Experiencing Trauma Encourages Altruism

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Abstract

Altruism is a very important personality trait because it can establish stronger communication between individuals, which can then produce stronger relationships with others. Previous research on altruism has found that individuals who have experienced more trauma participate in more helping behaviors (behaviors that bring help to those in need, such as, holding the door open for someone or volunteering at a soup kitchen). Other studies have found that there was not a significant relationship between viewing natural disaster footage and helping people. The objective of this research study was to determine if watching a video of the trauma a natural disaster created would cause altruism in the viewers. In order to test this hypothesis, participants were randomly assigned to an experimental group or a control group. The experimental group watched a video that showed the aftermath of a natural disaster and the control group watched a video about zoning laws. After viewing the video, the participants filled out an altruism survey and both groups' scores were compared to see if watching a natural disaster video would cause altruism in the viewers. There was not a significant difference between the scores for the experimental group and the control group. Therefore, watching the natural disaster video did not cause altruism in the viewer.

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Natural disasters, devastation and heartache have been a part of humanity since the beginning of time. Earthquakes, tsunamis, hurricanes and tornadoes have wreaked havoc all over the world. However, where there is desolation, helping hands are never far behind, or so we hope. In times of a natural disaster, helping hands are not only appreciated and accepted from everyone, but an essential tool for rebuilding homes and hope. Taking the time to help someone in times of dire need not only aids the land and the people affected, but it can build stronger communication and relationships with others. Selflessly caring for and helping others is called altruism. Humans tend to be more altruistic and even start showing altruistic characteristics as part of early development (Li, Li, Decety & Lee, 2013). Altruism can be a positive influence in times of great need. Individuals and communities that receive help may be changed in many ways. Where there once was a lack of hope, faith and connection, altruism can bring them hope and faith in others, their community, their nation and God and it can help them form a connection with others. Altruistic acts can also help restore buildings, homes and land that was devastated by disasters through financial support and manual labor. Altruism can positively influence our world in many ways, and knowing this builds the desire in people to want to understand what makes people altruistic. It is important to study the causes of altruism because if people can discover what causes altruism, then people can create a more altruistic world, and ultimately, a better world to live in.

Several researchers have been intrigued by the concept of altruism and have conducted studies to determine the relationship between altruism, exposure to trauma, media involvement, sympathy, well-being, stress, and other correlates of prosocial behavior; positive and helpful

behavior (Frazier et al., 2013; Den-Ouden & Russell, 1997; Li, Li, Decety & Lee, 2013; Staub & Vollhardt, 2008; Seo, Sun, Merolla & Zhang, 2012).

One experiment interested in children's levels of altruism was conducted by Li et al. (2013) who believed that children would either give more (the enhanced-altruism strategy) or give less (the self-preservation strategy) after an earthquake. The enhanced altruism strategy portrays the idea that a higher level of altruism creates group cooperation and will "strengthen society's fitness for survival and indirectly improve individual's odds of survival" (p. 1686). The self-preservation strategy believes that the more the individual has, the better off the individual is. Li and colleagues hypothesized that older children would give more than the younger children, and that younger children would give less (than they had previously given) after the earthquake and older children would give more (than they had previously given) after the earthquake. Li and colleagues believed this would be the outcome because altruism in individuals is understood to mature as the individual ages. In order to test this hypothesis, Li and colleagues tested the altruistic giving of children from ages six to nine by playing the dictator sticker game. In this game, the child picked 10 of their favorite stickers from 100. After choosing the stickers, the children were given a choice to give some of the children's stickers to a child who was not asked to participate in the experiment. The researcher was blindfolded, and the child placed the number of stickers the child wanted to give in an envelope and sealed it. After the child had left, the researcher opened the envelope to see how many stickers were given. This experiment occurred before the earthquake and after the earthquake to two separate groups of children. Li et al.'s hypothesis' were supported in many ways. Results from the study showed that six-year-olds gave less one month after the earthquake than six-year-olds that gave prior to the earthquake. Nine-year-olds gave more one month after the earthquake than 9-year-olds

before the earthquake. The longitudinal study showed that six-year-old's that had experienced the earthquake gave less than nine-year-old's that experienced the earthquake.

A second study was done by Li et al. (2013) that tested if seeing pictures of devastated land and humans hurting and suffering would increase the children's altruistic giving, especially those who had experienced the earthquake. Before seeing the pictures, the six-year-olds and nine-year-olds gave the same number of stickers. After seeing the slides, the six-year-olds did not give a lesser number of stickers like they had in the previous study. Nine-year-olds gave a higher number of stickers after seeing the pictures. This study shows that variation of distress caused by actually experiencing the trauma and only seeing pictures of it affects altruistic giving.

Altruism in people who had experienced multiple forms of trauma was especially interesting to Frazier et al (2012). Frazier et al. were curious to see if people who had been exposed to more trauma (for example, life-threatening illness or the death of a family member) would participate in more prosocial behaviors than people who hadn't been exposed to as much trauma. To test this relationship, Frazier et al. had college students fill out multiple surveys where participants told about the traumas they had experienced and how often they had participated in prosocial behaviors. In order to compare the scores, Frazier et al. took the participants that hadn't experienced a higher amount of trauma in the two months between the first survey and the second, and created a separate group of those participants to compare to the group that had experienced more trauma. Each group filled out the initial survey that clarified their trauma experiences, the amount of prosocial behaviors they had participated in in the past two weeks and the amount of volunteer work they had participated in in the past 12 months. Two months later, the participants filled out a similar survey that informed the researchers of any new trauma exposure and the amount of prosocial behaviors participated in in the past two weeks.

Individuals who experienced more trauma participated in more prosocial behaviors. Therefore, trauma exposure is positively related to prosocial behaviors.

Media coverage of natural disasters has many effects on the viewers, and Seo et al. (2012) felt these effects were important to study. One particular hypothesis they hoped to validate was whether the relationship between the amount of media (TV and Internet) the individual saw covering the Sichuan earthquake and the degree to which they were willing to help the victims was affected by outside variables, such as "perceived social trust, stress, and gain in social-relational resources" (p. 10). To conduct this study, researchers recruited college students to fill out multiple surveys that measured the amount of media they participated in, their level of stress after reading/seeing the media coverage, their view of their relationships, their amount of social trust, and the degree to which they were willing to help the victims of the Sichuan earthquake.

In order to determine if the relationship between the participant's amount of media participation (how much time people spend on the Internet or watching T.V.) and the participant's degree of willingness to help is affected by relationships, stress and social trust, Seo et al. (2012) used "structural equation modeling (SEM)". After testing the effects of each variable on the participant's willingness to help, Seo and colleagues found that, alone, there was no significant relationship between the participant's amount of media participation and the participant's degree of willingness to help. However, they did find that relationships, stress and social trust interfered in the relationship between the participant's media participation and the participant's willingness to help.

The previous research examined the relationship between trauma and altruistic behaviors, and even showed that experiencing trauma firsthand has a stronger effect on an individual to

behave altruistically, but they have not examined the effects of natural disaster videos on altruism. The current study plans to fill in this gap by testing the individual's altruism level after watching a video of the aftermath of Hurricane Harvey. We want to know if exposure to a natural disaster causes altruism in others. We hypothesized that participants who viewed a natural disaster video would score higher on an altruism questionnaire compadre to participants who viewed a video of neutral stimuli.

In order to test this theory, we used a between-subjects design, the participants were randomly assigned to a group and we exposed one group to a control video (a video about zoning laws) and the other to a natural disaster video (a video showing the damage Hurricane Harvey did to south Texas). After the participants the video, the participants completed an altruism questionnaire. Through this research we planned to find that videos of natural disaster caused altruism in the viewer. If this concept was supported, then we would be another step closer to understanding how altruism is produced and another step closer to a more selfless world.

Method

Participants

Participants in this study were Angelo State University students and were recruited through SONA Systems. SONA Systems is the psychological research recruitment system at ASU. Of the 20 participants, 20% were men and 80% were women. The participants varied in race with 60% White, 35% Hispanic or Latino and 5% Asian/Pacific Island. The ages of the participants ranged from 18 to 25 (M = 19.35, SD = 1.63).

Design and Procedure

This study was experimental because we tested the effects of our independent variable on the dependent variable. Our independent variable was the Hurricane Harvey video and the

dependent variable was the altruism questionnaire. We used a between-Ss design, and participants were randomly assigned to one of two groups and only participated in the one group. The control group viewed a zoning law video and the experimental group viewed the Hurricane Harvey video. Afterward, the participants filled out a questionnaire and the results from the control group were compared to the experimental group to determine if our hypothesis was supported.

For this experiment, we used two different videos both one minute and 15 seconds long. Both videos were obtained from YouTube. The zoning law video, *What is Zoning?*, was originally 1 minute and 49 seconds long, but it was cut down to 1 minute and 15 seconds. It was trimmed to be the same length as the Hurricane Harvey video. The video explained what zoning laws are, and can be found at: https://www.youtube.com/watch?v=sigdOUQDt0M. The Hurricane Harvey video, *'Our Town is Destroyed': Texans Face Hurricane Harvey Destruction |NBC News*, was originally 1 minute and 30 seconds, and was trimmed to 1 minute and 15 seconds, to remove the section of the news anchor to eliminate possible confounding variables. This video showed footage of the flooding and disaster that Hurricane Harvey brought, and victims told their stories during the footage. The video can be found at: https://www.youtube.com/watch?v=WLFCYdgtzUU.

The altruism questionnaire was created by our group to measure participants' level of altruism. The questionnaire consists of 11 questions, two of which are reverse coded, and is scored on a Likert scale with 1 = never, to 6 = always. We chose to leave out a neutral number. Two sample questions are, "*I would donate money to a disaster relief foundation"* and "*I would not provide first aid to injured individuals."* The demographics sheet inquired about the participant's sex, age, ethnicity, number of siblings, whether the participant had personally

experienced a natural disaster, if the participant knew someone who had experienced a natural disaster and if the participant grew up in an urban, suburban or rural area.

Two rooms were used for research in the Academic Building. Upon entering one of the two research rooms, the participants were greeted with a smile, asked to have a seat and told that we would begin shortly. Once all the participants were present, and a grace five minutes was given to any participant who might have been late, I read from the script drafted for our study. I greeted the participants again, told the participants thank you for participating in the study and then introduced myself. I explained that the experiment was over college students' perceptions of videos and that it would take less than 30 minutes to complete. I informed the participants that they would first need to fill out a consent form, and after I collected the consent forms I gave the participants a questionnaire that the participants were not to fill out until after watching the video. I advised the participants to turn off all cell phones or other electronic devices and let the participants know that if the participants had any questions during the experiment, the participant should quietly raise their hand and I assisted the participant. I showed the participants where the manila folder was (I held it up while explaining that each participant needed to put the completed questionnaire in the manila folder and then placed it back on the table at the front of the room) and told the participants to place the completed questionnaires inside the folder when the participants were done. I informed the participants that after the questionnaires were turned in, the participants needed to get a debriefing sheet, which would give the participants more information about the study, from me and then the participants were to be dismissed. After I read the script, I handed the participants their consent forms. I returned to my seat for a few minutes, so the participant could read the consent form before signing it. Once a few minutes had passed, I collected the consent forms from the participants and handed out the questionnaires,

demographic side down. I played the video, and when the video had concluded, the participants filled out their questionnaires and placed them in the manila folder, to ensure the participants' confidentiality. I handed each participant a debriefing sheet (a sheet with more information about our experiment and contact information for the IRB chair and the supervisor of our experiment), answered any questions the participant had and then dismissed the participant.

Results

In this study we hypothesized that participants who viewed a natural disaster video would have a higher score on the altruism questionnaire compared to participants who viewed the video of neutral stimuli. To calculate the scores on the altruism questionnaire, we added up the answers chosen for each question. Higher numbers calculated for the altruism questionnaire reflected higher levels of altruism in the participant. Next, we averaged the altruism questionnaire score for the experimental group (the group that viewed the Hurricane Harvey video) and the control group (the group who viewed the zoning law video). In order to calculate the averaged altruism score for each group, we added the altruism scores from each participant in the experimental group and divided the new number by the number of participants in the experimental group. The resulting number was the experimental group's average altruism score. To calculate the average altruism score for the control group, we followed the same procedure but used control group participants in place of the experimental group participants. To test the difference between the altruism averages of the control group and the experiment group, I used an independent t-test. I chose the independent t-test because it assesses the differences in averages of a between subjects experiment. There was not a significant difference in altruism scores between participants who watched the Hurricane Harvey video (M = 4.97, SD = .33) and participants who watched the zoning law video (M = 4.60, SD = .66), $t(18) = 1.60$, $p = .127$.

Additional Analysis

Since there was not a significant difference in the group altruism averages, I chose to look deeper for a difference. I used an independent t-test to assess the different answers to each question on the altruism questionnaire between the group that viewed the Hurricane Harvey video and the group that viewed the zoning law video. Between the group that viewed the Hurricane Harvey video (M = 5.50, SD = .71) and the group that viewed the zoning law video (M = 4.50, SD = .97), $t(18) = 2.63$, $p = .017$, $d = 1.18$, there was a significant difference in answers to the question, *"Without being asked, I would help carry a stranger's groceries to their car."*

Discussion

I hypothesized that participants who viewed a natural disaster video would have a higher score on the altruism questionnaire compared to participants who viewed a video of neutral stimuli. After conducting the experiment and assessing the data, I found that there wasn't a difference in the altruism questionnaire scores for the experimental group and the control group. Therefore, viewing the natural disaster video did not increase altruism scores in the participants. The lack of support from the data analysis implies that viewing a natural disaster second-hand does not increase altruism in the viewer. Consequently, this means that individuals who see natural disasters reported on television or social media will not experience higher levels of altruism, and thus might not be encouraged to help the victims. I believe my hypothesis was not supported because our questionnaire may not have sufficiently measured altruism. The participants in the experimental group and the participants in the control group answered each question on the altruism questionnaire similarly. Therefore, it is likely that the questionnaire we created didn't test the participant's levels of altruism like we had intended.

A study done by Seo et al. (2012) best supports the results of our study. In their study, Seo and colleagues measured people's media participation (how much time was spent watching T.V. coverage of the Sichuan earthquake and the time spent viewing the effects of the Sichuan earthquake on the Internet) and people's willingness to help. The results of their study did not show a significant relationship between media participation and willingness to help. Our study was similar because we tested the effect of a natural disaster (the Hurricane Harvey footage) on the participant's altruism levels. In both studies, there was no evidence of a significant relationship between media participation (Hurricane Harvey video) and willingness to help (altruism level).

A study conducted by Frazier et al. (2013), which measured people's exposure to trauma and how often people participated in prosocial behaviors, contradicted our study. Their study was correlational and they found a positive relationship between the amount of trauma exposure and the amount of prosocial behaviors. Those who experienced more trauma partook in more prosocial behaviors. In their study, people were personally affected by trauma exposure, and in our study, participants viewed a natural disaster that had already occurred and was not capable of affecting them personally. The deeper effect of the trauma most likely caused the increase in prosocial behavior. This idea leads me to believe that if our video had a deeper effect on the participant, then their levels of altruism might have been increased.

Since there was no significant difference in the average altruism scores between the experimental group and the control group, I decided to assess the answers to each question on the altruism questionnaire between the experimental group and the control group. There was a significant difference between the experimental group and the control group when answering the question, *"Without being asked, I would help carry a stranger's groceries to their car."* The

experimental group, the group who viewed the Hurricane Harvey video, answered this question with a higher level of altruism (they answered a whole number and a half higher) than the control group, the group who viewed the zoning law video. The difference in the participants' answers is intriguing and I believe it occurred because the Hurricane Harvey video may have encouraged a desire to help people with an immediate need. The majority of questions on the altruism questionnaire asked for help in less immediate circumstances. For instance, *"I would donate blood or plasma for victims in need"*, or *"I would volunteer for a fundraiser to help orphaned children find a new home."* Both questions represent a form of helping that does not bring the victim immediate help. Therefore, if the Hurricane Harvey video caused a longing to help people with an immediate need, participants in the experimental group would not have answered significantly different than the participants who viewed the zoning law video on the other questions on the altruism questionnaire, which is what happened.

Even though our research didn't turn out the way we hypothesized, it is still valuable and provides many contributions to the field of social psychology. At this time, we don't have support that altruism can be directly affected by seeing natural disaster footage via media. Being aware of this can place importance on finding other ways to test how altruism affects people, how people might react to natural disaster footage and what can be done to help footage create a higher level of altruism in the viewer.

Our research was good even if it didn't give us the results we hoped for. Through this research, I have learned that many people are altruistic, or claim to be, and that is what this world needs. However, just because people are allegedly altruistic, that doesn't mean they will always act on it, and that may be why our world is in need of altruistic behaviors, because there is a lack of altruistic acts.

The biggest limitation of this study is the inability to generalize my findings to the entire population. Most of the participants were women, White, in their early 20's and all were college students. Since research was conducted on a small college population, the findings of this study cannot be generalized to the overall population. To help eliminate this limitation, I would conduct this study on different populations. For instance, I would conduct it at a high school, a work place, and a retirement home as well.

Another limitation of this study is that the recent devastation caused by Hurricane Harvey affected both participants in the experimental and control groups. This study was conducted within two months of Hurricane Harvey hitting south Texas. Many of the participants were aware of the devastation Harvey reeked on Texas and may have been personally involved in said devastation. Therefore, the recent effects of Hurricane Harvey may have caused the higher level of altruism in the participants (participants in each group scored a whole number above the midpoint on our altruism scale) regardless of the group they were in. If Hurricane Harvey (the real hurricane, not the video) left the participants with a briefly higher level of altruism, then it is possible the effects hadn't worn off by the time the participants filled out the altruism questionnaire. To help eliminate this limitation, I would try to conduct the study during a time when natural disasters are at a low. I know this is almost impossible to predict, but there are certain "seasons" that can help us determine a lesser level of natural disasters. For instance, there are hurricane seasons and tornado seasons.

A third limitation of this study is that the altruism questionnaire may not have accurately measured altruism. The questionnaire was created by our group members and was not previously tested on individuals or measured for validity. Therefore, it is not for certain that the questionnaire truly measured the participant's level of altruism. In order to remove this

limitation, I would find a different altruism questionnaire, one that is valid and has been used in previous research.

By making these changes, confounding variables, such as natural disasters' effects on the participants in the control group, could be removed. Also, the findings of the study could be widely generalized if the study was conducted on a more diverse population. Finally, if the study used a valid altruism questionnaire, it is possible that different findings would be reported. Possibly, findings that supported the original hypothesis.

Future research on altruism should include what type of personality traits correspond with altruism and what encourages an individual to be altruistic. If personality traits were tested, we would have a better idea of what types of people are more altruistic than others. This information would be helpful in many ways. One particular way would be if a highly altruistic person was needed to fill a job that brought relief and care to individuals in need. Research to determine what encourages altruism in an individual would be highly important as well. If we were to determine what created altruism in individuals, then we would know how to get individuals to help in times of need. Altruism brings the gift of hope, faith and love to individuals in need and can start the foundation for a better world.

Altruism is a very complex personality trait to have, but it is one of the most beneficial. Altruism affects both the giver and the receiver in many ways. Through loving acts and genuine concern for others, the giver can grow and learn more about the way the giver's actions affect the receiver and the way the giver's actions affect our world. Our research was important because we learned that altruism isn't created by only viewing videos of a natural disaster. Therefore, we learned that something else, maybe something more important, or a mixture of variables, creates

altruism in individuals. It is important to know what causes altruism because a world without altruism is a world falling apart.

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