Motivating news audiences: Shock them or provide them with solutions?

Abstract
Despite the well-established power of the media to shape public perceptions of social problems, compassion fatigue is believed to remain prevalent. So what does it take for someone to be compelled to act after reading a story or seeing an image of a prominent issue? This study, a 3-by-2 between subjects experiment, examined the effects of two journalistic techniques — shocking audiences into action with offensive stories or inspiring them to act with solution-based stories — in the context of sex trafficking. Results revealed that neither shock nor solutions stories led to increased empathy for trafficked individuals, greater understanding of the issue, increased desire to share the story or increased desire to act, but that readers of solutions stories felt more positive and were more likely to read similar stories about the issue. This suggests that solution-focused news stories might be at least somewhat more engaging than shocking and offensive stories.

Keywords
Solutions journalism, shock media, sex trafficking, experiment, human rights reporting

Introduction
Research has, for decades, shown that media are a primary source of the public’s information about social problems (Baker, 1986; Gilboa, 2003; Olien, Tichenor & Donohue, 1989), that people rely on media coverage of a social problem rather than their own experience to evaluate the severity of the issue (Culbertson & Stempel, 1985) and that news coverage of a social problem is correlated with the public’s perception about the importance of that issue (McCombs & Shaw, 1972; Neuman, 1990). Yet, despite this established power of the media to shape public perceptions of social problems, compassion fatigue — that being, the belief that audiences are left unmoved after consistently seeing images or reading text about human suffering — is believed to remain prevalent (Hoijer, 2004). The question then remains: what does it take for someone to be compelled to act in attempt to alleviate a social problem after reading a story about the issue?
Scholars have speculated about reasons why audiences do not act, such as compassion fatigue and psycho-physical numbing (Borer, 2012a; Slovic, 2007; Tester, 2001). However, a gap in scholarship exists regarding which journalistic techniques are most successful in promoting action in the context of a certain social problem. Therefore, this study aims to test two possible techniques: shock media and solutions journalism.

Shock media is the use of content that deliberately startles and/or offends audiences (Gustafson & Yssel, 1994). Shock media has been proven successful in promoting action (often purchasing) in advertising settings (Dahl, Frankenberger & Manchanda, 2003) and therefore could be successful in a news context. Solutions journalism is a style of rigorous reporting of credible responses to social problems (Benesch, 1998). Solution-based news stories have been shown to increase readers’ desires to work toward a solution to a social problem (Curry & Hammonds, 2014); however, academic research on the impact of solutions-based news stories is minimal. Thus, this study aims to test whether shock media and/or solutions journalism encourage audiences to act when reading a story about sex trafficking, a prevalent social problem in the United States and abroad.

1. Literature Review

1.1 The impact of reporting on social issues

Research has demonstrated that journalists who have written about social problems as well as social justice advocates believe that news media attention has a positive impact on lessening the issue. In the words of Apodaca, “the media can disseminate human rights information, mobilize human rights NGOs, strengthen popular participation in civil society, promote tolerance, and shine a light on government activity” (2007: 151).

Journalists reporting on social problems at a newspaper in Mexico explained that they were acting as a form of “counter-power” to the state and that by covering human rights abuses, the coverage “can awaken a moral outrage in the public” and cause audience members to be grateful they are not in that position, and in turn, want to help (McPherson, 2012: 108). These same journalists report being hopeful that by reading about such abuses, constituents will put pressure on their elected officials which would result in governmental action and thus achieve what Protests et al. (1992) would describe as the classic policy agenda-building aim of journalism (McPherson, 2012). If politicians themselves are readers, journalists hope that human rights coverage could also stir them to act, and, ensure that “institutional machinery functions” (McPherson, 2012: 108). Additionally, international news organizations that participated in Impact Journalism Day, which involved the publishing of 103 solutions journalism projects on the same day, noted a significant impact on the social problem reported on after their stories were published (Impact Journalism Day, 2015). As a result of this coverage, “42 percent of the projects surveyed which reported a need for funding received more donations and/or investments” (Impact Journalism Day, 2015: 14).

Further, pressure can be placed merely by a journalist investigating a problem. “In essence, the threat of the media’s coverage is enough to prevent violations from occurring if that coverage is guaranteed” (McPherson, 2012: 109). In addition to journalists, human rights advocates have expressed the belief that media play a key role in lessening the prevalence of abuses (Amnesty International, 2013; Androff, 2010; Robinson, 2002). However, some might argue that all of these hopes of journalists and advocates are overly idealistic, or at least, unproven.

1.2 Reasons for action or inaction

An array of theories could be at play for understanding why an individual who reads about a human rights atrocity or social problem might be compelled to act while others remain complacent and merely turn the page of the newspaper or change the TV channel. Two
theories may explain why some individuals are mobilized to act and others remain unmoved: psycho-physical numbing and compassion fatigue.

1.2.1 Psycho-physical numbing

Psycho-physical numbing makes it difficult to care about large-scale, distant suffering (Fetherstonhaugh, Slovic, Johnson & Friedrich, 1997). Psychologist Paul Slovic (2007) says people help others when they “feel” for them, and humans are unable to fathom, and in turn, feel, for the many individuals involved in large-scale suffering. This theory deals with both distance and scale — the closer the victims are to us the more we are likely to feel empathy for them but the farther away they are and the larger the scale (the higher number of victims) the harder it is to feel for them (Kogut & Ritov, 2005a; 2005b; Schelling, 1968; Small & Loewenstein, 2003). Slavin (2007) argues that the psychic numbness results from an inability to process the sheer number of victims.

Borer says: “The difficulty of comprehending large-scale deaths has consequences for how human rights advocates and news producers, editors and reporters frame foreign crises to maximize audience reception of their message” (2012a: 11). This was further seen in an online survey done by Maier, Slovic & Mayorga (2016) which revealed that, in the context of a distant conflict in Africa, personification of a single victim led to increased audience interest, concern and sympathy. However, more research is needed to better understand what news frames contribute to this psycho-physical numbing, especially in the context of foreign versus domestic coverage.

1.2.3 Compassion fatigue

Compassion fatigue is arguably the most well known explanation for why audiences do not act when they read about social problems. Compassion fatigue theorists argue that the more suffering that audiences see, the less likely they are to feel (and in turn, act) (Borer, 2012a). Compassion fatigue differs from psycho-physical numbnness in that audiences are able to process the scope of the problem, but become numb to it due to overexposure (Borer, 2012a). By definition, compassion fatigue occurs when audiences becoming so accustomed to seeing conflict and suffering in various forms of media, that they stop noticing that it is occurring (Tester, 2001). In the context of media coverage of social problems, compassion fatigue has been found to be associated with lower interest, emotional arousal and information-seeking regarding the issue (Kinnick, Krugman & Cameron, 1996). Specifically, researchers identified four ways in which media contribute to compassion fatigue: emphasis on the sensational, incessant “bad news,” lack of context explaining the underlying problem(s), and presentation of problems but not solutions (Kinnick, Krugman & Cameron, 1996).

However, critics reject the implicit assumption of compassion fatigue that people are and will be compassionate toward one another, arguing that compassion is not innate in all people (Tester, 2001). Others say compassion fatigue is due to media repetitiveness: “Compassion fatigue is a consequence of rote journalism, and looking-over-your-shoulder reporting...Newspapers, news magazine and television don't want to get beat by the competition — either in the stories they cover or in the packaging they come in. As a result, much of the media looks alike” (Moeller, 1999: 32).

1.3 Journalistic practices to inspire action

1.3.1 Shock media

One technique that has been discussed as a way to mobilize people to act after reading or seeing images about social problems is through the use of shock media. Shock media, which
has traditionally been used in an advertising context, is content that is created with the intent of deliberately startling and/or offending audiences (Gustafson & Yssel, 1994). Dahl, Frankenberger and Manchanda expanded that definition to focus on the deliberate violating of norms, saying “it is the norm violation aspect of the shock appeal that is assumed to underlie its ability to break through advertising clutter and capture the attention of a target audience who then listens and acts on the related message” (2003: 269). Research has shown that shock appeals attract viewer attention and improve brand recall (Parry, Jones, Stern & Robinson, 2013). Additionally, in the context of HIV/AIDS awareness advertisements, shock content was proven effective at attracting attention as well as encouraging audiences to remember the information presented and “engage in message-relevant behaviors” (Dahl, Frankenberger & Manchanda, 2003: 277). A study by Veer and Rank (2012) further demonstrated that shocking images that portray the consequences of smoking resulted in heightened levels of cognitive processing of the message and intentions to quit smoking.

However, the use of shocking content does not come without criticism. While research has yet to dive into what, if any, the psychological impacts are, shock media has received criticism for being a gratuitous gimmick (Van Munching, 1998) and utilizing negative or harmful tactics in order to sell products/services (Eads, 1999). However, it could be suggested that the context within which the shocking content is used plays a role in its level of acceptability. Parry, Jones, Stern and Robinson (2013) found that consumers perceived the use of shock advertising to be more justifiable for non-profit organizations as opposed to for-profit companies.

Despite the criticism, Dahl, Frankenberger and Manchanda’s (2003) findings regarding the effectiveness of shock HIV awareness campaigns and Veer and Rank’s (2012) results demonstrating the success of shock images on intentions to quit smoking suggest that there may be positive uses of shock media. Likely as a result, shock media is now increasingly being used in social problem and human rights reporting, particularly in op-eds (Borer, 2012b).

One of the most well-known journalists to utilize shock media in the framework of social problems has been New York Times op-ed columnist Nicholas Kristof, who regularly fills his column space with pictures of dead or mutilated bodies and text that graphically details various atrocities (Kristof, 2005; 2008). For example, a 2008 column about acid burns read: “acid had burned away her left ear and most of her right ear. It had blinded her and burned away her eyelid and most of her face, leaving just bone. Six skin grafts with flesh from her leg have helped, but she still cannot close her eyes or her mouth” (Kristof, 2008).

Kristof has bluntly explained that the graphic pictures he uses are intended to drive his readers to action, saying “It’s time for all of us to look squarely at the victims of our indifference,” and he then proceeded to urge them to take action by saying the only way to end the Darfur genocide was for citizens to act and reach out to their politicians (Kristof, 2005). Kristof (2005) stated, “Americans will be stirred if they can see the consequences of their complacency.”

However, even this use of shock media and pleas from well-known journalists result in varying audience responses. Little scholarly attention has been given to the effectiveness of shock media in catching the attention of audiences as well as resulting in those individuals taking action in the context of social problems.

1.3.2 Solutions journalism

Another method meant to inspire action on the part of news audiences is reporting solutions-based rather than problem-based stories. Solutions journalism has only recently been defined in the academic literature (McIntyre, 2015), despite its use among practitioners since at least the 1990s (Benesch, 1998). Solutions Journalism Network, a New York-based
organization that promotes solutions journalism, says this type of reporting “investigates and explains, in a critical and clear-eyed way, examples of people working toward solutions” in order to “provide valuable insights about how communities may more effectively tackle serious problems” (Solutions Journalism Network). Seattle Times’ education reporter Claudia Rowe (2013) further described solutions journalism as data-driven investigative reporting that scrupulously and skeptically investigates solutions rather than failures, which have traditionally been the focus of investigative reporting. Solutions reporting still involves thorough reporting of problems, but focuses on what people are doing to solve those problems. The purpose of this type of reporting is to change the tone of the conversation and motivate individuals to contribute to addressing complex social problems.

Reporters who practice solutions journalism have seen anecdotal success. Jesper Borup, a radio news anchor for the Danish Broadcasting Corporation, said he sees real social change from solutions reporting (J. Borup, personal communication, Oct. 9, 2014). For example, his station’s solution-focused coverage of a dangerous bus terminal led to improved safety mechanisms being installed. Rowe, the Seattle Times reporter, said she has seen audience members express heightened interest in and appreciation of her stories about Seattle’s school districts since her publication partnered with Solutions Journalism Network and she was trained to report this way (Rowe, 2013). Utah’s Deseret News, another news organization that partnered with Solutions Journalism Network, found that its solution-oriented stories resulted in increased page views and shares (Noack, Orth, Owen, & Rennick, 2013). After adopting the new style of reporting, the paper experienced a 15% growth in print circulation and became the second fastest-growing newspaper in the country in 2012 (Noack, Orth, Owen, & Rennick, 2013). Solutions Journalism Network Chief Operating Officer Keith Hammonds summarized the success of his organization’s partnerships with more than 30 traditional news outlets: “It’s not just that online traffic to solutions stories seem to be higher; readers’ comments are more positive and constructive, indicating a changed, more hopeful conversation” (Hammonds, 2014).

Because solution-based stories inherently include information about a solution to a problem, and solution information is inherently more positive than conflict information, which can be highlighted in shock media that intentionally includes offensive details, it stands to reason that solutions stories might evoke more positive feelings in news consumers than shocking stories. This line of reasoning is consistent with cognitive appraisal theory, which asserts that an individual’s affective response — or general positive or negative emotional reaction (Baumeister et al., 2007; Fredrickson, 2001) — to a stimulus results from his or her immediate and intuitive evaluation of that stimulus (Ellsworth & Scherer, 2003). Solutions stories are framed in a way that intend to draw the reader’s attention toward the solution, or presumably more positive, information, whereas shocking stories are framed in a way that intend to draw the reader’s attention toward the shocking, or presumably more negative, information. Therefore, we expect that solution stories will evoke more positive affect among readers than will shocking stories. Despite this prediction, it is important to note that we expect affect to remain relatively low among all readers because they are reading a story about sex trafficking, an inherently negative topic.

Whether solutions journalism motivates individuals to act prosocially in regard to a problem remains to be seen, however, as empirical evidence is negligible. One experiment examining the impact of a solution-focused news story about a rise in illegal graffiti found that reading a story that included a solution did not motivate individuals to act, or even intend to act, in a way that supported graffiti reduction (McIntyre, 2015). However, in a quasi-experiment, Curry and Hammonds (2014) found participants were more likely to report prosocial behavioral intentions after reading solution-based news stories about the
effects of traumatic experiences on American schoolchildren, homelessness in urban America, and a lack of clothing among poor people in India.

Given the lack of empirical evidence supporting solutions journalism, more work needs to be done in order to further understand its effectiveness in motivating news consumers to act in prosocial ways. This study will test the impact of a solution-based news story about the topic of sex trafficking. More specifically, this study will compare a solutions story to a shock story to see which method might be more effective at conveying information and motivating action.

1.4 Sex trafficking

One example of a social problem in which media coverage has been criticized for sensationalism, unnecessary use of graphic images and text, and lack of coverage of solutions is sex trafficking (Hawthorne, 2011; Sobel, 2013). Sex trafficking has been researched across multiple disciplines, including criminology (Schauer & Wheaton, 2006), social work (Kotrba, 2010), public policy (Farrell & Fahy, 2009) and sociology (Weitzer, 2009), and an array of definitions have emerged. In fact, Lee (2007) noted more than 20 unique definitions of human trafficking. For the purposes of this study, sex trafficking will be defined in accordance with the United Nations (2000), as:

The recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation.

Given the surreptitious nature of sex trafficking, specific statistics regarding the scope of the problem are unknown. However, scholars have speculated that there are approximately 27 million victims of human trafficking around the world, of which a substantial amount are believed to be trafficked for sexual purposes (Bales, 2007).

Recently mass communication scholars have begun to turn their attention to the intersection of sex trafficking and mass media, and a growing body of literature has begun to analyze news coverage of sex trafficking in different parts of the world. Such research has revealed that coverage is episodic (focuses on a specific event such as a raid or an arrest, and limits public understanding of the issue), does not suggest remedies, focuses on official sources and lacks victims’ voices (Johnston, Friedman & Shafer, 2012; 2014; Johnston, Friedman & Sobel, 2014; Sobel 2014). However, research has yet to analyze the impacts of such coverage, and whether the use of graphic text and/or images or solution-focused stories lead to more audience attention, understanding or action and whether that differs in stories that are focused on domestic sex trafficking compared to trafficking abroad. This study aims to fill that gap in scholarship by posing the following hypothesis and research questions:

H1: Individuals who read a solutions news story about sex trafficking will report more positive affect than will those who read a shocking news story about the same topic.
RQ1: How does the type of news story — shock or solution — impact readers’ empathy toward the problem of sex trafficking?
RQ2: How does the type of news story — shock or solution — impact readers’ understanding of the issue of sex trafficking?
RQ3: Is one type of news story — shock or solution — more effective than the other at motivating readers to intend to engage with the story topic?
RQ1: Is one type of news story — shock or solution — more effective than the other at motivating readers to actually engage in behaviors that work toward reducing sex trafficking?

RQ2: Is there an interaction between the type of news story — shock or solution — and the domestic/international focus of the story on readers’ empathy toward the problem of sex trafficking?

H1: Individuals who read the international story will be less empathetic toward the problem of sex trafficking than those who read the domestic story, no matter the story technique.

2. Method

2.1 Design

A 3-by-2 between subjects experiment including an unmanipulated control group was designed to examine the effects of two news story techniques — shocking audiences into action with offensive stories or inspiring them to act with solution-based stories. The two independent variables, news story technique (shock, solution, control) and news story geographic focus (domestic, international), combined to create six conditions.

2.2 Participants

Participants were recruited from Amazon’s Mechanical Turk, a crowdsourcing labor market where researchers (and others) pay “workers” minimal wages to complete small tasks. There were 254 original U.S. participants. However, data were discarded for individuals who spent less than two minutes completing the survey or had technical problems. A two-minute cut-off time was chosen in an effort to include individuals who work more quickly than average but to eliminate those who completed the survey so quickly that it seemed impossible for them to have actively participated. The remaining sample consisted of 242 participants ranging from 19 to 63 years old (M = 33.66, SD = 10.29). The majority were male (63%) and white (79%). Participants were located throughout the U.S., with almost one quarter each in the Northeast, Southeast, West, and Midwest.

Mechanical Turk allows social scientists to gather data quickly and inexpensively. In the current experiment, participants were paid $5.50. Mechanical Turk also allows individuals to participate in their natural environment, lessening the concern that the artificial nature of experiments may constrain responses. Although some scholars have criticized the service as a social science participant tool (Ipeirotis, Provost & Wang, 2010), others have shown that Mechanical Turk workers are significantly more diverse than typical American college samples (Buhrmester, Kwang & Gosling, 2011) and that data collected through Mechanical Turk are at least as reliable as those obtained by traditional methods (Buhrmester et al., 2011).

2.3 Stimulus materials

A fictitious news site, Network News, was used for this experiment. The site was designed using Adobe Illustrator and was intended to look like a standard professional news website, complete with a navigation bar, logo, ad, social media icons and local weather widget. The body of the fake news site included a version of a news story including a headline, byline, date, photo, cutline, story text, and pull quote. The only differences between the sites were the headline, cutline, pull quote, and body text for each version of the story.

Actual news stories were manipulated to create the stories for this experiment. The stories all focused on underage girls who had been sex trafficked and the sentencing of a man who was responsible for the crime. The story was manipulated to have occurred
domestically or internationally and to include either shocking and offensive information or solution-based information. A control condition included neither shocking nor solution-based information. The solutions and shock story versions ranged between 526 and 583 words. The control stories were inevitably shorter, with the shortest being 329 words, because they lacked the shocking or solution-based information.

2.4 Procedure
Participants self-selected to take a survey posted on the Mechanical Turk website. The survey was described as a research study in which each worker would be asked to read a news story and respond to a questionnaire. The description indicated that the task should take 8-to-10 minutes and includes content that some readers may find offensive. Workers who chose to participate were redirected to a Qualtrics survey, where they were thanked for their interest and asked for their consent to participate, including a confirmation that they were at least 18 years old. After giving consent, participants first responded to a few demographic questions before they were randomly assigned to one of the six news story versions and asked to read the story carefully. Finally, participants responded to several questions measuring the outcome variables. At the end of the questionnaire, participants were given a code to enter into the Mechanical Turk website in order to receive their payment.

2.5 Independent variables
2.5.1 News story technique
The news story template was the same for all participants, yet some individuals read a version of the story that included shocking and potentially offensive material while others read a version of the story that included information about a potential solution to the problem of sex trafficking. Participants who read the shocking stories were exposed to graphic details about the mental, physical and sexual abuse that the sex trafficked girls experienced and were offered no potential solution to the problem. Contrarily, participants who read the solution-based stories were not exposed to any graphic details. Rather, they were told about a new collaborative program between the judicial and social service systems that had successfully helped trafficking victims reintegrate into society. These manipulations were present in the story’s headlines and 4-6 paragraphs of body text. The unmanipulated control versions of the story contained no graphic content or solution information. Apart from the solution-shock manipulation, all other parts of the stories remained consistent, including the number of sources, names of sources, and general story structure. The researchers felt it was necessary to manipulate the headline to reflect the shocking or solutions-oriented information for ecological validity. In practice, a solutions story is framed to highlight the solution, and a shock story is framed to highlight the shocking details. Therefore, it would not reflect reality to use the same headline for all conditions. However, all story headlines were kept to a similar length (8-11 words) for consistency.

2.5.2 News story geographic focus.
The location of the story was also manipulated. The domestic versions of the story were written to have taken place in Providence, Rhode Island. The international versions of the story were written to have occurred in Phnom Penh, Cambodia. These manipulations were present in each story’s photo (a Google map), cutline, dateline, and a couple sentences in the body of the story describing the trafficking victims’ background and the location where authorities found them. While the location was manipulated, all other parts of each story
element remained the same. In other words, in all conditions, a Google map was displayed in the same format and size and the cutlines used the same wording except for the location change.

2.6 Dependent variables

2.6.1 Affect
Positive and negative affect were measured using Watson, Clark and Tellegen’s (1988) Positive and Negative Affect Schedule. Participants were asked to rate on a five-point scale the extent to which they experienced various feelings and emotions while reading the news story. Ten words, including “distressed,” “upset” and “irritable,” represented negative affect, and ten words, including “interested,” “active,” and “inspired,” represented positive affect.

2.6.2 Empathy.
Empathy toward the characters in the story — sex trafficking victims — was measured on a seven-point Likert-type scale revised from Miron, Branscombe and Schmitt’s (2006) Empathy Index. Participants were asked to rate the extent to which they agreed with five statements. Example statements are, “I feel compassionate toward women who experience sex trafficking” and “I do not feel sorry for the women in the story” (reverse coded).

2.6.3 Issue understanding
Ten items were developed to measure participants’ understanding of the problem of sex trafficking. These items were derived in part from sex trafficking information published by the National Human Trafficking Resource Center (Myths & Misconceptions, 2016) and from one of this paper’s authors, who is an expert in the area of sex trafficking. Participants were asked to rate the extent to which they agreed with statements such as, “Sex trafficking does not occur in the United States” (reverse coded), “Sex-trafficked girls are paid for their services” (reverse coded), and “Sex trafficking typically includes both mental and physical abuse.”

2.6.4 Behavioral intentions
Six behavioral intentions were measured to assess participants’ perceived engagement with the story topic, following Oliver, Hartmann, and Woolley (2012). Participants were asked to rate, on a seven-point Likert-type scale, the likelihood that they would engage in behaviors such as read similar stories, share the story on social media, or donate money to an anti-trafficking organization.

2.6.5 Behaviors
Participants’ actual prosocial behaviors were further measured in two additional ways. First, they were asked if they would like to sign a petition calling for additional counseling services to be available to sex-trafficked individuals at no cost to them. They were told that if they chose to add their name, they would be redirected to the petition after they submitted the survey and that their survey responses would remain anonymous. Second, participants were asked whether they would like to donate the $.50 that they would otherwise be compensated for the study to Save The Children, a fictitious global anti-trafficking organization.

Additional relevant information was collected including questions about participants’ demographics and familiarity with the story topic.

3. Results
A pretest was conducted to ensure that the shock versus solution manipulation was successful. A one-way ANOVA revealed that indeed the manipulations were effective. Individuals who read the shocking story ($M = 4.16, SD = .83$) reported reading a story with significantly more startling and/or offensive graphic details than those who read the solutions story ($M = 2.61, SD = 1.34$) or the control story ($M = 2.7, SD = 1.22$), $F(2, 54) = 10.57, p < .001, \eta^2 = .28$. And individuals who read the solution story ($M = 4.18, SD = 1.13$) reported reading a story with significantly more information about a solution that might help sex-trafficked girls than those who read the shocking story ($M = 1.89, SD = 1.1$) or the control story ($M = 2.3, SD = 1.22$), $F(2, 53) = 19.75, p < .001, \eta^2 = .43$.

H1 predicted that individuals who read a solutions story would report more positive affect than would those who read a shocking news story. The data supported this hypothesis.

Because the Positive And Negative Affect Schedule is intended to be used as a bidirectional scale, the 10 items intended to measure positive emotional activation and the 10 items intended to measure negative emotional activation were averaged to create two composite variables (positive: $\alpha = .84$; negative: $\alpha = .89$).

A one-way ANOVA revealed a significant effect of the type of news story on positive affect, $F(2, 231) = 3.75, p < .05, \eta^2 = .03$. Bonferroni post hoc comparisons showed that participants who read a solution-focused news story felt significantly more positive affect ($M = 2.39, SD = .79$) than participants who read a shocking news story ($M = 2.11, SD = .61$). Significant differences were found between the solution-focused story and both the shocking story and control condition ($M = 2.15, SD = .69$) but not between the shocking story and the control condition. In other words, participants who read a solution-focused news story felt significantly better than either those who read the control story or a shocking story.

A one-way ANOVA also revealed a significant effect of the type of news story on negative affect, $F(2, 232) = 7.53, p < .05, \eta^2 = .06$. Bonferroni post hoc comparisons showed that participants who read a shocking news story felt significantly more negative affect ($M = 2.1, SD = .78$) than participants who read a solution-focused news story ($M = 1.65, SD = .61$). Significant differences were found between the shocking story and both the solution-focused story and control condition ($M = 1.78, SD = .79$) but not between the solution-focused story and the control condition. In other words, participants who read a shocking news story felt significantly worse than either those who read the control story or a solution-focused story.

RQ1 asked how the type of news story — shock or solution — might impact readers’ empathy toward the problem of sex trafficking. The data revealed that the type of news story did not significantly impact readers’ empathy. After the five items intended to measure empathy were averaged to create a composite variable ($\alpha = .88$), a one-way ANOVA showed no significant difference in feelings of empathy among those who read the solution-focused news story ($M = 6.17, SD = .99$) or the shocking news story ($M = 6.25, SD = .79$), $F(2, 239) = .8, p = .45$.

RQ2 asked how the type of news story — shock or solution — might impact readers’ understanding of the issue of sex trafficking. The data revealed that the type of news story did not significantly impact readers’ understanding of the issue. After the six statements intended to measure issue understanding were averaged to create a composite variable ($\alpha = .79$), a one-way ANOVA showed no significant difference in issue understanding among those who read the solution-focused news story ($M = 6.16, SD = .63$) or the shocking news story ($M = 6.1, SD = .73$), $F(2, 234) = .94, p = .39$.

RQ3 asked whether one type of news story — shock or solution — might be more effective than the other at motivating readers to intend to engage with the story topic. Six
engagement outcomes were measured: the intention to share the story on social media, read similar stories, research the story topic, talk about the story topic with friends, donate money to support the cause, and volunteer to support the cause. Of the six engagement items, the data revealed a significant impact of the type of news story on one of them — the intention to read similar stories. A one-way ANOVA with Bonferroni post hoc comparisons revealed that those who read a solution-focused news story ($M = 4.37, SD = 1.77$) were significantly more likely to intend to read similar stories than those who read a shocking news story ($M = 3.46, SD = 1.96$) about the same topic, $F(2, 239) = 6.25, p < .05$, $r^2 = .05$. Significant differences existed between the shocking story and both the solution-focused story and control condition ($M = 4.29, SD = 1.72$), but no significant differences were found between the control and solution stories. The type of news story did not significantly impact readers’ intentions to share the story on social media, research the story topic, talk about the issue, donate money, or volunteer. (See Table 1 for ANOVA results.)

### Table 1. ANOVA results for dependent variables

<table>
<thead>
<tr>
<th>Type of news story (shock, solution)</th>
<th>M(SD)</th>
<th>F</th>
<th>df$_1$</th>
<th>df$_2$</th>
<th>MSE</th>
<th>$n^2$</th>
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</thead>
<tbody>
<tr>
<td>Positive affect</td>
<td>2.21(.71)</td>
<td>3.75*</td>
<td>2</td>
<td>231</td>
<td>.489</td>
<td>.03</td>
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<tr>
<td>Negative affect</td>
<td>1.84(.75)</td>
<td>7.53*</td>
<td>2</td>
<td>232</td>
<td>.535</td>
<td>.06</td>
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<tr>
<td>Empathy</td>
<td>6.16(.96)</td>
<td>.8</td>
<td>2</td>
<td>239</td>
<td>.928</td>
<td>.01</td>
</tr>
<tr>
<td>Issue understanding</td>
<td>6.09(.7)</td>
<td>.94</td>
<td>2</td>
<td>234</td>
<td>.492</td>
<td>.01</td>
</tr>
<tr>
<td>Behavioral intentions</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>-Share on social media</td>
<td>3.4(1.83)</td>
<td>.77</td>
<td>2</td>
<td>239</td>
<td>3.36</td>
<td>.01</td>
</tr>
<tr>
<td>-Read similar stories</td>
<td>4.0(1.86)</td>
<td>6.25*</td>
<td>2</td>
<td>239</td>
<td>3.3</td>
<td>.05</td>
</tr>
<tr>
<td>-Research story topic</td>
<td>3.8(1.87)</td>
<td>1.92</td>
<td>2</td>
<td>239</td>
<td>3.46</td>
<td>.02</td>
</tr>
<tr>
<td>-Talk about issue</td>
<td>3.88(1.82)</td>
<td>1.14</td>
<td>2</td>
<td>239</td>
<td>3.29</td>
<td>.01</td>
</tr>
<tr>
<td>-Donate money</td>
<td>3.88(1.81)</td>
<td>.07</td>
<td>2</td>
<td>239</td>
<td>3.29</td>
<td>.00</td>
</tr>
<tr>
<td>-Volunteer</td>
<td>3.35(1.71)</td>
<td>.06</td>
<td>2</td>
<td>239</td>
<td>2.93</td>
<td>.00</td>
</tr>
<tr>
<td>Type of news story (shock, solution) x geographic location (domestic, international)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>6.16(.96)</td>
<td>.35</td>
<td>2</td>
<td>236</td>
<td>.93</td>
<td>.00</td>
</tr>
</tbody>
</table>

$* = p < .05$

RQ$_1$ asked whether one type of news story — shock or solution — might be more effective at motivating readers to actually engage in behaviors that work toward reducing sex trafficking. Two behaviors were measured — pledging to sign a petition calling for free counseling services for sex-trafficked victims, and agreeing to donate the 50 cents that individuals would have otherwise earned for their participation in the study to Save the Children, a global anti-trafficking organization. Chi-square tests revealed that the percentage of individuals who agreed to sign the petition or donate money did not significantly differ based on the type of news story they read (sign: $\chi^2(2, N = 239) = 2.26, p = .32$; donate: $\chi^2(2, N = 242) = .56, p = .76$).

The final research question, RQ$_2$, asked whether an interaction might exist between the type of news story (shock or solution) and the geographic focus of the story (domestic or international) on readers’ empathy toward the problem of sex trafficking. An ANOVA revealed no significant interaction, $F(2, 236) = .35, p = .71$.

Lastly, H$_1$ predicted that individuals who read the international story would be less empathetic toward sex trafficking than those who read the domestic story, no matter whether the story was shocking or solution-based. The data did not support this hypothesis. A t-test revealed no significant difference in empathy between those who read a domestic story ($M = 6.1, SD = 1.05$) and those who read an international story ($M = 6.24, SD = .87$).
4. Discussion and conclusion

This study suggests that solution-focused news stories can leave readers feeling more positive than shocking news stories. Participants who read a story that included solutions to lessen the prevalence of trafficking felt significantly better than readers of shock or control stories. Similarly, people who read the shocking story felt significantly worse than those who read either the control or solution story. These findings respond to Konijn and ten Holt’s (2010) advice that “Media would do well to not just focus on what they are trying to tell, but also on what emotions they evoke while spreading a message” (44).

The feelings evoked by a news story are important because they can influence how individuals process the information presented in the story. Emotional responses, whether negative or positive, highlight what is important and relevant to the individual, driving the cognitive system to elaborate it, which helps explain why emotion leads to better memory about relevant things (Baumeister, Vohs, Dewall, & Zhang, 2007). But whereas negative emotions tend to narrow cognitive processing, positive emotions tend to expand that processing, potentially resulting in better retention of general information and more global thoughts about the message (Nabi, 1999). And in fact, Fredrickson (1998) has shown that the cognitive enhancement caused by positive emotions can result in more flexible, creative, and inclusive thinking. Therefore, individuals who read news stories that include shocking and offensive material, and subsequently feel more negative, might remember that specific material, but those who read solution-based stories, and subsequently feel more positive, might remember more general information and think more broadly about the issue. Future research should examine the specific emotions, as opposed to general affect, experienced in shocking and solution-based news stories as well as memory of the story content.

While respondents felt significantly better after reading the solutions story and significantly worse after reading the shock story, neither story type increased the level of empathy which readers reported feeling toward the issue. This study cannot pinpoint the specific cause(s) of this lack of empathy, but it is consistent with criticisms that the American public is apathetic towards social problems and global issues (Dickey, 2010; Lindsay, 2000; Morss, 2013). Such findings could also be considered to represent another example of compassion fatigue (Tester, 2001) in that the general public has seen too much coverage of social problems, so they are no longer impacted by it. It is also possible that respondent demographics played a role in these findings. Hoijer (2004) maintains that compassion fatigue is more prevalent in men than in women because women are naturally more empathic. Had our sample included more females, it is possible that story type would impact empathy levels, though future research would need to confirm this.

Mary Robinson, the United Nations High Commissioner for Human Rights, said, “The media has an important role to play in increasing public understanding of the trafficking phenomenon by providing accurate information in accordance with professional ethical standards” (UNODC, 2002: 506). However, interestingly, no significance was found with readers of either story type regarding an increase in their understanding of trafficking after reading about it. It is possible that readers were distracted by the emotions of either type of story, or, as compassion fatigue research has demonstrated, readers may have been numb to the issue – or social problems, in general – due to overexposure (Borer, 2012a; Tester, 2001). Alternatively, perhaps reading the one news story in this study was simply not enough to significantly impact a person’s general knowledge about sex trafficking, a complex issue. Additionally, research has found that individuals intentionally keep information at a distance in order to avoid unpleasant emotions such as fear and guilt (Norgaard, 2006). In other words, these findings may lend support to Norgaard’s (2006) findings that people do
not want to think about certain social issues that may result in them feeling guilty for not taking action to stop the problem.

Similarly, the type of news story did not significantly impact readers' intention to share the story on social media, research the story topic, talk about the issue, donate money or volunteer with an anti-trafficking organization. However, readers of solutions stories were more likely to intend to read similar stories than those who read shocking stories. It is possible that solutions readers were interested or concerned, but not enough so to do something publicly such as share on social media or volunteer. Scholars who focus on information diffusion have suggested that people might be more likely to share positive rather than negative messages in an effort to signal their identity or enhance their self-presentation (Berger & Heath, 2007; Wojnicki & Godes, 2008). However, although those who read the solutions story felt more positive than those who read the shocking story, all participants felt fairly negative after reading about this grave issue. Sex trafficking can be a depressing topic and a particularly stigmatized issue (Marion, 2012; Martin, 2013). As a result, respondents could be concerned about acting publicly, and instead choose to privately read similar stories about the issue.

Furthermore, neither type of news story was significantly more likely to make readers want to sign a petition or donate the 50 cents they earned from participating in the experiment. Few details were provided about the charity Save the Children, so it's possible readers were unfamiliar or skeptical of the organization. It might also be that Mechanical Turk workers especially valued the 50 cents because they had just spent the time taking a survey to earn the money. Further, research has found that demographic variables such as age and gender can affect charitable giving (Bekkers & Wiepking, 2011; Rooney, Mesch, Chin, & Steinberg, 2005); therefore, future research might replicate this study with different samples.

Moreover, the geographic focus of the story (domestic or international) did not have an impact on readers' empathy. This finding is consistent with literature on the difficulty inherent in creating a cosmopolitan citizenry, but is also simultaneously contradictory to that same literature as nationalism did not appear to impact empathy levels, as readers of domestic trafficking stories did not report higher levels of empathy, (Borer, 2012a). The domestic fictional story took place in Providence, Rhode Island, so it is possible that a reader in, say, Lincoln, Nebraska, or Portland, Oregon, did not feel as if Providence was part of their community; it is possible that Providence felt as foreign to readers as the international story, which took place in Phnom Penh, Cambodia.

As a whole, findings from this study can be interpreted through the lens of compassion fatigue by understanding that such an issue is associated with lower interest, emotional arousal and information-seeking (Kinnick, Krugman & Cameron, 1996). Neither shock nor solutions stories led to increased empathy for trafficked individuals, greater understanding of the issue, increased desire to share the story or increased desire to act, providing no evidence to support the argument put forth by journalists such as Nicholas Kristof that more shocking stories will break through existing compassion fatigue and spur readers to act.

However, this study did find that readers of solutions stories felt significantly better than readers of shock or control stories and were also significantly more likely to read similar stories about the issue. These findings, despite their small effect sizes, suggest that reporters should be aware that the decisions they make when crafting a story can impact readers' feelings and behavioral intentions, and choosing to write a solution-focused news story might be at least somewhat more engaging than writing a shocking and offensive story.

Interestingly, recent research by Maier found that personification – adding a human angle or personal story – to an article about a social problem did not escape traditional compassion fatigue but “stories offering mobilizing information to end the abuse elicited
more than twice as many reader comments as stories without a call for action” (2015: 716).
Maier’s (2015) findings are consistent with previous research suggesting that compassion fatigue is furthered when social problems are discussed but solutions are not presented (Kinnick, Krugman & Cameron, 1996). Although the stories in this study included solution information, they were not designed to specifically counter compassion fatigue and did not include calls to action. Future research should examine the impact of solution-based news stories that include mobilizing information.

This study is limited in that its sample, American Mechanical Turk respondents, is not representative of all U.S. news consumers. Additionally, it is possible that the issue of focus, sex trafficking, was too highly stigmatized and possibly a less sensitive issue would result in varying findings. It is also possible that the topic of sex trafficking is not an issue that is regularly on readers’ minds and could therefore impact results. Future research could expand this study to include a wider array of respondents as well as a different story topic. Despite its limitations, this study furthers our understanding about how shock and solutions media function and illuminates areas in which news coverage of social problems does not encourage audiences to act to lessen the problem, which is useful for scholars, journalists and social justice advocates alike.

References


Motivating news audiences: Shock them or provide them with solutions?
