Under the Weather:

Media Induced Severe Storm Anxiety (MISSA) and the Local Weather News

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Abstract

This paper explores the theoretical model of Media Induced Severe Storm Anxiety (MISSA). The MISSA model hypothesizes that as heavy media users are increasingly exposed to television weather news, the more likely they will suffer from MISSA. Academic research shows that local television stations can create fear messages with the intentions of keeping audiences captive as a method of increasing ratings, and generating revenue for the broadcast station. The existence of MISSA as a media theory was established through the application of Herman and Chomsky's media propaganda model, George Gerbner's cultivation theory, and mean world syndrome to the literature of media fear messaging, television weather news, and severe weather phobia. This paper asks the following research questions: Does local weather newscasts contain the fear-driven messages required to cause MISSA? Does the audience perceive these messages as intended by the local station? Can cultivation theory be addressed within MISSA? The paper concludes by proposing a four-step methodological approach combining focus groups, content analysis, in-depth interviews, and quantitative surveys, as a means of testing MISSA's application to the field of metrological journalism.

Keywords: media induced fear, television weather reporting, cultivation theory, propaganda modeling, severe weather phobia,

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Introduction

> I had been in New York a fortnight, and at last TV was mine. I turned it on, planning to take myself out shortly to a movie and dinner. But I was confronted by local news, specifically the forecast: "Whatever you do, don't go out. No matter what happens, do not go out. Stay home, stay tuned to…"; and so it went. I stayed home, I stayed tuned, and the city below stayed dry […] Five years on, and The Weather Channel announced dire storms for the New York area. Same result – no storms, lots of TV watching, and much anxiety… (Miller, 2007, pp. 146-147)

Weather reporting of storms is big business (Bowser, 1997), and big ratings, especially during big storms (Seitz, 2011). During hurricane Ivan, NBC affiliate WDSU-TV was ranked first in prime time rating by continuously broadcasting live hurricane coverage, when all of the other stations had returned to regular programing (Dupont & Blue, 2005). The Cleveland Fox affiliate WJW-TV had 70% to 75% of area news viewers watching the weather, compared to approximately 20% who watched sports, during a winter storm where between 27 and 69 inches of snow fell in the Cleveland area (Bowser, 1997).

Ratings like these come as no surprise, when studies have shown that the weather is most watched segment of local television news. "The No. 1 reason people watch local news is for the weather. It's the one story that affects everybody" (Afan, 2006, para. 6). During storms the television news weather ratings skyrocket. People trust and depend on meteorologists, to provide them with information that will keep them safe during a major weather system. With a plethora

of available media outlets Piotrowski and Armstrong (1998) found that during extreme weather, television is utilized as the main source of news information, far exceeding the use of newspapers, radio, the internet, and specialized weather equipment.

It is during severe storms that television weather reports thrive on messages of fear as a means of increasing ratings (Seitz, 2011). The tactic of fear messaging is a common occurrence in most local television news, whose mantra is "if it bleeds, it leads" (Cohen & Solomon, 1995). Yet weather reporting takes this to another level by way of the amount of reporting that is done before the storm hits.

Through the literature of media fear messaging, television weather news, severe weather phobia, Herman and Chomsky's media propaganda model, and George Gerbner's cultivation theory, this paper will address the effects of fear messaging within the television weather news. By proposing the theory that as heavy media users are increasingly exposed to television weather news, the more likely they will suffer from media induced severe storm anxiety (MISSA), due to the fear messages that are purposefully created with the intentions of keeping audiences captive as a method of increasing ratings and generating revenue for the broadcast station and its advertisers.

Literature Review

Media Fear Messaging

After 9/11, many scholars wanted to understand the role that the media played in presenting the events. Although, these were attacks on New York City, and Washington DC, through the media, the US was able to experience 9/11 as if they were there themselves. However, through the broadcast of these images, many people, who were in no immediate danger, began to experience the same symptoms of anxiety as those who were there (Graham,

2001). Just by watching the footage of 9/11 many individuals developed feelings of uncontrollability, helplessness, and unpredictability (Glaser, 2003).

Feelings that within further studies were noted to possibly be accentuated by the way that television newscasts present many of their stories.

> "Overwhelming fears about flying, cancer, rape, terrorism or natural disasters, usually revolve around a person's sense that there is nothing he or she can do to prevent becoming a victim. The way that the media present these things as not only unpredictable but also highly probable only accentuate these anxieties" (Glaser, 2003, p. 29).

These reports have come to be known as *media created fear messages*. Messages that are purposely intended to evoke an emotional response of fear or anxiety from the viewer.

These feelings of anxiety are only amplified by our preference for visual messages and heightened dramatic impact, known as the "vividness" effect (Piotrowski & Armstrong, 1998, p. 344), as broadcasted images are often considered more affecting then the message received through other forms of media (Glaser, 2003, p. 39). Vividness relates to the extent to which something is "emotionally interesting, concrete and imagery provoking, and proximate in a sensory, temporal or spatial way" (Shrum, 2002, p. 73). In this sense it could be perceived that the television portrayals of actions and events could be considered more vivid than real-life experiences. Therefore, by the media broadcasting the footage of 9/11, it made the event more real to the viewer (Glaser, 2003.).

In over reporting its dangers, it encouraged a culture of paranoia, and fear (Freeman & Freeman, 2008). "The more something is repeated, and the more graphic and emotional it is, the greater the impression it makes upon us – and of course repetition and graphic emotions are the

media's stock in trade" (Freeman & Freeman, 2008, p. 51). It is simply television's visual nature that creates an emotional response in its audience. How the audience responds to these images is in the framing of its messages. Framing is the featuring of certain characteristics of a news story to make them obvious; this in turn promotes a specific interpretation of the event (Perse, 2001).

David L Altheide (2002) addressed the issue of media created fear messages in his book, *Creating Fear: News and the construction of crisis.* Altheide argues that the growth of media based fear discourse comes from the increasing power of the media and popular culture as the basis of social understanding and identity (2002). That as Neil Postman (2006) claimed, television is best at entertainment, which privileges the visual over the written word, emotion over information, and drama and excitement over reality. Televised media naturally fits this entertainment format, and uses it as a way to attract audiences and generate revenue. Fear is a staple of entertainment, ergo television media uses fear in its messaging (Altheide, 2002, 2003).

Altheide (2003) also notes that the most significant fear messages are received by local news. This is directly related to the amount of crime stories reported, local news tends to privilege crime reporting as it is easy to report on, and it tends to always be local. "As one vice president of several local stations pointed out, "covering crime is the easiest, fastest, cheapest, most efficient kind of news coverage for TV stations. News directors and station owners love crime" (Altheide, 2003, p. 11).

These reports are so "sensationalized" that they are more "like a movie than a news report", with the anchors acting as hosts, baiting the viewer to "stay tuned in and find out what happens next" (Glaser, 2003, p 43). The more an audience stays tuned to these messages, "the logic of advertising, entertainment, and popular culture becomes taken-for-granted as a "normal form" of communication" (Altheide, 2003, p. 11), and with this, fear has become the way that

audiences view the world, “constructed through evocative entertainment formats that promote visual, emotional, and dramatic experience that can be vicariously lived, shared, and identified with by audience members” (Altheide, 2003, p. 22). Consequently, what shapes the creation of television news is entertainment with an emphasis on dramatic, anxiety-producing events that feature fear, risk, and danger. This will in turn increase the level of fear messaging, as it is inherent to the format, and an easy way to increase audiences and profitability of the station and its advertisers. This combination creates a bias to cover more events that will lend themselves to this criterion, such as crime, or terrorism, or disasters, (Altheide, 2002, 2003).

Television Weather News

Television weather news is one of the most important segments of the local newscast. “According to a composite analysis of viewer attitude data gathered in 1997 by Magid, 92% of news viewers say weather is something they "really want to see covered" in local news” (Bowser, 1997). It is this demand that has made the weather one of the most profitable segments. “The TV weather forecast turned out to be a very saleable commodity. There were always sponsors for it. It always made money” (Miller, 2007, p. 153). This profitability has lead to the strategic placement of the weather within the newscast right after the commercial break that comes after politics and sports, but before entertainment. This allows for the commercial sponsors to reach the largest audience possible. It also allows for the weather segment to shift between being considered a ‘hard news’ or ‘soft news’ story depending on the tone of the segment (Miller, 2007). Bowser (1997) reports that according to market watchers, “there is more weather in newscasts today than there was five years ago”. Which makes sense given the popularity and profitability of the segment.

What makes a successful television weather newscast is the cultivation of an image over the countless days of routine forecasts, and accurate weather maps, as it creates the level of trust that is required for the occasional severe storm (Daniels & Loggins, 2010). Daniels & Loggins (2007) claim, "local news directors suggest that a nightly focus on weather is crucial for branding stations so that viewers know where to look or listen when the weather takes a turn" (pp. 52-53);. that the image of weathercast is just as important as the newscast in developing the audience's opinions of the station Mike Rausch, the executive news director of NBC affiliate KGW(TV) in Portland, believes that it was the covering of major weather events has been 'the single most important tool' in the station's newscast top-rated in the morning and at noon, 5 p.m., 11 p.m. and on weekends, and number one in overall news image (Bowser, 1997).

Televised weather news is no different when it comes to the use of fear messaging. Especially when it comes to reporting on

> "dramatic, anxiety-producing events" like severe storms. Unlike most events, "storms are all about what *might* happen -- a narrative of dread that unfolds over a period of days. It's a perfect setup that lets TV news organizations ratchet up the freak-out factor incrementally, and position their teams where they think the most spectacular and terrifying images might be" (Seitz, 2011, para. 5).

Dupont & Blue (2005) explored the role of fear-inducing messages in the television coverage of Hurricane Ivan. In their study they came to the conclusions that due to the severity of a storm, such as a hurricane, it would be natural for there to be some fear on the part of the audience. However, it should be the objective of the weathercaster to inform the public not panic. But with the underlying purpose of television weather news to be entertaining as a means to increase ratings and profitability, "the goal of providing objective information and inducing fear

may be an easy way to capture and keep an audience" (Dupont & Blue, 2005, Discussion/Conclusions, para. 2). Which is why their results showed that the majority of the fear-inducing messages found within the television coverage came from reporters. Dupont & Blue (2005) hypothesized that this is could be due to the fact that weathercasters are constantly in dangerous situations, by reporting outside during the storms. "It is logical that scenes would appear frightening to viewers when they are provided by reporters who have every reason to be frightened themselves" (Dupont & Blue, 2005, Discussion/Conclusions, para. 3).

The visual of the weathercaster on location is a key part of television weather news. "Local weather news stories depend upon the convention of news reporter standing out in the weather, subject to its onslaught, live on camera" (Sturken, 2001, p. 9). Sturken (2001) argues that it is the way that the reporter is tortured by the elements what creates the "real" weather news for the audience. That although in-studio, reporters can show charts and graphics to explain to the audience what will happen, or is happening. It is in the physical presence of the reporters feeling the storm that sells the message, and allows the viewer to have a meditated experience of the weather via their television.

Weathercasters also use emotionally charged language intended to elicit a reaction out of their audiences. Daniels & Loggins (2007) reviewed the language used in the reporting of probability models of hurricanes. Their findings noted that the use of certain terms such as 'cone of death' or 'cone of terror' when describing the areas of a probability map, "drew the public's attention giving sometimes rise to emotional panic reactions, completely out of proportion"(pp. 52-53).

It is in this regard that severe weather is an event that lends itself best to the television entertainment format. For example, during Hurricane Irene, 2011, East Coast United States,

Chuck Scarborough, the anchor of local New York affiliate WNBC, discussed the importance of evacuating the costal areas of New York City with Connecticut Gov. Dannel P. Malloy. After the interview Governor Malloy, joked, "I thought I was just listening to the Oracle of Doom." To which Scarborough responded "We're in the news business… we deal in doom" (Seitz, 2011, para. 1-2). Seitz (2011), furthers this thought through the use of the television news motto - 'The worse the better.' When dealing with the coverage of extreme weather events "informative, detached, rational coverage is a snooze-fest and a ratings bust" (Seitz, 2011, para. 3). It is through the adoption of the entertainment format that severe weather becomes 'ratings gold.'

Propaganda Model

The entertainment format of television weather news as a means to increase profitability, directly applies to Herman and Chomsky's media propaganda model, which states that the mass media always serve the economic, social, and political interests of the elite (1988). The propaganda model argues that there are five levels of filters that determine what gets printed in newspapers or broadcast by radio and television (Cromwell, 2002).

The first filter is the size, concentrated ownership, owner wealth, and profit orientation of the dominant mass-media firms (Herman & Chomsky, 1988). As most of the local television affiliates of national networks, the requirement to financially perform becomes a major facet is the way that programming is structured (Herman & Chomsky, 1988). It had already been noted that television adopted the entertainment format as a means to aid in the increase of viewership and profitability. The weather is the "No. 1 reason people watch local news" (Afan, 2006, para. 6). This in turn makes the weather a very saleable commodity. "There were always sponsors for it. It always made money" (Miller, 2007, p. 153). Therefore it makes sense that programming that attracts the most viewers would be considered the most favored (Bower, 1997). This has

lead to a trend of increasing emphasis on weather during newscasts, and the key phase of the 2004 convention of the National Association of Broadcasters: " If you win the weather game, local news will win the ratings" (Miller, 2007, p. 147), and in turn win profitability.

The second filter is advertising as the primary income source of the mass media (Herman & Chomsky, 1988). Their proposition regarding the power of advertisers over television programming stems from the fact that advertising is the sole revenue of the medium. Therefore, if a station is to survive, it has to become an advertiser-friendly medium (Cromwell, 2002), whose emphasis is on gaining and sustaining high ratings. "For a television network, an audience gain or loss of one percentage point in the Nielsen ratings translates into a change in advertising revenue of from $80 to $100 million a year, with some variation depending on measures of audience quality" (Herman & Chomsky, 1988, p. 16). Therefore it is within the popularity of the television weather news that increases its profitability, as popularity increases ratings, and ratings are how a television station is able to sell its product to its advertisers. For advertisers, storms offer a unique opportunity created by the fear messaging used by television weather news. The media coverage ahead of storms tend to result in a net profit for home centers, such as the Home Depot, or Lowes, mass merchandise stores such as Wal-Mart, and grocery stores (G2 Weather Intelligence, 2009). Armed with this information, the television station, can request premium-advertising rates to have products featured during weather segment of the news.

The third filter is the reliance of the media on information provided by government, business, and "experts" funded and approved by these primary sources and agents of power (Herman & Chomsky, 1988). Although the authors are more referring to the use of official sources for reporting and fact checking, as they are generally more accessible, and perceived as valid sources of information. It could be argued that in televised weather news there is no need

to seek out official sources, as the weather reporters, themselves, are the necessary experts. In fact television weather news has fostered a culture where to be a forecaster you have to become a weather expert or meteorologist (Bowser, 1997). Over time, weather broadcasters grew from funny, or sexy readers of governments weather reports to broadcasters with meteorological training (Afan, 2006). Even within the culture of meteorology, the required level of education has increased exponentially. “In the last few years, the American Meteorological Society (AMS) upgraded its requirements to a new Certified Broadcast Meteorologist seal, which unlike the traditional AMS seal specifically requires a degree in meteorology” (Daniels & Loggins, 2010, p. 23). Eventually, it will come to the point that every forecast will be provided by an expert, and increase the perceived accuracy and validity of the reports.

The fourth filter is "Flak" as a means of disciplining the media. Flak is described by Herman and Chomsky (1988) as 'negative responses to a media statement or [TV or radio] program. Normally, flak will take the “form of letters, telegrams, phone calls, petitions, law-suits, speeches and Bills before Congress, and other modes of complaint, threat and punitive action” (Cromwell, 2002). However, when it comes to weather reporting flak could result in catastrophe. If a weather reporter does not err on the side of caution during a severe storm, there is a very strong chance that they will receive some sort of flak. During Hurricane Ivan, New Orleans reporters said they believed all along that New Orleans would not have a direct hit from Hurricane Ivan but they did not want to say that on the air. “He said he told a friend off camera to not evacuate, but on camera… you err on the side of caution” (Dupont & Blue, 2005, para. 13). On the other side, if a television weather reporter was to be consistently over cautious, this too could lead to flak. “If you exaggerate, if you sensationalize, it'll come back and bite you. They'll say, ‘He was wrong, and the storm before that he was wrong’ and you'll have the

reputation of ‘That guy doesn't know what he's talking about’” (Dupont & Blue, 2005, para. 14). In an extremely competitive market place, where ratings are built on trust (Moores, 2005, pp. 150-151), flak of this nature could be considered the most detrimental to television weather news.

Lastly, the fifth filter is "Anticommunism" as a national religion and control mechanism. As Herman & Chomsky (1988) wrote this theory during the cold war it could be argued that this filters does not apply today. However, Chomsky has updated the model as ‘fear’, often as ‘the enemy’ (Cromwell, 2002). This filter addresses the way ideologies that oppose the status quo, are portrayed in the media as anti-ideologies, to exploit public fear and hatred as a means to silence what could potentially be a threat to the elite interest (Cromwell, 2002). However, as severe storms do threaten our way of life, it could be argued that the use of fear messages is a way to keep the ‘them against us’ belief. Severe storms as our enemy, explains why a storm ‘attacks’ a city, ‘hits’ and ‘bites’ people, and is ‘violent’ (ABC News, 2011).

The propaganda model directs the television weather news to do whatever is necessary to insure the profitability of the segment. This in turn increases the use of the entertainment format, and fear messaging within its broadcasts.

Severe Weather Phobia

This increase in fear messaging could be a catalyst in the phobia of severe weather. A phobia is the fear or anxiety of specific objects, or situations. By being exposed to these stimuli a person with a phobia will have an immediate response (Westefeld, 1996, p. 509). Westefeld (1996) conducted interviews with eighty-one people with an intense fear of severe thunderstorms and tornadoes in an attempt to diagnosis a form of fear called the severe weather phobia. According to Westefeld, a person who suffers from severe weather phobia has “an intense, debilitating, unreasonable fear of severe weather” (1996, p. 509). A storm is considered severe if

it “produces hail at least three-quarters of an inch in diameter, has winds of 58 miles per hour or higher, or produces a tornado” (National Disaster Education Coalition, 1999, p. 99).

It is estimated that over eight million Americans or approximately three percent of adults have some form of storm phobia; it ranks among the top five or ten fears in most studies, and while storms are not the most common, they are the most strongly feared (Kleinknecht & Smith, 2002). Persons who suffer from severe weather phobia, 1) will become panicked at the first hint of severe weather in the future, normally presenting symptoms 5-7 days before the predicted storm is to occur and increasing symptoms as the storm approaches (Westefeld, 1996, pp. 509-510). As the storm nears, the indications of anxiety, like a rapid heart rate and breathing, sweating, and pacing, increase (Kleinknecht & Smith, 2002, p.15), whereas in most phobias, the anxiety symptoms occur only when the subject is in direct contact with the stressor (Westefeld, 1996, pp. 509-510). 2) Will be symptom free until a storm is predicted, and will return to their normal state once the storm is gone (Kleinknecht & Smith, 2002, p.16). 3) They also have a tendency to suffer from a form of hyper-vigilance, meaning that they are constantly monitoring the weather conditions on the television/radio (Westefeld, 1996, pp. 509-510). Kleinknecht & Smith (2002) recount the experience of “Sandra” a severe-weather phobic.

> Each evening, after quickly cleaning up the dinner dishes, she sat glued to the television, watching the weather reports until bedtime. If forecasters called for a storm, her heart raced, and she labored to take a full breath. Sleep came only with difficulty. During the day, she paced and worried about the disasters that could befall her and her family should the storm hit (Kleinknecht & Smith, 2002, p. 15).

From the limited research to be completed on this phobia, all of the studies commented on the significance of the obsessive monitoring of weather forecasts as a common behavior. One

even went as far as to claim, "with the advent of increased media coverage of severe weather, it may be that monitoring the media increases—or decreases—anxiety" (Westefeld, Less, Ansley, & Sook Yi, 2006, p. 748). However, as this is still a relatively newly addressed issue the increasing or deceasing role of the media has yet to be addressed.

Cultivation Theory

Therefore it could be argued that the symptom of heavy media monitoring, which is considered to be a defining trait of severe weather phobia, may not be a behavior, but a cause. That severe weather phobia may actually be a symptom of the heavy exposure to the fear messaging found in television weather news. It may in fact be a result of cultivation.

In the 1970's and 1980's George Gerbner conducted a series of studies that explored the impact of television in our lives. His hypothesis claimed that with increased exposure to television, the more likely it would subtlety shape, or 'cultivate' our perceptions of the world around us (Shanahan & Morgan, 1999). Therefore, people who are heavy users of television (more than 4 hours a day) are more susceptible to the effects (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002). However, unlike a direct effects media model, Gerbner's cultivation analysis argues that the impact of this exposure is a cumulative process that takes place over long periods of time (Shanahan & Morgan, 1999).

By focusing on violence messages on television, through annual analysis of prime time and weekend daytime network television drama since 1969, Gerbner was able study the impact of theses messages (Gerbner et al., 2002). His findings were that the effect of television violence changed the social perceptions of heavy users of television. These users were more likely to believe that the real world is as violent as the entertainment-based format of television (Perse, 2001, pp. 11-12). Gerber further developed this by coining the term "mean world syndrome".

> Our studies have shown that growing up from infancy with this unprecedented diet of violence has three consequences, which, in combination, I call the "mean world syndrome." What this means is that if you are growing up in a home where there is more than say three hours of television per day, for all practical purposes you live in a meaner world – and act accordingly - than your next-door neighbor who lives in the same world but watches less television. The programming reinforces the worst fears and apprehensions and paranoia of people (Gerbner, 1994, p. 40).

Although, cultivation was initially proposed to describe and predict effects of violent media content, and it is currently being used more to describe how children's socialization is affected by television viewing (Perse, 2001, p. 178). However as heavy usage of television weather reporting is considered a symptom of severe weather phobia, it could be suggested that cultivation theory needs to be studied in other forms of media content.

Hypothesis

It was only after the review of the literature in the areas of media fear messaging, television weather news, severe weather phobia, Herman and Chomsky's media propaganda model, and George Gerbner's cultivation theory that a connecting thread between these varying topics was revealed. Where a person who is a heavy viewer of television weather news, is exposed to a litany of fear messaging. The stations purposefully create these messages as a means to increase ratings and profitability. This in turn causes heavy viewers to over time become more fearful of severe storms and potentially develop a severe weather phobia. A phobia that instead of being created by experience is fostered under the conditions of media influence. – The theory of media induced severe storm anxiety (MISSA).

Therefore, the more heavy users are exposed to television weather news, the more likely that they will suffer from media induced severe storm anxiety (MISSA), due to the fear messages that are purposefully created with the intentions of keeping audiences captive as a method of increasing ratings and generating revenue for the broadcast station and its advertisers.

Research Questions

This untested hypothesis has lead to the following research questions.

RQ1: Does local weather newscasts contain the fear-driven messages required to cause MISSA? It is important to establish if fear messaging is in fact being used within television weather news. Although most of the literature on fear messaging in storm reporting does come to the conclusion that fear messaging is present, to test this hypotheses it must be established within the research conduced.

RQ2: Does the audience perceive these messages as intended by the local station? If fear messaging is established within the study, it then falls to the research to find out how the viewer perceives these messages. Does the audience consider them to cause anxiety or worrisome thoughts, or are they perceived as exciting and engaging. The importance in this question is that it will be able to establish if there are the right conditions created for the possibility of establishing MISSA.

RQ3: Can cultivation theory be addressed within MISSA? As MISSA is considered to be a symptom of cultivation theory, it is required to conduct research to see how MISSA develops over time, if it develops at all. Does the anxiety increase with repeating exposure to fear messaging?

It will only be through the exploration of the messages presented in television weather news over a period of time that will offer some evidence to the existence of MISSA.

Methodology

As the hypothesis is a combination of media messaging, media effects, propaganda modeling, and cultivation theory, it will require the researcher to conduct a methodology that requires a four-step approach that will combine, a content analysis, in-depth interviews, quantitative surveys, and focus group sessions. It is only through the convergence of these methods that will provide enough evidence to suggest the possibility that MISSA exists.

Already established as an effective method for analyzing fear messages this study will conduct a content analysis (Dupont and Blue, 2005) & (Ungar, 1999)of local television weather newscasts starting one week prior to a potential storm and ending the day of the storm's potential arrival. Where the research will investigate the use of anxiety inducing language and/or images that are used during the reports. As this hypothesis has yet to be tested, the content analysis will only select the storm messages aired by the television stations in one geographic location, within the period of one year as a population.

The research will then conduct in-depth interviews with meteorologists, journalists, and station managers of the local stations used in the content analysis. This will hopefully gain insights into the creation and use of fear messages with television storm news, and if propaganda modeling could be at play in the development of these messages. These interviews should be conducted at least 2 weeks after a severe storm, as the messages will still be fresh in the interviewees mind, yet the event will not be so relevant that the interviewee might be hesitant in responding to questions regarding the event. Dupont & Blue (2005) used this technique when researching the fear messages used during Hurricane Ivan.

The next part of the study involves the effects of these fear messages on the people who are located in the storm area. As a method of selecting participants that would be best suited for

further study a one page qualifying questionnaire, will be sent out asking questions regarding the frequency of the various news sources relied on during the storm (Piotrowski, & Armstrong, 1998), and the frequency of various anxiety indicators (Westefeld, Less, Ansley, & Sook Y, 2006).

The results from this survey will provide the required information to select the appropriate candidates to participate in focus groups. The Focus group participants will ideally be heavy users of local television, who indicate a high frequency of anxiety indicators. Also a group of heavy users of local television, who indicate a low frequency of anxiety indicators, will be used as a control within this portion of the study.

It will only be once these four key areas are analyzed that the potential for MISSA can be acknowledged, and further research into this phenomenon can be done.

Limitations

To be able to answer these research questions, and test the proposed hypothesis, requires the researcher to address some limitations that will define the research design, and set the parameters to what is tested.

1. Television: As this research has specifically reviewed the literature surrounding the impact of television messaging. It is warranted to focus solely on the potential for MISSA within televised weather news messages.
2. Local weather newscasts: As televised weather news can take the form of several different formats, such as network newscasts, or specialized weather channels. The purpose of this study was to specifically look at the impact of televised weather news messaging within local newscasts.

3. Storm Coverage: the research study's sample must only draw from local television weather news broadcasts that aired within one week of an expected storm, to the day of the storms arrival. As this study is attempting to discover the use of fear messaging within severe storms, reviewing daily normal weather broadcasts will not provide valid results.
4. People who do not have an identified phobia: As this is a study that is addressing the impact of storm related fear messaging on heaving users, it would not be beneficial to interview persons who have already been diagnosed with an identified phobia. This is due to the fact persons with a recognized anxiety disorder may skew the data in favor for the identification of MISSA.
5. Two study process: To fully explore the MISSA hypothesis, will require conducting two studies. One that will establish MISSA, and one that will establish MISSA within cultivation theory. The interesting thing regarding the two-study process is that although MISSA may not be recognized within the first study, but will be clearly evident once cultivation theory is addressed.

Conclusion

While it cannot be conclusively proven without further study that MISSA exists as a media effect, pervious research in the areas of media induced fear messaging, and television weather news reporting on severe storms, does show a strong connection to the possibility that it does indeed exist. By strengthening the MISSA argument, through propaganda modeling and cultivation theory, MISSA takes on a new life and is very identifiable even without proof. However, once the research into severe storm phobia is introduced there is no doubt that MISSA does in fact exist and is thriving within the fear messages of the television weather news.

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