Reader reaction to news of mass suffering: Assessing the influence of story form and emotional response

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Abstract
Drawing from psychological research, the study examines how story form influences reader reaction to news accounts of mass violence in Africa. An online survey with embedded experimental conditions was administered to a US Internet panel (n = 638). Results show that how the story is told affects reader emotional response and, indirectly, charitable giving. Story personification had the strongest influence, followed by stories with photographic images. Use of statistical and mobilizing information had only a small effect on reader response. The straight news story – the predominant form of news reporting – evoked the weakest emotional response. The findings underscore that simply ‘reporting the news’ is often insufficient to arouse audience response. The reader needs empathetic connection, especially when dealing with large-scale distant suffering. Applying psychological principles to practical journalism, the study is intended to guide media practitioners and activists as they seek better ways to bring attention to the world’s most deplorable conditions.

Keywords
Emotion, human rights, news reporting, social psychology

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An axiom of human rights advocacy posits that information about abuses mobilizes people to take action against the brutality. The news media therefore serve a central function in bringing genocide and other mass violence – often hidden and far-away – to the public’s attention. Notes Tristan Anne Borer (2012a), political scientist and human rights scholar, ‘The very first role, then, that media play in affecting an audience’s reaction to distant suffering is simply to cover that suffering. If an audience is not exposed to news of violence, it cannot act to stop it’ (p. 36). While awareness – ‘if only people knew’ – is requisite to public response, Borer continues, ‘there is nothing automatic about the link between information and action’.

Psychological research offers guidance as to why. The motivation to help others is intrinsically wrapped up with emotional connection. Affective reactions, the basic negative and positive feelings that guide our judgments and actions, influence the way people process information and ultimately their decisions to help (e.g. Slovic, 2007; Small et al., 2007). Social psychologists refer to this affective response as the ‘wellspring of action’, in which ‘bad’ feelings trigger action intended to avoid potential harm, while ‘good’ feelings encourage action to maintain favorable circumstances (Kogut and Ritov, 2005a). The psychological response is tied to the perceived salience of the human crisis, which relates to how people and their needs are presented. Those who evoke stronger affective reactions (i.e. distress, empathy) likely have a greater chance of being helped (Kogut and Ritov, 2005a). Since humanitarian disasters are mediated largely by what is presented by newspapers, television, and the Internet, how the story is told potentially influences the public’s empathetic response and motivation to do something.

This study examines how story forms influence reader reaction to news accounts of mass violence in Africa. In an online survey with embedded experimental conditions, a US panel of adults were randomly assigned a news story emphasizing one or more storytelling elements: personification, statistical documentation, mobilizing information, and photographs portraying people in need. After reading the story, participants answered a questionnaire designed to assess their empathetic emotions, their sense of urgency, and their support of governmental intervention. In addition, participants were invited to donate a portion of a prospective lottery award to a relief organization that assists African refugees fleeing the violence.

Drawing on social psychology research, the study tests the hypothesis that stories framed around the plight of a single victim will elevate emotional responses (e.g. sympathy, sadness, anger, compassion) and thereby bolster support for intervention. Also tested are hypotheses that readers respond positively when given information on how to help those in need or when presented images of those in distress, while statistics documenting a problem’s massive scope will be a turn-off, leading to disinterest or feelings of hopelessness. Applying psychological principles to practical journalism, the results are intended to help guide media practitioners, scholars, and activists as they seek better ways to bring attention to some of the world’s most deplorable conditions.

**Mediated suffering: An overview**

The heart-breaking photograph of 3-year-old Aylan Kurdi, whose lifeless body was shown washed up on the shore of a Turkish beach, captured world attention in ways that
countless news stories of the Syrian refugee crisis had failed to cut through the disaster clutter. Breaking mainstream media’s taboo against publishing images of dead children, the photograph was widely displayed on newspaper front pages and went viral on social media. Across Western Europe, newspapers followed with news stories markedly more sympathetic to the plight of migrants and refugees, according to a study by the European Journalism Observatory (EJO, 2015). But the media’s compassionate response was short-lived. ‘It was a photo that shook the world – or at least the media – for a few days. But not much more than that’, concluded the Poynter Institute (Warren, 2015), noting that the EJO study found the European newspapers had within a week reverted to their emotionally guarded reporting.

Coverage of the refugee crisis is emblematic of the media’s role in bringing attention to humanitarian crisis – and the challenge of getting journalists and their audiences to engage and respond. As exposure of distant misfortune becomes unprecedented in today’s interconnected and highly mediated society (Chouliaraki, 2008; Kyriakidou, 2009), journalists and communication scholars seek to identify what moves people to act (e.g. Kristof, 2009; Moeller, 1999). Asks Chouliaraki (2006) in her book Spectatorship Suffering (p. 7), ‘How can we differentiate between representations of suffering that may simply bring a tear to a spectator’s eye and those that may actually make a difference?’

As demonstrated by the public outcry to the images of the drowned Syrian boy, news photography has evidentiary as well as emotive value in bearing witness. ‘For many, seeing at some level constitutes believing’, says Barbie Zelizer (2002: 699). In her book About to Die: How News Images Move the Public, Zelizer (2010) asserts that news photography not only provides proof of wrong-doing but also contributes to ‘grieving, memory, identity, community, trauma, and compassion, all of which were more easily crafted through [an] event’s visual representation than through its words’ (p. 11).

Media’s ‘bearing witness’ therefore takes on two dimensions: both the objective role of ‘seeing’ as proof of the suffering and ‘seeing’ as emotive affinity for the suffering (Chouliaraki, 2013). The objective of good journalism, says Chouliaraki (2008), is for the news media not only to report what happens but also to engage people to care and take action:

[T]hrough their systematic choices of word and image, the media not only expose audiences to distant suffering, but also, in so doing, simultaneously expose them to specific dispositions to feel, think and act [italic emphasis in original text] toward each instance of suffering. (p. 372)

Critical of ‘just-the-facts’ reporting, some scholars hold emotional connection as a prerequisite for political action (e.g. Bas and Grabe, 2015; Boltanski, 1999; Wahl-Jorgensen, 2013). In a study of Pulitzer-winning articles, Karin Wahl-Jorgensen documented that highly regarded journalists, despite a commitment to objectivity, infuse their reporting with emotional story-telling. In describing the power of the narrative story, Wahl-Jorgensen (2013) says, ‘story-telling enables empathy, or the identification with and understanding of another’s situation, feelings and motives. Empathy is fundamentally an emotional reaction, even as it enables rational consideration of the issue at hand’ (p. 132).
It has long been recognized that how the news is framed can influence human attitudes and behavior. Writing in *Public Opinion*, Walter Lippmann ([1922] 2004) observed, ‘The way in which the world is imagined determines at any particular moment what men will do’ (p. 14). Communication scholars have documented that news framing defines social problems, diagnoses causes, makes moral judgments, and suggests remedies (e.g. Entman, 1993; Scheufele, 2009). Emotional factors play a critical role in the news framing process. For example, studies have found that different frames lead to different patterns of emotional response to news stories about social unrest (Gross and D’Ambrosio, 2004), emotional news frames affect people’s response to a corporate crisis (Kim and Cameron, 2001), mood impacts how readers process news information (Haigh et al., 2009; Zhong, 2011), with news stories that elicit anger promoting deeper information processing than stories that elicit fear (Nabi, 2002). The literature shows that negative frames elicit negative emotions, such as anger and anxiety (Lecheler et al., 2013). But a negative response can be socially productive: delivering an anger-inducing message is an ‘effective method to get audiences to read a message carefully, respond favorably, and act mightily’ (Turner, 2007: 118).

Emotions also serve as mediators of news framing effects, playing an indirect role in the underlying psychological processes that influence personal response and help ‘explain why and how a framing effect takes place’ (Lecheler et al., 2015: 816). For example, researchers found that news frames of an economic issue evoked distinct emotions, which in turn shaped audience political views (Lecheler et al., 2013; also see Boltanski, 1999); positive emotions also were found to mediate news framing effects on opinions about immigration (Lecheler et al., 2015).

**The study**

This study examines the emotional impact of four journalistic elements: story personification, statistical focus, mobilizing information, and photographic depiction of people in need. These news forms were chosen because they are grounded in research and in professional practice (Maier, 2015). The story forms also represent reporting techniques deliberately used by the *New York Times* columnist Nicholas Kristof, who turned to experimental research for guidance on how to craft his writing (e.g. Kristof, 2009). In reporting on the Darfur conflict and other mass suffering, the Pulitzer-winning columnist says he tries to frame societal strife through the lens of an individual, to identify solutions, and to goad the public into action. A Kristof column reporting on renewed violence in Darfur serves as one of the news prototypes used by this study.

**Story personification**

Putting a ‘human face’ on a tough news story not only engages audiences but influences beliefs and attitudes. Testing undergraduate student response to news stories, Oliver et al. (2012) used a two-step model to show that people develop empathy from understanding an individual’s plight, which in turn engenders compassion toward stigmatized groups.
(also see Batson et al., 1997). Similar findings were drawn from an experimental study in which a personal narrative story framing the environmental consequences of shale gas drilling had significantly greater reader impact than an informational news account (Shen et al., 2014). Testing a ‘peace journalism’ model of news reporting, researchers found the strongest effects of non-violent reconciliation were evoked by a character whose personal story triggered empathy and hope (McGoldrick and Lynch, 2014). Personification of public health messages has been found to promote character identification, leading to greater shifts in knowledge, attitudes, and behavioral intentions (Murphy et al., 2013).

Experimental psychology research has documented the ‘singularity effect’, the human preference for helping a single identified victim over a group of victims. In a study by Israeli researchers, an appeal for donations to save a solitary sick child raised nearly twice as much money as a call for the same life-saving treatment for a group of eight children (Kogut and Ritov, 2005a). A similar study found that people responded more generously to an appeal to help a single needy boy or girl than to an appeal to help the same two children posed together (Slovic and Vastfjall, 2010). In another behavioral study, people were more charitable when presented the name, age, and photo of a sick child than when asked to help an anonymous child in need of medical aid (Kogut and Ritov, 2005b). ‘When it comes to eliciting compassion, the identified individual, with a face and a name, has no peer’, researchers say (Slovic et al., 2013: 84).

**Numbened by the numbers**

Behavioral research suggests that statistical information can diminish empathy. One such study found that contributions to rescue a starving 7-year-old girl in Africa fell dramatically when statistics disclosed that there were millions of other children facing a similar plight (Small et al., 2007). Other studies have also documented ‘psychophysical numbing’, in which lives are less valued as their numbers increase (Fetherstonhaugh et al., 1997; Friedrich et al., 1999). This paradoxical response – people more readily respond to a single person in desperate need than to mass suffering – offers a cautionary lesson: while statistics can be used to convey the enormity of a crisis they also may overwhelm and thereby undermine response.

**Mobilizing information**

Research documents the media’s considerable influence over public response to humanitarian crises. For example, one study found that a story published in the *New York Times* and *The Wall Street Journal* increased daily donations for 2004 tsunami relief (Brown and Minty, 2008); another study showed charitable giving correlated with media coverage of the 2008 cyclone in Myanmar (Brown and Wong, 2009). People are especially responsive to media reports when given ‘mobilizing information’, defined as ‘information which allows people to act on those attitudes which they might already have’ (Lemert, 1981; Lemert et al., 1977). Examining the impact of mobilizing information, researchers showed that solutions-based journalism heightened readers’ interest and desire to share what they read as well as accentuating a sense of efficacy in addressing the issue (Curry and Hammonds, 2014). Conversely, media contribute to compassion
fatigue through over-exposure to human suffering (Kinnick et al., 1996), especially when conflict is presented through the narrow, seemingly hopeless lens of ‘war journalism’ (McGoldrick and Lynch, 2014). The failure by media to provide solutions can lead to a sense of inefficacy ‘by showing an unending procession of events to which they are expected to react, but which they cannot themselves affect’ (Kinnick et al., 1996; Whitehorn, 1989: 43). When public attention and concern wither, governments are less likely to take the strong action needed to address genocide and other calamity (e.g. Power, 2002: 509).

Photographic images

Research has shown that news images enhance information acquisition (e.g. Gibson, 2000), the media’s agenda-setting effect (Wanta, 1988) and readers’ emotional response (e.g. Brantner et al., 2011). News images also serve a powerful expository role, offering ‘suggestive slices of action that people need to complete by interpreting and imagining what unfolds beyond the camera’s frame’ (Zelizer, 2010: 6). Indicating a nuanced role of visuals, researchers found that news photos delivered stronger framing effects than text, but only when the visual was viewed without text (Powell et al., 2015). Communications professor David Domke and his associates contend that ‘claims about the persuasive power of visual images far outstrip actual evidence of such influence’ (Domke et al., 2002: 137), a view expressed by other scholars (e.g. Pfau et al., 2006). Moreover, some scholars warn that disturbing shock images may mute response by turning the suffering into a dehumanizing spectacle that contributes to compassion fatigue (Borer, 2012b; Pruce, 2012).

Hypotheses

In summary, news stories influence a reader’s emotional and behavioral response to crises, though the effect depends in large measure on how the story is presented. This study draws on psychological research that indicates the personal story of human distress – in words and/or photo – is more likely to draw an empathetic reaction than a strictly informational account of mass suffering. Research also indicates that statistics tend to diminish empathy, while information providing corrective action encourages personal engagement. Emotions hold a pivotal role in motivating humanitarian response, though their effects may be indirect. Based on the literature, the following hypotheses are posed:

- **H1.** News coverage of mass suffering elicits negative feeling;
- **H2.** News form influences reader affective response:
  - **H2a.** Personification heightens reader affective response;
  - **H2b.** Mobilizing information heightens reader affective response;
  - **H2c.** Statistical information diminishes reader affective response;
  - **H2d.** Photographic image heightens reader affective response;
  - **H2e.** Combining story forms heightens reader affective response;
H2f. The basic factual news story generates the weakest affective response.

H3. Affective response to story forms influences charitable giving.

Method

Story forms

Two news articles published in the *New York Times* served as templates for this experiment. After extensive review of recent news stories on genocide and mass violence, these articles were selected because they provided first-hand, comprehensive reporting that employed the story-form elements under study. One news story described the civilian upheaval caused by a surge in fighting in the troubled Sudanese region of Darfur (‘New Strife in Darfur Leaves Many Seeking Refuge’, by correspondent Isma’il KushKush, *New York Times*, 24 May 2013). The second was a Kristof column reporting on ‘vicious ethnic cleansing’ along the South Sudan border (‘In Sudan, Seeing echoes of Darfur’, *New York Times*, 17 February 2003). To avoid respondent bias, both stories were formatted as a generic newspaper article authored under the pseudonym ‘Mark Nester’, revealing neither the true identity of the writer nor the *New York Times* as the story source.

To minimize artificiality, the original wording of each article was largely preserved, though the story’s focus was manipulated through editing and rearranging content and, on occasion, by providing additional information. Hence, each treatment offers a similar storyline but is distinct in emphasis and scope. Six variations of each story served as the independent variable (IV).

**Basic news story.** Resembling a short wire-service news story, the article provided a fact-driven account of fighting and civilian upheaval along the contested Sudanese border. Omitted were personal stories and statistical information, though general references were given to the ‘many’ people who have been killed or have suffered from renewed violence. The basic news story described deteriorating conditions but offered no information regarding corrective action needed or how to donate to relief agencies. The basic news story serves as the experiment’s ‘control’ treatment.

**Personification.** The story focuses on an individual victim whose circumstances portray the large-scale violence in the conflicted Sudan region. One article provided a gruesome account of rape and murder eye-witnessed by a 22-year-old Nuban woman who had been kidnapped by uniformed Sudanese soldiers; the other article focused on a 75-year-old refugee who was one of the few men to escape the resurgent fighting in Darfur. While no more than two victims were identified by name in each story, the personified treatment includes references to other human suffering (i.e. a starving child ‘who weighed less than a Thanksgiving turkey’ and the lack of medical supplies threatening vulnerable populations). Omitted were statistical references and mobilizing information.

**Statistical information.** The story focuses on quantifiable information providing numbers and statistical references indicating the enormity of the strife. The statistical stories highlighted the hundreds of thousands of civilians displaced by renewed fighting, leading to
overflowing refugee camps and near-starvation conditions. To amplify the statistical format, each article also included a ‘By the Numbers’ sidebar presenting estimates of deaths (more than 300,000), refugee camp population (more than 1 million), number of Sudanese dependent on humanitarian assistance (more than 3.2 million), and other numerical information. Omitted were personal stories and mobilizing information.

**Mobilizing information.** The story provides a ‘call for action’ detailing what should be done in response to the carnage in Darfur and South Sudan. The news story cited appeals from activists calling for stronger intervention by the United Nations coupled with a public write-in campaign urging President Obama and other US elected officials ‘to get off the sidelines before another genocide occurs’. The modified Kristof column makes a similar call for action, and directly calls on readers to ‘hold the White House accountable’. Both articles urged readers to donate generously to financially strapped relief agencies helping the sick and dying in this war-torn region. Omitted were personal stories and statistical information.

**Combined elements.** To test how these elements work in concert, the combined story includes personification, statistics, and mobilizing information.

**Combined elements with photograph.** In addition to providing personification, statistics, and mobilizing information, the story offers a news photograph depicting the refugees’ plight. One photograph showed refugee children hiding in a dark cave from government bombing; another photograph focused on a cluster of Sudanese women holding signs saying, ‘WE NEED PROTECTION’ and ‘WE NEED WATER’. Both photos were chosen because they seem to provide personal connection to distant suffering without overwhelming reader emotions.

**Questionnaire**

An online questionnaire was developed to gauge reader reaction to the story treatments described above. To assess mood state, participants were initially asked, ‘Overall, how do you feel right now?’ (rated on a scale from ‘very negative’ to ‘very positive’). Immediately after reading their randomly assigned news story, participants were asked again to assess ‘how do you feel’, providing a pre- and post-treatment measure of self-reported emotional well-being. Participants were then presented a series of questions intended to further assess emotional response. Respondents rated on a scale (from ‘not at all’ to ‘extremely’) whether the story captured their interest and to what extent the story made them feel upset, angry, motivated, sad, inspired, hopeless, sympathetic, and worried. Collectively, these measures of affect provided an index of emotional response. To explore further how readers connected to the story forms, the questionnaire probed how much concern respondents held for the situation in South Sudan/Darfur, whether they perceived a need for either US government or United Nations intervention, and how credible they considered the article to be.

**Appeal for donations.** Participants were entered into a drawing providing a US$50 award to one randomly selected winner. To assess whether the story forms influence charitable
giving, respondents were given the opportunity to donate part or all of the prospective lottery prize to Doctors Without Borders, a relief agency that provides medical assistance to troubled areas such as South Sudan and Darfur. In US$5 increments, respondents designated how much, if any, of the US$50 award they would be willing to donate.

**Panel**

Panelists were recruited using Mechanical Turk (MTurk), an online labor supply recognized in behavioral research for its ‘large, stable and diverse subject pool’ (Mason and Suri, 2012). Participation was anonymous. As recommended by Goodman et al. (2013), an ‘attention check’ question was provided to ensure that the participants actually read and understood the news story. A total of 15 respondents, unable to correctly identify the news story’s primary topic, were eliminated on this basis. In addition, respondents who quickly scanned the news article, spending less than 1.5 minutes viewing the story, were dropped from the sample on the assumption that they did not take the time to adequately participate in the study. In all, 638 of the 906 survey responses qualified for inclusion in the study.

**Mediation analysis**

In addition to standard statistical procedures, mediation analysis was conducted to examine the indirect effect of story form on charitable donations through reader affect. To test the mediation hypotheses, bootstrapping computer simulations (with 5000 iterations) were run to generate 95-percent confidence intervals for indirect effects. This method, following procedures established by Preacher and Hayes (2008), is considered advantageous over the traditional mediation approach advocated by Baron and Kenny (1986) or by Sobel (1982) in that it does not impose assumptions of normality and corrects for estimation bias. Indirect effect tests also do not require that the c path (the path from the IV to dependent variable (DV)) be significant, as the effect is estimated only indirectly through the mediator. In lieu of p values for these tests, the effect is interpreted to be statistically significant if its confidence interval does not contain zero.

**Results**

**Respondents**

The Internet panel was generally well educated (nearly 50% held a college degree), slightly less racially diverse than the nation (81% Caucasian compared to the 78% population estimate by the US Census Bureau), and predominantly male (56%). A somewhat youthful panel, participant average age was 35.5 years:

**H1. News coverage of mass suffering elicits negative feeling:** When asked at the onset of the online questionnaire, ‘Overall, how do you feel’, respondents were overwhelmingly positive; only 8.3 percent reported feeling negative. But when the question was repeated after respondents completed reading their assigned news story on the violent
**Table 1.** News story form influences affective response: mean affective scores by story form.

<table>
<thead>
<tr>
<th></th>
<th>Basic news story</th>
<th>Personified news story</th>
<th>Mobilizing news story</th>
<th>Statistical news story</th>
<th>Combo news story</th>
<th>Combo story + photo</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How do You feel?</strong></td>
<td>3.04</td>
<td>2.63</td>
<td>3.17</td>
<td>3.01</td>
<td>2.99</td>
<td>2.98</td>
</tr>
<tr>
<td><strong>Interest</strong></td>
<td>3.63</td>
<td>3.98</td>
<td>3.55</td>
<td>3.63</td>
<td>3.64</td>
<td>3.78</td>
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<tr>
<td><strong>Upset</strong></td>
<td>3.07</td>
<td>3.79</td>
<td>3.08</td>
<td>3.33</td>
<td>3.30</td>
<td>3.55</td>
</tr>
<tr>
<td><strong>Angry</strong></td>
<td>2.76</td>
<td>3.56</td>
<td>2.93</td>
<td>3.03</td>
<td>3.07</td>
<td>3.23</td>
</tr>
<tr>
<td><strong>Motivated</strong></td>
<td>1.96</td>
<td>2.36</td>
<td>2.48</td>
<td>2.17</td>
<td>2.41</td>
<td>2.52</td>
</tr>
<tr>
<td><strong>Sad</strong></td>
<td>3.41</td>
<td>3.82</td>
<td>3.49</td>
<td>3.60</td>
<td>3.59</td>
<td>3.78</td>
</tr>
<tr>
<td><strong>Inspired</strong></td>
<td>1.54</td>
<td>1.76</td>
<td>1.84</td>
<td>1.63</td>
<td>1.71</td>
<td>1.78</td>
</tr>
<tr>
<td><strong>Hopeless</strong></td>
<td>2.33</td>
<td>2.61</td>
<td>2.44</td>
<td>2.41</td>
<td>2.51</td>
<td>2.43</td>
</tr>
<tr>
<td><strong>Worried</strong></td>
<td>2.79</td>
<td>3.34</td>
<td>2.97</td>
<td>2.85</td>
<td>2.97</td>
<td>3.16</td>
</tr>
<tr>
<td><strong>Sympathy</strong></td>
<td>4.09</td>
<td>4.40</td>
<td>3.99</td>
<td>4.18</td>
<td>4.20</td>
<td>4.26</td>
</tr>
<tr>
<td><strong>Affective Index</strong></td>
<td>2.86</td>
<td>3.22</td>
<td>2.99</td>
<td>3.03</td>
<td>3.03</td>
<td>3.15</td>
</tr>
</tbody>
</table>

How do you feel: 7-point scale, 1 = very negative; 7 = very positive.
All other variables measured on a 5-point scale, 1 = not at all; 5 = extremely.

*Story form had a small but significant overall effect on reader emotional response (F(5, 632) = 4.164, p = .001).

Conflict in Africa, nearly 70 percent reported feeling negative. Only 9 percent reported no change. On a 7-point Likert scale ranging from ‘very negative’ to ‘very positive’, the mean well-being score dropped from an upbeat 5.45 rating to a ‘feeling negative’ 2.96 rating. A paired-samples t test indicated the change was statistically significant (t(637) = 40.445, p < .001). H1 is supported.

**H2. News form influences affective response:** In a one-way analysis of variance (ANOVA), self-reported ‘how do you feel’ ratings varied significantly across story treatments (F(5, 632) = 2.286, p = .045.) For all story treatments, the mean ‘feeling’ score switched from positive to negative after respondents read their assigned news story. But a Bonferroni post hoc test indicated that the differences in mood between story forms were statistically significant only when comparing the response to the personified story and the story with mobilizing information. Respondents reading the personified story treatment reported the lowest sense of well-being, falling from a 5.58 positive rating to a 2.63 negative rating. By contrast, respondents reading the news story with mobilizing information reported feeling the least negative (dropping from 5.45 to a 3.17 slightly negative rating).

Small but statistically significant differences across treatments were also found for six of the nine additional measures of reader affect:

- Extent story captures your interest (F(5, 632) = 3.330, p = .006);
- Extent story makes you feel upset (F(5, 632) = 7.223, p < .001);
- Extent story makes you feel angry (F(5, 632) = 5.444, p < .001);
- Extent story makes you feel motivated (F(5, 632) = 3.369, p = .005);
• Extent story makes you feel worried ($F(5, 632) = 2.875, p = .014$);
• Extent story elicits sympathy ($F(5, 632) = 3.017, p = .011$).

No significant differences were found across story treatments for the variables gauging the extent that respondents reported the story made them feel sad, inspired, or hopeless. H2 is partly supported. (Refer to Table 1 for mean scores on each variable.)

**H2a–H2f.** Almost universally, the personified story evoked the strongest emotional response, eliciting the highest mean scores across story treatments for interest, sympathy, and how much respondents said the story made them upset, angry, sad, hopeless, or worried. H2a, predicting personification heightens reader affective response, is largely supported. Stories focused on either mobilizing or statistical information neither heightened nor lowered emotional response. Combining story forms also had little effect on reader emotions. H2b, H2c, H2d are not supported. For two measures of emotional response – the extent to which the story made respondents feel motivated and inspired – participants responded most strongly to the news story with a photograph of the struggling refugees. The story plus photo also was rated significantly higher in credibility than other story treatments. H2e (predicting visual impact) is partly supported. As predicted, the stripped-down news story providing a fact-based news account elicited the weakest emotional response by nearly every measure. H2f is supported.

An index of emotional response was created by averaging the scores of all 10 measures of reader affect and tested for internal consistency (Cronbach’s alpha = .79, indicating high reliability). For this collective scale, story form had a small but significant overall effect on reader emotional response ($F(5, 632) = 4.164, p = .001$). Bonferroni post hoc tests indicated the only significant differences in emotional impact were between the basic skeletal story and the articles providing either personification or a photograph.

Story framing had limited apparent effect on perceived urgency regarding the crisis in Darfur and South Sudan. Respondents who read the personified story rated ‘how serious’ and ‘how concerned’ they were about the attacks in South Sudan/Darfur significantly higher than participants who read other story forms. But story form did not significantly influence readers’ sense of need for action. By several measures, support for intervention by either the US government or the United Nations did not significantly vary by story treatment.

**H3. Affective response to story forms influences charitable giving.** On average, respondents designated US$17.70 of their potential US$50 prize money to Doctors Without Borders. Respondents reading the statistical story pledged the highest amount ($m = US$20.35) to the relief agency while, ironically, those reading the story with mobilizing information were among the least generous ($m = US$15.75). Only those reading the combined elements story (without photo) pledged less ($m = US$15.30), but an analysis of variance indicated that the differences in donations among treatments were not statistically significant.
The direct link between story form and donations was not apparent, but what about the influence of reader affect on charitable giving? A Pearson correlation coefficient was calculated examining the relationship between self-reported emotional feelings and pledged donations to Doctors Without Borders (see Table 2). A weak but statistically significant correlation (r (636) = −.125, p = .002) was found between donation amounts and overall feelings reported after reading the article (the worse they felt, the more they gave). The correlations were also weak but significant for the other affective variables. The strongest association with giving was with the extent to which the story held interest (r (636) = .259, p < .001), extent story made the reader sad (r (636) = .235, p < .001), and extent story elicited sympathy (r (636) = .245, p < .001). The weakest associations with donations were whether the story left readers feeling hopeless (r (636) = .122, p = .002) or, conversely, inspired (r (636) = .084, p = .035).

Mediation analysis

To better understand the underlying decision-making processes, mediation analyses were conducted using the hypothesized causal model that the story elements induce augmented reader affect, which in turn motivates charitable donations. For these tests, the DV (donations) and mediator (reader affect index) remained constant. The IV consisted of binary contrasts between the basic news story (no added elements) and each of the added element conditions. Only two story-form comparisons produced significant indirect effects: (1) a comparison between the basic story and the story with combined elements (personification, statistical, and mobilizing information) and (2) a comparison between the basic story and the personified story (see Figure 1). The bootstrapped indirect effect of the combined elements on charitable donations through reader affect produced a confidence interval of 0.08–0.57. The bootstrapped indirect effect of personification on donations through reader affect produced a confidence interval of 0.24–0.97. Since the combined story also contained the personified elements, and no other story elements produced significant indirect effects, it is possible that the indirect effect for the combined elements condition was a result of the personification element within the story. H3 is partly supported; story form affects readers’ charitable giving, though the relationship appears indirect and limited.

Discussion

This investigation opens with the question, why do some news stories of mass violence arouse public concern while others are met with seeming indifference? As human rights scholars and frustrated journalists have observed, informing the public often is not sufficient to motivate civic action. The study’s findings offer some guidance on what kinds of news stories evoke response to human suffering. It is telling that even a single news story can influence reader mood. The study’s panel of US adults, almost universally upbeat at the onset of the study, widely reported ‘feeling negative’ after reading about the plight of refugees in Sudan and Darfur. Across all story forms, the negative change in ‘how do you feel’ was statistically and substantively significant – on average, a 2.5 drop on a 7-point scale. Apparently, the news stories had
### Table 2. Pearson correlation coefficients for charitable donations with affective measures.

<table>
<thead>
<tr>
<th></th>
<th>Feeling</th>
<th>Interest</th>
<th>Upset</th>
<th>Angry</th>
<th>Motivated</th>
<th>Sad</th>
<th>Inspired</th>
<th>Hopeless</th>
<th>Worried</th>
<th>Sympathy</th>
<th>Affective Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donation</td>
<td>-.125**</td>
<td>.259**</td>
<td>.212**</td>
<td>.215**</td>
<td>.187**</td>
<td>.235**</td>
<td>.084*</td>
<td>.122**</td>
<td>.192**</td>
<td>.245**</td>
<td>.265**</td>
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<tr>
<td>Feeling</td>
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<td>-.529**</td>
<td>-.504**</td>
<td>-.163**</td>
<td>-.472**</td>
<td>-.102**</td>
<td>-.424**</td>
<td>-.459**</td>
<td>-.379**</td>
<td>-.378**</td>
<td>-.700**</td>
</tr>
<tr>
<td>Interest</td>
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<td>.563**</td>
<td>.444**</td>
<td>.480**</td>
<td>.293**</td>
<td>.246**</td>
<td>.488**</td>
<td>.600**</td>
<td>.597**</td>
<td>.597**</td>
<td>.819**</td>
</tr>
<tr>
<td>Upset</td>
<td>.798**</td>
<td>.416**</td>
<td>.717**</td>
<td>.257**</td>
<td>.445**</td>
<td>.654**</td>
<td>.597**</td>
<td>.819**</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Angry</td>
<td>.468**</td>
<td>.617**</td>
<td>.195**</td>
<td>.441**</td>
<td>.388**</td>
<td>.693**</td>
<td></td>
<td></td>
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<tr>
<td>Motivated</td>
<td>.366**</td>
<td>.617**</td>
<td>.195**</td>
<td>.441**</td>
<td>.388**</td>
<td>.693**</td>
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<td></td>
</tr>
<tr>
<td>Sad</td>
<td>.234**</td>
<td>.472**</td>
<td>.638**</td>
<td>.556**</td>
<td>.771**</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Inspired</td>
<td>.085*</td>
<td></td>
<td>.315**</td>
<td>.221**</td>
<td>.526**</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Hopeless</td>
<td>.509**</td>
<td></td>
<td>.285**</td>
<td>.564**</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Worried</td>
<td>.545**</td>
<td></td>
<td>.798**</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Sympathy</td>
<td>.700**</td>
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</tbody>
</table>

*p \leq .05; **p \leq .01.
emotional impact. But if the primary effect is to dispirit readers, it’s little wonder that reporting horrific news does not necessarily lead to public action. Social psychology research documents that negative feelings do not induce action unless there is an effective remedy available (e.g. Vastfjall et al., 2015). In this light, it is also instructive that readers given a plan of action reported significantly less despair than those left without apparent solutions. These findings are congruent with prior research showing that the failure by media to give mobilizing information leads to a sense of inefficacy, the perceived inability to effectively respond even when the need is great (e.g. Bandura, 1997; Whitehorn, 1989).

Above and beyond all other story forms, personification elicited significantly stronger reader interest, concern, and sympathy for the victims of the distant crisis in Africa. In addition, journalistic use of personal exemplars tended to accentuate the extent that readers felt upset, angry, and worried. Indicative of conflicting feelings, readers of the personified news story reported significantly greater motivation and sense of urgency – as well as heightened hopelessness. The personal story arouses big feelings, but readers apparently are overwhelmed as well as galvanized.

When provided a photographic image of the afflicted refugees, the panel of readers reported feeling significantly more motivated and inspired than panelists reading the same story without a photo. Seeing is indeed believing – the story with photo was rated highest in credibility among the six treatments. But contrary to expectations, news stories accompanied by a photo of struggling refugees otherwise did not evoke significantly more emotional power than stories without the photo.

Not surprisingly, the straight news story – the predominant form of newspaper and wire-service reporting – evoked the weakest emotional response by almost every measure. This underscores that simply ‘reporting the news’, providing factual information about a current event or issue, is often not sufficient to arouse a strong response. The reader needs to feel an empathetic connection to what is happening, especially when dealing with large-scale distant suffering. Needed are vivid narrative personal stories.

Figure 1. Indirect effect mediation analysis.
Path coefficients are traditional direct effects. The combined element comparison direct effects are in italics. **p < .01.
that augment the litany of distilled news accounts of foreign wars, disaster, and other calamity.

Whereas prior psychological research has shown that statistical information diminishes empathy and charitable giving (e.g. Small et al., 2007), it is noteworthy that the story treatment emphasizing numbers yielded minimal effect. In this journalistic context, statistics and other numerical information did not seem to either numb or overwhelm readers; on the other hand, this result indicates that quantification, even when providing an accounting of mass suffering, does not necessarily enhance reader impact. The lesson here is that selective use of statistics may offer important context, but journalists evidently cannot rely on the numbers alone to drive public response.

This study also examines the collective influence of story treatments. What happens when personification and mobilizing and statistical information are provided in a single news story? The answer: not much. The synergy of combining story forms did not evoke reader response significantly different from when the story treatments were provided separately. Only when a photograph was added to the mix did the story draw significantly stronger response on any of the emotional measures. This suggests that combining the personal story with factual context – classic attributes of news feature reporting – may be considered good journalism, but the emotional impact of this approach is not apparent.

The study documents a weak but significant association between reader affect and charitable giving – those reporting the strongest emotional response to the news stories also were the most generous in designating donations to Doctors Without Borders. While the direct association between story form and charitable giving was not evident, mediation analysis indicates that story personification influences emotional response and, in turn, emotional response influences charitable giving. In other words, emotions served as mediators of the framing effect. The human exemplar fosters a more intense emotional response, which subsequently strengthens the story form’s impact on charitable giving. However, indirect effects for other story forms were not significant.

Limitations and concluding remarks

Drawing from published New York Times articles, the story treatments were designed to retain authenticity in content and appearance. Nonetheless, random assignment of manipulated news scenarios to Internet panelists takes the news story outside a newspaper reader’s natural environment. Inherent with experimental research, artificiality is the tradeoff for greater control over spurious, extraneous influences. In addition, a shortcoming of self-reported emotions is that respondents may not be aware of – or candid about – what they are feeling. The affective response to the news story of suffering in Africa should be especially viewed with caution since respondents may have considered it socially appropriate to report negative feelings regardless of their mood state. The statistical results also cannot be generalized beyond the story treatments and the population studied. Furthermore, the impact of the story treatments may be somewhat understated since recruitment of Internet panelists yielded a predominantly young, male sample – a cohort found to be less likely to self-report strong emotional response (see Maier et al., forthcoming). As paid participants, panelists also may have been especially...
reluctant to donate a portion of their potential monetary gains to Doctors Without Borders. Further research would benefit by a broader, financially independent sample.

This study makes a contribution to the journalism research literature by examining through the lens of social psychology how audiences respond to news coverage of humanitarian crisis. As posited at the beginning of the study, the findings underscore that information – ‘if only people knew’ – does not inherently elicit empathy and action. The study also fits neatly with other lines of scholarship that document the core role of personalized story-telling and the emotions that the narrative elicits (Chouliaraki, 2008; Wahl-Jorgensen, 2013). Similar to other studies (e.g. Lecheler et al., 2013), the link between the personal story and charitable response was found to be indirect. This suggests that key to action is the emotional response that the news story triggers, not the form that the story takes.

Drawing on experimental psychology, Nicholas Kristof (2009) seeks to craft his reporting so that his columns ‘generate a response rather than a turned page’. While this study provides strong support of Kristof’s pursuit of the personal story, the findings also highlight the difficulty of turning empathy into meaningful action. Further research is needed to better understand the disconnect between reader affect and reader action. The answers communication scholars provide would foster news that engages as well as informs.

Declaration of Conflicting Interests
The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the Carlton Raymond and Wilberta Ripley Savage Endowment for International Relations and Peace, an initiative administered by the University of Oregon.

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