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Who views graphic media and why? A mixed-methods study of the ISIS beheading videos

THESIS

submitted in partial satisfaction of the requirements for the degree of

MASTER OF ARTS

in Social Ecology

by

Sarah Ann Redmond

Thesis Committee: Professor Roxane Cohen Silver, Chair Assistant Professor Elizabeth Martin Associate Professor E. Alison Holman

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ABSTRACT OF THE THESIS

Who views graphic media and why?

A mixed-methods study of the ISIS beheading videos

By

Sarah A. Redmond

Master of Arts in Social Ecology

University of California, Irvine, 2017

Professor Roxane Cohen Silver, Chair

In the wake of large-scale disasters, many individuals seek out graphic news coverage of the event, but prior research has not examined who these individuals are and what motivates them to do so. The present study used a mixed-methods design to identify who seeks out graphic images, the correlates of viewing this coverage, and motivations for doing so by looking at individuals who watched a beheading video created by the terrorist group ISIS (Islamic State of Iraq and Syria). These questions were addressed with a representative national sample of 3,341 individuals, recruited from the GfK KnowledgePanel, as part of an ongoing longitudinal study that began after the Boston Marathon bombings. Results indicated that over one-quarter of the representative sample viewed at least part of a beheading video and 5% watched an entire video. A number of demographic variables, as well as previously reported fear of terrorism and lifetime exposure to violence, predicted viewing a beheading video. Two ordinary least squares regressions revealed that viewing a beheading video was associated with greater global distress and greater fear of future negative events, including terrorism. Further, the most common motivations participants reported for watching a video were to gain information and curiosity. The two most common reasons reported for not watching were that individuals did not want to

watch or that it was emotionally upsetting. Knowing who watches graphic coverage and why adds to our understanding of the relationship between graphic media and psychological symptoms. Further, implications of viewing terrorist-related coverage are discussed.

Introduction

In August, 2014, American journalist James Foley was murdered by the terrorist organization that goes by the name Islamic State of Iraq and Syria (ISIS). A video of him being beheaded by ISIS circulated around the web and was the first of a number of horrific videos subsequently shared online by the group. Terrorists intend to intimidate those against whom they are fighting (O'Neil & Grady, 2011) and believe that the media can aid with terrorist propaganda by showing coverage of attacks that spreads panic and fear (Weimann, 2005). To the extent that the videos were viewed by many Americans and did generate fear, their release and the subsequent attention they received in the media played directly into the terrorists' goals.

Research suggests that it is not uncommon for individuals to watch graphic coverage of newsworthy events. In the day following the September 11th terrorist attacks, individuals reported watching an average of 8.1 hours of news coverage (Schuster et al., 2001). Many individuals continued to view large amounts of news coverage of 9/11 in the following week, with 44% of individuals in a representative national sample viewing 4 or more hours daily (Silver et al., 2013). Although viewing graphic news coverage appears to be fairly common, characteristics of those who watch graphic news coverage remains unknown since researchers have failed to examine this question. However, research on media use more generally offers a few potential hints of the predictors of graphic news consumption.

One factor that may be related to graphic news consumption is having a history of mental health problems. Individuals with mental health conditions such as clinical depression (Dittmar, 1994), panic disorder, dysthymia, and agoraphobia (de Wit, van Straten, Lamers, Cuijpers, & Penninx, 2011) watch significantly more television than individuals without mental health conditions. Thus, it is possible that individuals possessing mental health conditions are

overrepresented in the group of individuals who watch graphic news coverage due to their greater media consumption in general. Further, individuals with certain mental health conditions may be particularly drawn to graphic news coverage, since certain mental disorders, such as Generalized Anxiety Disorder, are associated with attention to stimuli perceived as threatening (MacLeod, Mathews, & Tata, 1986; MacLeod & Mathews, 2012). However, being drawn to look at something one fears or feels threatened by may be common among people in general, with individuals without mental health conditions also paying special attention to things they feel threatened by or afraid of (Field, 2006; Keogh, Ellery, Hunt, & Hannent, 2001). Thus, sensitivity to threatening events depicted in the news may be another predictor of viewing graphic news coverage.

Despite the fact that predictors of viewing graphic news coverage remain largely unknown, a substantial amount of research has demonstrated that graphic news consumption is associated with negative psychological and physical symptoms. Watching four or more hours of September 11th coverage daily was associated with greater physical health problems 2 to 3 years later (Silver et al., 2013) and those who watched the greatest amount of September 11th coverage were found to be at increased risk for probable PTSD (Ahern, Galea, Resnick, & Vlahov, 2004). Consuming large amounts of graphic news coverage of a large-scale disaster has also been associated with greater acute stress than direct exposure to the event itself (Holman, Garfin, & Silver, 2014).

In addition to reporting psychological symptoms, individuals exposed to large amounts of graphic media coverage of terrorist-related incidents report increased fear of terrorism. In the wake of the September 11th terrorist attacks, being exposed to terrorism-related stories (Rubin et al., 2003) and watching 3 or more hours of 9/11 coverage daily (Holman & Silver, 2005) was

associated with fears of terrorist victimization. Further, it appears to be coverage of terrorism in particular, not overall television consumption (Rubin et al., 2003) or other non-terrorist news consumption (Slone, 2000), that is associated with fear of terrorist victimization (Rubin et al., 2003) or increased anxiety (Slone, 2000). Thus, the association between viewing television and fear of terrorism may be exclusive to television coverage that specifically pertains to terrorism.

As a substantial body of research has linked graphic news coverage of terrorist events to psychological symptoms and fear of terrorism, individuals watching graphic news coverage do not appear to be desensitized. Instead, individuals who have been exposed to traumatic events both directly and via the media show sensitization to subsequent traumatic events (Garfin, Holman, & Silver, 2015). Thus, research on desensitization as a result of violent videos games (Carnagey, Anderson, & Bushman, 2007) or increased aggression due to exposure to media violence (Anderson et al., 2015) may not apply to individuals' responses to graphic news coverage. This is not surprising given that individuals perceive the same violent images as being more negatively valenced when they are thought to be real as opposed to fake (Kobach & Weaver, 2012), suggesting that real, graphic news coverage is appraised differently from fictional media content.

While past research has explored psychological correlates of viewing graphic media that is real, the motivations individuals have for viewing this media remain largely unknown. Only a handful of studies have attempted to explore this question. Experimental research has investigated whether the extent to which something sounds and looks like it would if it actually existed (Lombard & Ditton, 2000) motivates individuals to seek out more information (Lachlan, Westerman, & Spence, 2010). Another aspect of disaster-related coverage that has been explored as a potential motivator for seeking more information is the extent to which someone feels like

they are in the environment depicted, known as spatial presence (Ijsselsteijn, de Ridder, Freeman, & Avons, 2000; Lachlan et al., 2010). Although the extent to which one perceives an event shown in the media as real may motivate further information seeking, this is only one possible motivation for viewing. However, it is not just experimental studies that have focused on one viewing motivation and failed to assess a wider array of motivations. Research examining motivations outside of the lab have still focused on how specific variables motivate viewing such as empathy and emotional responses to an event (Hoffner, Fujioka, Ye, & Ibrahim, 2009). Further, the few studies that have looked at a wider array of motivations for viewing graphic news coverage (Hoffner et al., 2009) or television violence (Haridakis & Rubin, 2003) are still limited by having individuals indicate agreement with a list of viewing motivations generated by the researcher, thus preventing the full scope of motivations for viewing graphic media from being identified.

To gain a better understanding of who watches graphic media, the psychological correlates of viewing, and individuals' viewing motivations, the present study used a mixed methods design. Quantitative analyses were first used to identify predictors and correlates of viewing graphic media and a qualitative analysis was then used to assess viewing motivations. To examine these questions, the present study looked at individuals who viewed an ISIS beheading video and were part of an ongoing longitudinal study. The ISIS beheading videos were well-suited for examining these questions pertaining to graphic media for a couple reasons. First, they were highly graphic so individuals could likely reliably report whether they had viewed one or not. Second, they were created by a terrorist organization with the intention of causing fear.

The present study was the first of its kind to identify demographic and other individuallevel predictors of watching the highly graphic videos of the beheadings perpetrated by ISIS. Using a representative national sample, the present study first examined how many people across the United States watched one or more of the beheading videos. Since no research has previously examined how many people view graphic news coverage, no specific predictions about what percent of the population might have watched these videos were generated. We also sought to identify who watched these videos by examining whether certain demographic variables (e.g., gender, age, race, education level, religion, political affiliation) predicted doing so. In addition to demographics, we also assessed whether history of mental health symptoms and prior fear of terrorism predicted viewing, based on past literature suggesting these variables may be important predictors of individuals' attention to media coverage. Further, since much of the research on violent media and children has raised the possibility of desensitization, we looked at personal history of exposure to violent life events as a predictor of viewing to investigate the possibility that it is sensitization to violence – rather than desensitization -- that drives individuals to view real graphic news coverage. Since past research has linked graphic coverage to negative health outcomes and coverage of terrorist events in particular has been linked to increased fear, the present study also examined whether viewing a beheading video was correlated with physical and psychological symptoms as well as fear of future events. Finally, we also sought to replicate the finding that watching the graphic video would be associated with psychological symptoms and fear of terrorism. We predicted that consistent with past research, those who watched an ISIS beheading video would show greater psychological distress and fear of negative events, such as terrorism.

Methods

Sample and Procedures

Participants were surveyed between April 29 and June 26, 2015. In total, 3,341 individuals completed a survey during this time frame: 635 were from metropolitan Boston, 699 from the New York City metropolitan community, and 2,007 from the remainder of the United States. Respondents were part of a larger longitudinal study that began after the Boston Marathon bombings in May, 2014, and this was the fifth wave of data collection (approximately 2 years after the first wave). Overall respondent retention rate from Wave 1 was 71.4%. There were 2,676 individuals in the sample who had data from all four waves (Wave 1, 2, 4, and 5) of data collection used in the present study.

The sample was recruited from a nationally representative panel created by GfK Knowledge Panel using address-based sampling and provides free Internet service or other compensation to individuals in return for survey participation. Panelists still active on the GfK panel at the time of data collection were invited to complete this fifth survey online. Specifically, participants were sent an e-mail with a brief introduction inviting them to complete the survey and an embedded "start" button that took them to a Web-based survey designed by our research team. Those participants who were withdrawn from the GfK panel at time of data collection but agreed to be contacted for longitudinal assessments were surveyed either online or by returning a hard copy of the survey by mail. Email reminders, postcards, and phone calls were implemented to those who did not initially respond to the survey invitation as a way of encouraging participation. Boston and New York City metropolitan communities were purposefully oversampled since individuals in these areas were more likely to be directly exposed to the Boston Marathon bombings and other collective traumas (e.g., 9/11, Hurricane

Sandy, and Sandy Hook Elementary School shooting), allowing for comparison between those directly and indirectly exposed to the event in other analyses.

In order to maintain a panel that is nationally representative, GfK computes design weights that take into account that individuals from certain demographic groups may be more likely to be part of the panel than individuals belonging to other demographic groups. Study design weights specific to our sample were created that account for differences in the likelihood of individuals in our sample participating and also account for attrition (see Holman et al., 2014, for additional details). For all analyses, we used a post-stratification weight that accounted for the difference in participants' likelihood of participating. The weighted composition of our sample closely matched that of the target population as defined by the benchmarks from the American Community Survey of the U.S. Department of Commerce (2012). Thus, although there was some attrition across the waves, weighting our sample accounted for this. All procedures were approved by the Institutional Review Board at University of California, Irvine.

Measures

Demographics. GfK collected demographic information on all participants upon entry into the panel. The following demographics were assessed: education level (less than high school, high school, some college, bachelor's degree or higher), ethnicity (White, Black, Non-Hispanic; Other, Non-Hispanic; Hispanic; 2+ Races, Non-Hispanic), gender, marital status (married, single never married, living with partner, widowed/divorced/separated), income, and age.

Political affiliation. GfK collected information about the political party affiliation of participants upon entry into the panel by asking them to indicate whether they identified as "Strong Republican", "Not Strong Republican", "Leans Republican",

"Undecided/Independent/Other", "Leans Democrat", "Not Strong Democrat", or "Strong Democrat". For the present analysis, a variable was created that labeled individuals as Republican ("Strong Republican" or "Not Strong Republican"), Independent ("Leans Republican", "Undecided/Independent/Other", or "Leans Democrat"), or Democrat ("Not Strong Democrat").

Religious affiliation. GfK collected information about religion upon entry into the panel by asking participants "What is your religion?" Participants could choose from 11 different religions or select "Other" and specify a religion not listed. For our analysis, a religion variable was created that identified three groups: no religious affiliation, Non-Christian religious affiliation, and Christian religious affiliation (Protestants and Catholics).

Employment Status. Individuals in the sample were asked to indicate whether they were currently employed, which was updated at Wave 5.

Mental health history. Participants answered items modified from the Center for Disease Control's National Center for Health Statistics annual National Health Interview Survey (NHIS; U.S. Department of Health and Human Services, 2015, which assessed physician-diagnosed anxiety disorders and depression as reported by participants, at Wave 1 (April 29, 2013- May 13, 2013) and again at Wave 4 (December 29, 2014- February 27, 2015). If they self- reported ever receiving a diagnosis from a physician they were coded as 1 and if they had never received a diagnosis they were coded as 0. Of the sample, 289 people (6.18%) did not report their mental health at Wave 1 or Wave 4 and their data was imputed at Wave 1 using sequential Hotdeck imputation. This method uses existing data from a respondent (donor) who is similar and matched on certain demographic variables to impute a missing data point for a participant (Andridge & Little, 2010).

Pre-Boston Marathon Bombing television watching. GfK collected information about typical television viewing habits prior to the Boston Marathon bombing from the majority of our Wave 1 participants (n=4,393, 93.9%). On a five-point rating scale ranging from 1(never) to 5 (3 times a week), participants indicated how often they watched each of 117 cable and broadcast television networks (e.g. CNN, entertainment channels, and local morning and evening news). The mean frequency across all channels was calculated to create a pre-Boston Marathon bombing television watching index.

Direct exposure to the Boston Marathon bombings. At Wave 1 (April 29, 2013- May 13, 2013), direct exposure to the bombings was measured by having participants indicate whether they or someone close to them was present at, injured in, or near the site of the Boston Marathon on April 15, 2013. Individuals were also asked whether they knew someone who had been killed in the bombings. A dichotomous variable was created in which 0= no exposure and 1= any direct exposure.

Fear of terror. At Wave 2 (October 18-November 17, 2013), ongoing fear and worry about terrorism (Silver, Holman, McIntosh, Poulin, & Gil-Rivas, 2002) was measured using the following 2-items: "How often in the past week have you had fears about the possibility of another terrorist attack (e.g., bombing, hijacking, etc.)?" and "I worry that an act of terrorism (e.g. bombing, hijacking, etc.) will personally affect me or someone in my family in the future." These items were rated on a 5-point Likert scale ranging from 1=never to 5= all of the time.

Lifetime exposure to violence. In the context of an assessment of participants' history of exposure to stressful life events, individuals were asked whether they experienced 8 violent events during childhood, in adulthood before the Boston Marathon bombing, or in adulthood

after the Boston Marathon bombing at Wave 2 (October 18-November 17, 2013). Items asked about violence exposure such as being physically attacked or assaulted, being coerced with threats of harm to oneself of one's family, and having sexual relations under force or threat (Blum, Silver, & Poulin, 2014). All events that had occurred were given a score of 1 and summed.

Recent exposure to violence. At Wave 5 (April 29, 2015- June 24, 2015), participants were asked about the same 8 violent events during adulthood that they were asked about in the lifetime exposure to violence measure collected at Wave 2. This provided a measure of recent exposure to violence, with all events experienced receiving a score of 1 and summed.

Global Distress. At Wave 4 (December 29, 2014-February 27, 2015), participants completed the Brief Symptom Inventory-18 (BSI-18; Derogatis, 2001), which consists of 18 items that load onto 3 subscales (anxiety, depression, and somatization). Participants answered all 18 items using a five-point rating scale ranging from 0= not at all to 4= extremely. The mean of all 18 items was calculated and used in the analyses to measure prior global distress. At Wave 5, we again assessed global distress using a shortened version of the BSI-18 that consisted of 9 items that loaded on to the same three subscales described above.

Functional Impairment. Impaired functioning was assessed by 4-items modified from the 36-item Short Form Health Survey (SF-36; Ware & Sherbourne, 1992), collected at Wave 4 (December 29, 2014- February 27, 2015). Each item was rated on five-point scale, ranging from 1= none of the time to 5= all of the time. The mean of all 4 items was calculated and used in the analysis to account for prior functional impairment. At Wave 5, functional impairment was collected again with the same measure.

Watching beheading video(s). To assess whether participants had viewed any of the beheading videos, at Wave 5 individuals were asked the following question: "Did you watch one (or more) of the ISIS beheading videos? (Select one answer only.)" Individuals could then select one of the following three choices: "Yes, all of it", "Yes, part of it", and "No, none of it" A dichotomous variable was then created in which 0= "No, none of it" and 1= "Yes, all of it" or "Yes, part of it".

If participants responded to this question by selecting "Yes, all of it", they were asked to provide a free response to the question "Why did you choose to watch it?" If participants answered "Yes, part of it", they were asked to respond to the question, "Why did you choose to watch it and what made you stop?" If participants answered "No, none of it", they were asked to respond to the question "Why did you choose not to watch them?" Participants received an unlimited text box that expanded as they typed their response to this open-ended question in the online survey. (If they completed a hard copy of the survey, they were provided with several lines for this response.)

Fears and worry about negative life events. At Wave 5, fear and worry about future life events (Silver et al., 2002) was measured by expanding on the worry about terrorism scale and asking 2 items for each of the following categories: future terrorist attack, a natural disaster, violence and financial stress (alpha= 0.88). Each of the items were rated on a five-point scale ranging from 1= never to 5= all of the time and summed to form an index.

Analytic Strategy

All analysis were conducted using Stata version 14 (Stata Corp, College Station, TX). To examine predictors of viewing the beheading videos, a logistic regression analysis was conducted using a hierarchical variable entry strategy with predictor variables entered in

meaningful blocks. The first block included demographic variables (gender, age, ethnicity, education, income, marital status, political affiliation, religious affiliation), overall television consumption prior to the Boston Marathon bombing, and direct exposure to the Boston Marathon bombing. The second block added fear of terrorism at Wave 2, as well as history of violent victimization to the model. The third block added mental health history, global distress, and functional impairment measured at the previous wave of data collection (Wave 4) to the model. The fourth block added recent violent exposure and employment status collected at the present wave of data collection (Wave 5) to the model.

To examine outcomes associated with watching the beheading video, three separate linear regressions were run for the following three dependent variables: global distress, functional impairment, and fear and worry about life events. The same hierarchical variable entry strategy was used to enter meaningful predictor variables in blocks, with watching the beheading video added as a predictor variable in block four for all three analysis. Appropriate post-stratification weights were used in all analyses to account for panel and study attrition and to enable population-based inferences. Since individuals from Boston metropolitan and New York City metropolitan were oversampled, region was controlled for in all analyses.

Results

Predictors of Watching a Beheading Video

Results indicated that about 25% of the United States population had seen a beheading video (n= 819); 20% of the sample viewed part of it (n= 656) and 5% of the sample viewed all of it (n= 163). Certain demographic variables, presented in Appendix A, were significantly associated with watching a beheading video. Further, lifetime history of violent victimization was associated with viewing a video. Other significant predictors of viewing the beheading

videos include being unemployed at Wave 5, overall television exposure prior to the Boston Marathon bombing, and prior concern about terrorism. Appendix A presents the odds ratio, standard error, p-value, and 95% confidence interval of the variables that significantly predicted viewing a beheading video.

Correlates of Watching a Beheading Video

There was a positive association between watching a beheading video and global distress. This association was found even after entering the following variables in the model: demographics, television consumption prior to the Boston Marathon bombing, direct Boston Marathon bombing exposure, prior concern about terrorism, lifetime exposure to violence, prior mental health, prior functional impairment, prior global distress, current employment status, and recent exposure to violence. Thus, previous distress did not fully account for reports of global distress since viewing a beheading video was still significantly associated with global distress with previous distress entered in the model. Appendix B displays the coefficients, standard error, p-value, and 95% CI for the variables significantly associated with global distress.

There was also a positive association between viewing a beheading video and fear of future negative events, including terrorism. This significant association held event after entering the same variables in the model that were entered in the previous ordinary least squares regression examining global distress, suggesting watching a video uniquely contributed to fear. Appendix C displays the coefficients, standard error, p-value, and 95% CI for the variables significantly associated with fear of future negative events, including terrorism. The third ordinary least squares regression that examined the association between viewing a beheading video and functional impairment found that viewing a beheading video was not significantly associated with functional impairment.

Qualitative Analysis of Motivations

To examine motivations for viewing graphic media, we used qualitative analysis to examine individuals' self-reported motivations for viewing a beheading video. The open-ended nature of the question provided rich insight into why individuals chose to expose themselves -- or not -- to highly graphic images.

To conduct a thematic analysis of the open-ended data, separate codebooks of themes were created to categorize participants' motivations for watching all, part, or none of the beheading video. For those who watched part of the video, the codebook contained one list of themes for reasons for starting and a second list of themes for reasons for stopping the video. The codebooks were created by two researchers, who independently read a subset of responses provided by those who watched all of it, part of it, and none of it, and then identified common themes in the responses. To identify themes, researchers read 150 randomly selected responses provided by those who watched part of the video, 150 randomly selected responses provided by those who watched none of the video, and all 139 responses provided by those who watched all the video. This procedure of letting the responses drive categorization by identifying and naming similar ideas in responses as a concept and then grouping similar concepts to form categories and reshaping categories as needed throughout the analysis is consistent with grounded theory (Corbin & Strauss, 1990). After the two researchers independently came up with separate codebooks, they met and discussed the themes they had identified. They then agreed upon the final sets of themes to create three final codebooks.

Using these finalized codebooks, two independent raters coded the themes found in another random subset of responses. The raters coded all responses provided by those who had watched all of the beheading video (n=139), a randomly selected subset of 350 of the responses

provided by those who started and stopped the beheading video (n= 671), and 350 randomly selected responses provided by those who did not watch any of the video (n= 2162). Each response was coded with as many themes from the codebook as applied to the response. Thus, if raters thought a response demonstrated multiple themes, they were instructed to code every theme that appeared in the response. Although creating a codebook is not consistent with the grounded theory approach to qualitative analysis since responses should shape the categories rather than fitting responses into set categories, deductive analysis that uses a set framework for analysis is valuable when researchers know responses that participants will likely give (Burnard, Gill, Stewart, Treasure, & Chadwick, 2008). Thus, since our creation of codebooks was founded in grounded theory it was appropriate for us to create a codebook for two raters to examine the response and this also allowed us to calculate inter-rater reliability to increase confidence in the reliability of our findings.

Inter-rater reliability was calculated for each of the three codebooks. Since each response could be coded with multiple themes, we first calculated inter-rater reliability in which coders had to agree on every theme for a given response. If a response was coded with multiple themes, coders were considered in agreement if all themes coded matched. Using this criterion, interrater reliability was 80.58% (κ = 0.74) for the responses provided by participants who watched the entire video, 80.57% (κ = 0.75) for participants' reasons for starting the video, 77.43% (κ = 0.70) for participants' reasons for stopping the video, and 82.29% (κ = 0.72) for participants' reasons for not watching any of the video. A second inter-rater reliability was calculated in which coders were considered to be in agreement if they agreed on at least one theme. Using this criterion, inter-rater reliability was 89.21% (κ = 0.85) for the responses provided by participants who watched the entire video, 83.71% (κ = 0.79) for participants' reasons for starting the video,

82.29% (κ = 0.76) for participants' reasons for stopping the video, and 90.00% (κ = 0.83) for responses provided by participants who did not watch any of the video. For responses on which coders disagreed on one or more themes, coders discussed the response and agreed upon a final theme or themes. Similar themes were further grouped together into a smaller number of themes. The percent of responses containing each of these themes was calculated

Results

Individuals indicated a wide array of reasons for watching the beheading videos. Themes identified in the responses provided by those who watched all or part of it, listed in order of reported frequency of those who watched all of it, included: gaining information, curiosity, unintentional, and that it was shown on the news. Three motivations exclusive to those who watched all of it were strong emotional motivations (e.g., "I was horrified by the event"), religious motivations, and social sharing. One reason exclusive to those who started watching it but stopped was that it was easily available. Also, some individuals who just watched part of it did not provide a reason for why they started watching it. Appendix D reports the count and percent of themes that apply to reported motivations.

Themes identified in individuals' reasons for not watching any of the video or stopping the video, in order of frequency of watching none, included: not wanting to watch it, emotionally upsetting, not wanting to support ISIS, other, and respect for family or victims. Two themes exclusively found in individuals' reasons for not watching any of the video were that they did not seek them out or that they just saw what was on the news. Two themes exclusive to those who just watched part of it was that they did not want the repetition of the images or that the video stopped for a reason outside their control. Also, some individuals who just watched part of it did not provide a reason for why they stopped watching it. The themes identified in the reasons

individuals gave for watching at least some of the video suggest that many individuals watched these videos for information or to gain some sort of knowledge or understanding, while those who chose not to watch or stop watching them tended to do so because they did not want to see the images or did not want to put in the effort to finding them; some just saw what was on the news. Appendix E reports themes identified and percent of responses coded for those who did not watch any of the video and percent of the responses for those who stopped watching the video.

General Discussion

The present study allowed us to examine who watches graphic media and why, using the ISIS beheading videos due to their highly vivid nature and their creation by a terrorist organization with the intention of spreading fear. This adds to the trauma research literature by providing information on who seeks out graphic media coverage and why, which has not been addressed by the literature. Although trauma research has shown graphic media coverage is linked to negative outcomes, previous research has looked at disaster news consumption more generally and failed to ask how many individuals view a specific, particularly gruesome incident. Our finding that over one-quarter of a nationally representative sample watched some portion of a beheading video indicates that many individuals across the United States attend to extremely graphic coverage. This is consistent with past research showing that watching graphic news coverage is fairly common (Schuster et al., 2001; Silver et al., 2013). However, this finding is still surprising. The ISIS video explicitly showed the beheading of another individual, which is much more explicit than graphic news coverage shown on television that is censored by an editing team for appropriateness. Further, the high prevalence of viewing graphic media in the

present study magnifies the importance of past research findings linking graphic media to negative outcomes since many individuals are at risk.

In addition to finding that viewing graphic images is quite prevalent, we were able to identify a number of individual predictors of viewing the beheading videos, some of which were not surprising. It made sense that being unemployed predicted watching the video since possessing more time may facilitate watching. Also, the fact that overall television consumption was associated with viewing the videos may reflect the fact even though the full beheading video was only available online, still or censored pictures of the video were shown on some traditional media, so some individuals may have been exposed to these images via television. Moreover, some individuals in our sample did use the Internet to seek out these videos and this may partially explain why men were more likely to watch. Research conducted after September 11th found that males thought the Internet was more useful for gaining information following the attacks compared to females (Spence et al., 2006) and men showed a greater aggregate amount of time seeking information via the Internet compared to women (Lachlan, Spence, & Seeger, 2009).

Although we were not surprised to find that males were more likely to watch the videos, it was surprising that older individuals were more likely to watch the videos. Research has found an inverse relationship between age and the usefulness of information coming from the Internet (Spence et al., 2006), and past research found that those showing the greatest desire to watch violent television programs were those under 18, followed by college students, and lastly adults older than 21 (Bushman, 2006). Thus, we might have expected that young adults would be more likely to watch the videos than older adults, but this was not the case.

It is also worth noting that individuals with mental health conditions were not more likely to view a video, but those who had experienced more violent events across their lifespan were more likely to watch a video. This suggests sensitization rather than desensitization. Further, since viewing the videos was associated with global distress, it appears that individuals with violent experiences are not inoculated to this coverage as a result of their past victimization.

Rather, individuals with prior violent experiences were more likely to watch this coverage and a separate analysis found watching was associated with distress. Thus, viewing graphic coverage appears to be associated with different outcomes than repeated exposure to traumatic events via desensitization and exposure therapy, which helps individuals overcome past trauma (Tyron, 2005) and reduces PTSD symptoms (Rothbaum, Astin, & Marsteller, 2005). One possible reason that viewing graphic images is associated with negative outcomes, while repeated exposure to traumatic events via desensitization and exposure therapy is associated with a reduction in psychological symptoms, is that the latter is done in a special context under the guidance of a trained clinician adhering to a specific protocol (Rothbaum, Astin, Marsteller, 2005).

Our first analysis revealed that those who were more fearful of terrorism were more likely to watch the beheading videos, suggesting that fear of the events depicted in graphic coverage may drive individuals to watch this coverage, consistent with past research (Keogh et al., 2001; MacLeod, Mathews, & Tata, 1986). Further, a subsequent analysis found that watching the beheading videos was associated with greater fear of negative events, including terrorism. Thus, it is possible that individuals who are afraid of terrorism may only be exacerbating their fears by watching graphic coverage, although our analyses did not directly test this path. If individuals who watch coverage of terrorist attacks do in fact become more fearful, individuals

would be doing exactly what the terrorists want, since terrorists create these videos to make people afraid.

This study was also the first to directly ask individuals why they chose to watch graphic coverage. Individuals reported that they were mostly driven to watch due to a desire to gain more information as opposed to wanting to see violence itself. In fact, many people who did not watch the full video indicated they stopped watching when it became too graphic or too much. This suggests that if individuals found some way to feel better informed about an event other than viewing graphic coverage, it is possible that fewer individuals would choose to watch this coverage, potentially protecting against negative outcomes associated with viewing. Further, many individuals indicated seeing just the portion of the video shown on news programming and indicated being bothered by or not wanting to have seen the edited version that they encountered. This highlights the importance of news programs carefully considering what to show or at the very least making sure to inform viewers about what is about to come because some individuals may prefer to avoid even edited images of traumatic events and may still find these edited images distressing. It was also interesting that some individuals reporting watching the videos to better understand ISIS or support the family, while other chose not to watch the videos because they did not want to support ISIS and wanted to respect the families. This indicates that similar motivations may prompt some individuals to view and others to refrain from viewing the same graphic content, which suggest that motivations for viewing are person-specific rather than universal. This highlights the importance of asking this question in an open-ended manner to be able to identify a wide range of viewing motivations.

Limitations

The present study compared those who watched all or part of the videos to those who watched none of it. We chose to make those who watched any of the video one group because even though our overall sample sized was quite large, only a small portion of the overall sample (about 5%) watched an entire beheading video. This prevented us from being able to do a fine-grained analysis comparing those who watched an entire video to those who watched only part of a video. Thus, it is possible that there are some differences in the predictors of watching all or part of the video that the present study failed to capture by grouping these individuals together. However, in our qualitative analysis we were able to code the responses of those who watched all of a video and part of a video separately and were able to detect a couple motivations for starting and stopping exclusive to those who watched part of a video. Nonetheless, by grouping those who watched all and part of it together for the quantitative analysis, we do not know whether there were differences in distress and fear of negative events based on how much of the video individuals watched.

Although viewing the videos was associated with distress and fear of negative events, all analysis were correlational so we cannot conclude that watching the beheading videos causes distress or fear of terrorism. However, since we controlled for many different individual level factors in our analysis (e.g. demographics, psychological symptoms, past experiences), the relationship between viewing the videos and distress and fear is robust. Further, the variables used in the analysis were collected as part of an ongoing longitudinal study, enabling us to do prospective analysis from earlier waves of data collection. For example, we were able to control for previous global distress and previous fear of terrorism in our analysis, which makes us more confident that viewing a beheading video was uniquely associated with these outcomes and it

was not just distressed or fearful individuals remaining distressed or fearful. Finally, because our sample only included individuals 18 years old and older, we cannot draw any inferences about the impact of the videos on individuals under 18 who viewed them.

The present study was also the first to assess individuals' self-reported motivations for viewing graphic media by using qualitative analysis to examine open-ended responses. Although this provided insight into a wide array of motivations individuals had for viewing a beheading video, it is possible that participants did not truly know why they viewed a video. If this was the case, what we measured may have been individuals' explanations for viewing a video after the fact rather than their true motivations. Thus, we may not have measured motivations for viewing a video and instead measured explanations for viewing a video, which may be different.

However, self-presentation was minimized by the study's procedure since all questionnaires were anonymous and the vast majority of the surveys were completed online. Nonetheless, some participants may still have reported justifications for viewing a video or been affected by self-presentation and not reported their true motives for viewing.

Future Directions

The highly graphic nature of the beheading videos made it easy for individuals to recall and report on whether they had watched them or not. However, many individuals view graphic news coverage that is disturbing and graphic, but not quite as gruesome. Future research should investigate who watches graphic coverage that is less explicit and evaluate whether the same predictors of viewing the beheading videos also predict viewing more mild forms of graphic media. Further, the beheading videos were associated with distress and fear of terrorism, but the videos were released shortly before the present study so they were likely still fresh in individuals' minds. It would be beneficial to follow-up with these individuals and see if distress

and fear of terrorism remain when more time has elapsed since viewing the videos. Also, if individuals are evaluated again after more time has elapsed, individuals could be assessed for functional impairment again. Our failure to find a significant relationship between viewing a video and functional impairment may have been due to the fact that that not enough time may have passed before it was assessed since functional impairment may be more apparent years later (Silver et al., 2013). Lastly, although viewing the videos was associated with negative psychological outcomes, future research should assess whether there are any positive outcomes associated with viewing the videos, such as feeling more informed, since many individuals indicated viewing the beheading videos to gain information or understanding.

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Appendix A

Predictors of Having Viewed a Beheading Video (N= 2,676)

Variable	Odds Ratio	SE	95% CI
Male	1.378*	0.180	[1.066, 1.780]
Age	1.013*	0.005	[1.002, 1.024]
Christian	2.113**	0.412	[1.442, 3.097]
Pre-Boston Marathon bombing television exposure	1.320*	0.120	[1.105, 1.577]
Fear of terrorism	1.117*	0.048	[1.027, 1.214]
Violence exposure (lifetime)	1.130*	0.062	[1.015, 1.258]
Unemployed * n < 05 ** n < 001	1.454*	0.215	[1.087, 1.944]

^{*} p < .05, ** p < .001

^{a.} Other variables entered in the analysis that were not significant in the final model included region, ethnicity, education, income, marital status, political affiliation, direct Boston Marathon bombing exposure, prior mental health diagnoses, prior global distress, prior functional impairment, and recent exposure to violence.

b. The reference group for male is female; for Christian, the reference group is nonreligious; and for unemployed, the reference group is employed.

Appendix B

Variables Associated with Global Distress (N= 2,491)

Variable ^b	b	SE	95% CI
Boston	-0.767*	0.274	[-1.304, -0.229]
Direct Boston Marathon bombing exposure	0.958*	0.387	[0.199, 1.718]
Fear of terrorism	0.284*	0.090	[0.107, 0.461]
Global distress (wave 4)	0.277**	0.031	[0.215, 0.338]
Functional impairment (wave 4)	1.034*	0.341	[0.365, 1.703]
Unemployed (at time of data collection)	0.504*	0.251	[0.012, 0.997]
Viewed beheading video	0.615*	0.257	[0.111, 1.118]

^{*} p< .05, **p= .001

^{a.} Other variables entered in the analysis that were not significant in the final model included (1) gender, age, ethnicity, education, income, marital status, religion, political affiliation, pre-Boston Marathon bombing television exposure (2) lifetime violence exposure, (3) prior mental health diagnoses, and (4) recent exposure to violence.

^{b.} The reference group for Boston is individuals living in the United States but not in Boston metro or New York City metro; for unemployed, the reference group is employed; and for viewed the beheading video the reference group is not viewing any of the beheading videos.

Appendix C

Variables Associated with Fear of Future Negative Events (N= 2,493)

Variable ^b	b	SE	95% CI
Boston	-0.117*	0.045	[-0.204, -0.029]
Male	-0.066*	0.033	[-0.131, -0.001]
Income	-0.021*	0.010	[-0.040, -0.002]
Fear of terrorism	0.169**	0.014	[0.142, 0.195]
Recent exposure to violence	0.184*	0.079	[0.029, 0.339]
Global distress (wave 4)	0.025**	0.003	[0.018, 0.032]
Viewed beheading video	0.166**	0.038	[0.091, 0.242]

^{*} p< .05, **p= .001

^{a.} Other variables entered in the analysis that were not significant in the final model included age, ethnicity, education, marital status, religion, political affiliation, pre-Boston Marathon bombing television exposure, direct Boston Marathon bombing exposure, prior mental health diagnoses, prior functional impairment, recent violence exposure, and employment status.

b. The reference group for male is female; for Boston, the reference group is individuals living in the United States but not in Boston metro or New York City metro; for unemployed, the reference group is employed, and for viewed the beheading video the reference group is not viewing any of the beheading videos.

Appendix D

Motivations for Watching All of or Starting a Video

	% of Responses with Theme*	
<u>Theme</u>	Watched all	<u>Started</u>
Gain information and verify authenticity "It was a news story and I was attempting to obtain more information"	55.40%	20.0%
Curious/interested	24.46%	14.0%
"It was the first one and I was curious to know what it showed. I have not watched any further beheadings."		
Unintentional, don't know why, or other "I didn't think the whole thing would be shown"	10.07%	10.29%
Shown on the news** "It was on the news"	9.35%	37.14%
Strong emotional motivations	5.76%	N/A
"I was horrified by the event."		
Religious motivations "To try to understand why Muslims hate the rest of the world so much."	5.04%	N/A
Social Sharing	3.60%	N/A
"My husband asked me to watch it."		
Easily Available	N/A	2.86%
"Available time"		
No reason given	N/A	22.0%

^{*}Percent sums to over 100 because responses could reflect multiple themes. Percent is calculated for n= 139 responses for those who watched all of a video and for n= 350 responses for those who started watching a video (but stopped). **About 10% of those who indicated watching all of it reported doing so because it was shown on the news. Since news programs only showed an edited portion of the video, these individuals may not have actually seen a full beheading video.

Appendix E

Motivations for Not Watching or Stopping a Video

	% of Responses	with Theme*
<u>Theme</u>	Watched none	Stopped
Didn't want to watch it or avoidance of news	74.0%	28.57%
"I generally do not watch TV or online videos. I see and saw no purpose in watching the beheadings."		
Emotionally upsetting	14.86%	28.57%
"Too sad"		
Didn't seek them out or weren't available	10.29%	N/A
"Was not available"		
Didn't want to support ISIS "Didn't want to give them the satisfaction."	8.86%	2.57%
Other "I watched the beheading of Daniel Pearl a few years back and I still regret doing that."	4.57%	3.14%
Just saw what was on news	2.57%	0%
"The beheadings were not shown on broadcast television."		
Respect for family or victims	2.29%	2.86%
"In sympathy with the parents and relatives of the person being beheaded."		
Didn't want repetition of images	N/A	2.86%
"I needed to see how evil looks but do not wish to keep seeing it except on TV news."		
Reason outside their control for video stopping	N/A	4.57%
"poor internet service"		
No reason given	N/A	34.0%

^{*}Percent sums to over 100 because responses could reflect multiple themes. Percent is calculated for n=350 responses for those who watched none of a video and for n=350 responses for those who started watching a video but stopped.