Self-Other Similarity and Its Effects on Insensitivity to Mass Suffering

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Thesis for Honors Research Project in Psychology

Northeastern University

April 2016
Abstract

Past studies show that our compassion toward suffering others decreases when we are exposed to numerous suffering individuals as opposed to a single sufferer. This phenomenon is called the “collapse of compassion”. The present research examines the effects of self-other similarity on our insensitivity to mass suffering. Based on existing evidence that self-other similarity can promote compassion, we expected the collapse of compassion to diminish or disappear when similarity is experimentally induced. In a single experiment involving 242 undergraduate participants, we manipulated the level of self-other similarity by priming participants with Shared Human Experiences (SHE) that highlighted commonalities between the participants and children in Ethiopia. Participants in the control condition were primed with cultural-specific experiences that were unique to the Ethiopian population. We then presented participants with a description of a poverty-stricken village in Ethiopia, followed by images of either one or eight suffering children from that village. Results of the experiment supported the opposite of our original hypothesis. Participants in the SHE condition exhibited the collapse of compassion, whereas participants in the control condition reported significantly more compassion for a group of suffering children than for a single child. Our research demonstrates that although self-other similarity can promote compassion in a single victim context, this effect is reversed when multiple victims are present, leading to the collapse of compassion. Future studies may further explore the factors that mediate the relationship between self-other similarity and the collapse of compassion.

Keywords: self-other similarity, compassion, empathy, prosocial behavior, suffering
Self-Other Similarity and Its Effects on Insensitivity to Mass Suffering

Descriptions and images of large-scale suffering appear frequently in news reports, documentaries, and charity websites. In April 2015, a 7.8-magnitude earthquake hit Nepal, which, together with the aftershocks, not only claimed almost 9,000 lives but also left 22,000 injured and nearly 3 million people homeless (Pokharel, 2015). The Ebola virus epidemic in West Africa, which began in December 2013, resulted in a total of over 10,000 deaths in Liberia, Sierra Leone, and Guinea—countries that were already poverty-stricken and disease-ridden in the first place (World Health Organization, 2015). In addition to these single catastrophic events, we also witness mass suffering on a daily basis and on a global scale: according to the latest estimates, the world now has 190 million people struggling with severe physical or mental disability (World Health Organization, 2011), 795 million who are chronically malnourished (Food and Agriculture Organization of the United Nations, 2015), and 896 million who live in extreme poverty (World Bank Group, 2016).

In the face of such calamities, have people responded with outpouring compassion for the victims and a strong motivation to alleviate their suffering? The answer to this question, according to many social psychologists, is a rather surprising “no”. In fact, studies have shown that as the number of suffering individuals rises, one’s compassion and willingness to help gradually decrease (for a review, see Dickert, Västfjäll, Kleber, & Slovic, 2012). Researchers call this phenomenon the “collapse of compassion” (Cameron & Payne, 2011).

The collapse of compassion can be considered as a combination of the “identifiable victim effect” and the “singularity effect”. The identifiable victim effect refers to the finding that people tend to offer more help toward specific, identifiable victims rather than “statistical” victims (Small, Loewenstein, & Slovic, 2007). This tendency persists even when identifiability is reduced to a minimal level (i.e.,
determining the victim without providing any personal information) and when individuals are explicitly told that this cognitive bias exists (Small & Loewenstein, 2003; Small, Loewenstein, & Slovic, 2007).

The singularity effect is also responsible for one’s insensitivity to mass suffering. An experiment by Kogut and Ritov (2005a) showed that participants donated more to a single victim than to a group of eight victims, even when all the group members were identifiable. In a follow-up study, the researchers confirmed that the increased desire to help the single, identifiable victim was mainly due to the victim’s singularity, not identifiability (Kogut and Ritov, 2005b). In perhaps the most remarkable demonstration of the singularity effect to date, Västfjäll and colleagues (2014) observed a decline in compassion and prosocial behavior as soon as a second victim was introduced.

A recent study by Cameron and Payne (2011) indicates that the motivational state of an individual also plays a role in driving the collapse of compassion. In the study, participants who were told in advance that they would be asked to donate to suffering African children displayed the collapse of compassion, whereas participants who received no help request did not show the collapse. This led Cameron and Payne to posit that the collapse of compassion is motivated by self-interest, where individuals, knowing that helping multiple sufferers would be costly, actively down-regulate their compassion so that they would not be compelled to help.

**The Present Study**

Although the nature of the collapse of compassion is well elucidated, factors that promote or counteract the collapse are not widely investigated. In the present study, we explore how self-other similarity influences compassion and prosocial behavior toward varying numbers of sufferers. We believed that the collapse of compassion occurs partly because people perceive less similarity with multiple suffering individuals as opposed to a single sufferer. When exposed to mass suffering, our minds may automatically categorize the victims as an “outgroup” that shares little in common with
ourselves. On the contrary, single victims often have unique stories that capture our attention and elicit our sympathy. The highly popular “Humans of New York” Facebook page, which frequently features short biographies of individuals in difficult life circumstances, illustrates the fact that personalized narratives have the power to evoke compassion.

There is a considerable amount of empirical evidence indicating that self-other similarity predicts compassion and prosocial behavior (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997; Neuberg et al., 1997; Maner et al., 2002). In addition, Oveis, Horberg, and Keltner (2010) found that individuals with high dispositional compassion more readily identify themselves with weak, vulnerable others. A study by Valdesolo and DeSteno (2011) suggests that even subtle cues of similarity, such as when two strangers tap their fingers synchronously, can raise one’s inclination to relieve the suffering of the other. However, we are not aware of a study that has specifically examined self-other similarity in relation to the collapse of compassion.

Based on the above evidence, we hypothesized that the collapse of compassion can be mitigated or reversed by enhancing self-other similarity. When a person senses a connection with a group of sufferers, he or she may consider it worthwhile to help them, even if the cost of helping is high. One way to experimentally induce self-other similarity, as noted above, is through motor synchrony (Valdesolo & DeSteno, 2011). However, this paradigm requires two people to engage in the same task, which is rarely possible in real-life situations where the helper is unable to physically see or interact with the victim. Perspective-taking has also been used by researchers to generate self-other similarity (Galinsky, Ku, & Wang, 2005), but this method is generally carried out in a one-to-one fashion and does not apply to scenarios where more than one suffering individual is involved. Therefore, the present study adopts a relatively novel approach to promote similarity, namely by priming participants with descriptions of Shared Human Experiences (SHE), which are the “relatively universal aspects of human experience that are shared by people of all cultures” (Motyl et al., 2011, p. 1180). We predicted that
individuals who were primed with SHE would exhibit higher levels of compassion and prosocial behavior, especially toward multiple suffering others.

Method

Participants

Two hundred and forty-two Northeastern University undergraduate students (171 females and 71 males) ranging in age from 17 to 25 ($M = 19.0, SD = 1.56$) participated in the study for course credit and a $5 cash remuneration. A participant in the control condition whose response on the similarity measure was more than 3.5 standard deviations above the mean was excluded from subsequent data analysis.

Design

The experiment operated on a 2x2 design, where similarity manipulation (SHE vs. control) and number of suffering Ethiopian children (one vs. eight) served as independent variables. The key dependent variables in this experiment were self-reported compassion and sympathy, amount of donation to the suffering children, and perceived similarity with the children.

Measures

Emotional states. Participants indicated their emotional states at specific time points in the experiment by completing a rating scale containing 18 emotion adjectives presented in random order (Appendix B). Participants rated the extent to which each adjective described their current emotion using a seven-point Likert-type scale. The two adjectives particularly relevant to our study were “compassionate” and “sympathetic”.

Self-other similarity. We used the Inclusion of Other in the Self Scale (IOS; A. Aron, E. Aron, & Smollan, 1992; Appendix E) to gauge participants’ perceived similarity with suffering individuals. The IOS
is a one-item measure featuring seven pairs of circles—one representing the self and one representing the other—with increasing degrees of overlap. The scale ranges from “not at all similar” (two side-by-side circles with no overlap) to “extremely similar” (two circles almost completely overlapping with each other). Participants were asked to choose the pair of circles that best described their level of similarity with the sufferers.

**Perceived cost of helping.** Participants completed a two-item questionnaire in which they rated how costly they thought it would be to help the sufferers and whether helping the sufferers would be expensive (Appendix F). Participants gave their responses on a seven-point Likert-type scale. By including this measure, we hoped to replicate the finding by Cameron and Payne (2011) that individuals perceive a higher cost of helping when faced with multiple victims as opposed to single victims.

**Emotion regulation ability.** A recent study has shown that only people who are adept at emotion regulation can exhibit the collapse of compassion because they are able to suppress their compassion in response to overwhelming suffering (Cameron & Payne, 2011). Therefore, we wondered if emotion regulation ability would moderate the effect of self-other similarity on compassion. Emotion regulation ability was assessed using the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004; Appendix G). The DERS contains 36 items that cover six aspects of emotion dysregulation: (a) nonacceptance of emotional responses, (b) difficulty engaging in goal-oriented behaviors, (c) difficulty controlling impulses, (d) lack of emotional awareness, (e) lack of access to emotion regulation strategies, and (f) lack of emotional clarity. In the present experiment, data analysis was performed on the total DERS score.

**Just world beliefs.** We were interested in knowing whether subscription to just world beliefs exerts an additional influence on the collapse of compassion. According to Lerner (1971), a just world refers to “a world in which we get what we deserve and deserve what we get” (p. 51). In our experiment,
we administered the General Belief in a Just World Scale (Dalbert, Montada, & Schmitt, 1987; Appendix H), which consists of six statements describing characteristics of a just world (e.g., “I am convinced that in the long run people will be compensated for injustices”). Participants rated their agreement with each statement using a six-point Likert-type scale.

**Past adversity.** There is new evidence that the severity of adverse life experiences in the past is positively associated with empathy-mediated compassion as well as prosocial behavior (Lim & DeSteno, 2016). We hoped to determine how past adversity interacts with self-other similarity and compassion toward varying numbers of suffering individuals. To do this, we employed a 28-item measure developed by Lim and DeSteno (2016) which assesses adverse life experiences in the following six domains: (a) injury/illness, (b) violence, (c) bereavement, (d) relationship events, (e) social-environmental stress, and (f) disasters (Appendix I). Participants rated the severity, frequency, and recency of each item on a 0 to 4 Likert-type scale.

**Procedure**

When participants entered the lab, they were informed that the objective of the experiment was to examine the connection between personality characteristics, past events, and current attitudes. The experimenter handed each participant $5 (broken into five one-dollar bills) and told them that “unlike most other psychology experiments at Northeastern, this project is funded by a private organization which requires that we give participants cash to compensate for their time”. Each lab session included up to four participants, who sat at individual computer workstations separated by cubicle walls.

At the beginning of the experiment, participants saw a computer animation that “randomly” assigned them to stories that describe a specific type of life event. In reality, no randomization occurred and all participants were told that they would read about “the most memorable childhood experience of
several adolescents”. Participants in the SHE condition were presented with three childhood memories depicting experiences that are shared by people across different cultures: having a family gathering, playing outside in the summer, and celebrating one’s birthday. Participants in the control condition read three memories portraying experiences that are specific to the Ethiopian culture: preparing a local dish, celebrating a traditional festival, and playing a game that is popular in Ethiopia (see Appendix A for the vignettes used in each condition). No information about the authors of the vignettes (e.g., name, age, nationality) was disclosed at this point. In order to increase the effectiveness of the priming paradigm, participants were encouraged to remember the details of the vignettes because there would be questions about each vignette at the end of the experiment.

Following the reading section, participants were asked to write about their most memorable childhood experience in three to five sentences. Although this writing component was not part of the experimental manipulation, it served to make the priming procedure more inconspicuous as a whole.

Participants then completed the emotion rating scale to indicate their affective states at this point of the experiment. Upon completion of this measure, participants learned that the vignettes they had read earlier were originally written by adolescents from a rural Ethiopian village and were later translated into English. Participants read a paragraph (Appendix C) that described the suffering of the people living in that village. In the single victim condition, this paragraph was followed by an image of an African adolescent who was said to have written one of the vignettes presented earlier in the experiment. In the multiple victims condition, the paragraph was followed by eight separate images of African adolescents, three of whom were said to be the authors of the vignettes. All images (Appendix D) were drawn from the website of the non-profit organization Develop Africa (https://developafrica.org) and were paired with the name and age of the corresponding child.
Next, participants responded to the IOS and, for the second time, the emotion rating scale. The latter procedure allowed us to compare changes in participants’ affective states before and after they were exposed to the suffering stimuli.

Prosocial behavior was measured by the amount of money participants donated to the victims. Participants read the following information on their computer screens:

Every semester, Professor DeSteno, our lab supervisor, organizes a fundraiser toward a charitable cause. This semester, we are hoping to raise some money to sponsor the Ethiopian adolescent[s] whom you saw. We will be collecting donations from faculty and students throughout the semester. At the end of December [or April], these donations will be transferred to a charity that provides food, shelter, and basic health care specifically for that adolescent. Before we move on to the rest of the experiment, we would like to extend to you this opportunity to support the Ethiopian adolescent[s]. Please consider donating any portion of the $5 cash compensation you received just now when you entered the lab. Please note that it is optional for you to donate. You do not have to do so if you do not want to. If you decide to donate to the adolescent, please insert $1, $2, $3, $4, or $5 into the empty envelope on your desk. After that, please seal the envelope and place it back on your desk. Once the envelope is sealed, you may not open it again. Please press “Continue” if you have made your donation, or if you decide not to donate.

Participants had unlimited time to make their decisions and to donate without social pressure from the experimenter. To control for the possibility that self-reported compassion and sympathy may influence donation amounts, the order of the emotion rating scale and the donation task was counterbalanced.

Prior to the conclusion of the experiment, participants completed the remaining self-report measures, including the questionnaire on perceived cost of helping, the DERS, the General Belief in a Just World Scale, the life adversity scale, and some demographic items (Appendix J).
After this research project officially ends, we will donate all the money collected to Develop Africa, a charity that provides basic necessities and educational services to impoverished African children.

**Results**

**Manipulation Check**

An independent samples t-test confirmed that reading SHE led participants to perceive higher similarity (as quantified by the IOS) between themselves and suffering others, $M_{\text{SHE}} = 2.48$, $M_{\text{control}} = 2.16$, $t(229) = 2.15$, $p = .033$.

**Compassion Toward Victims**

We combined the compassion and sympathy items on the emotion rating scale to form a composite score (Cronbach’s $\alpha = .74$) that represented participants’ state compassion. A two-way analysis of variance (ANOVA) revealed no significant main effects of similarity manipulation or number of victims on state compassion. However, there was a significant interaction between similarity manipulation and number of victims on state compassion, $F(1, 238) = 4.13$, $p = .043$. Participants who read vignettes of SHE had lower compassion for a group of suffering children than for a single child, while participants in the control condition showed the reverse tendency (Figure 1).

**Cash Donation**

Table 1 shows the percentage of participants who donated $0, $1, $2, $3, $4, or $5 toward the suffering children. The majority (57.5%) of participants donated all of their cash remuneration, while 17.5% of participants did not donate any money. A two-way ANOVA showed that similarity manipulation and number of victims did not have significant main effects or interaction over donation amount.

**Perceived Cost of Helping**
Results from a two-way ANOVA indicated that similarity manipulation did not have a significant main effect on perceived cost of helping, but number of victims did, $F(1, 238) = 4.12, p = .044$. Participants considered helping multiple suffering individuals to be more costly than helping a single sufferer, regardless of whether participants were primed with SHE or with cultural-specific experiences. We found no interaction between similarity manipulation and number of victims on perceived cost of helping.

**Emotion Regulation Ability**

We performed a median split on DERS to see whether emotion regulation ability influenced the key dependent variables. After categorizing participants into poor emotion regulators (> median DERS) and good emotion regulators (< median DERS), we ran a two-way ANOVA on each of the two groups with similarity manipulation and number of victims serving as independent variables. For poor emotion regulators, similarity manipulation and number of victims did not have significant main effects or interaction over compassion. For good emotion regulators, however, there was a significant interaction between similarity manipulation and number of victims on compassion, $F(1, 119) = 3.95, p = .049$. As shown in Figure 2, among participants in the SHE condition, both good emotion regulators and poor emotion regulators displayed the collapse of compassion. However, among participants in the control condition, good emotion regulators had significantly more compassion for a group of children than for a single child, whereas poor emotion regulators had comparable levels of compassion toward single and multiple victims. The DERS median split did not generate significant outcomes when donation amount or perceived cost of helping were entered as dependent variables.

**Discussion**

The collapse of compassion describes our tendency to feel less compassionate toward numerous suffering individuals as opposed to a single sufferer. Based on our hypothesis that the
collapse of compassion results from a decrease in perceived similarity with multiple victims, we expected to see a mitigation or reversal of the collapse of compassion when self-other similarity is induced through SHE. Interestingly, our experiment generated the opposite results. That is, participants who were primed with SHE exhibited the collapse of compassion, whereas participants in the control condition expressed more compassion for a group of suffering children than for a single child.

In hindsight, the experiment findings are not too surprising, especially when we take a closer look at the past studies on self-other similarity or on the collapse of compassion. Although a large body of research exists to support the notion that self-other similarity promotes compassion, these studies were all conducted in a single victim context, where the participants were only exposed to one individual in need of help. As such, whether self-other similarity raises our compassion in response to mass suffering was in fact unknown. Our experiment provides evidence that the compassion-evoking effect of similarity does not extend to a multiple victim context.

Furthermore, our experiment supplements a recent study by Cameron and Payne (2011), who theorized that the collapse of compassion does not occur because we are innately unable to experience more compassion toward multiple suffering individuals. Rather, the collapse occurs when we actively down-regulate our compassion to cope with exposure to overwhelming suffering. Cameron and Payne found that participants perceived helping to be more costly when faced with multiple victims, and that the collapse of compassion was only exhibited by participants who were expected to donate to the sufferers (the expectation to help motivated individuals to suppress their compassion toward multiple victims). Our experiment produced a similar outcome in that participants thought helping a group of children was more costly than helping a single child, regardless of the kind of priming participants underwent. Additionally, we have demonstrated that besides the expectation to help, self-other similarity can also trigger the collapse of compassion.
However, our experiment did not replicate one of the key findings in Cameron and Payne’s research, namely that the collapse of compassion could only be observed in participants who were skilled at emotion regulation, but not in poor emotion regulators. In our study, both good and poor emotion regulators displayed the collapse of compassion when they were primed with SHE. This suggests that the effect of self-other similarity on the collapse of compassion is independent of how well individuals can control their emotions. We then need to ask: what mechanisms underlie SHE’s ability to induce the collapse of compassion? To answer this question, we will conduct a follow-up experiment to explore the factors that account for the relationship between self-other similarity and the collapse of compassion.

In the present study, we collected donations from participants to determine whether their compassion toward suffering children in Ethiopia translated into prosocial behavior. Unfortunately, this behavioral assessment seemed to have run into a ceiling effect where most participants donated all of their cash remuneration toward the sufferers. As a result, we did not find any significant effects of similarity manipulation or number of victims on donation amount.

In sum, our experiment is the first systematic study of self-other similarity in relation to the collapse of compassion. We believe that the results of our experiment bear important implications for the mass media and charitable organizations around the world. Journalists and filmmakers often try to elicit public sympathy by emphasizing commonalities between their audience and suffering individuals, while many non-profits do the same to raise funds for the needy. Our research indicates that although this strategy is effective when there is a single sufferer, it backfires when mass suffering is involved.
References

http://dx.doi.org/10.1037/0022-3514.63.4.596

http://dx.doi.org/10.1037/a0021643


http://dx.doi.org/10.1007/s11229-012-0137-4


http://dx.doi.org/10.1177/1368430205051060


http://dx.doi.org/10.1002/bdm.492


http://dx.doi.org/10.1016/j.obhdp.2005.02.003


making. *Journal of Experimental Social Psychology, 47*(6), 1179-1184.

http://dx.doi.org/10.1016/j.jesp.2011.04.010


http://dx.doi.org/10.1037/a0017628


http://dx.doi.org/10.1371/journal.pone.0100115


Table 1
Distribution of participants’ donation toward suffering children in Ethiopia

<table>
<thead>
<tr>
<th>Donation Amount ($)</th>
<th>Frequency</th>
<th>Percentage (%)</th>
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<tr>
<td>0</td>
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</tr>
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<tr>
<td>5</td>
<td>138</td>
<td>57.5</td>
</tr>
</tbody>
</table>
Figure 1. Participants’ self-reported compassion toward suffering children in Ethiopia. Error bars represent one standard error of the mean.
Figure 2. (a) Self-reported compassion of poor emotion regulators (> Median DERS) toward suffering children in Ethiopia. (b) Self-reported compassion of good emotion regulators (< Median DERS) toward
suffering children in Ethiopia. DERS = Difficulties in Emotion Regulation Scale. Error bars represent one standard error of the mean.
Appendix A

Shared Human Experiences (SHE)

1. My most memorable childhood experience was getting together with my extended family around holidays. I don’t get to see my relatives very often throughout the year, so I cherish these gatherings a lot. The adults would sit down and chat, while I would go off and play with the other kids in the family. We had so much energy that we could run and jump around for hours and not get tired. The house would usually turn into a mess really quickly, but nobody seemed to care. All of us would have a big meal together, which I always enjoyed because some of my family members were excellent cooks. Everyone carried a smile on their face, and seeing that brings joy to myself as well. These family gatherings added so much fun to my childhood!

2. It is hard for me to pick a single most memorable childhood experience, but I would say that summer vacations are my favorite part of childhood. After working hard in school for an entire year, all I needed was some pure relaxation. I loved being outdoors during the summer. My parents would take me to the beach, where I built sandcastles and collected seashells. Or we would go for a hike in the mountains, taking in some fresh air and appreciating the beauty of nature. My hometown would also become very lively in the summer, with all kinds of fun activities and outdoor celebrations going on. When the weather was hot, my parents would buy me ice-cream or a large slice of watermelon to eat. I tried to relax as much as possible during summer vacations, enjoying even simplest activities like taking a walk in the park, riding a bike around my neighborhood, or blowing bubbles on a playground. Summer vacations have been, and will continue to be, one of my most anticipated times of the year.
As a child, I always looked forward to my birthday. On one of my birthdays, I was allowed to invite all my closest friends to our house for a celebration. My parents put up colorful decorations everywhere, and this made me so happy because all of a sudden my house became very lively! It was one of the best days of my childhood; I was able to eat my favorite food, play my favorite games, and be with my favorite people. I am very thankful that there are a few people in this world who would care for me and share my deepest joy. My friends also wrote a birthday card for me, which I’ve kept to this day. Every now and then, I would pull out the card to read the silly things my friends wrote on it, which brings back so many sweet memories! That night, my parents let me stay up later than usual to chat and play with my friends. In the eyes of others, this may seem to be a very ordinary birthday party, but it meant a lot to me because it made me feel special and loved.

Cultural-Specific Experiences

As a child, I loved to play a game called Mbube Mbube with my friends. This is a simple game where a group of spectators uses sound to help a blindfolded player (the “lion”) catch another blindfolded player (the “impala”). I almost always won in this game because I was a fast runner and I had a good sense of direction. When I was the lion, I was able to catch the impala very quickly. When I was the impala, I was able to avoid being caught by the lion, who would become so tired in the end that another player has to come in as substitute. Being a spectator was also exciting, especially when two good players are facing each other. I enjoyed playing Mbube Mbube more than many other games because it involves a lot of physical movement and does not require a lot of equipment. I haven’t played Mbube Mbube for a while now, but whenever I see other children having fun with the game on the streets, it brings back wonderful memories and makes me smile!
2. My most memorable childhood experience was celebrating Enkutatash. In this traditional festival, families would have home-brewed beer, mead, and coffee, as well as a variety of holiday dishes. Since this day marks the end of the long rainy season and the beginning of the harvest season, many families would decorate their house with freshly picked yellow daisies and long grasses. Traditionally, boys would give out colorful paintings to their family and friends, while girls would go from door to door singing songs of celebration. I liked to wear a beautiful dress on this day and sing to my neighbors, who would sometimes give me money in return. I would spend the rest of the day partying, dancing, and feasting at my house. Enkutatash is such a joyful occasion for all the people in my community. It has been, and will continue to be, one of my most anticipated times of the year.

3. It is hard for me to pick a single most memorable childhood experience, but I do remember that I enjoyed cooking a local dish called Gomen Be Siga with my mom. I would help her measure the right amount of each ingredient and wash the veggies (collard greens, red onions, green peppers) for her. Momma did all the chopping and slicing because she wanted me to stay away from the knife. We would put the meat and the onions in a clay pot to stew, and when the meat turned brown, we would add all the other ingredients into the pot one by one. The dish always smelled very good because it had a lot of butter in it. Sometimes, I could even smell it from outside our house! When the dish was served, it was still sizzling hot, and our family would usually have it with flatbread for dinner. Gomen Be Siga is such a delicious dish. I will never have enough of it!
Appendix B

Emotion Rating Scale

Please indicate your current mood by rating your agreement with the following words using a 7-point scale (1 = Not at all; 7 = Completely).

- Proud
- Confident
- Satisfied
- Fulfilled
- Positive
- Good
- Content
- Happy
- Compassion
- Sympathy
- Distressed
- Sad
- Uncomfortable
- Angry
- Embarrassed
- Tired
- Focused
- Attentive
Appendix C

Victim Description

The hillside community of Adje is located in the southern region of Ethiopia, 120 miles away from the nation’s capital city. The residents of Adje live in poorly constructed homes made of dirt floors, mud walls, and tin roofs. Most adults in this poverty-stricken area work as subsistence farmers and can only earn the equivalent of $20 a month. Due to a lack of medical care resources, many people suffer from health problems such as parasitic diseases, tuberculosis, typhoid, and malaria. Food shortages and unclean water are some of the other issues affecting this community. As a result of widespread malnutrition, the child mortality rate in Adje is one of the highest in the world. A general attitude of hopelessness and despair permeates the community, so children grow up with no one to encourage them to pursue a brighter future. Because of this, many children drop out of school and end up on the streets, struggling to make a living. Overall, the residents of Adje live in extremely dire circumstances and are in a critical need for help.
Appendix D

Single Victim

Alusine, age 13

Multiple Victims

Margrette, age 14  Foday, age 12  Edward, age 15  Daniella, age 12

Alusine, age 13  Avrin, age 12  Dainkey, age 13  Tamba, age 14
Appendix E

Inclusion of Other in the Self Scale (IOS)

Which figure below best describes how similar you think you are to the adolescent [adolescents] you just saw? (1 = Not at all similar; 7 = Extremely similar)
Appendix F

**Perceived Cost of Helping** (1 = Not at all; 7 = Extremely)

1. How costly do you think it would be to help the adolescent[s]?

2. Did you think that helping the adolescent[s] would be expensive?
Appendix G

Difficulties in Emotion Regulation Scale (DERS) (1 = Almost never (0-10%); 2 = Sometimes (11-35%); 3 = About half the time (36-65%); 4 = Most of the time (66 – 90%); 5 = Almost always (91-100%))

1. I am clear about my feelings.
2. I pay attention to how I feel.
3. I experience my emotions as overwhelming and out of control.
4. I have no idea how I am feeling.
5. I have difficulty making sense out of my feelings.
6. I am attentive to my feelings.
7. I know exactly how I am feeling.
8. I care about what I am feeling.
9. I am confused about how I feel.
10. When I’m upset, I acknowledge my emotions.
11. When I’m upset, I become angry with myself for feeling that way.
12. When I’m upset, I become embarrassed for feeling that way.
13. When I’m upset, I have difficulty getting work done.
14. When I’m upset, I become out of control.
15. When I’m upset, I believe that I will remain that way for a long time.
16. When I’m upset, I believe that I’ll end up feeling very depressed.
17. When I’m upset, I believe that my feelings are valid and important.
18. When I’m upset, I have difficulty focusing on other things.
19. When I’m upset, I feel out of control.
20. When I’m upset, I can still get things done.
21. When I’m upset, I feel ashamed with myself for feeling that way.
22. When I'm upset, I know that I can find a way to eventually feel better.

23. When I'm upset, I feel like I am weak.

24. When I'm upset, I feel like I can remain in control of my behaviors.

25. When I'm upset, I feel guilty for feeling that way.

26. When I'm upset, I have difficulty concentrating.

27. When I'm upset, I have difficulty controlling my behaviors.

28. When I'm upset, I believe there is nothing I can do to make myself feel better.

29. When I'm upset, I become irritated with myself for feeling that way.

30. When I'm upset, I start to feel very bad about myself.

31. When I'm upset, I believe that wallowing in it is all I can do.

32. When I'm upset, I lose control over my behaviors.

33. When I'm upset, I have difficulty thinking about anything else.

34. When I'm upset, I take time to figure out what I'm really feeling.

35. When I'm upset, it takes me a long time to feel better.

36. When I'm upset, my emotions feel overwhelming.
Appendix H

**General Belief in a Just World Scale** (1 = *Strongly disagree*; 2 = *Disagree*; 3 = *Slightly disagree*; 4 = *Slightly agree*; 5 = *Agree*; 6 = *Strongly agree*)

1. I think basically the world is a just place.
2. I believe that, by and large, people get what they deserve.
3. I am confident that justice always prevails over injustice.
4. I am convinced that in the long run people will be compensated for injustices.
5. I firmly believe that injustices in all areas of life (e.g., professional, family, politic) are the exception rather than the rule.
6. I think people try to be fair when making important decisions.
Appendix I

Life Adversity Scale

<table>
<thead>
<tr>
<th>Event</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often do you experience this event in your lifetime so far?</td>
<td>None (N/A)</td>
<td>Once</td>
<td>More than Once</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
<tr>
<td>How long ago did it last occur?</td>
<td>None (N/A)</td>
<td>More than 12 months</td>
<td>9 – 12 months ago</td>
<td>5 – 8 months ago</td>
<td>1 – 4 months ago</td>
</tr>
<tr>
<td>How much did this affect you?</td>
<td>None (N/A)</td>
<td>Barely</td>
<td>A little</td>
<td>Moderately</td>
<td>Severely</td>
</tr>
</tbody>
</table>

The following questions will ask you to indicate the frequency, recency, and severity of 28 adverse life events that you may or may not have experienced. Please use the scales, as described in each row above, to indicate your response for each adverse event.

<table>
<thead>
<tr>
<th>Adversity Domain</th>
<th>Specific Adversity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injury/Illness</td>
<td>1. Suffered a serious accident or injury</td>
</tr>
<tr>
<td></td>
<td>2. Serious accident or injury of a loved one</td>
</tr>
<tr>
<td></td>
<td>3. Witnessed family member injured or killed</td>
</tr>
<tr>
<td></td>
<td>4. Suffered a serious illness</td>
</tr>
<tr>
<td></td>
<td>5. Serious illness of a loved one</td>
</tr>
<tr>
<td>Violence</td>
<td>6. Were physically attacked or assaulted</td>
</tr>
<tr>
<td></td>
<td>7. Been coerced with threats of harm to yourself or your family</td>
</tr>
<tr>
<td></td>
<td>8. Witnessed someone (other than a family member) being injured or killed</td>
</tr>
<tr>
<td></td>
<td>9. Been hit or pushed by someone you know</td>
</tr>
<tr>
<td></td>
<td>10. Had someone touch or feel private areas of your body or touched/felt another’s private areas under force or threat</td>
</tr>
<tr>
<td></td>
<td>11. Had sexual relations under force or threat</td>
</tr>
<tr>
<td>Bereavement</td>
<td>12. Death of an immediate family member (i.e., parents, siblings, child)</td>
</tr>
<tr>
<td></td>
<td>13. Death of someone in your extended family (i.e., cousin, uncle, grandparents)</td>
</tr>
<tr>
<td></td>
<td>14. Death of a friend</td>
</tr>
<tr>
<td></td>
<td>15. Lost someone close due to suicide or homicide</td>
</tr>
<tr>
<td>Relationship Events</td>
<td>16. Experienced forced separation from family</td>
</tr>
<tr>
<td></td>
<td>17. Ended a close relationship or gotten rejected in a relationship</td>
</tr>
<tr>
<td></td>
<td>18. Experience your parents’ (or stepparents’) divorce</td>
</tr>
<tr>
<td></td>
<td>19. Been shamed, embarrassed, or told repeatedly that you are “no good”</td>
</tr>
<tr>
<td></td>
<td>20. Had an unwanted pregnancy or unwanted child</td>
</tr>
</tbody>
</table>
| Social-Environmental Stress | 21. Experienced serious financial difficulties (i.e., no money for food or shelter)  
|                           | 22. Lived in dangerous housing or neighborhood  
|                           | 23. Been discriminated against because of your ethnicity, religious background, or sexual orientation  
|                           | 24. Been exposed to dangerous chemicals or biological agents |
| Disaster                  | 25. Experienced a major fire, flood, earthquake, or any natural disaster in your community  
|                           | 26. Suffered a loss in a major fire, flood, earthquake, or any natural disaster in your community  
|                           | 27. Experienced a tragedy or disaster in your community caused by people (e.g., a shooting, bombing, etc.)  
|                           | 28. Suffered a loss in a tragedy or disaster in your community caused by people (e.g., a shooting, bombing, etc.) |
Appendix J

Demographic Items

1. Gender:
   - Male
   - Female

2. Age: __________

3. Race:
   - Black/African American
   - White/Caucasian
   - Asian
   - American Indian/Alaska Native
   - Native Hawaiian or other Pacific Islander
   - More than one race/Other (If so, please specify: __________)

4. Ethnicity
   Do you consider yourself to be:
   - Hispanic or Latino
   - Not Hispanic or Latino

5. Religion
   - Catholic
• Protestant
• Jewish
• Muslim
• No religion
• Other (If so, please specify: __________)

6. Would you consider yourself to be a religious person? (1 = not at all religious; 5 = extremely religious)

7. Is English your first language?
   • Yes
   • No