelope together when you have made your choice. To ensure anonymity; glue the envelope together even if you elect for no donation.

This means that the participants both received the lottery tickets, and were informed about the possibility for donating after they filled in questions about the ads. This was done so that the real donation, and receiving lottery tickets should have a smaller possible influence on the replicated ratings from Study 1. The participants ended the trial by answering basic demographics, and leaving the questionnaire in the answer box before leaving the table. The value of the lottery tickets was donated to Save the Children.

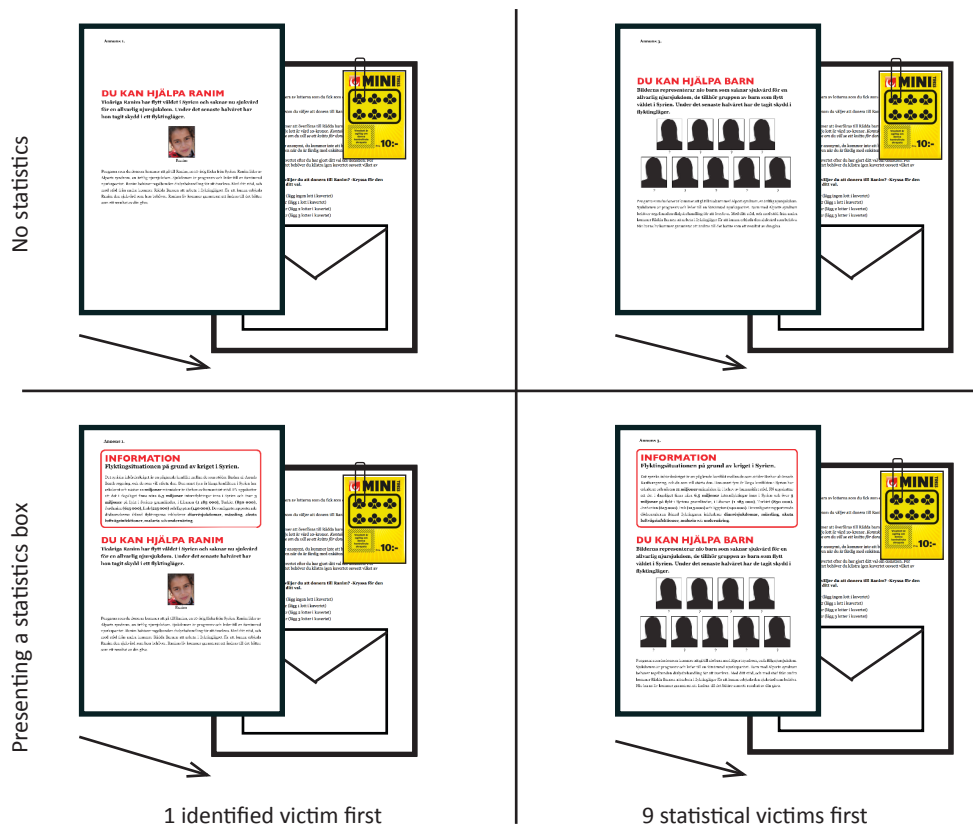


Figure 5. The design of Study 2 showing ads 1 identified victim, 9 statistical victims and the the victim statistics manipulation. Arrows indicate order of presentation.

Dependent variables. In addition to all dependent variables described in Study 1, a measure of donation was added with the question: "How much money do you chose to donate to Ranim/9 children?" Followed by four check boxes: "I donate 0 SEK (put no lottery ticket in the envelope)", I donate 10 SEK (put 1 lottery ticket in the envelope), I donate 20 SEK (put 2 lottery tickets in the envelope), and; I donate 30 SEK (put 3 lottery tickets in the envelope). In addition to the check boxes the actual amount of lottery tickets left in the envelope was counted to insure that the correct number was reported.

Results

Data control. The data where screened for univariate outliers, no outliers were found. The 2 items for anticipated warm glow, and the three items for help intention, were aggregated using means and further examined for parameters. The two items for the anticipated warm glow scale, and the three items for help intention scale were screened for reliability using Cronbach's α , the items were aggregated using means, for Cronbach's α see Table 3.

Table 3.

Alpha values for anticipated warm glow and help intention for Study 2.

Victim story	Anticipated Warm Glow		Help Intention	
	Statistics box	No statistics	Statistics box	No statistics
1 Identified victim	.87	.83	.78	.78
9 Statistical victims	.90	.90	.87	.86

Manipulations-check. On average, the participants who read the humanitarian aid ads with a statistics box reported that they experienced more facts ($M = 4.46$, $SD = 1.42$) than participants who read the ads without a box ($M = 4.01$, $SD = 1.45$), $t(198) = -2.22$, $p = .028$, $r = .15$. This indicates that presenting a statistics box led to a slightly higher experienced amount of facts in the ad.

Analysis. To examine main effects and interaction effects for victim story and presenting a statistics box on; anticipated warm glow if donating and help intention, a series of 2 (1IV vs. 9SV) x 2 (victim statistics vs. no statistics) between-group ANOVAs were conducted.

Anticipated warm glow. There was no main effect of presenting different victim stories, $F(1, 196) = .72$, $p = .398$, $\eta^2 = .00$, on anticipated warm glow. There was however a tendency that participants anticipated more warm glow for victims presented without a statistics box, see Figure 6; but this effect was also non-significant, $F(1, 196) = 1.90$, $p = .169$, $\eta^2 = .01$. No interaction effect was found, $F(1, 196) = .03$, $p = .866$, $\eta^2 = .00$.

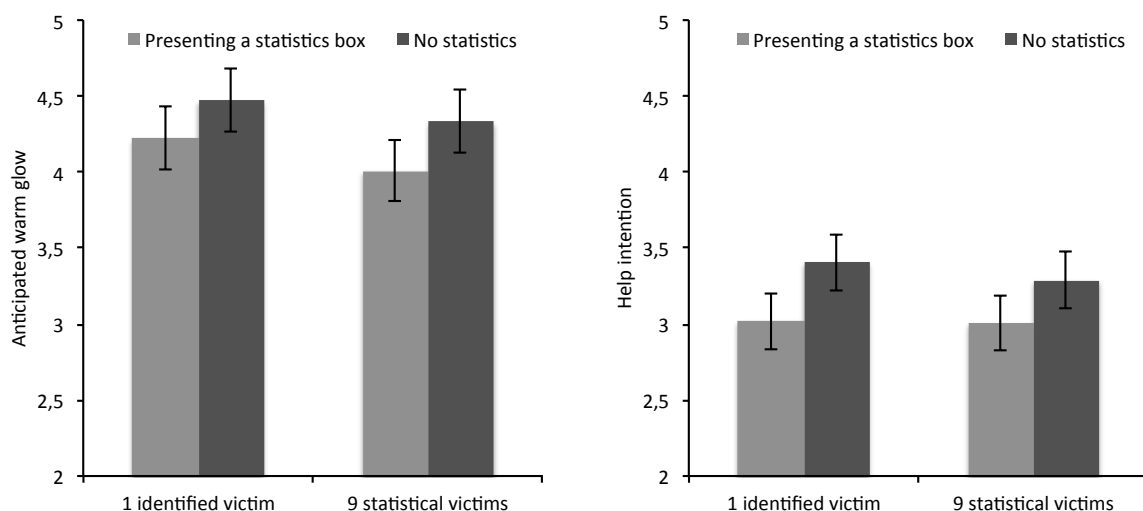


Figure 6. Means for anticipated warm glow, and help intention for; 1 identified victim, and 9 statistical victims for the reading statistics group and the no statistics group. Error bars represents standard errors.

Help intention. Help intention showed a similar pattern as anticipated warm glow with no overall effect of presenting different victim stories on help intention, $F(1, 196) = .13$, $p = .721$, $\eta^2 = .00$. This indicated similar help intention regardless of reading about 1IV or 9SV when analyzing all groups together. There was a main effect approaching significance of presenting victim statistics on help intention, $F(1, 196) = 3.20$, $p = .075$, $\eta^2 = .02$. This tendency indicated that participants intended to help slightly less when presented with victim statistics. No interaction effect was found, $F(1, 196) = .08$, $p = .775$, $\eta^2 = .00$. For means see Figure 6.

Donation. Donating with the use of lottery tickets was analyzed non-parametrically using a logistic regression, (no donation vs. donating 1-3 lottery tickets) with presenting a statistics box (victim statistics vs. no statistics), victim story (1IV vs. 9SV), and the interaction term (victim statistics \times victim story). The full model revealed no effect for victim story on donation, Wald $\chi^2(1, N = 200) = .23$, $p = .63$, $\text{Exp}(B) = .79$. There was a non-significant main effect of reading a statistics box, Wald $\chi^2(1, N = 200) = 2.44$, $p = .118$, $\text{Exp}(B) = .49$. This tendency is a weak indication of an overall decrease in probability for donations when a statistics box is presented. The interaction term significantly changed the model, Wald $\chi^2(1, N = 200) = 3.19$, $p = .048$, see Figure 7. To investigate this interaction the victim stories were analyzed separately depending on if victim statistics were presented. There was a significant main effect of victim story without a statistics box, Wald $\chi^2(1, n = 100) = 5.20$, $p = .023$, $\text{Exp}(B) = 3.17$.⁶ This indicates that among the participants that only read the victim stories, the probability of donation was higher for 1IV compared to 9SV. This effect seemed to be reversed when presenting victim statistics, see Figure 7, but the effect was non-significant, Wald $\chi^2(1, n = 100) = .23$, $p = .63$, $\text{Exp}(B) = .79$. In summary the analysis indicates a higher probability of donating for 1IV compared to 9SV. However, when the victims are presented together with victim statistics this effect dissipates. The magnitude of donating (0-3 lottery tickets) was highly non-parametric and not included in the analysis, for means see the second graph of Figure 7.

⁶ The significance here refers to that the model was significantly different when the interaction term was entered. The odds ratio is not reported since it is an odds ratio of odds ratios that is practically unrelatable to the measurement.

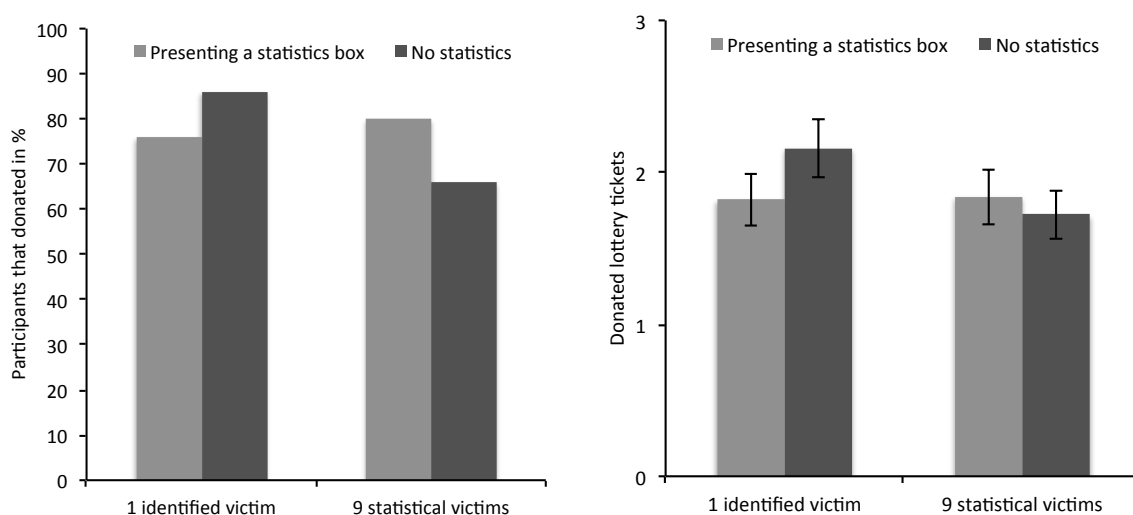


Figure 7. Percentage of participants that elected to donate 1-3 lottery tickets, and means (magnitude) of donations in lottery tickets for victim stories, and if a statistics box were presented. Error bars represent standard errors of the mean.

The relation between anticipated warm glow, help intention and donations. To explore relations between anticipated warm glow and help intention depending on group, the data were split and anticipated warm glow was correlated with help intention and donations, see Table 2. The data did not replicate Study 1, there was no expected stronger relations for 1IV compared to 9SV. However, the relations between anticipated warm glow and donations did show a result that was in line with hypothesis. Here only the donations for 1IV was related to anticipated warm glow, whereas the relation to donations towards 9SV was not significant. This is in line with expected results since it was hypothesized that judgments on help efforts for specifically 1IV would be more dependent on anticipated warm glow, see Table 4.

Table 4.

Correlations between anticipated warm glow and help intention + donation, in Study 2.

Measure	1 identified victim		9 statistical victims	
	No statistics	Statistics box	No statistics	Statistics box
Help intention	.46**	.53**	.74**	.55**
Donations	.42**	.40**	.49	.17

Note ** $p < .001$

Summary

Both the replication of findings for anticipated warm glow and help intention from Study 1 failed, this means that the findings in Study 1 are less robust than expected. The

identifiable victim effect was not replicated using help intention, but the identified victim effect was found using real donations and only when no victim statistics were presented.

In regards to pseudoinefficacy fewer participants donated to IIV when victim statistics were presented, but this difference was not significant. The interaction between victim story and victim statistics was primarily driven by a higher numbers of donations for 9SV presented with victim statistics. Anticipated warm glow was not significantly related to donations for 9SV, so there is no clear indication in this study what is causing this new effect. As expected, anticipated warm glow was more strongly related to donations for IIV. The failed replication of Study 1, and the successful partial replication with real donations will be discussed in the general discussion.

General discussion

These two experiments demonstrated that both the specific context relevant for donating (victim story) and the broader context of the conflict (victim statistics) impact judgment for charitable aid. For specifically 1 identified victim, anticipated warm glow followed a similar pattern as help intention and showed stronger correlations. These studies suggest that changes in anticipated warm glow, when victims that cannot be saved are salient, might be one underlying factor for pseudoinefficacy. These experiments also suggest that pseudoinefficacy might be constrained to small numbers of identified victims.

The identified victim effect was not significant but tendencies in line with this effect were demonstrated for both help intention in Study 1 and donations in Study 2. This was in line with Hypothesis 1.

Pseudoinefficacy was replicated, but only for 1 identified victim. Victims that could not be saved led to lower help efforts for specifically 1 identified victim. There was no identified victim effect when victim statistics was presented. In contrast help efforts increased for 9 statistical victims, a new effect that will be discussed in more detail. This was in line with Hypothesis 2. In addition, in the mixed between-within group analysis there was no decrease in help intention when being exposed to victim statistics. The joint evaluation of victim stories was not affected by victim statistics.

Anticipated warm glow was lower overall when presenting victim statistics in both experiments. However, the only significant difference was in Study 1 for specifically 1 identified victim, which is in line with Hypothesis 3.

In Study 1, help intention and anticipated warm glow had a slightly stronger relation for the groups that faced 1 identified victim compared to the group that faced 9 statistical victims. This was not replicated in the follow up. However the relation between anticipated

warm glow and donations was significant when facing 1 identified victim and not for 9 statistical victims, which is in line with Hypothesis 4.

Theoretical implications

To discuss some of the implications of this thesis, I will present two studies from prior research that failed to find the identifiable victim effect. The first study was measuring differences in anticipated warm glow and the intention to help for one identifiable victim compared to statistical victims. The different victim types were presented using a bone marrow donation context, and the donation procedure was described as: “A bone marrow transplant is somewhat painful and unpleasant for the donor, a thick needle is inserted in the lower back, but there are no major risks for the donor”. This unpublished paper found no significant differences for anticipated warm glow or help intention between-subject (Johansson & Sundfelt, 2014).

The second study was a large field experiment ($N = 25000$) conducted on a sample of registered humanitarian aid donors in Denmark. Letters presenting either two identified victims (one on each side of the letter) or statistical victims were sent out to prior donors; these real donation pleas concerned starving children in Ethiopia. The outcome variable was donations using the form included in the letters. Furthermore, the letters presenting the identified victims included this text: “Right now a hunger catastrophe is threatening the lives of 12 million people in the Sahel region. We can do something if we act now. You can therefore also help us ensure that the situation does not become as severe as the one we saw on the Horn of Africa in 2011”. The letter also included illustrations of brains with descriptions of how hunger breaks down the brains of children. No differences in donations were found (Lesner & Rasmussen, 2014).

I argue that both these studies failed to find any effect because of a decline in anticipated warm glow in the identified victim conditions. This decline was primarily caused by the additional negative affective information presented alongside the victims. More specifically: the first study presented a possibly painful donation procedure, and the second study presented statistical information reminding the participants of all other potential victims they cannot help. Lesner and Rasmussen (2014) compared donations between identified victims and statistical victims. This thesis demonstrated that manipulating only the victim type without carefully controlling other contextual information constraints the identifiable victim effect. The additional information made it hard to anticipate warm glow for donating, and subsequent intentions to donate, or real donations declined to the same level as the statistical victim group.

Proportional reasoning vs. affective evaluation. One idea behind what drives the identified victim effect is proportional reasoning (Jenni & Loewenstein, 1997). When deciding to intervene on the behalf of one identified victim, the decision affects 100% of (1/1) the victim reference group. For nine statistical victims the perceived proportion of victims helped might not be 100% (9/9), the reasoning here is that with increasing victim numbers, larger reference groups are made salient. So instead of 100% (9/9), all Syrian victims, or all starving children in the world might be a reference group, the proportion of victims helped suddenly is perceived as being 9 out of all children in need, far lower than 100%. Västfjäll et al., (2014) demonstrated a decline in help efforts, even when the proportion of helped victims was relatively high, one out of two or 50% of victims were helped, a result that the authors deemed unlikely to be attributed as proportional reasoning or so called drop-in-the-bucket thinking. The proportion was actually lower for 1 of 2 victims compared to 1 victim in this specific experiment. In this thesis, to my knowledge for the first time, stronger evidence against deliberate drop-in-the-bucket reasoning was demonstrated. Drop-in-the-bucket thinking has been demonstrated for larger number of victims (Bartels, 2006; Bartels & Burnett, 2011), the result of this thesis and the result of Västfjäll et al., (2014) indicates that smaller number of victims might be a constraint for this explanation. The statistics box used for both studies contained 11 million victims that were out of reach. The difference in proportion for one identified and nine identified victims compared to 11 million victims is extremely small (.000001%). Help efforts did not decline for 9 statistical victims, in fact the opposite pattern emerged, where help efforts actually was higher for nine statistical victims presented with victim statistics. To further examine proportional reasoning for small numbers of victim, future studies could manipulate the size of the reference group (victim statistics) and if that information is more or less negative in valence. This could indicate how both negative affective information and proportional reasoning mediates help efforts.

Anticipated warm glow. In Study 1, victim statistics specifically led to lower anticipated warm glow when reading about one identified victim and not for nine statistical victims. Small et al. (2007) demonstrated a similar decrease in affect for one identified victim presented with victim statistics, but did not test the impact of statistics on any other victim type. Presenting victims that are out of reach for help had no effect on anticipated warm glow for helping nine statistical victims. The interaction between victim stories and presenting statistics did not reach significance. However a pattern emerged where changes in anticipated warm glow specifically affected a singular victim. Earlier descriptive evidence (Västfjäll et

al., 2014, 2015) suggests that the decrease in affect should be strongest for 1 identified victim, but there should still be some effect for all small numbers of victims. In these experiments there was no decline in anticipated warm glow for 9 statistical victims, this suggest that affective evaluation might be constrained to small numbers of specifically identifiable victims and not small numbers of statistical victims.

Prior research on the underlying mechanisms of pseudoinefficacy have only shown a decrease in unspecified affect for one identified victim when victims that cannot be helped are salient (Small et al., 2007; Västfjäll et al., 2014, 2015). This thesis suggests that more specific measures of affect should be used in experimentation. Slovic et al., (2007) introduced the affect heuristic with emphasis on judgment being made with the help of active emotion. The experiments in this thesis certainly cannot rule out that evaluating active emotion influence decision. However, what the experiments did show is that active emotion is not necessary for the evaluation to decrease for victims when affectively negative information is present. DeWall et al.,(2015) performed a meta analysis of active emotion vs. anticipated emotion as predictors for decisions. Experiments using anticipated emotion was clearly more successful, but the author also pointed out that experiments using anticipated emotion was scarce. This thesis adds to the few number of studies examining anticipated emotion impact on judgment.

Identified victim vs. statistical victims. As proposed by Hamilton and Sherman (1996), the single victim might be processed differently compared to the group of victims. The expectation of warm glow for donating towards the individual was significantly lower for the individual victim compared to the group of victims when facing the seriousness of the Syrian conflict. If individuals are processed more extensively, the participants might have given more effort to thinking about the consequences for the little girl than for the nine statistical victims. This might have led to lower anticipated warm glow when victim statistics were salient. In contrast, the anticipated warm glow did not change for the nine statistical victims, this might be caused by less effortful processing of the group. This is also in line with prior research that demonstrated that individuals in groups are perceived as having less beliefs, desires, consciousness (Morewedge, Chandler, Smith, Schwarz & Schooler, 2013). It is possible that the group of victims might have been processed more as objects, as some earlier evidence from neuroimaging supports (Van der Cruyssen, Heleven, Vandekerckhove & Overwalle, 2015). This could explain why anticipated warm glow did not change at all when participants was exposed to victim statistics.

Possible explanations for increase in help efforts for nine statistical victims presented with victim statistics. In Study 1 help intention was higher for nine statistical victims when the participants were exposed to victims that cannot be saved. The same pattern, was seen for the donations in Study 2. The effect was in opposite direction of the prediction, and in measurements with similar numbers of identified victims (Västfjäll et al., 2015). It was hypothesized help intention would show some pseudoinefficacy for 9 statistical victims, with a weaker effect than for 1 identified victim. This new effect seems to be specific for low number of statistical victims when facing victims that cannot be saved, since this has not been measured before. One possible explanation is relative lower levels for 9 statistical victims without victim statistics, in this condition the participants were presented with the lowest amount of information: 1. Low levels of identifying information, 2. No background information. In the group reading victim statistics, the participants knew that the situation in Syria is very dangerous; they might have reasoned that any help is important in this crisis. However, this only makes sense if this reasoning was not dependent on evaluating affect (for example anticipated warm glow, but could also be other affective components). The correlation between anticipated warm glow and help intention was lower for 9 statistical victims, and in the second study there was no significant correlation between anticipated warm glow and donations towards 9 statistical victims. This could be an indication for this explanation, this is highly speculative and as mentioned earlier no causal claims can be made between anticipated warm glow and help efforts in any of the studies. Future studies should investigate if this explanation is viable by manipulating both how dangerous or large the conflict is and how much negative affective information that is presented, i.e. death, diseases compared to being in danger and mentioning no specific disease. This could possibly discriminate between affective and deliberate components.

Limitations

The failed replications in Study 2 can have a number of different explanations. The first and simplest one is that the results of Study 1 is a type I error. This could be case for the new effect, but is less feasible as an explanation for the patterns similar to the identifiable victim effect. The identifiable victim effect has been replicated many times in laboratory settings, in experiments similar to the ones used in this thesis. A similar pattern was also demonstrated in Study 2, but only for donations. The second explanation is that the sample was different in the replication, analysis indicated larger personal differences (variance) in Study 2, most items were less normally distributed and differences in reliability of anticipated warm glow and help intention was larger between groups. This explanation does however not

explain why the donation measure did replicate the result of help intention from Study 1. The third explanation is differences in experimental procedures. It was noted by the experimenter that participants spent almost as long time rating one ad in Study 2, as the participants spent rating three ads in Study 1. Increased incitements for participating in Study 2 might have increased analytical thought in all groups when rating the ad. Analytical thought was one of the interventions used in Small et al., (2007) besides presenting statistics. The effect size of the control variable for reading statistics was half the size in Study 2, something that also supports this explanation. Whereas rating the ad was no surprise for the participants, the donation of lottery tickets was, and a similar pattern as in Study 1 appeared. This might also accidentally lowered analytical thought, especially in the groups that were not exposed to victim statistics. Effect sizes also indicated that both studies were underpowered, which can increase the risk for both type I and type II errors.

A potential problem in Study 2 was demand effects on the real donations after answering questions about donating first. This was not balanced to keep the participants unaware of the added donation measure. In designing Study 2, the partial replication of Study 1 when rating the ad was prioritized. Ironically the failure to replicate the effects found for anticipated warm glow and help intention in Study 2, makes demand effects on the donation measure less probable. Since these measurements did not follow the same pattern as the donations, demand effects are less plausible. For instance, there were no differences on anticipated warm glow or help intention depending on victim type in Study 2, but there was an effect for donations.

The result from the logistic regression performed for donations in Study 2 should be interpreted especially carefully. This result means that when the interaction term was entered into the model, the model significantly changed. The analysis was not intended for prediction of donations towards a specific victim type depending on if statistics was presented. The predictive power of the model is low.

Is the help intention construct a good proxy for donations? In the help intention construct both measures of willingness to pay and attitudes for donating was aggregated. Research by Kahneman and Ritov (1994) demonstrated that willingness to pay is an attitude measurement; the difference is that the scale is in monetary value. Furthermore, attitude measures are related to actual payments (Brown et al., 1996, MacMillan et al., 1999).

The experiments in this thesis also demonstrated similar patterns for help intention and donations. The donations of lottery tickets might also be considered an attitudinal measure since the value was relatively low, it can be argued that it is not a donation if

someone gives you value to donate. This is important critique; and there were economical limitations to how many resources that could be given to the participants. The budget for these experiments were limited, experiments with larger sums of resources would be a great addition to the knowledge about charitable aid. I argue that the lottery tickets donations together with willingness to pay and other attitudinal items inferences to charitable donations somewhat stronger.

Ethics. In Study 2, the participants were not informed that they would be asked to donate from their compensation. This could be an ethical issue since the compensation for participation, without the knowledge of the participants, is at stake. This problem was considered and the donating decision was made as anonymous as possible by letting the participants end the study without meeting the experimenter, leaving the questionnaire in an answer box. However, this does only lower demand effect and does not remove them, there could still be demand characteristics or other social demand that pressured the participant to donate their compensation.

In both studies the participants read information about death, disease, sick children. This could potentially sadden some of the more sensitive participants. However, the information presented in the studies is similar to what is presented by humanitarian aid organization or news outlets, this is arguably information that participants is exposed to in ordinary life. In addition, all participants were given the opportunity to be debriefed by the experimenter.

Broader implications

In 1995 a rhinoceros was born at the Kolmården Zoo in Sweden. The birth of “Nelson” was national news, unfortunately the creature died 10-days later of congenital brain defects. The Swedish Nelson-club wanted to create a memorial at the Zoo, however the Zoo was not interested. Members of the Nelson-club kept the ashes for five years, until they found a memorial (Svärdkrona, 2000). This single identified animal victim elicited help efforts from the Swedish public that many Syrian refugees only can dream about.

Aid organizations often solicit for donations by presenting the singular victim with a background of the crisis, and Lesner & Rasmussen (2014) found this method ineffective when compared to only statistics in a large sample of former donors in Denmark. The identifiable victim effect has been taken for granted and used extensively in marketing, with no consideration of how additional statistics will impact the donations. The work of Västfjäll et al., (2014, 2015) and this thesis indicates that the victim in itself is not what creates the increased help for the singular victim, it is the affective evaluation of the singular victim.

When aid organizations are trying to evoke the need for aid by presenting factual information about disease, famine, death, they risk counteracting the positive emotions related to giving aid. How can I feel good about donating when millions are starving? How can I feel good about donating blood, if I believe I am going to feel nauseous? Aid appeals that target affective reasoning might benefit from a focus on anticipated warm glow by informing potential donors of how good you can feel by helping. For example, former blood donors actually feel good after donating and not particularly nauseous (Ferguson, Farrell & Lawrence, 2008).

The victims of conflicts, like the civil war in Syria, receive almost one third of aid from private donors. The amount of aid is highly unstable from year to year, private donations are estimated to increase or decrease by as much as 50% (Global humanitarian assistance, 2014). The information about conflicts that are reaching the public might be causing this volatility. Affectively loaded narratives might be effective for raising aid in the short-term, but when combined with news reports the help efforts might be lower than baseline. The newly found effect in this thesis might be an important first step to increase aid for statistical victims, where the victim story carries less affective information and more knowledge about the seriousness of the crisis seem to increase help efforts. Less affective reasoning might be a key to helping large groups of humans.

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Appendix A

Additional results from Study 1 and Study 2

Table A1.

Mean and standard deviation for the between-group dependent variables in Study 1.

Measure	1 identified victim				9 statistical victims			
	No statistics		Statistics box		No statistics		Statistics box	
	M	SD	M	SD	M	SD	M	SD
Warm glow	4.49	1.38	4.21	1.34	4.38	1.37	4.34	1.39
Happiness	4.37	1.42	3.66	1.31	4.32	1.49	4.30	1.44
Good person	4.16	1.25	3.89	1.26	4.30	1.41	4.10	1.35
Probability	3.66	1.46	3.01	1.41	3.19	1.30	3.18	1.50
Motivation	3.73	1.40	3.38	1.38	3.47	1.15	3.62	1.51
Hyp. Donation	2.66	1.33	2.06	1.11	2.45	1.43	3.04	1.77
Aid org.*	4.32	1.11	4.15	1.17	3.91	1.26	4.21	1.34

*Perception of the aid organisation responsible for the ad.

Table A2.

Means and standard deviation for between-group dependent variables in Study 2.

Measure	1 identified victim				9 statistical victims			
	No statistics		Statistics box		No statistics		Statistics box	
	M	SD	M	SD	M	SD	M	SD
Warm glow	4.44	1.46	4.10	1.50	4.60	1.68	4.30	1.36
Happiness	4.22	1.49	3.92	1.44	4.34	1.89	4.14	1.50
Good person	3.92	1.18	3.92	1.37	4.56	1.62	3.92	1.26
Probability	3.64	1.44	3.06	1.28	3.38	1.58	3.20	1.43
Motivation	3.86	1.37	3.38	1.44	3.78	1.84	3.64	1.51
Hyp. Donation	2.72	1.41	2.62	1.81	2.70	1.78	2.18	1.30
Aid org.*	4.10	1.20	4.20	1.20	4.42	.99	4.50	1.05

*Perception of the aid organisation responsible for the ad

Study 1, N = 291, Full model: $F(2, 288) = 39.973, p < .001, R^2(\text{adj}) = .217$

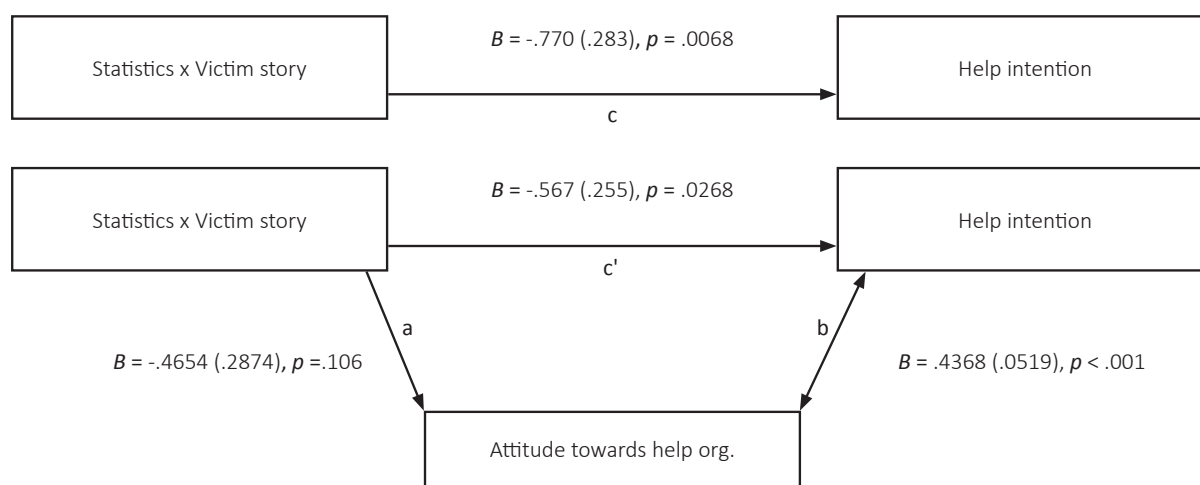


Figure A1. Analysis of Attitude towards the help organisation behind the ads relation to Help intention using the Preacher and Hayes (2008) mediation macro for SPSS.

Study 1, $N = 291$, Full model: $F(2, 288) = 30.979, p < .001, R^2(\text{adj}) = .171$

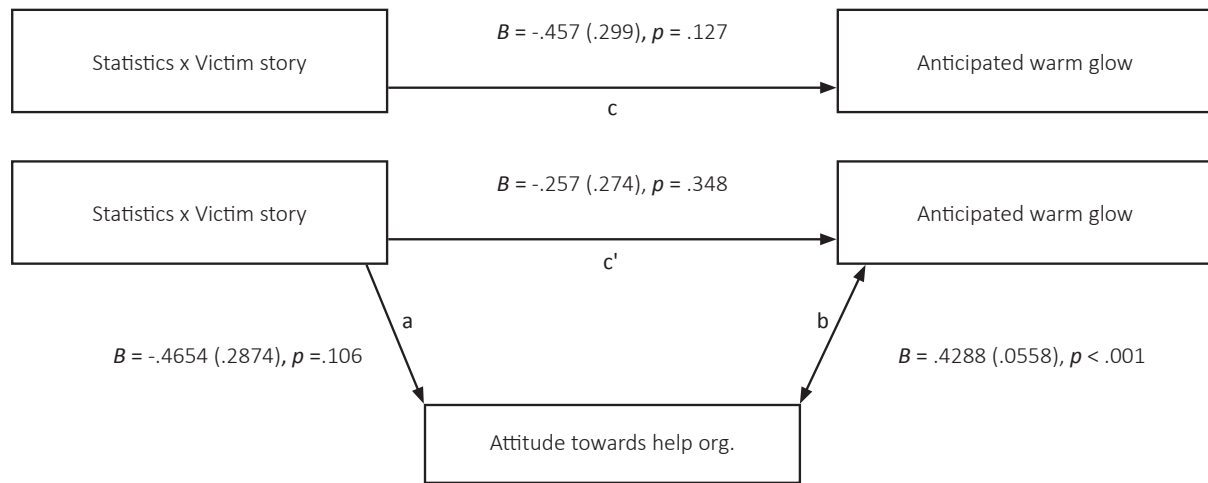


Figure A2. Analysis of Attitude towards the help organisation behind the ads relation to Anticipated Warm Glow using the Preacher and Hayes (2008) mediation macro for SPSS.

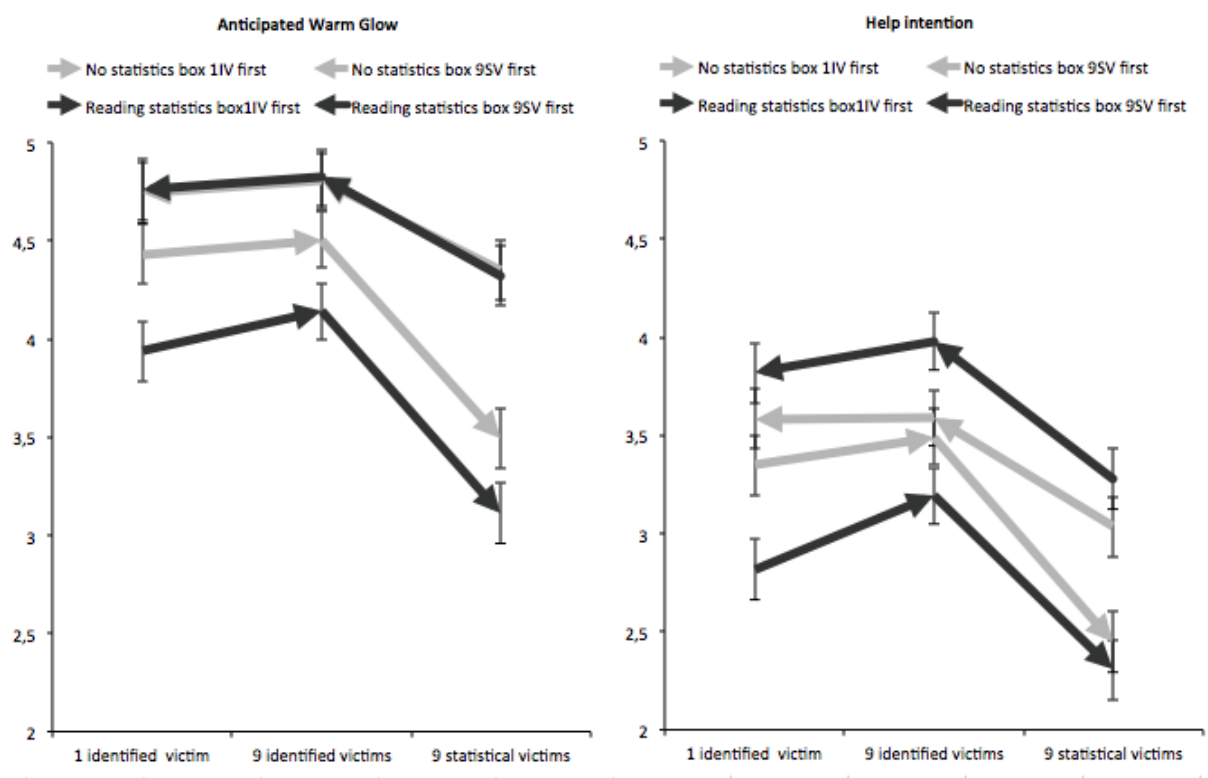


Figure A3. Means for anticipated warm glow and help intention towards 1 identified victim, 9 identified victims, and 9 statistical victims for the group presented with a statistics box and for the no statistics group, separated for order of presentation indicated by arrows. Error bars represents standard errors.

Appendix B
Materials

No statistics

Annons 2.

DU KAN HJÄLPA BARNEN
 Detta är nio barn som flytt våldet i Syrien, de saknar sjukvård för en allvarlig njursjukdom. Under det senaste halvåret har de tagit skydd i ett flyktingläger.



Program som du donerar kommer att gå till de här nio barnen i Syrien. Alla av de nio barnen lider av Alport syndrom, en ärftlig njursjukdom. Sjukdomen är progressiv och leder till en försämrad synskärpa. Barnen behöver regelbunden dialysbehandling för att överleva. Med ditt stöd, och med stöd från andra som kommer hjälpa barnen att arbeta i flyktingläger för att kunna erhålla den sjukvård som de behöver. Dessa nio barns liv kommer garanterat att ändras till det bättre som ett resultat av din gåva.

Annons 1.

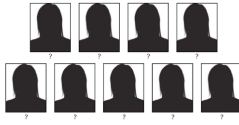
DU KAN HJÄLPA RANIM
 Tioåriga Ranim har flytt våldet i Syrien och saknar nu sjukvård för en allvarlig njursjukdom. Under det senaste halvåret har hon tagit skydd i ett flyktingläger.



Program som du donerar kommer att gå till Ranim, en 10-årig flicka från Syrien. Ranim lider av Alport syndrom, en ärftlig njursjukdom. Sjukdomen är progressiv och leder till en försämrad synskärpa. Ranim behöver regelbunden dialysbehandling för att överleva. Med ditt stöd, och med stöd från andra som kommer hjälpa barnen att arbeta i flyktingläger för att kunna erhålla den sjukvård som de behöver. Ranim:s 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.



Program som du donerar kommer att gå till nio barn med Alport syndrom, en ärftlig njursjukdom. Sjukdomen är progressiv och leder till en försämrad synskärpa. Barn med Alport syndrom behöver regelbunden dialysbehandling för att överleva. Med ditt stöd, och med stöd från andra som kommer hjälpa barnen att arbeta i flyktingläger för att kunna erhålla den sjukvård som behövs. Nio barns liv kommer garanterat att ändras till det bättre som ett resultat av din gåva.

Presenting a statistics box

Annons 1.

INFORMATION
 Flyktingsituationen på grund av kriget i Syrien.
 Det yttre länderkriget är en pågående konflikt mellan de som stöder Bashar al-Assad i Syrien, och de som vill stötta den. Den snart fyra år långa konflikten i Syrien har orsakat och väntas orsaka 6,5 miljoner människor att behöva en humanitär hjälp. FN uppskattar att det i dagligt förekommer nästan 6,5 miljoner internt flyktingar i Syrien och över 3 miljoner på flykt i Syrien grannländer: i Libanon (1,85 miljoner), Turkiet (850 000), Jordanien (625 000), Irak (425 000) och Egypten (140 000). De vanligaste rapporterade dödsorsakerna bland flyktingarna inkluderar diarréer, sjukdomar, missling, akuta luftvägsinfektioner, maldaria och undernäring.

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.



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DU KAN HJÄLPA BARNEN
 Detta är nio barn som flytt våldet i Syrien, de saknar nu sjukvård för en allvarlig njursjukdom. Under det senaste halvåret har de tagit skydd i ett flyktingläger.

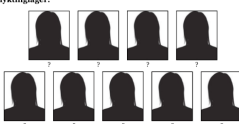


Program som du donerar kommer att gå till de här nio barnen i Syrien. Alla av de nio barnen lider av Alport syndrom, en ärftlig njursjukdom. Sjukdomen är progressiv och leder till en försämrad synskärpa. Barnen behöver regelbunden dialysbehandling för att överleva. Med ditt stöd, och med stöd från andra som kommer hjälpa barnen att arbeta i flyktingläger för att kunna erhålla den sjukvård som de behöver. Dessa nio barns liv kommer garanterat att ändras till det bättre som ett resultat av din gåva.

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 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.



Program som du donerar kommer att gå till nio barn med Alport syndrom, en ärftlig njursjukdom. Sjukdomen är progressiv och leder till en försämrad synskärpa. Barn med Alport syndrom behöver regelbunden dialysbehandling för att överleva. Med ditt stöd, och med stöd från andra som kommer hjälpa barnen att arbeta i flyktingläger för att kunna erhålla den sjukvård som behövs. Nio barns liv kommer garanterat att ändras till det bättre som ett resultat av din gåva.

Figure B1. Ads for 1 identified victim, 9 identified victims, and 9 statistical victims used in Study 1 and Study 2.

Questions about the ad

I would experience an extremely strong feeling of warm glow if I donated money to the nine children in this specific case.

1 2 3 4 5 6 7
 No warm glow Warm glow Extreme warm
 at all glow

I would feel extreme happiness if I donated money to the nine children in this specific case.

1 2 3 4 5 6 7
 No happiness Happiness Extreme
 at all happiness happiness

I would experience myself as an extremely good person if I donated money to the nine children in this specific case.

1 2 3 4 5 6 7
 Not good person Good person Extremely good
 at all person person

How probable is it that you would donate money to the nine children in this specific case?

1 2 3 4 5 6 7
 Not probable around 50% Extremely
 at all probable probable

How motivated would you be to donate money for the nine children in this specific case?

1 2 3 4 5 6 7
 Not motivated Motivated Extremely
 at all motivated motivated

Imagine that you would win \$100 in a lottery, how much of the prize would you donate to the nine children in this specific case?

1 2 3 4 5 6 7
 \$0 \$50 \$100

If a humanitarian aid organization used this specific ad, how would you perceive the humanitarian aid organization?

1 2 3 4 5 6 7
 Extremely neutral Extremely
 negative positive

How many facts do you experience that this particular ad contains?

1 2 3 4 5 6 7
 Extremely few Extremely many

Instructions

When you have answered all of the questions, turn the page to the next spread.
IMPORTANT! You should not go back in the questionnaire.

Instructions

You can now elect to donate some or all of the lottery tickets you received as compensation for your participation.

Place the number of lottery tickets you chose to donate for the nine children in the envelope at the bottom of the page.

The value of the lottery tickets will be transferred to Save the Children when the study is concluded. Every lottery ticket is worth \$1. Contact Xxxx Xxxx at email@email.com if you want to receive a receipt of the donation.

Your decision to donate is anonymous, you will not have to explain your decision, or meet the experiment leader when you have completed the questionnaire.

Kindly, glue the envelope together after you have made your decision. To ensure anonymity its important that you glue the envelope together regardless of what decision you will make.

**How much money do you choose to donate for the nine children?
 -Check the box that represents your decision.**

I donate \$0 (put 0 lottery tickets in the envelope)
 I donate \$1 (put 1 lottery ticket in the envelope)
 I donate \$2 (put 2 lottery tickets in the envelope)
 I donate \$3 (put 3 lottery tickets in the envelope)

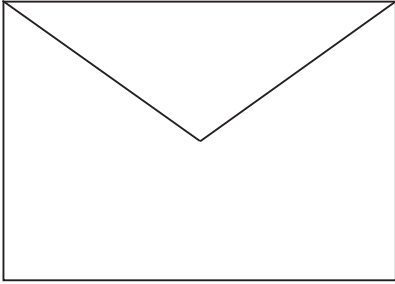


Figure B2. Dependent variables for all studies and lottery ticket donation measure used in Study 2. The materials are translated from Swedish to English.