

Was That Real? How Knowing Affects Emotional Responses¹

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Considering that people have almost unlimited access to content on the Internet, the goal of this study was to investigate how potentially disturbing media might affect the emotions of viewers. Not all of the information available on the Internet is genuine. Knowing this can protect us from over-reacting until we have certainty. The present study examined how people interpret their emotional reactions to disturbing videos in the context of knowing or not knowing if the material was real beforehand. Half of the participants were told immediately before viewing a video that it was not real while the rest were told immediately after viewing. It was predicted that viewers who learned the video was fake after watching it would be less upset than viewers told before due to emotional relief.

Introduction

A great deal of research has been conducted on the ways in which potentially shocking and disturbing media have affected the emotions of viewers and spurred a gradual desensitization in society. However, there has been far less research conducted on the subject of how emotional responses of those watching these media types might vary in terms of their perception of the content as being authentic or fictionalized. When considering such factors as emotional response and the viewer's perception of the media's authenticity, there is need for more in-depth investigation and analysis.

Over the last decade or so, developments and innovations in technology and more specifically, the Internet, have advanced in great capacity. People in countries all over the world are now able to gain access to almost any type of uncensored media content and information they desire on the Internet. While this level of accessibility has been beneficial in helping us to gain knowledge and awareness on a multitude of different subject matters, it also raises source of concern as to how certain potentially disturbing, shocking, or unsettling media content could be affecting the emotions and sensitivity levels of viewers. The potential of viewing media content with repeated violence, tragedy, or immoral behavior could be diminishing our sensitivity to this type of media content, and therefore, could possibly affect how we respond to these types of events when they occur in real life.

Investigations in this area are important for other reasons as well. It would be worthwhile to explore how typical emotional responses of generations today may compare with the emotional responses of those from past generations that existed before the availability of such disturbing media content.

In this current study, it is hypothesized that people will experience heightened stimulation or a heightened emotional response to a potentially disturbing or shocking stimulus if they are informed that the stimulus is fictional prior to its presentation.

It is further hypothesized that people will be more likely to have decreased or desensitized emotional responses to the stimulus if they find out it is fictional after its presentation.

Finally, it is also predicted that people will assume that the same stimulus they viewed would be more upsetting or more disturbing to others than it was to them. In other words, it is predicted that participants will assume their own emotions were less affected by the stimulus in comparison to the emotions of others.

The basis for hypothesizing that people will assume their own emotional responses were less severe than the emotional responses of others is simply because as a general rule, people often seem to think they are less judgmental than others and more adept in handling their emotions than others. This is also hypothesized because people often operate according to what is known as a *self-*

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-serving bias (Shepperd, 2008). A self-serving bias occurs when people think that their positive qualities exist because of internal or personal factors, but they often think that negative or less appealing aspects of their character are caused by situational factors out of their control. The self-serving bias in a way serves to protect a person mentally because it fosters positivity for a person's self-image, thus enabling them to see themselves in a more flattering manner (Shepperd, 2008).

Reasoning for the hypothesis that viewers will be more disturbed or upset if they are told the videos are fake before watching is because it will give viewers more time to logically reflect on what they have seen, consider from the start how potentially disturbing or upsetting the videos are, time to consider how upset one might be if they did not know the video was fake, and also to consider the morals of the person posting the video. It is also predicted that those who are told the videos are fake before watching it may even feel emotional responses which have some component of anger. This is a possibility because they may be angry as to why someone would make available something so potentially disturbing or upsetting for people to watch.

It is believed that viewers who find out the stimuli is fictional after watching it will be less upset. The reasoning for this hypothesis is because initially, they will be very shocked or upset by the stimulus. Then, when they are told it is entirely fictional, they will feel relieved and less emotionally disturbed by it. However, the arousal they experienced as a result of watching the video will remain and be reinterpreted more positively (via relief). In addition, it is hypothesized that this effect will be intensified for viewers who thought the video was comical or humorous and laughed at the video until they got to the shocking ending. In this case, viewers may even feel a bit of guilt for laughing, which would be a greater reason for them to feel relieved upon finding out it was fake.

Additional reasons supporting the hypotheses were derive from a review of older theories of emotion, particularly the Universality Hypothesis proposed by Charles Darwin and the Two-Factor Theory of Emotion proposed by Schachter and Singer (1962). Schachter and Singer's Two-Factor Theory of Emotion basically states that emotion is

a function of cognitive factors and physiological arousal. According to the theory, people look to the environment for information that can be used to figure out what their physiological arousal means. This theory also suggests that by manipulating cues that are available to an aroused person, one can manipulate other's emotional responses. If this interpretation is true, then it would support the idea that by retracting or providing information as to whether a disturbing stimulus was authentic or not, it would enable the manipulation of possible emotional responses to that stimulus.

In Charles Darwin's book, *The Expression of the Emotions in Man and Animals*, he developed a theory he called The Universality Hypothesis (Baird, 2010). This hypothesis basically states that facial expressions are standard in nature to the extent that they apply across all cultures and are understood across all cultures (Hess, 2009). If this interpretation is true, then it supports the hypothesis in terms of the observer being able to somewhat understand and interpret the reactions of those subjected to potentially disturbing stimuli. The current hypothesis to be tested assumes that while people often suppress the true extent of their emotions to some degree, there exists a common set of facial expressions used to signify what people are feeling. The observations of such facial expressions are another helpful tool planned to be used during this study to assist in gauging the emotional responses of subjects. It is believed that this will provide significant insight into the emotions that subjects are truly experiencing.

Another factor this study will take into consideration is the possibility of how desensitized our culture has become to the violent and shocking media almost universally available, and also to consider how this affects the responses people will have when they encounter real life situations that are shocking or violent. Previous studies have shown that after repeated exposure to violent media, viewers are often more aggressive with others, display more violence, are less emotionally disturbed by depicted violent imagery and realistic violence or shock, and also feel less empathy towards victims of violent acts or potentially disturbing situations (Carnagey, 2007).

One particular study was very similar in nature to the present study, except that subjects

Was that real? How knowing affects emotional responses

participated in groups rather than individually, and also in the sense that the study sought to investigate for an additional factor, a condition called Alexithymia. According to Fox (2011), Alexithymia is characterized as a lessened ability to express emotions and understand emotions in one's self and in the others around them. People with this condition also seem to have less feelings of empathy in an appropriate situation. Results showed that people who rated higher with characteristics of Alexithymia were overall less sensitive to the emotional stimuli than those who did not. Although the present study did not examine Alexithymia, it did explore the overall trends of possible desensitization throughout subjects. In addition, the present study assessed participants individually instead of using small groups of participants. This will be done in order to minimize the potential for subjects to base their emotional responses according to the emotional responses of others around them.

Method

Participants

The participants consisted of 63 Undergraduate students (48 women, 15 men) from Robert Morris University in Moon Township, Pennsylvania. Most of the participants were between the ages of 18 and 22 years old. Participants were recruited primarily from a variety of upper-level Social Science classes. Some participants were given extra credit for their participation, some were offered the incentive of a day off from their class to participate, and some decided to participate in the study out of mere curiosity.

Design

The study was a 2 x 2 between-subjects quasi-experimental design with two independent variables and eight dependent variables. The first independent variable (sequence) had two levels based on when participants were told the videos were fake (before viewing, after viewing). The second quasi-independent variable (gender) was the sex of the participant.

The dependent variables measured were part of a survey containing Likert style questions. This included measurements (questions) of (1) how shocking participants found the content to be; (2)

how disturbing they found it to be; (3) how upsetting they found it to be; (4) how upset they felt others would find it to be if they did not know it was fake before watching, how entertaining they found it to be; (5) how funny they found it to be; (6) how they felt about punishment for those who would post such potentially disturbing content on the Internet; (7) how they felt about if the media content should only be available on the Internet if it were clearly labeled as fictional material; (8) whether they felt the content should be readily available on the Internet regardless of how it was labeled; and finally, (9) if they felt that such content should be banned from the Internet if it depicted actual real-life events.

Materials

Videos. Three videos were identified for use in the present study. The goal of having three was to allow for the possibility that a subject may have seen one (or two) of the videos. If a subject recognized a video, an unfamiliar one was used to replace it.

The first video, a European car commercial (Car Commercial, Sun Roof Feature, Cat Gets a Surprise, 2006) initially showed a parked car sitting in a driveway. The sunroof of the car seems to open by itself and then a cat that is sitting nearby jumps onto the roof of the car. The cat sticks the upper half of its body into the open sunroof, at which point, the sunroof begins to close on the cat. The motion of the sunroof subsequently killed the cat and its body slides off of the side of the vehicle and onto the ground.

The second video (Girl Hit By Car, 2010) depicted a girl entering a house while talking on her cell phone. One of her friends was already inside the house and was attempting to play a joke on her. He stood hidden in a corner of the kitchen with a mask on. The girl was preoccupied in her telephone conversation and did not notice her friend standing there waiting to scare her. When she finally hung up and ended her telephone conversation, she turned around to find what she thought was some type of criminal in her kitchen waiting to attack her. She immediately began screaming and running down her steps and out her front door. At this point in the video, most would assume it was a harmless prank, and some viewers

would have probable reason to find it comical to some extent. However, as the girl runs out of her house, she runs into the street, and is immediately hit by a car moving at a high speed. The video's depiction leads viewers to believe the girl died because of the impact of the vehicle.

The third video (Mailbox Prank Turns Deadly, 2006) depicts initially what appears to be some type of hidden camera prank. It shows various clips of people attempting to insert mail into a postal box on a street corner. Each time someone attempts to insert an envelope into the postal box, the envelope is immediately ejected from the postal box and onto the ground, thus giving the impression that someone is hidden inside the postal box and attempting to confuse or surprise people by ejecting the mail they attempt to insert. The video seems relatively harmless at first as several people experience failed attempts to insert their mail. However, towards the end of the video, one man gets very angry as he repeatedly tries to insert his envelope and continually finds it getting ejected from the postal box. Although he shows no real facial expression of anger, after a few failed attempts at inserting his mail, he reached into his pocket, pulled out a gun, and fired it several times into the postal box. The video then ends abruptly.

Survey. In addition, a survey was constructed to obtain data about subjects' reactions to the video they observed. The survey consisted of ten individual questions and statements based on a five-point Likert Scale (see appendix). Number 1 on the Likert Scale signified different responses for different questions, but in general, it depicted that a participant did not find the video to be at all shocking, at all disturbing, that it did not make them feel at all upset, or that they strongly disagreed with the idea that media should be banned from the Internet, etc. The number 5 on the Likert Scale signified the opposite of these responses; that people were in fact very disturbed, very shocked, very upset, or that they strongly agreed the video should be censored, labeled, or banned from the Internet. The number 3 on the Likert Scale indicated such responses as that people felt neutral about the video or only felt that it was moderately or somewhat disturbing. In the question concerning censorship, participants who selected 3 on the Likert Scale were either saying they only felt moderately that certain content

should be censored or that they had no specific opinion on the matter either way.

Procedure

Participants were randomly assigned to watch one of three selections of disturbing media content—three fictional Internet videos. They were randomly assigned in an attempt to have each selection viewed equally. The only time this provision was deviated from was in the rare occurrence that a participant expressed that they had already viewed one of the selections prior to this study. In this circumstance, the selection was immediately stopped and the participant was shown a different selection in which they had not previously viewed.

One survey was administered to each participant individually throughout this study. All participants, regardless of condition, were asked to fill out the survey only after having watched a fake Internet video of potentially shocking and disturbing content. All participants viewed one of three videos.

Half of the participants made up the post disclosure group. They were asked to watch one of the video selections and were informed immediately after watching that the video was entirely fictional. The other half of the participants formed the prior disclosure group, and they were told prior to watching the video selection that the video they would be viewing was fictional. All participants were asked to read each question on the survey carefully and to answer each question as truthfully as possible.

They were informed of their anonymity in the study and that the only additional information requested of them aside from the survey responses was their age. They were also asked to refrain from discussing the study with anyone else until at least the semester had ended. The participants were debriefed with the explanation that the study simply sought to investigate how shocking people found certain videos to be. The participants were not informed of the intent to measure emotional response in relation to having or not having prior knowledge that the video was not real.

Results

A separate analysis of variance (ANOVA) was conducted for each of the responses obtained from

Was that real? How knowing affects emotional responses

the survey (nine total). Each analysis (with one exception) was a 2 (Gender) x 2 (sequence) between subjects test.

Shocking

This ANOVA produced a marginally significant main effect of Gender, $F(1,54) = 3.36$, $p < 0.08$, in which males tended to report less shock ($M = 3.5$, $SD = 1.6$) than females ($M = 4.1$, $SD = 0.9$). No other effects were significant (all $p > .20$).

Disturbing

This ANOVA produced a significant main effect of Gender, $F(1,54) = 9.63$, $p < 0.01$, in which males tended to report being less disturbed ($M = 2.9$, $SD = 1.4$) than females ($M = 4.0$, $SD = 0.9$). No other effects were significant (all $p > .35$).

Entertaining

This ANOVA produced a significant main effect of Gender, $F(1,54) = 12.77$, $p < 0.01$, in which males tended to report being more entertained ($M = 3.4$, $SD = 1.2$) than females ($M = 2.0$, $SD = 1.2$). No other effects were significant (all $p > .20$).

Funny

This ANOVA produced a significant main effect of Gender, $F(1,54) = 12.06$, $p < 0.01$, in which males tended to report that the video was more funny ($M = 2.9$, $SD = 1.6$) than females ($M = 1.7$, $SD = 0.9$). No other effects were significant (all $p > .40$).

Punish

This ANOVA produced a marginally significant main effect of Gender, $F(1,54) = 3.11$, $p < 0.09$, in which males tended to agree less with the idea that people who posted such videos should be punished ($M = 2.4$, $SD = 1.2$) than females ($M = 3.1$, $SD = 1.2$). No other effects were significant (all $p > .10$).

Available if labeled

This ANOVA produced no significant main effects or interaction (all $p > .20$).

Available whether labeled or not

This ANOVA produced a marginally significant main effect of Gender, $F(1,54) = 3.38$, $p < 0.08$, in which males tended to agree more with

the idea that the video should be freely available on the web whether accurately labeled or not ($M = 2.8$, $SD = 1.3$) than females ($M = 2.0$, $SD = 1.2$). No other effects were significant (all $p > .25$).

Banned

This ANOVA produced a marginally significant interaction of Gender with Sequence, $F(1,54) = 2.96$, $p < 0.10$, in which all conditions but one tended to result in greater agreement with the idea that shocking videos depicting actual (real) events should be banned from the Internet except for Males in the After condition (see Table 1). No other effects were significant (all $p > .35$).

Table 1. Interaction of Gender with Sequence for responses to the question as to whether such videos depicting actual events should be banned from the web.

Condition	n	Mean	SD
Female - Before	23	3.48	1.20
Female - After	23	3.74	1.21
Male - Before	6	3.84	1.47
Male - After	6	2.67	1.63

Upsetting: Self vs. Other

A final analysis was performed on responses to two questions regarding whether the video was perceived as shocking by the participant and also whether the participant believed other would be shocked. A 2 (Gender) x 2 (Sequence) by 2 (Perspective: Self vs. Other) ANOVA was performed. This analysis resulted in a marginally significant main effect of Gender, $F(1,54) = 3.75$, $p < 0.06$, in which males tended to report less shock ($M = 3.4$, $SD = 1.3$) than females ($M = 3.8$, $SD = 1.2$). Also, a significant main effect of Perspective occurred, $F(1,54) = 91.30$, $p < 0.01$, in which subjects reported less shock to themselves ($M = 3.0$, $SD = 1.2$) than others ($M = 4.5$, $SD = 0.6$). No other effects were significant (all $p > .19$).

Discussion

With regard to the "Banned" question, the results confirmed the hypotheses that males in the post disclosure group would react more negatively than those in the prior disclosure group. A possible reason for why females failed to follow suit is

provided below. Also confirmed was the self-serving bias prevalent among participants. In spite of these findings, there were potential concerns within the study that should be considered.

The previous similar study examined participants in small groups, and therefore, the present study was conducted differently because each participant was observed alone with the person presenting the stimulus and also administering the survey. This was done because it was thought that if participants engaged in the study while in small groups, they would likely look to their peers or others around them to see how they should react or base their emotions. This study aimed to eliminate that problem as much as possible, so participants were tested with only the person administering the stimulus and survey.

Unfortunately, despite the above control, it may have been the case that the female subjects looked to the researcher for how to respond to the videos. The research was careful to maintain a neutral demeanor so as to avoid biasing subjects. The finding that females tended to provide the same responses regardless of sequence condition suggests a possible explanation as to why only males showed the predicted outcome.

While the study still contends that for future research, best possible results would likely be obtained through one-on-one interaction instead of in small groups of participants, the study perhaps did not prepare for how an emotional response of a participant can be altered even with just one other person (the researcher) in the room. This was noticed because most times the researcher would notice participants looking to see her response to the end of the videos. This was noticed more commonly with females than with males. For future research, it is suggested that the person(s) administering the research control for this experimenter gender effect by having a male researcher present for the females and a female researcher presenting to the males. This may be advisable because the possibility could exist that when someone tries to understand and interpret their own emotional response, they may be more likely to scan another person for appropriate reaction cues if that person is the same gender as they are.

Another factor to consider in this study is that there could have been a Social Desirability Bias in which participants responded to the survey questions in accordance with what answers they thought the researcher would find most desirable. In addition to these concerns, possible future research focused on this subject could consider a few different parameters. Another possible concern of the study was the proportion of males to females. There were far more females than males. In future studies, the ratio of males to females should be more equal.

Another consideration would be to utilize at least a 7-Point Likert Scale so that response measures can be understood more in-depth (more room for variability) and also to include a survey question asking participants how potentially angry the video made them feel. This may be a more direct way to understand the relationship between those in the post-disclosure group and the prior disclosure group and how significantly it affected their levels of empathy and emotional stimulation.

It might be interesting to have participants from more varied age brackets to compare the sensitivity levels of younger and older generations. The predicted outcome might be more pronounced among the older generations. Also, it is important to note that two of the video selections depicted events that involved implied tragedy to humans and one video depicted events that implied tragedy to an animal. The particular types of disturbing media content shown and the responses thereafter as they pertain to each individual video may also be a variable worth considering. For example, some people may be more sensitive to media depicting violence or tragedy victimizing animals than they are towards media depicting violence or tragedy toward people, or they may be more sensitive towards the victimization of children than they are to the victimization of adults.

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Was that real? How knowing affects emotional responses

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Appendix

(1) How shocking did you find the video to be?

Not at all Shocking 1	Only slightly Shocking 2	Somewhat Shocking 3	Moderately Shocking 4	Very Shocking 5
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(2) How disturbing did you find the video to be?

Not at all Disturbing 1	Only slightly Disturbing 2	Somewhat Disturbing 3	Moderately Disturbing 4	Very Disturbing 5
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(3) How entertaining would you say the video was?

Not at all Entertaining 1	Only slightly Entertaining 2	Somewhat Entertaining 3	Moderately Entertaining 4	Very Entertaining 5
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(4) How upset did the video make you feel?

Not at all Upset 1	Only slightly Upset 2	Somewhat Upset 3	Moderately Upset 4	Very Upset 5
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(5) How funny would you say the video was?

Not at all Funny 1	Only slightly Funny 2	Somewhat Funny 3	Moderately Funny 4	Very Funny 5
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(6) How upset do you think most people would be if they watched this video but did NOT know that it was fake?

Not at all Upset 1	Only slightly Upset 2	Somewhat Upset 3	Moderately Upset 4	Very Upset 5
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(7) Indicate how much you agree with this statement: *People who post videos like this on the web should be punished.*

Strongly Disagree 1	Slightly Disagree 2	Neither Agree Nor Disagree 3	Moderately Agree 4	Strongly Agree 5
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(8) Indicate how much you agree with this statement: *I believe that fake videos like this should be freely available on the web but ONLY if they are clearly labeled as fake.*

Strongly Disagree 1	Slightly Disagree 2	Neither Agree Nor Disagree 3	Moderately Agree 4	Strongly Agree 5
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(9) Indicate how much you agree with this statement: *I believe that fake videos like this should be freely available on the web whether they are labeled as fake or not.*

Strongly Disagree 1	Slightly Disagree 2	Neither Agree Nor Disagree 3	Moderately Agree 4	Strongly Agree 5
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(10) Indicate how much you agree with this statement: *I believe that shocking videos like this should be BANNED from the web if they show real-life (not faked) events.*

Strongly Disagree 1	Slightly Disagree 2	Neither Agree Nor Disagree 3	Moderately Agree 4	Strongly Agree 5
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Comments: