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Evolutionary and Social Manifestations of Mised Fear: How Fear Motivates and Manipulates

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DePauw University Honor Scholar Program

Class of 2019

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Abstract

This thesis emphasizes the negative outcomes associated with misled fear. It begins by examining the evolutionary basis of human and animal fear, and then applies the fear learning process as well as evolutionarily innate fears to maladaptive cognitive and behavioral outcomes that manifest today. One example of such a maladaptive manifestation is a behavior based in racial prejudice, occurring from an act based in the evolutionary fear of an out-group. Finally, this paper presents how human fear is further misled and manipulated by the media—intentionally and unintentionally. Overall, the present argument is that humans must increase their conscious awareness of how fear processing systems function in order to resist problematic behavioral outcomes of misled fear. Particularly for media consumers, this knowledge combined with critical media literacy education will be useful in combating fear tactics utilized by the media.

Keywords: Fear, evolutionary psychology, adaptive unconscious, intuition, media

Acknowledgements

I would like to express my immense gratitude to my committee, Dr. Pamela Propsom, Dr. Kevin Moore, and Dr. Jeff McCall for working with me throughout the 2018-19 academic year. The Honor Scholar research and writing experience has been extremely valuable and I appreciate all the time and effort you each contributed to the completion of this project. Special thanks to my sponsor, Professor Propsom, for the considerable amount of direction you provided for me, as I continued through the thesis process.

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Introduction

Hiking Papago Mountain in Scottsdale, Arizona I notice a slithering sound I automatically assume to be a snake. I immediately freeze and turn to see the tail end sliding beneath the prickly bush to my left. I turn back toward the trail and begin a quick jog down the path until I realize the snake is nowhere around me and I am safe.

Walking through the metro station alone after a long day of work, I am alert to everything around me. I am constantly looking over my shoulder to see if anyone is following. Every time I glance back, the space is filled with others walking along their way, hardly even recognizing my presence. Nonetheless, I continue to check. My body is tense. My mind is racing with thoughts of the worst possible scenarios as I practically jog through the halls to the exit. As I reach the door to my apartment I immediately breathe a sigh of relief and accept that I am safe.

Both examples are individual experiences of fear. Fear is adaptive and maladaptive. Fear motivates humans to act in ways that benefit them and their survival, but it also contributes to behaviors that are not beneficial to an individual's and society's functioning. It is an emotion unpleasant to experience and sometimes a catalyst for unwarranted behavior, but still necessary to the functioning of human and other animals. This description is contradictory. Fear is both beneficial and harmful. Necessary and unnecessary. Determining which depends on the circumstances provoking the fear, the situational factors in the current environment, and the individual experiencing the emotion.

Issaac Marks (1987) describes fear as an emotion that has obvious survival value, produced in situations where individuals perceive present or impending danger. He calls it a normal response to realistic danger—an adaptation critical to survival. A component of Marks'

definition that is necessary to consider is that fear, in general, is the perception of danger. Therefore, the emotion of fear can be evoked without threatening stimuli physically being present; humans only need to perceive a threat. This discrepancy between the actual experience of a threat and the perception of it is the major concern of this paper. While the emotion of fear is functional, the process to experience fear is highly subject to error and misperception, and therefore, manipulation.

Throughout this paper, I will grapple with this issue surrounding the human experience of fear. While fear may be critical to survival, it is also a contributor to many problematic and unnecessary behavioral and emotional reactions in today's society. I will discuss not only how the experience fear is potentially misleading, but how the misperception of danger and unwarranted fear causes many problems for human behavior and their culture.

This paper will answer the question of why humans fear and what survival advantage experiencing fear has for humans and other animals. In addition, it will address the question of how humans fear, as well as what neurological and physiological processes contribute to the experience of fear. I will touch on important ways in which fear is still necessary and often valuable—particularly in the form of intuition. Then, I will discuss how misled fear manifests in society today in the form of anxiety and fear of the out-group. Finally, to illustrate the manipulation of human fear, I will focus on the use of the media and how this communication form poses problems for human perceptions of the world around us, and thus perceptions of dangerous stimuli. In conclusion, my goal for this thesis is to, first: provide an understanding of how (and when) human fear is internally misled or externally manipulated and second, propose a

strategy by which individuals can attempt to oppose the influence these fears have on behavior, particularly those behaviors perpetuated by mass media.

Evolutionary Function of Fear

Overall, the experience of fear serves a specific survival function for human beings and other animals. Arne Ohman (2012) describes the evolutionary purpose of fear as a defense response. He says it motivates action that ultimately enhances survival possibilities in dangerous situations. For example, freezing is an adaptive response to fear. It allows living beings to attend more closely to environmental stimuli and/or prevent the potential danger from noticing one's presence. Flight, another common response, serves the purpose of avoiding the area of the danger altogether. In other situations, aggression or fighting is a defense mechanism used either to eliminate the imminent danger or to reintroduce the possibility of flight (Ohman, 2012). These basic defense strategies are often used in animals, but by humans as well, to respond to fearful stimuli. These three reactions are common, but not the only ways fear manifests in animal and human behavior.

Before examining reactions to fear, it is necessary to discuss what exactly humans and other animals fear and how these fears came into existence. Fear presents itself in humans and other animals in several ways. First, organisms possess specific innate or predispositions toward fear. In his chapter on fear, Melvin Konner (2002) details a study conducted using bird chicks. When the shadow with a silhouette shaped like a hawk (a natural predator of the chicks) flew over the animals, the chicks reliably retreated into a fearful crouch. But, in response to other shaped shadows, no similar responses occurred. This effect occurred in the bird chicks with little to no experiential learning opportunities. Therefore, Konner (2002) argues these chicks had no

predisposition to fear other birds passing above them, only the hawk or hawk-like creatures—an animal that has evolutionarily posed a threat to this species of bird.

Similar predispositions to fear evolutionary threats exist in humans as well. One such innate fear of humans is to spiders and snakes. Hoehl, Hellmer, Johansson, and Gredeback (2017) conducted a study that supported the existence of a human predisposition to fear these animals. To do this, they used the reactions of pupil dilations in 6-month-olds to determine the state of arousal after experiencing images of spiders and snakes compared to non-threatening images. In a first part of this study, participants viewed images of spiders and flowers, or snakes and fish. The spider-flower condition produced physiological arousal through pupil dilation when participants viewed a spider but not when they viewed a flower. In the snake-fish condition, there was little to no difference in the physiological arousal measure between the two images.

In a second part of this study, participants viewed only snakes or only fish. The results displayed a significant increase in dilation for snake condition but not the fish condition. Across these two studies, the researchers concluded that pupillary dilation was greater in response to snakes and spiders than it was in response to fish and flowers. Infants at 6-months were able to recognize ancestral threats and fear responses occurred accordingly. In conclusion, Hoehl et al. (2017) provide evidence for the existence of a predisposition to fear historically threatening animals such as spiders and snakes.

Another example of a seemingly innate or predisposed fear of humans is the fear of holes or tessellated patterns. In its extreme condition, this fear is known as tryphobia. Cole and Wilkins (2013) conducted a study that involved exposing participants to visual images that tend

to induce unpleasant sensations in those with trypophobia. The images consisted of a variety of styles, but all including clusters of holes. Such images associated with skin lesions were avoided. Cole and Wilkins (2013) found that these images elicited fear responses to those with the phobia, but a general discomfort in most participants. In a secondary analysis, Cole and Wilkins (2013) found that such tessellated patterns (or clusters of holes) are found on a multitude of animals that are highly poisonous and thus, dangerous to humans. Fear of holes may be an adaptation to avoid these animals.

Human and other animal predispositions to fear allow individuals to be aware of and thus avoid dangerous stimuli without having to experience a threat from them first-hand. This awareness and fear of potential dangers decreases the chances that organisms will be harmed by the subjects of these fears. Fear-induced aversions to snakes, spiders, and other poisonous animals that can be identified through tessellated skin patterns potentially serves a protective function for humans. Additionally, the predisposition to fear certain stimuli reduces the amount of fear learning that needs to occur in each new generation and thus increases the likelihood of survival. In other words, the fact that humans tend to fear clusters of holes, for example, promotes the avoidance of such dangers without having to be harmed or see another individual incur harm.

Thus, innate fears of humans and other animals have direct benefits. In addition, certain biases possessed especially by humans can be beneficial as well. One such bias is an attentional bias toward danger. A study conducted by LoBue and DeLoache (2008) describes the human tendency toward recognizing fear-invoking stimuli faster than non-threatening stimuli. Humans can attend to and perceive threatening or fear-relevant stimuli quicker and more efficiently than

when searching for or perceiving non-threatening stimuli. This ability also provides a survival advantage. The quicker humans recognize the poisonous insect in the room, the quicker they can react to it, and the greater the chances of survival. In sum, humans and other animals benefit immensely from evolutionary adaptations surrounding the emotion of fear. Evolution has enhanced living beings' ability to recognize and react to fear, thus increasing the ability to survive.

The experience of fear is vital to sustaining the well-being of humans. Initially, fear introduces a state of arousal in the presence of a potential danger. This emotionally induced state of alertness contributes to the internal decision-making process regarding how to best respond to the potential threat to increase the likelihood of survival. As Diebec and LeDoux (2004) explain, fear is the feeling that results when the defense system is active in a brain that has the capacity for self-awareness. They call fear the “danger-detection system.” With this system, humans have the ability to engage in introspection regarding the emotions experienced and act accordingly. Humans can disregard or accept the emotional experience of fear. Thus, humans can decide when and how to react they react to fear. This concept is the foundation for later arguments in this paper.

The emotion of fear arises in several different ways in humans and other animals. Animals commonly exhibit innate fears to evolutionarily primed predators and humans to animals or situations that have evolutionarily threatened well-being. But, since fear is adaptive and contributes to the ability to survive, living beings must also be able to experience fear towards things/events they are not predisposed to fear. For that reason, learned fears are another way humans and other species are able to experience and react to dangerous stimuli.

When viewing a threatening stimulus, anticipating a dangerous situation, or remembering an aversive event, blood pressure increases, muscles tense, and the release of stress hormones occurs. This is the physiological experience of fear according to Debiec and LeDoux (2004). The emotional experience is subjective, but the physiological responses are similar in all humans and many vertebrates (Konner, 2002). Humans perceive these bodily changes. Whether it is sweaty palms or elevated heart rate, humans recognize the presence of the emotion sometimes based on their body's response to an event or stimulus (Ohman, 2012). It is then through fear conditioning, a form of classical conditioning, that humans learn to associate these events or stimuli with the emotion of fear, and come to view them as potential threats.

Robert Sapolsky (2017) describes the classical conditioning process in rats. Expose the rats to an electric shock (a fear-related stimulus) and a tone simultaneously. Eventually, the sound of the tone alone will provoke a fear reaction from the rats because they learn to expect the electric shock to follow. This is a common example of how fear is artificially produced in animals. Genuine fear conditioning occurs when humans and other animals learn to associate dangerous stimuli with these fear reactions. The primary concern of this paper will be classically conditioned fear responses—the response that occurs when no threat is truly present.

In rats and other animals, including humans, fear can be manufactured (or conditioned) by pairing a neutral event with an aversive event. Eventually that animal learns to associate the neutral event with the aversive one, creating a reliable fear response to the neutral event. This neutral stimulus (like the tone in the rat example) alone would cause no harm to the human or animal (Debiec & LeDoux, 2004). In other words, humans and other animals can learn to express responses to signals of danger when no danger yet exists; they react to indicators that danger or a

threat is soon to occur or appear. According to Debiec and LeDoux (2004), the classical fear conditioning process occurs quickly, often after only one pairing of the two stimuli. Additionally, this conditioning is difficult to extinguish and the memory of the stimuli often remains long-term. One way to weaken or extinguish the fear conditioning response is to create situations in which the neutral stimulus alone is not followed by the aversive stimulus, thus showing that no threat actually follows the neutral stimulus. This process, if repeated, works to slowly diminish the fear association, but it is never completely unlearned. This is evident by the fact that if conditioning has previously occurred and then extinguished, the same association is even easier to re-condition at a later time. Overall, fear learning is easily induced and difficult to remove. It is to human and other animal's evolutionary benefit if the things that are dangerous are easily learned and remembered throughout its lifetime (Debiec & LeDoux, 2004).

Ohman (2012) reiterates the genuine fear conditioning process in humans, specifically. Humans associate two stimuli, one that is neutral, such as the sound of a predator, and one that is dangerous, such as the predator itself, to produce an action that ultimately should result in protecting the individual from harm. This example of fear conditioning is a productive adaptation that increases the likelihood of survival for humans and other animals. It is beneficial to associate the sound of a predator with danger. In most cases, it is not beneficial to associate an auditory tone with danger, such as in the rat example.

For this reason, it is important to note that the difficulty of the fear learning process changes depending on the stimulus one is learning to fear. Martin Seligman (2016) discusses a survival adaptation involving fear that he calls evolved preparedness. He defines preparedness as how much input must occur before an expected output reliably occurs. In other words, a more

easily obtained output exhibits more preparedness. This relates to fear conditioning in the sense that humans and animals are highly prepared to fear particular stimuli and also to learn to fear certain stimuli more easily than others. Sapolsky (2017) gives the example of snakes versus flowers from a study conducted by Cook and Mineka (1990). In this study, laboratory monkeys that had no previous exposure to either stimulus, learning to fear snakes was easier than learning to fear artificial flowers (Cook & Mineka, 1990). This study is further evidence of the existence of predisposed fears, but also the existence of an evolved preparedness in learning what to fear.

In addition to predisposed fears and this evolved preparedness to fear particular stimuli, humans and other animals have the ability to view the dangerous encounters of others and learn to fear particular stimuli observationally (Ohman, 2012). This allows living beings the evolutionary benefit of not having to experience many dangers first hand. Humans and other animals can learn what stimuli/situations to avoid based on the knowledge of experiences of others. In summation, the three ways in which humans experience fears are as predisposed fears, through classical fear conditioning or direct fear learning, and through observational fear learning.

In animals and human, each of the three types of fear conditioning have undergone long evolutionary processes that produce fixed action patterns in the face of particular stimuli (Konner, 2002). Konner will admit though, “fixed” implies a permanence to the evolutionary fear-stimuli associations, but this is not the case. Fear learning in humans and other animals is easy to accomplish and difficult to extinguish, but extinguishing learned fears is entirely possible. This capability is essential to recognize, especially when fear conditioning occurs toward non-threatening stimuli, or when evolutionary-based fears are no longer serving an

adaptive function in an individual's current living environment. Before addressing this further, it is necessary to identify the brain systems that produce fear and its reactions in order to better understand the emotion of fear at its basic, functional level.

Fear in the Brain

The brain mechanism central to the experience of fear is the amygdala. The amygdala processes sensory information in two ways—the low route and the high route (Ohman, 2012). The low route is the quicker, more crude method of processing information. The information from a stimulus is sent directly from the thalamus through the amygdala, which has rudimentary visual processing capabilities. The amygdala then sends the information to brain systems that induce emotional or behavioral output. Potential responses include defense reflexes, activation of the autonomic nervous system, and the release of stress hormones, among other things (Ohman, 2012). In contrast, the high route is the slower, more detailed processing method. It involves the brain systems used by the low route as well as the prefrontal cortex and primary sensory cortices to more fully process information. These brain mechanisms evaluate the information before sending it through the amygdala which then transmits it to the systems that induce emotional or behavioral output (Ohman, 2012).

Similar to Ohman (2012), Kahneman (2011) labels the automatic, involuntary processing method System 1, while the effortful system that makes sense of System 1 information, System 2. Kahneman calls System 1 impulsive and impressionable, whereas System 2 is deliberate and action-oriented. While called by different names, these two processing systems, both provide an evolutionary advantage for humans in experiencing and responding to fear-inducing stimuli. They allow for quick and usually accurate evaluations of stimuli and assist in promoting a

necessary behavioral response. This processing of external environments is necessary for humans and other animals to avoid and react in unsafe situations. Particularly through unconscious processing, individuals can quickly react to dangerous stimuli for the purposes of protection. Without this mechanism, the physical well-being of living beings would be at much greater risk. These two processing systems interact to operate in a fast, but accurate way—at least much of the time.

Guiding these two information processing systems are two fundamental emotion systems known as the behavioral inhibition system and the behavioral activation system. Jeffery Gray (1991) defines behavioral inhibition system outputs as consisting of inhibition of ongoing behavior, increased level of arousal, and increased attention to environmental stimuli. This is the system necessary to our experiences of and reactions to fear. Through the behavioral inhibition system, fear occurs when a stimulus causes increased arousal or environmental attention signaling a threat. Then, the behavioral activation system produces behaviors that focus on relieving unpleasant emotions, such as fear, which often includes inducing an action that addresses the source of the fear (Gray, 1991). The behavioral inhibition system utilizes the hippocampus to incline a person to cease prior activities, increase attention towards potentially dangerous environmental stimuli, and prepare for further action that will be initiated by the amygdala (Konner, 2012). It is then the amygdala that induces automatic fear responses through the high or low route depending on the urgency of the situation and whether or not the high route/System 2 intervenes.

The hippocampus and the amygdala function alongside the behavioral inhibition and activation systems to produce the emotion of fear and its responses. Debiec & LeDoux (2004)

provides an explanation that says the amygdala produces the emotion itself and contributes to the action that results. Meanwhile, the hippocampus assists in learning the association between the stimuli and induced emotion (Konner, 2002). Essentially, the hippocampus provides the context, while the amygdala produces the fear. For example, a rat that has learned to associate a neutral tone with an electric shock will fear the electric shock due to the amygdala, but will associate the tone with the electric shock due to the hippocampus. The central gray region of the midbrain controls the actions associated with fear as prompted by the amygdala. From this region, the hypothalamus can prevent the midbrain from immediately acting on experiences of fear (i.e. high route intervention); however, the amygdala sometimes bypasses these intervention efforts to induce immediate action when fear reactions are deemed necessary (i.e. low route processing) (Konner, 2002).

To further highlight the role of the amygdala and the hippocampus in producing fear, one study looked at individuals with amygdala and/or hippocampal damage and the effects these had on fear and fear responses. Bechara, Tranel, Damasio, Adolphs, Rockland, and Damasio (1995) found that those with damage to the amygdala could not successfully undergo fear conditioning or develop a fear conditioned response. Thus, fear could not be experienced as a learned response. Participants with amygdala damage could understand that they should fear a particular stimulus because of its constant occurrence with an aversive event, but they still could not elicit an automatic fear response to the neutral stimulus alone. In those with only hippocampal damage, conditioning occurred and fear responses resulted from a new stimulus when presented in succession. However, the participants could not understand the association between the pairing of the neutral and aversive stimuli. In other words, the fear conditioning was successful

and fear responses occurred, but the participants were unable to learn the new “cause” associated with the fear they were experiencing (Bechara et al., 1995). This study identifies the necessity of both the hippocampus and the amygdala in learning to fear and acting on the experience of it.

Fear is rooted in the evolutionary nature of human beings. Humans and other animals are predisposed to fear ancestral dangers, prepared to learn to fear particular threats more easily than others, and are capable of observationally associating fear with stimuli that have posed dangers to other living beings. Fear is functional. It predicts dangers and allows living things to act before a survival threat occurs. With the emotion of fear comes the possibility of avoiding threats, and thus surviving them (Ohman, 2012). This section has outlined not only why fear is adaptive and necessary for human and other animal survival, but how they learn, process, and react to the emotion. The next section will use this knowledge of how fear operates and apply it solely to human behavior in society today. It will discuss how fear is still adaptive in addressing present dangers, but also how the human processing of fear can produce maladaptive outcomes as well.

Integration of Social Psychology and Evolutionary Fear

Fear as Adaptive

Gavin DeBecker (1997) addresses the human evolutionarily adaptive emotion of fear in his book, *The Gift of Fear*. He argues that fear is central to human safety even today. DeBecker associates evolutionarily predisposed/learned fears with human intuition and reiterates its life-saving capacity. Intuition is the innate ability to sense imminent or impending danger. *The Gift of Fear* identifies the emotion of fear as a major contributor to the intuitive senses of humans and suggests it serves the ultimate purpose of promoting survival by sending signals that force humans to react without requiring logical, conscious thought. DeBecker states that even though

humans experience fear and have these intuitive abilities, humans often ignore or deny them. While fear theoretically should motivate individuals to act in a way that is beneficial for survival, humans for some reason, often discount and question their intuition. DeBecker's central argument focuses on the harm questioning or ignoring intuition poses for humans. He details many consequences of ignoring intuition and provides case studies and hypothetical examples for how this does/could impact an individual's safety and ultimately their survival (DeBecker, 1997).

One example provided by DeBecker was of a woman he calls Nancy. Nancy sat in the passenger seat of a vehicle while her friend made a quick trip to the ATM. Seemingly out of nowhere, Nancy was overcome with fear and distress as she scrambled to exit the car. This emotional fear response was accurate, but her behavioral response was not quick enough as a man entered the driver's side of the car, kidnapping Nancy. The emotion of fear prompted her further to survive the encounter with this dangerous man. In her heightened emotional state, she ultimately engaged the man in conversation in order to distract him. DeBecker details her recurring thought as being, this man could not kill someone he respects and knows well. With this in mind, she conversed with him as if they were good acquaintances until he ultimately released her. Nancy's original fear seemed to come from nothing. DeBecker argued that this was not the case. Rather, on reflection, Nancy remembered seeing a blue flash in the passenger mirror. It was the man's blue jeans. What she inherently knew (without actually knowing) was that this man was too close to her car and moving too quickly to be an innocent pedestrian (DeBecker, 1997, p.76). Nancy's fear in this case motivated logical actions that ultimately saved her life.

Fear, as a contributor to human intuition, conveys information about possible imminent risk before full comprehension of the situation occurs. DeBecker (1997) calls this ability knowing without knowing why. He argues that humans do not have to know why the emotion of fear arises to act in a way that benefits them. Humans only need to recognize the fear in order to act in life-saving ways. He insists that questioning the emotional experiences of fear, then doubting or denying that the source of it was valid, is detrimental to survival. Evolutionarily, fear exists to motivate action and provide a survival advantage for humans, often outside of conscious awareness. When humans consistently override those adaptive processes with conscious thought and questioning, they put themselves at greater risk in many situations. Overall, DeBecker argues that intuition signals are always in response to something and that it is to an individual's detriment to ignore that something or try to explain it away (DeBecker, 1997). After all, it is better to have addressed intuitive senses of discomfort or fear and no threat be present, than to have ignored those emotions and have a dangerous situation occur.

This concept that it is better to over-perceive threats than under-perceive them is generally known as error management theory in evolutionary psychology (Park, 2012). This theory states that humans have evolved predispositions to over-detect potentially harmful stimuli, as this is more beneficial to one's survival than to under-detect and have a greater chance of not recognizing a stimulus that is life-threatening. In discussion of this theory, Justin Park (2012) argues that it is costlier to miss a potential threat than it is to perceive a threat as present when it actually is not. Essentially, this theory identifies a human bias toward erroneous conclusion of false alarms. Humans are evolutionarily adapted to perceive threats when none are present so that

they do not miss threats when they are. The implications of this bias will be relevant, again, later in this paper.

Gavin DeBecker (1997) provides important insight into how human evolutionarily adaptive fear mechanisms manifest and are productive in modern settings. Similar to DeBecker's idea of fear as a contributor to human intuition is Timothy Wilson's idea of the adaptive unconscious. In his book *Strangers to Ourselves*, Wilson (2002) describes the interaction between the human conscious and unconscious. Wilson defines the unconscious as the automatic processing of information about human beings, themselves, and their experiences. Then, from prior knowledge, the unconscious identifies information and sorts it into categories in order to make better sense of it—an evolutionary process designed to be advantageous. The ability to gather large amounts of stimuli, makes sense of this information, and respond to particular portions that require immediate action without the effort of conscious, cognitive processing has proven beneficial for living beings. Wilson calls this processing ability the adaptive unconscious. This is the main processing method of human fear. Individuals recognize a specific threat when evaluating their environments and the emotion of fear unconsciously results. DeBecker (1997) argues that, because it is adaptive, intuition at least deserves the immediate attention of humans. Wilson (2002), however, argues that although this process is adaptive, it is prone to error and usually requires intervention from the human conscious.

Responses that occur as a result of the adaptive unconscious, are often quick and uncontrollable—such as fear responses. Again, these effortless responses are often necessary for functioning, and occasionally for survival. Human consciousness, an alternative processing mechanism used by some living beings, operates within an individual's awareness and is the

fact-checker for unconscious processing (Wilson, 2002). The conscious is a slower, but more detailed analysis of information. Conscious processing is controllable and intentional. This conscious processing is what DeBecker (1997) refers to when discussing how humans intervene to question/doubt their intuition.

Conscious versus unconscious processing, as described by Wilson, are similar to the low and high routes for processing fear, or Kahneman's System 1 and System 2 processing. Kahneman (2011) argues, similar to Wilson, that System 1 is constantly running while System 2 sits back engaging little effort until its services are needed. Kahneman points out that System 2 generally adopts the evaluation of System 1, unless System 1 processing cannot achieve a sufficient conclusion (Kahneman, 2011).

So, the adaptive unconscious (i.e. System 1) and conscious processing (i.e. System 2) both interact and contribute to the experience of fear and human reactions to it. Wilson (2002) states that the adaptive unconscious operates intelligently outside awareness, but humans have ultimate control over what information this system uses to make judgments. Therefore, humans have control over the behavior those judgments create. Wilson advocates for the intervention of the conscious into the adaptive unconscious. He bases this argument on the fact that the speed of the adaptive unconscious subjects it to inaccuracy. In other words, while this process is adaptive and often provides valuable insights and advantages for humans, there exists a conflict between speed and accuracy in evaluating large amounts of information.

But, DeBecker (1997) seems to argue that the human adaptive unconscious, or intuition, does not function as strongly as the conscious check system, or the human denial process, as he calls it. DeBecker argues that unless humans can explain intuition logically, they tend to

disregard it. In other words, it is a disadvantage that human consciousness often overpowers unconscious processing when experiencing fear.

This paper accepts both these stances to an extent. Yes, it is valuable to recognize human intuitive abilities and attend to those. And yes, it is sometimes valuable to act immediately in response to a fearful stimulus. But, many times it is not. Consciousness is often needed to evaluate the source of fear and ensure that its truly threatening. In addition, conscious processing is necessary to control the human bias detailed by error management theory (Park, 2012). This paper recognizes the value of both DeBecker and Wilson's arguments, but tends to view the adaptive unconscious as Jonathon Haidt (2006) does using his elephant and rider analogy. Haidt's idea is that the elephant is the human adaptive unconscious and the rider is human consciousness. While the rider is seemingly in control of the elephant, any disagreement between the wishes of the two would result in an elephant victory. The elephant has the size to overpower the rider and their wishes. Similarly, I would argue, as Haidt does, that human consciousness, while usually in control, can be overpowered by the adaptive unconscious or System 1 processing.

When the human conscious and unconscious conflict, the results can be adaptive or maladaptive. Using the elephant and rider metaphor, if the rider is casually riding along and the elephant decides to change direction because it perceives a blockage in the current path ahead, that is an adaptive response that probably benefits the rider. However, if the elephant perceives a blockage in the path ahead and will not continue the journey at all, this is not beneficial for the rider and their wishes have conflicted to produce an undesirable outcome.

Historically, human adaptive unconscious and consciousness have interacted in a way that is useful. Now, however, in novel environments, human biases toward the over-perceptions of threats (Park, 2012) and other facets of the adaptive unconscious that were once entirely adaptive, are now posing problems for humans in the form of misled fear (Wilson, 2002). While conscious processing is also subject to inaccuracy, the error of the adaptive unconscious will be the focus of this paper, as fear responses that occur outside of conscious awareness are arguably the most dangerous and difficult to recognize and avoid. While the adaptive unconscious is an evolutionary adaptation, when currently processing stimuli that evoke fear, it can have extremely problematic cognitive and behavioral outcomes in society today.

Fear as Maladaptive

Fearing something is evidence that a threat is not happening yet. This is one feature of intuition or the adaptive unconscious. Humans use consciousness to evaluate whether their initial intuition was correct and danger is present, or that intuition was misled and no danger exists. But, within this process, false conclusions can occur. First, humans can decide that intuition was correct, when there actually is no danger present, and act in accordance with the fear experienced. Additionally, humans can decide that intuition was wrong and not act, even though danger does actually exist.

Gavin DeBecker (1997) addresses both possibilities. He warns against falling prey to the latter. Park's (2012) error management theory supports this belief. DeBecker argues it is better to react to fear in a way that promotes survival when unnecessary, than to override feelings of fear and a danger actually be present. While the intuition process is effective and often accurate, the conscious denial process can counteract it. This can sometimes pose a serious threat to human

survival if consistently ignoring or trying to explain away experiences of fear—an emotion adapted to promote safety. My argument, however, is that reacting to fear on intuition alone is often even costlier.

Human bias toward a greater amount of “false alarms” does exist for an evolutionary reason, but so does human consciousness. Fear and its automatic responses can be maladaptive for the individuals themselves and those around them. While accepting that fear is adaptive and can produce adaptive outcomes, I am arguing that, as fear responses manifest today, they are commonly maladaptive. Even DeBecker (1997), a proponent of fear as a gift that enhances human survival, warns against the dangers of acting upon the experience of fear when no danger exists (i.e. reacting to misled fear).

DeBecker (1997) argues that unwarranted fear controls humans more than it does any other creature or more than any other emotion in existence. He comments on the existence of unwarranted fear in society and how this type of fear detracts from human adaptive abilities. DeBecker concludes that what humans fear is rarely what they think they fear—it is what they link to the experience of fear. In saying this, he does not conclude that humans are unable to identify the true source/cause of experiences of fear, rather that there is a tendency to falsely interpret other emotional experiences as fear and react accordingly. Thus, mis-linked (or mis-identified) fear has the capacity to invoke adverse emotional and behavioral responses.

Fear, DeBecker (1997) states, is the greatest indicator of urgency. If experiencing fear, the emotion should be attended to. But, other emotional experiences exist that are less urgent and thus, less immediately necessary to attend to for survival purposes. For example, apprehension, worry, suspicion, and doubt should not evoke the same amount of attention or immediacy of

reaction as fear, yet sometimes they do. DeBecker reports that reactions/feelings of panic and worry often result from mis-identified or misled fear. He calls panic the enemy of survival. When panic or worry occur, it is not functional or productive. Both interrupt clear thinking and detract from objective experiences of fear, and thus the human ability to react to them. It is possible that these are the result of mistaken experiences of fear. I maintain the stance, that this “mistaken fear” can occur in one of two ways. First, when a situation or experience is currently not threatening enough to provoke fear it instead evokes a similar emotion that does not necessitate an immediate response, but still produces an aroused state similar to fear (e.g. anxiety). Second, when human intuition is interpreted incorrectly, or when humans think they have identified the source of their fearful state when in reality their conclusion (many times, an unconscious conclusion) is wrong.

The idea of productive versus non-productive fear is essential to this argument. The evolutionary basis for fear promotes its productivity when encountering evolutionary based threats. For example, the low route/System 1 perceives a cliff edge, so the human reaction is to move several steps in the opposite direction. After high route/System 2 processing, that person concludes that it is not a cliff face, rather a small ditch that can be crossed safely. This misperception has minor consequences. In this and in similar evolutionary based examples, a false alarm is not that costly. But, it is in novel environments in which fear and fear reactions become not only non-productive, but maladaptive.

I am defining non-productive fears as those in which fear is mistaken or misled (i.e. when an aroused state occurs similar to fear, but no immediate action is required to increase safety). This aroused state, arguably, mistaken to be fear, produces an emotion that is often times unable

to be logically explained using conscious processing or System 2/high route. In other words, human recognize an emotion that is similar to fear (anxiety, worry, etc.) but either cannot identify its true source or do not know how to effectively address the source of the emotion through conscious processing. Because of this, these emotions are non-productive, commonly induced within novel environments, and usually do not result well, even from interactions with conscious processing, the high route, or System 2.

Non-productive fears are often associated with the terms anxiety, panic, and worry. Jeffery Gray (1991) argues that when one experiences anxiety, this anxiety has subsumed the fear that would have been felt if the environment required an immediate reaction. In other words, when humans attend to stimuli perceived as threatening and are unsure of how to proceed behaviorally, the emotion of fear becomes anxiety because productive action is no longer motivated to resolve the unpleasant emotion. Ohman (2012) supports this by explaining that in situations of helplessness, in which the emotion of fear cannot motivate any action that will alleviate the imminent threat, anxiety is the resulting experience. Konner states that anxiety is then a “future-oriented emotion” (Konner, 2002, p. 227). He suggests its purpose may be to alarm humans of potential future danger that their current actions or behaviors are setting them up for. So, Konner (2002) argues that anxiety is essentially a form of fear that is intended to motivate a change in current behavior for future returns. Still though, in its initial state, misled fear in the form of anxiety decreases the intended functionality and adaptive nature of fear.

Anxiety and related-emotions do provoke behavioral changes similar to the emotion of fear. But, the novel stimuli with which anxiety usually responds to has no evolutionary basis, and thus responses are not engrained to be productive, survival-enhancing actions. While cognitive

and behavioral responses to experiences of anxiety can be beneficial, they can also not be. Anxiety many times promotes cognitions that adversely impact human beings, catalyze misled fear responses that are generally non-productive at diminishing the source of the unpleasant emotion, and thus, overall, provide little to no benefit for individuals.

To better understand the dangers of misled fear (in the form of anxiety/related-emotions and mis-identified fear), it is necessary to understand how fear influences behavior in a general way that relates to novel environments. Evolutionarily humans and other animals are primed to react to threatening stimuli in a way that promotes survival. But, what about when a threat is not imminent, but rather a socially-oriented fear? DeWall, Baumeister, Chester, and Bushman (2016) conducted a study to better understand how emotion predicts behavior and judgment today.

DeWall et al. (2016) considered two theoretical perspectives when approaching this study. The first is the well-known and accepted idea known as emotion-as-a-direct-causation perspective. This perspective is defined as current emotions guiding immediate behavior and judgment. An example of emotion-as-a-direct-causation is when an individual sees an animal that is potentially dangerous and flees the situation to avoid it. In this case, the emotion of fear was directly experienced and it caused the action of fleeing. The second perspective is called emotion-as-feedback. This perspective is defined as when anticipated emotions guide future behavior and judgment. In other words, the emotions humans perceive as having the potential to occur, drive future, and sometimes immediate actions. For example, an individual who knows fear follows from experiencing heights may avoid any situation involving heights in order to avoid the experience of fear. In this case, the fear of heights was not directly experienced but the

potential for the emotion was enough to motivate avoidance behavior. This example of this perspective could also be seen as the fear of a future fear motivating behavior.

In both cases, emotions (fear, in particular) play a role in initiating the behaviors that follow. But, in the research reviewed by DeWall et al. (2016), emotion-as-feedback produced significantly more reliable predictions of behavior than the emotion-as-direct-causation perspective. This study differentiates between productive and non-productive fear responses and potentially explains why non-productive responses are becoming more prevalent. While evolutionary-based fears, or productive fear responses, are still necessary and prevalent in novel environments, DeWall et al.'s (2016) study seems to suggest that fear directly causing behavior in a singular instance is less common than perhaps continuous behavioral changes in response to anticipated emotions. This correlates with the fact that many fears in current environments do not have evolutionary bases or reactions known to promote survival. For this reason, humans are relying more on anticipated emotions, such as fear of a fear, to avoid certain experiences that have the potential to impact physical, mental, and/or social well-being.

The increasing reliance on anticipated emotion is a catalyst for fear manifesting maladaptively. This paper will return to the idea of misled fear in the form of anxiety and related-emotions, but first, it will discuss how misled fear in the form of mis-attributions to the sources/causes of fear have negative impacts on society and how this combined with anticipatory emotions produces problematic cognitive and behavioral outcomes. DeWall et al. (2016) also introduced the idea of fear of backlash—an anticipated fear that guides people to conform to and behave according to stereotypes and social norms. Stereotypes and social norms have adaptive functions for human beings that provide the ability to process large amounts of information

quickly, also using unconscious processing. But, when there is no conscious or System 2 intervention and the stereotypes and social norms are false and/or a misrepresentation of a person or group of people, this tendency and its outcomes are maladaptive. This next section will provide specific examples of how misled fears, even ones that have evolutionary bases, can manifest maladaptively in modern society.

Fear of the Out-group. Misled fear, promoted by a wrong conclusion from System 1 (or low route) processing, presents non-productive and even problematic behaviors in current human society. A study by Olsson, Ebert, Banaji, and Phelps (2005) further explained how misled fear with a basis in an evolutionary fear of the out-group, negatively manifests in social settings. The researchers studied how fear conditioning and race bias may rely on overlapping neural systems, which results in misled fear and problematic reactions to such experiences of fear. Olsson et al. (2005) detail classical fear conditioning and how individuals from other racial groups are more readily associated with aversive stimuli. In other words, humans have the tendency to more easily learn to fear members of an out-group.

In this study, Olsson et al. (2005) implemented fear extinguishing techniques in participants. Fear toward members of an in-group was able to be extinguished, while out-group fears often were not. More specifically, Black individuals' conditioned fear responses to White faces could not be readily extinguished and the same result occurred when White individuals viewed Black faces. This study concludes that humans are more likely to associate aversive stimuli with individuals in out-groups—a tendency that when acted on produces problematic, maladaptive behaviors.

Olsson et al. (2005) highlight an evolutionary idea that humans fear out-groups because of the potential danger strangers have historically posed, particularly to ancestral, hunter-gatherer communities. In today's society however, this fear is usually not adaptive. More times than not, behaviors based in racial biases are detrimental to the functioning and cohesion of human cultures. To be clear, the problem is not human evolutionary tendencies; it is the submission to them in circumstances in which they are not warranted. This innate fear of out-groups was once perhaps adaptive (and in some situations, still might be), but now humans must employ conscious processing to check these natural biases to avoid problematic fear reactions and subsequent mistreatment of "out-group" individuals who are not a threat.

The previous study introduces the human potential for racial bias. Recognizing evolutionary bases for such stereotypes and biases is necessary in overcoming them. Sng, Keelah, Williams, and Neuberg (2017) identify a key component of evolutionary psychology that factors into my integration of this issue with social psychology theory. Essentially, their argument is that just because something is an adaptation, does not make it adaptive. In other words, evolutionary theory provides explanations for behavior, it does not justify that behavior. Therefore, when discussing behaviors based on fear of an out-group, the actions associated with such fear are not justified merely because they are evolutionary based. While humans do have an evolutionarily basis for fear-induced responses, these actions can still be problematic and harmful. Ultimately, recognizing evolutionary tendencies is necessary in order to oppose them when reacting automatically to experiences of misled fear.

Current American society exposes individuals to many members of different out-groups, which was not the case throughout human evolutionary history. Over time, the formation of

stereotypes and biases have occurred based on limited experiences with out-group members or by culturally transmitted information about them. But, because of current American society and its many differences from the societies in which humans evolved, misled reactions to fear of out-groups are prevalent today. To highlight this argument, I will outline examples in which acting on misled fear of the out-group is problematic today.

Schaller, Park, and Mueller (2003), conducted a study to determine how racial stereotypes interact with other innate fears to produce prejudiced actions or cognitions. They used stereotypes about danger/crime commonly associated with Black individuals and combined these with the human innate fear of darkness. The researchers found that participants acted/responded more based on stereotypic beliefs about Black individuals when in a dark physical environment. More specifically, implicit association tasks showed stronger associations between Black individuals and danger cues for those participants who were literally in darkness. This wrongful association was explained by the fact that darkness increases an individual's susceptibility to harm and thus reinforces the need for increased alertness. This increased arousal resulted in mis-attributing the true cause of fear/alertness (the darkness) to Black individuals, and increased implicit bias responses against them (Schaller, Park, & Mueller, 2003).

In another study, Greenberg et al. (1990) evaluated religious in-groups and out-groups. Participants consisted of those with Christian religious backgrounds. The study increased heightened awareness (or fear/anxiety) of participants by implementing mortality salience cues. In subjects exposed to these cues, ratings of out-group members (or those belonging to the Jewish faith) were evaluated more negatively (Greenberg et al., 1990). Even though the threat

did not come from the out-group, more negative associations were attributed to Jewish, out-group members in the presence of a fear-provoking stimulus.

A study by Nesdale, Maass, Durkin, and Griffiths (2005), examined the racial out-group biases in children between the ages of seven and nine. This study incorporated an in-group (White) versus out-group (Black) threat to each participant, as well as a social norm of either inclusion or exclusion. The study found that the children in the groups with an exclusion social norm disliked out-group members more than those in the inclusive group norm condition when no threat was present. In addition, the children in the threat condition also displayed greater dislike toward members of the out-group than the children in the no-threat condition (Nesdale et al., 2005). This study reinforces the findings of the previous studies (Greenberg et al., 1990; Schaller, Park, & Mueller, 2003), but adds to such research with the applicability to child participants. Using younger participants who have had less exposure to experiential learning opportunities suggests that fear of out-groups and behavioral/cognitive problems associated with them occur without extensive socialization and personal observations of explicit discrimination or visible displays of implicit bias.

Here, I am arguing that the unconscious (and sometimes conscious) experience of emotions, particularly fear, are major motivators of prejudiced behavior and discrimination. An opposing argument might suggest that such behaviors are not the product of an evolutionary fear of the out-group, but rather conscious or learned beliefs about that out-group and its members. While I do not reject the potential for this entirely, a meta-analysis by Talaska, Fiske, and Chaiken (2008) suggests that emotions do indeed play a larger role in actions and cognitions associated with racial bias.

Talaska, Fiske, and Chaiken (2008) found that across studies, emotions were better predictors of how individuals actually acted based on racial biases. Cognitively measured beliefs and stereotypes corresponded with self-reports of such beliefs and stereotypes, but did not correspond to observations of behavior. Emotional prejudices (i.e. emotions negatively associated with a particular group), however, were more influential on observable discriminatory actions than were the stated (or self-reported) beliefs and stereotypes (Talaska, Fiske, & Chaiken, 2008). In the efforts for a more favorable evaluation of one's self, self-reports may be skewed toward the maintenance of this positive perception. For this reason, it is possible that the often unconscious experience of emotions is what allows fear and other related emotions to be so influential in such problematic ways.

Another study by Pearson, Dovidio, and Pratto (2007) looked at the mediating effects of emotions, such as fear and anger behaviorally, in legal decisions, such as in punitive measures suggested for Black perpetrators of crime. In fictional scenarios presented to White participants, researchers manufactured news stories in which Black individuals severely injured a White individual. In one story, the attack was initially provoked by the White male, while in the other story, the attack was unprovoked. The reported and measured emotions of anger and fear were the largest predictors of lengthier recommended prison sentences in both conditions. The attack provocation variable mediated responses somewhat, but implicitly measured racial prejudice predicted more negative responses (i.e. longer sentences/death penalty suggestions) from the White participants regardless of the provocation (Pearson, Dovidio, and Pratto, 2007). This study highlights the problematic combination of implicit racial biases and negative emotions, such as fear, to beliefs about out-group members and even political or legal actions, such as the support

of punitive measures. Overall, Pearson, Dovidio, and Pratto's (2007) study supports the notion that fear of out-group not only contributes to the formation of internal prejudices and biases, but this fear actually facilitates actions that have the potential to adversely impact members of the out-group.

Goldman (2017) conducted a study that examined the effects of a different type of fear on behavior. It is linked with fear of the out-group, and manifests primarily based on racial stereotypical beliefs. Goldman calls this fear, fear of racial favoritism. Goldman's study found that in the 2014 presidential election, White voters perceived Black politicians as more likely to favor Blacks over Whites, and this stereotypical belief decreased support for Barack Obama. Essentially, Goldman (2017) argues that fear of racial favoritism centralizes on the fact that there is a possible expense to in-group interests. Rather than political action and support/opposition of political officials being solely based in racial prejudice or bias, this stereotypical fear of racial favoritism at the expense of Whites is a motivating force, too (Goldman, 2017). Regardless, acts associated with this fear can produce adverse outcomes, such as White opposition to Black political leadership.

Fear of racial favoritism has no conceivable basis, especially within politics. In analyses, Goldman (2017) finds no evidence of Black politicians strategizing to the detriment of Whites. Rather, people of color running for office tend to overtly appeal to all racial groups in order to combat this fear of racial favoritism and receive more support from all groups of people. This misled fear is a maladaptive behavioral outcome that adversely influences the ability for a person of color to successfully obtain an elected position. This example is one of many ways in which

fear of the out-group and other misled fears promote problematic cognitions and behaviors adversely affect out-group members, who are consistently members of minority groups.

Other Misled Fears and their Interaction with Fear of the Out-Group. Implicit bias and stereotypes are not the only contributors to misled fear and its problematic behavioral responses. As Wilson and DeBecker both allude to, reasonable mistakes can be made when generally mis-perceiving threatening stimuli. Because it is to the benefit of humans to over-perceive threats rather than under-perceive, this tendency itself poses problems in social environments (Park, 2012). External factors such as physical darkness (Schaller, Park, & Mueller, 2003) and stress can promote misled fear reactions by limiting the human conscious ability to differentiate between what is a threat and what is not.

A study by Neta, Cantelon, Haga, Mahoney, Taylor, and Davis (2017) evaluated the idea that stressful situations can alter human perceptions of those situations, thus influencing their cognitions and behaviors. This study used a threat of shock to create a sense of anxiety or arousal in participants. This anticipated shock increased participant stress levels and impacted their performance on the task compared to those in the safe condition, or the condition where no threat of shock was present. The task involved rating surprised facial expressions as positive or negative. Participants in the threat of shock condition reliably rated the ambiguous faces more negatively than those in the safe condition (Neta et al., 2017). These findings are consistent with False Alarm Theory (Park, 2012). It is costlier to miss threatening stimuli than to over-perceive them. Because of this, states of heightened awareness or arousal from fear or anxiety induce more negative associations and perceptions. Evolutionarily this is adaptive, but in social

situations, or in professions such as first responders or military personnel, this can be maladaptive (Neta et al., 2017).

Correll, Park, Judd, and Wittenbrink (2002) conducted a study that identifies the severity of problematic outcomes from misled fear. This study combines the stress variable present in the Neta et al. (2017) with behavioral outcomes associated with fear of the out-group to discuss how police officers have a misleading tendency to use racial cues as a way to evaluate a threatening situation. This multi-part study evaluated participants' abilities to accurately identify threatening individuals in ambiguous scenarios. Using an interactive video game, participants were exposed to White and Black individuals and were instructed to shoot those individuals holding a weapon and to not shoot those who were unarmed.

The results of this study found that participants reacted more quickly to shoot a Black, armed target than they did White, armed targets. In addition, participants had slower reaction times when not shooting an unarmed, Black target, than they did for not shooting an unarmed, White target. A second part of this research found that participants mistakenly shot at unarmed Black targets more than they did unarmed, White targets. Finally, participants also failed to shoot at armed, White targets more than they failed to shoot at armed, Black targets. Correll et al. (2002) concluded that racial cues interact with decision-making processes in threatening, but also in ambiguous situations. Reasonable speculation suggests that stereotypes surrounding Black individuals and violence as well as fear of the out-group promoted this behavior in White participants.

Correll et al. (2002) is evidence for the potential of misled fear to produce extremely harmful outcomes in society. This study in particular discusses effects that potentially translate to

police violence toward Black men in particular. But other less obvious effects can be detrimental as well, such as the avoidance of members of an out-group. This ostracization has immense consequences for humans as social beings. Misled fear reactions contribute to systemic problems of racism and overt discrimination in American society. Evolutionary tendencies related to fear of the out-group are so deeply ingrained that they are difficult to recognize let alone resist or extinguish. Navarette, Olsson, Ho, Mendes, Thomsen, and Sidanius (2009) discuss this difficulty in extinguishing fears associated with out-groups.

Navarette et al. (2009) expand on previous research that suggests humans resist fear extinction to members of out-groups. In their study, Navarette et al. (2009) conditioned participants to fear images of White and Black American male and female faces by pairing the presentation with a loud noise and mild shock. In combination with the findings of Olsson et al. (2005), Navarette et al. (2009) suggest that not only are conditioned fear responses resistant to extinction for out-group faces (White participants resist Black faces and Black participants resist White faces), but there was a gender component to this as well. Essentially, this study found that the most difficult fear stimuli to extinguish were those racial out-group, male faces. Navarette et al. (2009) speculate that this could be due to the evolutionary consideration that men have historically been the perpetrators of violence, and thus it has been beneficial that humans continue to fear male, out-group members more than female, out-group members.

So, fear responses can be problematic. Fear of the out-group in particular poses major problems in society today. These problems manifest in the form of negative stereotyping, overt racial prejudice, and discrimination. But, they also manifest in the form of avoidance or unconscious ostracization of out-group members. As social beings, this adversely impacts out-

group populations psychologically and emotionally. But, the cognitive effects of misled fear can translate into behavioral effects that physically harm out-group members, such as in the case of police violence, or the shooting of unarmed black men. Later in this paper, I will discuss other ways societal systems, such as the media, perpetuate physical and psychological harm to minority groups, specifically. First, however, I will discuss several ways in which humans can recognize and resist the influence misled fear of the out-group. Even though such fear associations are extremely difficult to extinguish, it is possible to recognize the fear, before the unwarranted responses results.

Social Psychology Based Solutions to Misled Fear. Henry and Hardin (2006) identify the contact hypothesis as a potential solution for improving implicit bias against out-groups. In their two-part study, Henry and Hardin (2006) found that civil intergroup contact between Christians and Muslims, and Whites and Blacks, decreased displays of explicit prejudice from both sides. Although, implicit bias was only mitigated through intergroup contact for Blacks towards Whites and for Muslims towards Christians. So, this study suggests facilitating contact between two “opposing” groups is not enough.

Gavin DeBecker (1997) proposes three steps that should be utilized by humans to decrease the misperceptions and non-productive anxieties associated with fear. First, he says when experiencing fear, listen to your intuition, for it was provoked by something. Second, when no fear is present, do not manufacture the emotion. Essentially, if no threat is present but a state of anxiety or worry occurs, recognize that there is no action warranted and that this is non-productive fear. Third, if worry or similar emotions are occurring, seek to understand why before acting on them. Through these steps, DeBecker (1997) emphasizes the necessity of human

intuition but does not advocate for immediate action in response to it. His steps permit unconscious processing to influence behavior in situations of imminent danger, but they recognize that the sources of fear are not always legitimate.

Timothy Wilson (2002) addresses this problem even more directly. While he too accepts the functional value of fear through the adaptive unconscious, he emphasizes the potential for mistake that is present in solely unconscious (and sometimes even in conscious) processing. Wilson advocates for conscious processing to consistently be the mediator of the adaptive unconscious. In comparison to DeBecker, Wilson proposes more reliance on conscious evaluations than on the adaptive unconscious.

But, in addressing solutions to misled fear, Wilson (2002) still questions whether humans can rely on introspection from consciousness to accurately serve as a check on the adaptive unconscious. He argues that humans have limited introspective access—they can access the results of mental processes (the behaviors and cognitions), but not the mental processes, themselves, that created the resulting behaviors and cognitions. In the case of human bias and prejudice, this method of introspection will generally not be useful (Wilson, 2002). Studies previously discussed identify the shortcomings of the human ability in recognizing their own implicit biases, and how self-reports of attitudes and beliefs toward out-groups do not accurately reflect in observations of behavior (Talaska et al., 2008).

Because of this, Wilson (2002) argues that human can use observations of their own behaviors to infer conclusions about why they are acting the way they are. In other words, the adaptive unconscious drives many behaviors outside of human awareness, and potentially the only source of information for why humans act in certain ways is through the observation of

those behaviors. Therefore, when evaluating for bias and prejudice, it can be useful to observe behavior, because these often produce visible, negative behavioral outcomes. In observing such behaviors, human beings can potentially better understand their own implicit attitudes (Wilson, 2002).

But, using this behavioral observation strategy is also not always an effective tool. Wilson (2002) states that individuals often fall prey to inaccurate causal reports of their own actions. There seems to be an illusion of authenticity about human beings and their evaluations of their own actions. Humans tend to use behavioral observations to falsely conclude why they performed a particular action. Ultimately, Wilson argues that both introspection and behavioral observation can be misleading, particularly when fear or other types of arousal are factors, as logical reasoning and consciousness are compromised which imposes a greater risk of inaccurate causal associations.

If fear and its associated processes are often flawed, the adaptive unconscious drives reactions to this emotion instinctively, and humans have no hope for intervening because introspective abilities are limited, what can be done to avoid misled and manipulated fear? DeBecker (1997) and Wilson (2002) argue that not all hope is lost in this pursuit. While it is a valid point that introspective abilities are limited, the responses of the adaptive unconscious or human intuition can be overridden. Wilson (2002) identifies this conscious override as an important capability of humans that should be utilized more often, while DeBecker (1997) suggests that humans use this ability more than they probably should. DeBecker states that humans will often experience fear and try to explain it away. By doing this, failure to react to the potential danger is possible and this could be detrimental to survival. Alternatively, though, as

Wilson (2002) might suggest, conscious intervention may work to reduce prejudiced behaviors in the case of modern mis-attributions of fear of an out-group.

In conclusion, managing unconscious processing of fear requires balance. While the emotion is adaptive, it can be misled. For this reason, humans need to recognize the potential for overriding unconscious behaviors and utilize this ability when necessary. But, it is also important not to ignore the emotion of fear or try to explain it away, as it is adaptive and evolutionarily developed to respond to the perception of a threat. Being aware of this balance is the first step to achieving an understanding of the emotion of fear. Human internal processing systems can promote misled fear, but external influences also play a role in misled, manufactured, manipulated fear. While it is important to recognize the potential flaws in human fear processing mechanisms, it is also important to understand the methods in which external forces may be intentionally or unintentionally manipulating and manufacturing fear to fulfill personal agendas. The next section will introduce the role of mass media in American society and highlight theories grounded in social psychology that identify ways in which it directly or indirectly influences the behavior of media consumers.

Social Psychology and the Media

Mass media incorporates many different types of modes, including television, radio, internet, social media, and more. And within these avenues there exists different types of media, including entertainment, news, advertising, among other things. The information discussed in the paper is relevant to all types of media, however, it will only specifically highlight some of those categories listed previously. Because of the variety of messages and methods of broadcasting, it is difficult to define media generally. But, in most cases, mass media serves the purpose of

increasing awareness about the current environment in which consumers live (Bryant & Thompson, 2002). Whether its entertainment television media, or newspaper advertising, consumers are gathering outside information relevant to their current society.

The media provides information that allows viewers/readers to make better sense of their outside environment, and sometimes themselves. It promotes the transmission of social norms and customs to individuals of a society and produces other benefits, such as escapism and anxiety reduction in some cases. The media is an outlet by which members of the public can be informed, but also distracted from the rigors of daily life (Bryant & Thompson, 2002). Media is an integral part of American society and the functioning of the members within it. The ability to have access to vast amounts of information quickly promotes knowledge and awareness, but it also introduces problems to unaware viewers. All forms of media impose potential influences on consumers, behaviorally and cognitively. This section will serve as a general introduction into the institution of the mass media and highlight some of the theory-based ways in which consumption of the media influences behavior.

The media is selective in what it portrays to consumers. The content is often what the media source views as the most important information or what they think the viewers will find most entertaining. In addition, messages are constructed and thus, represent how that media source views a situation or current issue. This agenda-setting introduces bias into the message transmission, as every media source likely varies in its perceptions of events and issues. One network, or group of producers, may choose to include certain facts while ignoring others, which then skews the information communicated to the general public in a way that is consistent with the values deemed important by the media source.

Additionally, consumers of media selectively seek out and retain information. In order to avoid dissonance with their personal beliefs, viewers selectively confront certain pieces of information and dismiss others that create internal cognitive inconsistencies. Similarly, media coverage itself may selectively address topics that are consistent with external societal standards and beliefs in order to avoid dissonance at a societal level (Severin & Tankard, 2001). This confirmation bias poses problems for how media messages are received by the public and portrayed by the media. In conclusion, viewers of media rarely have the full scope of information. Although this is often unintentional, it presents a major issue for consumers of the media. For these consumers, it is necessary to understand such limitations and biases in order to accurately evaluate the information provided and consequently act on it.

Even with these problems, the media is a source of information that provide a great advantage to the public in the United States and internationally. Its functions are vital to the operation of American society (DeFleur & Ball-Rokeach, 1989). The vitality of mass media is what creates such a heavy reliance on it from the general public, government officials, corporations, and other parties. Media consumption is increasingly popular and almost inevitable in modern society. The media is now the primary method of passing along information regarding politics, economic matters, and current events among other things. The public relies on the media for information, but also for entertainment. Because of this, it is important to highlight the way in which viewers are susceptible to manipulation by and through the media, emotionally and behaviorally.

One of the original ways in which the media was thought to influences human behavior is through bullet theory. This theory hypothesizes the effects media has on viewers by discussing

viewer vulnerability to communicated messages and stating that if a message “hits its target,” it will have its desired effect (Severin & Tankard, 2001). In other words, this theory expresses viewers as essentially passive recipients of constructed messages and thus, as highly susceptible to the intended effects of such messages. Overall, this over-simplified explanation brings up more questions than answers, but was the basis for further research regarding how media messages do ultimately impact audiences.

Another proposed method for how the media influences behavior is through Bandura, Ross, and Ross’ (1961) social learning theory. The original study’s findings supported the existence of the imitation of specific behaviors without reinforcement. In other words, the researchers found that individuals could learn to act in a certain way merely through observation, particularly in children observing adults. Imitation resulted for aggression responses and non-aggression related imitations (Bandura, Ross, & Ross, 1961). Considering the applicability of such imitation effects to the media presents many problems for viewers, particularly children. The application of this theory to the media is known as Modeling Theory and the extent to which such observational learning occurs through media sources is largely unknown, but behavioral influences in this way are plausible (DeFleur & Ball-Rokeach, 1989).

In addition to the potential effects from the bullet and modeling theories, the media contributes to socialization—the process by which individuals are introduced and thus, adapt to societal functions and beliefs. Socialization’s goal is to produce conformity and social order within the members of society. It essentially provides individuals with the knowledge of what are acceptable actions/beliefs within the culture or society in which they live. Therefore, it encourages the acceptance of pre-existing standards and promotes the stability of ideals (DeFleur

& Ball-Rokeach, 1989). Mass media has become the ultimate source of socialization in the way it portrays American ideals, beliefs, and permissible behaviors. Individuals in society are constantly exposed to the life lessons or scenarios reported on by the media, and therefore, it has the potential to become a teacher to unknowing viewers (DeFleur & Ball-Rokeach, 1989). This unintentional influence can be beneficial, but simultaneously problematic, particularly when the messages transmitted are not fully representative of reality or are intentionally manipulative. One example of socialization through the media is in the common portrayals of romantic relationships. If, for example, the majority of romantic relationships depicted in most forms of the media are heterosexual (which I would argue are), this constant exposure to heterosexual relationships, with limited exposure to homosexual relationships would reinforce the norm/standard that heterosexual relationships are most prevalent and culturally accepted.

Another way emotions and behaviors may be impacted by media messages is through their ability to define social expectations. While socialization by the media potentially influences consumers to conform to society's pre-existing standards, the media can also create or convey social expectations. Individual consumers then strive to live up to these expectations in order to be accepted within society. The problem with the media as the institution that conveys and possibly even sets some social expectations relates back to the problems with how the media inherently functions. Social expectations theory states that the media conveys information regarding acceptable social conduct and this directly shapes the behavior of viewers (DeFleur & Ball-Rokeach, 1989). This is problematic because only selective information is presented by the media, therefore, only certain ideals and norms are represented and only those that are represented can influence behavior. If the media is proposing acceptable social conduct, the

media has the potential to produce misleading expectations that will then guide the behavior of those viewing (DeFleur & Ball-Rokeach, 1989). For example, if the majority of female actresses are displayed with a consistent body type (perhaps, tall and thin), this might set the expectation for female viewers that the social standard is to be tall and thin. This is a misrepresentation of what the average body type is and provides females with an unrealistic/inaccurate view of societal expectations for figures.

In conclusion, the media functions as a source for modeling new behaviors, reinforcing others, and setting expectations for viewers to conform to (DeFleur & Ball-Rokeach, 1989). These theories regarding how the media has the potential to influence behavior are central to the focus of this section—the media as a manipulator and influencer of human behavior through the emotion of fear. The next section will discuss the use of fear by the media and how this usage has been seen to directly impact media consumers.

Fear in the Media

Before consumers have that opportunity though, they must recognize the culture they live in and how the media operates within this culture. Jason Whitehead states a “culture of fear is an underlying pattern of behavior related to the emotion of fear that is seen in how we interact and interrelate with the world around us” (Whitehead, 2013, p. 29). He argues that within the United States a culture of fear—the general acceptance of this emotional state as the guide for thoughts and actions—exists and pervades daily human functioning. The emotional basis of this culture of fear is unease and pessimism. These negative feelings are perpetuated by the media. To a certain extent, the information the public constantly receives gives good reason for this underlying state. Whether it’s a terror attack on television news, the most recent crime details in print newspaper,

a natural disaster trending on social media, or a government shutdown written about in the latest online article post, Americans are constantly given reasons to be fearful (Whitehead, 2013).

Whitehead (2013) describes fear as a powerful motivator. While anxiety creates uncertainty and often times the inability to act, fear forces action. Forcing action can be beneficial, but when fear is provoked unnecessarily, the action that follows is often unwarranted. This type of fear motivates action that otherwise may not have occurred, and this action is probably not a beneficial one. Whitehead states that the quick, instinctual motivation to act (or Wilson's adaptive unconscious) is what makes manipulating the actions that follow so simple. The feeling of fear produces the desire for the relief from this unpleasant emotion. When human lives become preoccupied with alleviating fear, insecurity and vulnerability become the cornerstones of existence (Whitehead, 2013). This is the embodied emotion of fear. It pervades human consciousness and sends imaginations running wild. In this way, fear has become less evolutionarily adaptive and more something that human beings must learn to cope with. The media not only perpetuates this experience of fear, but capitalizes on it. News networks report on the crime stories of the day because that is what will be most arousing for viewers. Politicians utilize the media to relay frightening messages in order to then present a solution to the imminent danger and win over viewers. Other messages and current events of disasters, deaths, and discrimination plague headlines and images forming an ever present negative cognition in the minds of media consumers. Recognizing this media reality is the first step for individuals to reclaim fear with its adaptive purpose and begin to recognize (and dismiss) imagined or sensationalized fears.

Sometimes, the media provocation of human fear serves the purpose of increasing attention to the current media stimulus. Other times, this provocation has an intended outcome for media consumers. Lull and Bushman (2015) conducted a study that looked into how such provocations of fear succeed in increasing arousal to the stimuli, but failed at producing the desired outcome. Their study focused on the presentation of violent and sexual media. The participants in this study who were exposed to such media, overall, remembered the content of the media better than those without violence and sex cues. The increased arousal effect of such media was supported, but in an advertising context, those ads that used sexual and violent cues, did not sell their product more effectively. While a consumer/participant was more attentive to the ad, they were less likely to purchase the product, perhaps due to how negatively they evaluated these types of advertisements (Lull & Bushman, 2015).

This study does not support heightened arousal's influence on consumer behavior, but it does have other important implications. Lull and Bushman have identified an important behavior of media consumers when viewing emotionally arousing media: narrowed attention. While this influence did not sway consumer behavior toward purchasing products in this study, other effects from this increased/narrowed attention will be discussed from later studies.

One general way in which the media uses consumer fear to obtain a specific outcome is through attitude change. Fear can be invoked through media messaging to persuade consumers one way or another. Essentially, if fear is provoked and consumers are motivated to reduce that unpleasant experience, attitude change toward the topic associated with the fear can occur (Aronson, Wilson, & Akert, 2013). But, this utilization of fear has limits. If the fear is too overwhelming, it can become non-productive. In other words, if fear provoked by the media

seems too horrific or impossible to diminish, consumers will consciously oppose attending to the stimuli in an effort to reduce fear in that way (Aronson, Wilson, & Akert, 2013). Thus, fear can be an effective and ineffective tool in promoting attitude change.

Bryant and Thompson (2002) add to this discussion of fear use for attitude change, and thus behavior change. They argue that attitude changes commonly result in changes in behavior toward the source by two major models. The first model is known as the reasoned action and planned behavior model. Fishbein and Ajzen (1975) created this model which theorizes that people act based on their own attitudes and their perceptions of how others will receive their action. Therefore, people try to behave in ways that are both consistent with their own attitudes and social norms, so that they will be internally consistent and be received positively in society. In many cases, attitudes about behavior are therefore compatible with social norms to maintain internal consistency (Bryant & Thompson, 2002).

The second model is known as the automatic activation model. Proposed by Fazio, Sanbonmatsu, Powell, and Kardes (1986), this model suggests that the activation of certain attitudes promote behaviors to immediately and reliably follow. This model presents attitudes as having a powerful influence on behavior. From this model, when attitude change does occur using fear tactics, the automatic behavioral implications detailed from this model may be associated with fear. Fear and attitude change have an interesting relationship. The use of fear for attitude change requires the balance of invoking the emotion, but not in too severe of a way that the response is avoidance. But, when attitude change is produced by fear, the behavioral effects suggested by the reasoned action and planned behavior model and the automatic activation model are sometimes highly dependent on social norms and other times automatic responses,

respectively. Altogether, fear as the motivator for attitude change has the potential to influence human behavior in a variety of ways. A study by Gleicher and Petty (1992) highlight this potential.

Gleicher and Petty (1992) examined the influence of fear arousal from media on attitude change. Specifically, this study looked at the likelihood of attitude change when reassurance of the effectiveness of a proposed solution was included in a stimulus that also invoked fear. Participants listened to a radio broadcast about the prevalence of crime on campus as the study's method of invoking fear. There was a low fear condition (control group) and a moderate fear condition. After the crime broadcast, participants read a newspaper article that discussed the possible implementation of a crimewatch program that would address the campus crime issue. In one newspaper condition, there were written remarks that provided reassurance of the effectiveness of the implementation of this program; the other newspaper condition provided vague remarks regarding how effective this program would be at reducing crime. Additionally, some participants were presented with weak arguments while others strong arguments for the presentation of the persuasive message to implement the program (Gleicher & Petty, 1992).

Overall, participants in the low fear condition used the arguments themselves and the statement of expected results of the program to induce attitude change. In other words, if the program was not clearly stated to be effective, and the argument for its implementation was weak, attitude change rarely occurred. On the other hand, for participants in the moderate fear condition, even a weak argument with a clearly stated expectation of effectiveness was shown to promote attitude change in participants (Gleicher & Petty, 1992). Here is evidence for the influence of fear on attitude change. When fear was evoked, participants cared less about the

strength of the argument for the specific program and cared most about decreases the source of their fear (the campus crime). Logic is somewhat lost when emotion, especially fear, takes over. Using fear tactics, consumers of the media can be persuaded toward ideas or attitudes they otherwise might not be, if the media messaging had not invoked the emotion.

In conclusion, the media provokes fear in two general ways. First, an unintentional provocation occurs frequently and this contributes to the culture of fear present in current society (Whitehead, 2013). This is fear misled by the media. Examples and implications of this misled fear will be discussed next. Additionally, the media uses fear intentionally to either increase attention toward the topic of the message, or obtain a specific behavioral outcome from viewers through attitude change or similar means. This is fear manipulated by the media. Examples and implications of manipulated fear will be discussed later in this paper.

Unintentional Use of Fear in the Media

News Media. Fear is misled unintentionally through visual and auditory news media. Crisis news in particular facilitates non-productive fear/anxiety and contributes to the idea of a culture of fear (Whitehead, 2013). In times of societal crises, the media plays an important role for the public. For example, during a natural disaster, individuals across the world rely on news broadcasting to become informed about the daily occurrences in the area affected. This coverage reduces tensions surrounding the event through the information provided about the people and place affected, and promotes solidarity among viewers and those experiencing the crisis (Bryant & Thompson, 2002). While these are major benefits of crisis news, major psychological complications and behavioral influences are also associated with such coverage.

In times of crises, events are repeatedly covered because media networks recognize the public's interest and concern for the matter. Many individuals want this around-the-clock coverage to stay updated on the current situation, which most of the time does not involve them personally. Unexpected results can unintentionally occur from the over-covering of crisis-like events. Constant reminders of the current events can evoke large amounts of stress and even fear in individuals, who again, are hardly, if at all, impacted by the situation (Bryant & Thompson, 2002). From this, a culture of fear is further perpetuated and individuals perceive such events as more likely than they truly are. In addition, negative emotions associated with fear such as anxiety and panic may occur when no threat is physically affecting most viewers. This effect is not limited to the coverage of crises. DeBecker (1997) addresses the effects of general news stories as he explains the media as the way in which many people perceive the world on a global and local scale.

News media, specifically, strives to report the most arousing and exciting stories of the day or week. Author Richard Saul calls the local news “a list of inexorable deaths, accidents, and catastrophes—the violent wallpaper of our lives” (DeBecker, 1997, p. 312). As the news describes victim after victim of crimes in our local and global communities, viewers become victims to the sensationalism of the danger presented in this form of media. These three headlines provide a few examples from the plethora of similar headlines. All three derive from a medium-sized news organization out of South Bend, Indiana.

- “Attempted abduction reported Tuesday in Bridgeman” (WNDU, April 10, 2019)
- “People in 2 vehicles reportedly exchange gunfire in South Bend” (WNDU, April 9, 2019)

- “Police investigate home invasion, robbery on Mishawaka’s east side” (WNDU, March 29, 2019)

Endless headlines of shootings, animal attacks, and home break-ins reinforce the ideas of these tragic events. These reports become the general perceptions of the world. They are engrained in human memory and then used to process information at later times. Local news, as well as crisis news, has programmed fears in humans toward events that individuals have never personally been affected by (DeBecker, 1997). Continuous exposure to adverse news stories, and crisis news, skews the public perception of reality. The consistency with which tragic events are reported can lead viewers to believe such events are more common than they actually are. Ultimately, humans have a distorted view of what is actually a threat in daily life (DeBecker, 1997).

In psychology, Tversky and Kahneman (1974) call this phenomenon the availability heuristic. It states that individuals make judgments about the frequency or likelihood of an event occurring based on the number of examples they can recall. In other words, frequent exposure to crime-related news stories would allow for the general public to be able to recall more of these stories quickly. This promotes the inaccurate judgment that such crime is more prevalent than it actually is (Tverksy & Kahneman, 1974). This unintended consequences of the availability heuristic is reviewed in the following paragraphs.

One study by Solloway, Slater, Chung, and Goodall (2013) examined the effects of crime and accident news stories on individuals’ emotions and how their evoked emotions consequently influenced support for public policies. For this study, researchers exposed participants to newspaper stories that detailed violent crimes, motor vehicle accidents, and other accidental

injury stories. Participants free wrote the thoughts that occurred to them while reading through the news stories and experimenters coded these responses according to whether or not the emotions of fear, anger, or sadness was evoked. The researchers used alcohol consumption as a causality factor in some of the news stories.

In the participants for which alcohol was not a causal factor of the crime/accident stories, fear was shown to have a direct relationship with support for new policies and overall personal and social concern for such occurrences. In other words, when fear was invoked in participants, they were more likely to report a greater amount of personal concern for the issue and a desire for new policies to better address the problem (and decrease the source of fear). In the condition where alcohol was a causal factor for the reported injuries/crimes, fear did not produce the same results. Rather, there was no significant difference between the amount of personal concern or the support for new policies in comparison to other groups. Researchers explained this by describing the emotion of fear as a result of causative uncertainty. When humans have no explanation for potentially harmful events/stimuli, it is instinctive to fear and thus be motivated to find a solution to such uncertainty (Solloway et al., 2013).

Generalizing this study, reading a news story that evokes fear has the potential to increase personal concerns, impact daily human functioning, and the cognitions humans produce. I would argue based on the discussion above that this fear provocation in the news is already occurring and is already influencing human thought and behavior. This is related to Whitehead's culture of fear—humans in modern society are overwhelmed by the amount of exposure to dangerous stimuli (even to stimuli that have no first-hand consequences) and a constant state of uncertainty and arousal follows.

Not only does a culture of fear promote constant arousal and uncertainty, but it promotes the adoption of mistrust or a general belief of meanness about the world. This cognitive misinterpretation is particularly relevant in media consumers and has come to be known as the Mean World Syndrome (Earp, 2010). In analyses of heavy versus light media viewers, Gerbner and colleagues found that heavy viewers developed an unrealistic view of societal dangers after consistently consuming media with such an emphasis on violence and fear (Bryant & Thompson, 2002). Gerbner and colleagues titled this phenomenon the cultivation hypothesis because individuals can adopt particular beliefs about reality based on media viewing (Bryant & Thompson, 2002). Essentially, fear and anxiety about the surrounding world may depend on the amount and type of media exposure, but views about societal violence and crime seem to be one area especially influenced by media. This is perhaps not surprising as in one study conducted, for two-thirds of Americans, 61% of all news stories focused on crime, accidents, and disasters (Earp, 2010).

The fact that fear responses are initially the product of System 1 or the human adaptive unconscious is what subjects them to external manipulation, particularly by the media. And the existence of inherent biases, such as the availability heuristic, prove to further problematize the consumption of media. For example, media portrayals of Black Americans are influenced by the systemic racism of the predominantly White society in which they reside, potentially rooted in the innate human fear of the out-group. Adverse portrayals of Black individuals further perpetuate racist ideals, especially when combining these adverse portrayals with fear arousal. One study by Hurley, Jensen, Weaver, and Dixon (2015) examined the effect negative portrayals of Black individuals in the media, had on public perceptions and their beliefs about public policy.

One content analysis conducted by Romer, Jamieson, and DeCoteau (1998) found that Black individuals are depicted more as criminals than White individuals by observing three major news stations (ABC, NBC, and CBS) in the Philadelphia area. This finding is one that is very well supported by other research. Hurley et al. (2015) wanted to determine the impact of this unfortunate reality on the public.

In this study, participants watched seven crime stories in a 30-minute television broadcast. They were randomly assigned to one of four conditions: majority Black suspects in the crime reports (six Black, one White), majority White suspects (six White, one Black), seven stories that did not identify the race of the suspect, and a control condition (no crime stories). After viewing the crime reports, researchers evaluated the participants for guilt attribution. Results showed that those who viewed the majority Black suspects held those individuals as either unable to be rehabilitated or personally culpable for their actions, whereas other conditions did not result in the same personally attribution of guilt. Therefore, participants displayed stronger adverse reactions to the majority Black suspects in the “majority Black” condition than the other three conditions (Hurley et al., 2015).

These results depict what is known as the fundamental attribution error: associating a behavior primarily with a person and his or her character, rather than considering any external or situational factors (Hurley et al., 2015). Overall, this research is important in explaining the adverse impact negative portrayals of minority groups have on public perceptions of those groups and individuals. Because, the “Black majority” condition of this study is essentially the reality of news coverage in many areas, it is increasingly important for media consumers to recognize the impact this coverage has on their cognitions and behaviors. As previously

discussed, when consistently connecting minority groups to fear-invoking stimuli such as crime, not only might viewers overestimate the prevalence of crime in society, but they may over-attribute members of minority groups as the perpetrators of those crimes, through the availability heuristic (Tversky & Kahneman, 1974). The problematic cognitive and behavioral effects associated with fear of the out-group manifesting in social behaviors, is also perpetuated by the media. Content analyses of news coverage of Black Americans is just one way in which the media perpetuates negative stereotypes/beliefs about a group of people.

As the film *The Mean World Syndrome: Media Violence & the Cultivation of Fear* (Earp, 2010) discusses, regardless of racial implications detailed by Hurley et al. (2015), heavy media consumers were more likely to view the world as a violent and dangerous place. Although crime rates have been dropping for years, in multiple survey studies most Americans report more crime in their local area than in previous years (Earp, 2010). This is evidence of the increasingly important role the media plays in developing public opinions about society at large. Media is not the only factor influencing such public opinions, but it is undeniably a major one. Media does influence public opinion and beliefs, but debates continue regarding whether or not violent media increases the likelihood for viewers to adopt violent and aggressive behaviors and how specifically media influences behavior, if at all. Momentarily ignoring this idea, from this debate about violent media and its behavioral affects, Michael Morgan, a colleague of George Gerbner, suggests a more important question has been lost. How does media violence influence human emotion, particularly fear, and make them vulnerable to manipulation (Earp, 2010)? What are the effects of living in a state of fear and anxiety? How does this state influence human thought and action? While it is interesting to look at the direct behavioral implications of media consumption,

it is perhaps more important to examine how such consumption practices impact cognition and emotion, thus indirectly influencing behavior. It is debatable whether or not the media has a direct, imitative effect on behavior, particularly adult behavior, but it is well-known that cognitions and emotions reliably influence human behavior. For this reason, it is increasingly important to identify the ways in which the media affects human thoughts and emotions, then consequently behavior.

Bryant and Thompson (2002) identify factors that have come to complement Gerbner's research on how television viewers, specifically, are influenced by violent or fear-invoking media programs. These factors include four components that seem to impact the way in which consumers are cognitively and behaviorally affected. These include, program specificity (the type of media watched), viewer perceptions or interpretations (varying individual interpretations of media programs), personal judgments about crime (beliefs about crime that originated outside of media), and situation specificity (individual situational influences) (Bryant & Thompson, 2002). These levels of judgment affect the way viewers responded toward violent or fear-inducing media and explain the various ways in which Gerbner's Mean World Syndrome manifests (Bryant & Thompson, 2002). These external factors have the potential to impact viewer emotions and emotional responses, thus facilitating Gerbner's Mean World Syndrome.

Entertainment Media. The work of Gerbner and his concept of a Mean World Syndrome is applied to local, national, and international news, but this idea also pertains particularly to entertainment media as well. In all forms of media, the transmission of societal and cultural norms is present. But, Gerbner and Gross (1976) argue that in entertainment media or dramatic television programming is particularly successful in communicating power dynamics

of American society, portraying social norms, and presenting expectations for situational outcomes. In other words, television drama, particularly violent drama, gives insight into the dynamics and norms of current society. Therefore, Gerbner and colleagues were less interested in the imitative effects of such television programming, and more interested in the emotional, cognitive, and behavioral effects associated with violent prime-time entertainment media (Gerbner & Gross, 1976). To study these effects, Gerbner and Gross (1976) evaluated violent television programming, specifically focusing on who (what types of characters) was committing the violence, who was victimized, what types of violence are on display, and what are the fictional consequences of such acts of violence.

Using this evaluative criteria, Gerbner conducted a comprehensive content analysis of violence portrayed in prime-time and Saturday morning television programming on three major networks: ABC, NBC, and CBS. A few notable findings from this analysis include: scenes of violence occurred on average, eight per hour, and of all violent episodes, humans were the perpetrators of violence 70% of the time (Gerbner, 1971). This content analysis also examined leading characters of each program, 67% of which were involved with some sort of violence. Additionally, male characters were more commonly the perpetrators of violence while women the victims (Gerbner, 1971). Gerbner created a measure known as the Violence Index, which is a comprehensive quantifier that sums up the percent of programs containing any violence, the rate of violent episodes per program and per hour, the percent of characters engaged with violence (either as perpetrators or victims), and the percentage of characters involved in killing (Gerbner, 1976). Gerbner displays trends of Violence Indices in the major networks evaluated over the period of time this content analysis was conducted (see Figure 1).

In this research, Gerbner not only identified the frequency with which violent is visible to public viewers, but the probably unintentional presentations of societal power dynamics in such programming that reinforce problematic notions (e.g. wealthy, White men dominate physically and psychologically, and the non-male, non-White and non-wealthy submit or perish). This finding further emphasizes the enculturation and socialization that occurs through media, specifically the entertainment media that was the subject of Gerbner's analysis. Overall, Gerbner's work highlights the potential for unconscious takeaways from the public of violent and fear-inducing programming. He argues that it not only facilitates a sense of uncertainty, and personal vulnerability from his idea of the Mean World Syndrome, but it portrays unjust power dynamics in the form of who is commonly depicted as the victimized by violence versus who are members of dominant, violence-committing groups (Gerbner, 1976).

Again, the argument of whether or not violent media directly promotes real-life violence is a popular debate. That is the major concern many who recognize how frequent violence is portrayed in the media (Earp, 2010). My argument does not center around this issue. Rather, I am arguing that it is not human imitative tendencies that should be the most concerning regarding media violence. The worry should center around the portrayals of media violence and their provocation of human fear even through entertainment media. I am arguing that this fear arousal has more evident behavioral consequences than does the potential for imitation of violence from the media.

Gerbner (1984) discusses this problem in an article from *USA Today*. He argues that it is not necessarily the imitation of violence that is the problem, rather, the desensitization toward such violent acts and injustices. He states that light viewers of television are less likely to accept

inequity than those who are heavy viewers. This argument is based on Gerbner's analysis that violence displayed in the media often victimizes ethnic minority groups, individuals with lower socioeconomic status, and women. Therefore, violent media (whether it be news or entertainment based) portrays societal power dynamics and not only desensitizes viewers to violence, but cultivates a sense of danger against particular groups, and victimization toward others (Gerbner, 1984). These human cognitions are problematic in and of themselves, even if they never translate into physical behaviors.

The contribution of Gerbner's work in understanding the cognitive impacts of violent media is substantial. Cantor and Oliver (2004) also touch on the impact of violent entertainment media, but more specifically on the cognitions and behaviors of young viewers. From their research, individuals who viewed horror films and other related violent media tended to report increased beliefs that adverse events were more likely to occur in their own lives, similar to Gerbner's findings (Earp, 2010; Gerbner 1971). Such events evaluated for by Cantor and Oliver (2004) included house fires and drowning accidents. Overall, the viewing of horror films and violent media by the children in this study resulted in increased beliefs that such events were more likely, but parents also reported their child as engaging in more avoidance behavior to certain activities to eliminate the possibility of such adverse outcomes. Fear-inducing media has far-reaching effects, even when such media is unintentionally provoking fear or in the context of fictional, entertainment media. Media consumers need to better understand these effects in order to mitigate the behavioral implications associated with consuming fear-evoking media.

Intentional Use of Fear in the Media

While much fear-inducing media is unintentional, the provocation of fear in the media can be intentional as well. Fearful stimuli evoke heightened arousal, even when that stimulus is not physically present in the lives of media consumers. By doing this, the media can achieve specific agendas and through evoking fear in its viewers, such as increasing attention toward a specific program or story, changing attitudes toward a particular person or idea, or enhancing perceptual abilities toward a certain political or health-related message. In the next section, I will discuss how fear is intentionally manipulated in many ways by various media outlets. First, I will discuss how fear is often intentionally evoked in viewers of news programs, especially politically-oriented news programs that have the goal of increasing viewer/reader arousal and sometimes inducing an attitude change toward a specific topic. In addition to this, I will discuss some disturbing and problematic implications associated with fear-induced politically-based news coverage. Then, I will discuss how fear arousal can benefit political candidates, and is a tactic that has been historically used for this benefit. Finally, I will provide some concluding remarks regarding other ways fear is intentionally provoked by the media.

This paper has previously discussed how misled or misattributed fear can impose problems in social life. I argue these problems are further perpetuated by mass media and its selective coverage, advertisements, and general portrayals of individuals, society, and government. Media outlets tend to use human fear to fulfill their own agendas, or intentionally manipulate fear to attain particular cognitive or behavioral responses. The first area in which these effects are prevalent is in the political sphere of the United States. Diebec and LeDoux (2004) argue for the existence of the political uses fear. Their question is not whether it occurs,

but how. They argue that historical occurrences (e.g. 911) can be powerful influencers when furthering political aims. Thus, instilling fear by relating old occurrences or problems to new experiences or issues can be influential to the general public's viewpoint of the issue (Diebec & LeDoux, 2004). This technique is used frequently by political news sources. While I am arguing that their intentional evocation of public fear may not be entirely conspiratorial, it still has adverse impacts media consumers should be aware of.

Use of Fear in Politically-Based News Coverage. Schemer (2012) conducted a study in Switzerland that focused on the evaluation of campaign strategies dealing with immigration or asylum-seeking policies. In a survey about the political campaigns, participants reported their emotions toward asylum seekers, and their attention toward print political advertising (as television political advertising is not permitted). Print advertising involving the immigration issue often portray asylum-seekers negatively and discuss wide-ranging consequences of their presence in the nation, such as the potential for increased crime or future financial concerns. These advertisements reliably evoke fear and anxiety in Swiss citizens, particularly through cues toward threatened physical safety or potential financial distress.

Overall, the results of this study showed that greater attention to political advertising increased negative emotions toward the issue of immigration as well as asylum-seekers themselves (Schemer, 2012). Additionally, negative affect evoked by political ads was shown to increase attention toward the information, as is consistent with previous research discussed (Lull & Bushman, 2015). These results portray a reinforcing process in which attention toward negative portrayals of immigrants is increased, which then increases negative attitudes about immigrants and the issue of immigration. This cyclic process is harmful to how voters

cognitively view asylum-seekers, since such viewpoints/perceptions are based mostly on limited, emotionally arousing information in print advertising. Such media perpetuates negative affective reactions towards immigrants, but additionally has the potential to influence political action in the form of support of anti-immigration policies, stricter immigration laws, and even other regulations that limit human, asylum-seeker rights (Schemer, 2012).

George Gerbner commented on this phenomenon within United States politics and within the context of his Mean World Syndrome idea. He discusses the fact that Hispanics are an extremely underrepresented population in all forms of media (entertainment, news, print, etc.) even though they are a numerously prevalent group in reality. Although, when this population of individuals is presented by the media, they are often portrayed in an extremely negative way and commonly associated with violence (Earp, 2010). The documentary *The Mean World Syndrome: Media Violence & the Cultivation of Fear*, discusses the issue of immigration in the United States and how it is portrayed through the media. This film highlights CNN's Lou Dobbs Tonight show as focusing a portion of 70% of its episodes on the matter of illegal immigration. The focus of multiple television news networks is on the crimes committed by illegal immigrants and the dangers they impose on the United States. Gerbner argues that since there are hardly positive representations of Latinos in any form of the media, this negative portrayal in news media largely impacts media consumers' perceptions of the issue of illegal immigration and immigrants themselves. Again, the availability heuristic suggests that humans will make judgments about issues and groups of people based on the most prevalent and numerous information most accessible to them. So, if instant recall includes quotes such as: "millions of illegal immigrants in this country. Including many murders and rapists," (Lou Dobbs, Earp,

2010) and “we can’t stop all murders, rapes, and deadly drunk driving accidents, but our officials should be doing everything possible to prevent those committed by people who have no right to be here,” (Fox News, Earp, 2010), then the general public most likely has an extremely negative outlook regarding the concept of immigration, as well as Hispanic immigrants themselves.

In addition to the adverse cognitive (and potentially behavioral implications) of such negative politically-based coverage, within the context of Gerbner’s Mean World Syndrome, it makes sense that individuals would overestimate, or misperceive the amount of crime committed by illegal immigrants. Indeed, the National Opinion Research Center found the 73% of American surveyed reported their belief that more immigrants equated to higher crime rates, when this is not the reality. Rather the opposite is shown to be true. Cities with the highest prevalence of residing immigrants have substantially decreased crime rates, according to FBI data from the time of the National Opinion Research Center survey (Earp, 2010).

It is worrisome to consider how irrational perceptions or fears perpetuated by media portrayals of immigrants and immigration impact attitudes and beliefs of the general public, even from self-identified opinion political news media. Gerbner identifies that it is often to the benefit of politicians to evoke fear and insecurity, as these feelings are usually accompanied by a desire for a solution. Such solutions, say, to a fear of illegal immigrants, comes in the form of changing immigration policies or other political endeavors which would be beneficial to those holding political offices or those seeking political support for proposed policies (Earp, 2010).

Brader, Valentino, and Suhay (2008) conducted a study to examine how news coverage influences mass opinions toward immigration policies. In this study, Brader et al. (2008) used a mock *New York Times* report about the current state of immigration. Each story highlighted the

increasing number of immigrants, but the ethnic cues of each story varied by condition. Participants either read about White European immigrants or Latino immigrants. In addition to this manipulation, some stories focused on the positive effects associated with immigration, while others focused on the negative consequences of immigration. Those participants in the Latino, negative portrayal condition displayed the greatest opposition to immigration, even more than the White European, negative condition. In addition, in the Latino, negative portrayal condition, participants more frequently requested information about the issue than those who were in positive portrayal condition or the European, negative condition. Also, interestingly, in the Latino, negative condition, participants were much more likely than the positive, Latino group, the control, and both European ethnic cue groups, to engage in political action against immigration by sending an anti-immigration message to a government official.

In conclusion, the Brader et al. (2008) study suggests that beliefs about immigrants and the issue of immigration were impacted by print media portrayals. White participants had a stronger negative emotional reaction in the conditions in which members of an out-group (Latino immigrants) were associated/presented with consequences of immigration. In other words, even when no actual threat is present, out-group cues elicit a state of anxiety/fear which then influences belief systems and political action (Brader et al., 2008). Therefore, emotional manipulation through fear and anxiety is especially prevalent regarding an issue like immigration, as out-group ethnic cues are prevalent.

Human susceptibility to negative emotional associations with the negative media portrayals of Hispanics as well as immigration provides insight into the controversial nature of this political issue. Anxiety or fear is commonly evoked, out-group ethnic cues are present, and it

is beneficial to many politicians to achieve an aroused, uncertain state surrounding this issue that motivates a desire for political action. It is evident that the emotional arousal through the media is not only influencing the cognitions and beliefs of consumers, but the behaviors associated with these beliefs. Resulting behaviors could include advocating for stricter immigration policies, or political action, such as a personal appeal to state officials about concern for the issue of immigration. Such actions impact immigrants and asylum-seekers, as well as those legally present in this country with Hispanic ethnicities by the negative stigma and stereotype surrounding Hispanic Americans and the misperception of the prevalence of immigration. This type of fear manipulation is not limited to the political issue of immigration or Latino ethnic group cues, though. Arabs and Muslims are also a vilified, targeted group by the media.

The stereotypical terrorist portrayals of Muslims in all forms of the media, but particularly television and print news, again, leads to misperceptions regarding Arab individuals in American. According the film, *The Mean World Syndrome: Media Violence & the Cultivation of Fear*, over one-third of American believe Muslims in the United States sympathize with Al Qaeda and about one-fourth of Americans report not wanting to have a Muslim as a neighbor (USA Today/Gallup Poll, 2006, Earp, 2010). This disturbing result could be unfortunately facilitated by the prevalence of quotes such as: “Extremist Muslim terrorism. The terrorist Muslim extremist. The Muslim extremist terrorist. End of story.” (Fox News, Earp, 2010) and “Except for Timothy McVeigh, every terrorist has been a Muslim.” (Fox News, Earp, 2010). This portrayal of the Arab population is harmful to the majority of Muslim individuals living in the United States who pose no threat whatsoever. Falsely associated an entire group of people with an influential fear-inducing stimulus (terrorism), sets up extremely problematic behavioral

and cognitive outcomes associated with misled fear perpetuated by the media and its rhetoric surrounding the Muslim faith. In addition, media coverage of terrorism in general conveys an inconsistent picture to media consumers regarding the true threat terror attacks pose on a daily basis. See Figure 2 for an example of overtly misleading news coverage of the concern of terrorism.

As previously discussed through Hurley et al. (2015), Black individuals are another population largely misrepresented by the media. Gerbner details that Black men especially are connected with drugs, crime, and violence in their media portrayals. Such consistent portrayals lead the general public to associate crime more with Blacks than Whites when in reality this is not the case (Earp, 2010). One study by Gilliam and Iyenger (2000) further examines the influences of local television news on media consumers. This study found that not only does the constant exposure to crime from the news media increase viewers' perceptions of how common crime is, but it associates race into the misperceptions surrounding crime. This added element influences viewers to increase political support for harsher and more frequent punishments for criminals and negatively influence White viewers' attitudes toward Black individuals in general (Gilliam & Iyenger, 2000). The association between portrayals of Black individuals and an overly-emphasized connection with crime has visible, harmful behavioral effects for minority groups.

Overall, the intentional provocation of fear in politically-based news coverage is arguably not intended to be to the detriment of populations of people. Rather, it is more likely that this news coverage invokes fear to achieve viewer arousal, and thus viewer attention to the programming. Alternatively, fear may be induced in political news coverage regarding issues

such as immigration to provoke an attitude change about the topic. Regardless of the purpose for the intentional use of fear, the behavioral and cognitive implications are most likely unintentional. But, just because the effects occur without malicious intent, does not justify them. Again, it is the role of media consumers to understand the strategies employed by the media in order to resist problematic behaviors associated with misled fear.

In a continued analysis of the media's use of fear, the intentional use of fear can also have intentional cognitive and behavioral outcomes. An example of this might include attitude change toward an opposing political candidate that results in voting against that individual. Or, one could induce fear toward a certain political issue in order to increase action in support of a new policy endorsed that politician. For these reasons and more, political figures have historically used fear tactics to obtain specific cognitive and behavioral responses from media consumers. Examples and research regarding this reality is discussed in the following section.

Use of Fear in Political Campaigns. In 1988, George H.W. Bush's campaign for presidency adopted a strategy that utilized the crimes committed by a man named William Horton. Knowing that his political rival, Michael Dukakis, had vetoed a bill that did not allow those convicted of first-degree murder to obtain furloughs, Bush's campaign manager used the Horton case to the politician's advantage. After serving parts of his lifetime sentence in the Massachusetts's prison system for first-degree murder, Horton, or "Willie" Horton as he would essentially be renamed, was released multiple times through the furlough program. On one of his releases in 1986, Horton was driving without a license, was pulled over, and fled immediately to avoid the repercussions. In less than a year after his escape, he was arrested for breaking and entering, rape, and the physical assault of a homeowner in Maryland. The Bush campaign

released advertisements against Dukakis using Horton's mug shot. The ads played on the fear associated with releasing criminals from prison and essentially used Horton's crimes to suggest similar occurrences would result if Dukakis were elected. For an example of such an advertisement, see Figure 3. It is uncertain the true impact these advertisements had on voters, but regardless, Dukakis lost the election (Blakemore, 2018).

Mass media is a platform often used by current politicians or those running for election into political offices. Within this electoral system, the use of fear currently is and has been a prominent method of obtaining political, financial, and emotional support. Politicians' manipulation of fear by the media poses an ever-increasing problem for consumers and the electorate, as the constant access to these fear-invoking stimuli subjects them to emotional manipulation and potentially impacts the authenticity of the evaluations of political figures.

Weber (2013) examined the direct effects of invoking emotional responses in political campaigns. He was interested in how emotional appeals occur in responses to campaign advertisements and what political consequences these appeals have on voters and their behavior. Weber predicted that anger, sadness, fear, and enthusiasm would be emotional factors most associated with political consequences, such as decreased voting participation. The study used existing political advertisements from a previous congressional race between John Wilkins and David Reade. Each participant was randomly assigned to view one of four ads that provoked either enthusiasm, anger, sadness, or fear.

Anger/fear (consistently co-occurring emotions in this study) were seen as a mobilizing while sadness was demobilizing (Weber, 2013). Anger/fear cues increased political participation through volunteering and voting. Sadness decreased participation in those same behaviors.

Weber also used 2004 presidential campaign advertisements to evaluate similar outcomes. From this aspect of the study, fear was shown to decrease political participation and discussion, as well as overall interest in political matters.

In conclusion, Weber (2013) suggests that when fear alone is invoked, decreased political concern results. In an emotional response rooted in sadness, not only does political concern decrease, but so do behaviors associated with political action, such as voting. From the emotion of anger, political action (e.g. voting and volunteering) actually increases (Weber, 2013). This study closely connects with previous discussions of fear. Fear is mobilizing when it remains in a productive state (or co-occurs with anger), but can become unproductive when an individual is overcome by anxiety (or sadness in this case). Regardless, fear has the potential to produce many adverse outcomes when invoked in political environments.

Another study by Chang (2001) examined the effects of specifically print advertising on viewers' emotions and their subsequent evaluations of the ads and the political candidates themselves. Chang's literature review differentiated between positive and negative advertisements. Positive advertising was defined as those ads that identify personal strengths and admirable qualities of a candidate, while negative advertising was defined as either an ad that specifically attacked an opponent or one that highlighted a weakness of an opposing candidate. Positive advertising typically evokes positive emotions, namely hope, pride, and reassurance, while negative ads tend to provoke negative emotions such as guilt, anger, and fear.

In the study conducted by Chang (2001), six positive and six negative advertisements were created all addressing different issues, strengths, and weaknesses (that would potentially be present within a fictional campaign). Each participant viewed one positive or negative ad for

Candidate A and one for Candidate B. Examples of topics presented, in either a positive or negative way, within the ads include, crime, the economy, and the environment. Participants viewed both advertisements then were asked to provide open ended responses to what they had viewed as well as rate their general attitudes toward the candidates and the ad itself. Additionally, participants were asked to rank feelings/emotions associated with their viewing of each ad.

Chang (2001) found that, as hypothesized, positive ads evoked more positive emotions while negative ads evoked negative emotions. Additional analyses showed that the negative advertising condition produced significantly more negative cognitions than did the positive condition, and consequently, negative cognitions in response to the ads promoted more negative candidate evaluations. Because the emotional appeal influences a viewers' attitude toward the ad itself, this attitude (whether positive or negative) is then associated with the candidate, as the results of this study would suggest. Thus, the ad-evoked emotion not only influences viewers' evaluations and attitudes toward the ad itself, but the political candidate associated with the ad (Chang, 2001).

In this study of a fictional campaign, Chang (2001) identified the potential impacts negative advertising can have on how viewers subsequently evaluate candidates. The evoked negative emotions were associated with the ad and thus the candidate present in the ad. In conclusion, negative advertising about a political candidate influenced viewers to more negatively evaluate candidates portrayed by such ads. Generalizing this study exemplifies one way in which media consumer cognitions, and subsequent behaviors, may be unconsciously influenced by fear-inducing stimuli in the media.

Another study by Valentino, Hutchings, Banks, and Davis (2008) examined how specific evoked emotions contribute not only to viewer cognitions/evaluations, but to political action. This study looked at the emotional effects on political behavior of individuals during the campaigning process. In the first part, the researchers induced a particular emotional state in the experimental conditions. Participants in these conditions were asked to focus on the current presidential election between George W. Bush and John Kerry, and recall an event or experience during the campaign process that elicited feelings of either enthusiasm, anger, or fear. After invoking these emotions in participants, researchers prompted participants to discover more information about the candidates in the election cycle by allowing them time on the candidates' webpages. The variables evaluated for were self-reported attention to the campaign (how much each person intended to attend to the campaign in the future), following debates (how much each person planned to follow presidential debates), total time spent on all the candidates' webpages, total time spent on each candidate issue-focused webpages, total time spent on the biographies of the candidates, and total time per webpage.

In both Kerry and Bush's campaigns, the evoked emotion of anxiety/fear was shown to have the greatest effects on future attention intended toward the campaign as well as intention to follow presidential debates. All three emotions showed a positive impact on self-reported attention, but anxiety or fear had the largest effect. These results suggest that anxiety/fear, especially, produces a greater awareness or alertness to the candidates and the election in progress. All three emotions (anger, anxiety, and enthusiasm) has negative relationships with information-seeking variables, but anger had the largest effect (Valentino et al., 2008). Essentially these results show that anger, and to some extent anxiety, produce a reduction in the

total time spent information-seeking, but also reduces attention toward seeking information about specific issues present within each campaign.

In conclusion, this study found that while anxiety and anger, specifically, increase attention toward political candidate campaigns and associated political issues, these emotions actually decrease the amount of time spent evaluating and seeking out information about the campaign candidates or issues. Valentino et al. (2008) explain this result by suggesting that anxiety may increase arousal and attention toward threatening stimuli, but rather than broadly provoking information-seeking behavior, this emotion limits the scope of learning and focuses in on smaller subsets of related information. This finding is consistent with why the experience of anxiety as a subset of fear is ultimately non-productive. Experiencing anxiety in response to political campaigns does not pose an imminent threat, and therefore humans are not adapted to respond in an automatic way that relieves such negative emotions. Ultimately, Valentino et al. (2008) suggests that anxiety or fear provoked during political campaigning does not contribute to the formation of an informed voter or citizen.

Kuhne, Schemer, Matthes, and Wirth (2011) also conducted a study to determine how campaign emotional appeals impact political opinions, and thus actions. Kuhne et al. argue that initially campaigns use cognitive priming, but also affective priming to induce emotional states that influence attitude change toward a specific topic or person. They hypothesized two major results. First, that there would be a direct affective impact on the formation of political judgments. Second, that attitude formation toward the topic would be impacted based on the types of emotions evoked during campaigns. In other words, evoking positive emotions would

promote a positive attitude toward a topic while evoking negative attitudes would promote negative feelings toward a topic (Kuhne et al., 2011).

In this study, Kuhne et al. (2011) used a recent Swiss tax reform political issue as the basis for their survey. The participants were evaluated based on their cognitive perceptions of the issue (i.e. beliefs regarding the benefits/consequences of the reform) as well as their affective responses to it (i.e. feelings/emotions about the reform). As expected, positive emotions towards the reform increased the cognitions towards the issue in the form of greater amounts of support. Similarly, negative emotions toward the issue predicted low support of participants for that issue. This study found that emotions better predicted of how one would evaluate an issue than individual statements of approval or disapproval about the issue. Overall, Kuhne et al. (2011) supported the existence of direct affective influences on political judgments. They concluded that voters were more reliant on emotions than on cognitive functioning to decide what they were in support of.

The Kuhne et al. (2011) study provides even more evidence that suggests that emotions have a greater influence on political action than individual's realize. When fear (a negative emotion) is invoked against another politician, a political issue, or a current political event/crisis, the results of Kuhne et al. (2011) suggest that this would have detrimental effects on the public's evaluations, and ultimately, their opinions, of such people, issues, and events. This is a way in which the emotion of fear is maladaptive today. It influences not only behavioral responses as a means of survival, but it influences attitudes, when this attitude change is not warranted.

Namkoong, Fung, and Scheufele (2012) conducted a study that examines this information within the context of the United States political system, specifically how emotions influence

political participation and news media attention of the public during presidential campaigns. Namkoong et al. (2012) used data from the 2004 presidential election to examine news media attention to this election, factual political knowledge recall, emotions toward the candidates (George W. Bush and John Kerry), and political participation. This study found that television news media provokes heightened emotional reactions, and thus influences emotional attitudes toward the candidates in presidential elections, as well as toward the important issues present during that election. Political knowledge and favorable emotions toward either candidate both had significant, positive relationships with political participation. Greater TV news media attention displayed a significant, positive relationship toward favorable emotions toward Bush and Kerry, but a larger effect was found for Bush. Overall, Namkoong et al. (2012) conclude that emotions have a mediating effect on political participation. News media attention increases emotion (especially television news) and this in turn influences attitudes and emotions about political candidates which motivate a greater amount of political participation when individuals are emotionally invested.

Fear, and other related emotions, contribute to the formation of political opinions and judgments of candidates and issues, as well as to the likelihood for political participation/action in general. These studies seek to identify the effects of emotions evoked by the media in consumer political behavior. In the majority of these studies, emotional influences are neutrally expressed. In other words, there is no argument for or against the use of emotion in political advertising or media coverage. This paper, however, argues that fear arousal by the media are primarily negative because they influence human behavior outside of conscious awareness. I would add that such unconscious emotional manipulation is not beneficial to the democratic

political process or the voters themselves. Associated behavioral responses are not genuine because they are provoked by agenda-setting media networks or politicians who desire specific outcomes. Whether than be attaining more votes, raising more money, or persuasion for/against various political issues/concerns, the effects of using fear arousal tactics do not cease when increased attention toward these issues/elections is obtained.

So, this section has discussed a variety of political and social problems perpetuated by the media. Firstly, the emotional arousal techniques utilized during political campaigning is an often unconscious, but effective way to achieve a certain political agenda. Associating fear or other negative emotions with another candidate or portions of their platform is a way to increase negative attitudes toward the opposing candidate and potentially increase positive attitudes toward oneself. In addition, politically-based news coverage generally invokes fear less conspiratorially, but produces outcomes that are still problematic for media consumers. While fear is useful in promoting attitude change, it also has consequences against the sources of the invoked fear, such as asylum-seeking individuals. Overall, the provocation of fear by the media for political purposes increases attention of media consumers to current issues, but it also has unintended (and sometimes, intended) cognitive and behavioral consequences. Whether it's a belief that Muslims and terrorism are inextricably connected, or the support of stricter immigration policies, the cues associated with media portrayals of regular people, political figures, or current political issues influences the general public's perception and behaviors regarding them.

It is worth noting that similar fear tactics are used in and promoted by the media outside of politics. Product advertisers and public health campaigns are two examples of industries that

often utilize the human emotion of fear to achieve specific outcomes (e.g. incentive to purchase a drug or decrease the amount of smokers). While some of these intentions are arguably virtuous, they nonetheless provoke fear in an effort to unconsciously promote a certain behavior in media consumers. The limited scope of this paper does not allow for further exploration of such uses of fear, but the prominence of these fear tactics in advertising and health campaigns required the mention of them briefly.

It is problematic for media consumers to be unaware of the human susceptibility to such emotional manipulation. Whether fear arousal is intentional or unintentional, consumers need to come to an understanding of innate emotional processes and what behavioral consequences are associated with them. By doing this and employing conscious evaluations of media messages, particularly relating to politics or persuasive messages, consumers can better protect themselves from behavioral manipulation in the form of fear arousal.

Resisting Mised/Manipulated Fear

How can humans hope to avoid misled and manipulated fear? LeDoux (2014) suggests one way to address misled fear is to recognize the difference between behaviors associated with unconscious and conscious fear (or System 1 and System 2). LeDoux argues that the fear conditioning produces fear responses through System 1 processing. For this reason, unconscious experiences of fear are defensive and motivate necessary action. Conscious experiences of fear occur but do not motivate or reinforce behaviors. LeDoux describes this difference as “acting emotionally” (i.e. unconscious experience) and “being emotional” (i.e. the conscious experience). Being emotional serves little purpose. Infants and animals have the capacity to act emotionally as this is often beneficial for survival. But, merely being emotional, or maintaining

the subjective experience of fear, is not to the human advantage in most cases (LeDoux, 2014). LeDoux's differentiation between the unconscious and conscious experience of fear is important to consider. Understanding this difference and how each process (System 1 and System 2) operate independently of and in cooperation with each other, gives individuals insight into their own potential for misled fear and inappropriate fear responses. Wilson adds to this idea of how humans can specifically recognize the unconscious experience of fear and oppose its influence on actions.

Wilson (2002) provides ways to overcome poor introspective abilities and recognize common outcomes of misled fear, such as bias. He discusses the fact that humans must recognize the cultural and societal factors contributing to the formation and maintenance of cognitions, thoughts, and behaviors. By this, Wilson is suggesting that humans can often accurately assess the cause of their emotions, but at other times, their personal and cultural agendas may skew assessment abilities. To overcome this, recognizing external influences and removing them as much as possible from the introspection process is necessary when experiencing and reacting to fear. Similarly, in overcoming bias and prejudice, Wilson argues the humans must be high in emotional intelligence, or have the ability "to see through the smoke screen of personal and cultural theories" (Wilson, 2002, p. 130). Essentially, this comes down to recognizing "dual attitudes," or addressing both explicit and implicit level cognitions. To do this, humans can use the observation of their own behavior and utilize Wilson's recognition of outside influences to overcome the tendency toward false inferences. In addition, Wilson argues that understanding the processes by which emotions are misled by reading the psychological literature, humans can better protect themselves from misled and manipulated fear.

DeBecker (1997) provides another way to address the experience of fear. He argues that it is absolutely necessary to acknowledge feelings of fear, as something has caused them. Yes, humans should attend to intuition, but they must also evaluate the situation further to ensure the source of the fear is legitimate and a response is required. This may seem entirely achievable when experiencing fear in a physically occurring situation. But, when the experience of fear or related emotions occurs through the media, the realization of fear and this check on behavior as a result of the fear can be even more difficult.

To recognize warranted fear evoked by the media requires an understanding of what is real and what is manufactured. Frederick Bartlett's (1934) idea of schemata is necessary to consider when attempting to understand what is real. Schemas are essentially cognitive structures that assist humans in making sense of incoming stimuli. DeFleur and Ball-Rokeach (1989) call schemata "personal organizations organizations of subjective meanings" of things we perceive (p.256). Schemata develop throughout lifetime experience and influence behavior according to past experiences. Humans tend to categorize information as much as possible because it provides a sort of convenience for general understanding. This is necessary to recognize, as coverage that provoke fear can easily be categorized with negative stimuli from past experiences or the socialization process, and inaccurate understandings of topics or events can be produced from negative portrayals. Understanding this human tendency provides a defense against false associations and the adverse behaviors that follow them. All in all, schemas are a useful tool for evaluating a large amount of information perceived by humans, but can lead to inaccurate cognitive associations that are particularly harmful when produced from the emotion of fear.

A final approach to avoiding intentionally manipulated fear, particularly from the media, combines the knowledge of schemas and the inherently misleading factors found in the media in a process called critical media literacy. Critical media literacy promotes individuals to have the abilities to interpret media messages in multiple ways, recognize the inherent portrayal of stereotypes and bias, analyze media codes and conventions, discern the dominant values and ideologies of various media sources, and thus, more effectively evaluate media content (Kellner & Share, 2005). By either incorporating such education into societal learning systems, or placing the burden on consumers to understand the educational and socializing abilities of the media, viewers could be better equipped to use System 2 processing to more critically address and understand the manipulation imposed by media.

The core principles of critical media literacy include the following: 1) All media messages are “constructed”, 2) Media messages are constructed using a creative language with its own rules, 3) Different people experience the same media message differently, 4) Media have embedded values and points of view, and 5) Media are organized to gain profit and/or power. These core concepts relate heavily to the previously and initially discussed problems with mass media (Kellner & Share, 2005). Increasing the awareness of these inherent problems, or these core concepts of critical media literacy, is vital to the future usage of media in society. Perhaps most importantly, Kellner and Share (2005) argue that media literacy would not only promote the avoidance of media fear manipulation, but also enhance individuals’ abilities to use media sources more effectively as tools of communication and positive social change.

The idea of critical media literacy is great, but a problem exists in how to catalyze a realization for the necessity of such education. One potential solution would be to include critical

media literacy in education systems. But, Alvermann and Hagood (2000) argue that in the American education system, rational thought and the intellect are valued over mental struggle, particularly mental struggles that occur from inconsistencies in society which are commonly portrayed through the media. In addition, leisure activities (e.g. the consumption of the media) are generally considered outside the realm of academic pursuits, and thus it would be difficult to incorporate such discussions or teachings of critical media literacy in the educational system. However, such implementation is necessary, as it would increase an individual's literacy abilities for in and out of academia based sources.

With the constantly changing media, literacy abilities are being challenged. The meaning of literacy commonly known as the ability to read and write is no a longer sufficient definition. Critical media literacy is an increasingly important component of daily functioning with a variety of media outlets introduced and an increasing amount of information passing through such media. Alvermann and Hagood (2000) do address that media may change too quickly to fully incorporate critical media literacy into education system. But, some form of critical media literacy needs to begin earlier in American education, as it currently begins in college for most individuals. Alvermann and Hagood (2000) close with the suggestion that if such an implementation were to be successful, the lines between in-school and out-of-school literacies must be lost and concern for mental struggle to understand and address societal inconsistencies must occur within academic settings.

In summation of this critical media literacy argument, while I support the inclusive of such education into American academic institutions, I think that the final burden is on the media consumer to begin or continue such education. Taking responsibility for one's own media

literacy education, allows consumers to avoid emotional manipulation by the media and the adverse behavioral outcomes associated. Ultimately, while certain behaviors committed by media outlets, and politicians through the media, in the end, the institution of the media is not responsible for the actions of its consumers.

Conclusions

Whether its running from a snake in the mountains of Arizona or the sense of unease experienced passing through Union Station in Washington, D.C. at night, fear manifests in a variety of ways in humans and other animals. The emotion of fear exists for the purpose of danger-detection. Fear responses are adaptations that were adopted due to the fact that they increase chances of survival. Fear systems operate daily using innate and learned fears to process and respond to stimuli. These fear systems used by humans and other animals are conscious and unconscious. Both serve adaptive functions, but can be misled.

This paper highlighted the benefits of both types of fear processing to human survival today. But, it also recognizes that when fear reactions are misled (or wrong), humans and social systems are especially impacted. The power and influence of the negative emotion of fear can produce cognitions and behaviors that are unwarranted, or even problematic for ourselves or others. One evolutionary fear that is commonly misinterpreted and acted upon is fear of the out-group. While this fear still has some adaptive function, it is the source of many problematic behaviors today. Such behaviors include, racial prejudice, acting on negative stereotypes, avoidance of out-group members, and even increased violence against out-group members.

This paper cautions against such behaviors and promotes learning about human fear processes in an effort to combat these harmful misled fear responses. Ultimately, humans have

the responsibility to first, recognize our experiences of fear and attend to them, but also ensure the source of fear is legitimate, and that our actions that follow are warranted.

In habitually incorporating such practices into daily life, individuals will be better protected against unintentional bias, and intentional manipulation that occurs often times through the media. As stimuli perceived through all forms of media are not physically present, the experience of fear or anxiety from such stimuli is non-productive because no immediate behavior is required. In sum, through the media, fear is even further misled from even the evolutionary-based tendencies toward wrong conclusions during experiences of fear. Crisis news, politically-based news coverage, and entertainment media all, arguably, unintentionally provoke fear or anxiety in media consumers by the topics they cover and their presentations of such topics. In modern society, fear is intentionally manipulated by individuals and organizations that hope to achieve certain fear responses. For example, political campaigns often intentionally use fear tactics to induce fear responses in media consumers.

To combat such misled and manipulated fear, the burden is on media consumers to initiate critical media literacy education to better understand the inherent flaws in media sources. Through such education, people can obtain the capability of opposing misled and manipulated fear and limiting unnecessary, or even harmful, reactions to it. At a basic level, merely increasing awareness of such tactics and phenomena is an effective way to oppose its effects.

Ultimately, fear is good. In its intended state, it helps humans and other animals respond to threatening stimuli and react in a way that best promotes survival. In other states, fear, in the form of anxiety, is potentially detrimental to proper human functioning. It occasionally facilitates inaction. But fear can also motivate problematic action as well—actions that are harmful to

others, specifically members of an out-group. Upon reflection, I do not have some exciting concluding revelation about how human beings can eliminate maladaptive fear responses. What I do have is the information that opposing evolutionary tendencies is hard, and recognizing implicit bias might be even harder. But, learning to better understand these aspect of the adaptive unconscious and human functioning, will better prepare individuals not only to contribute to a society freer of discrimination and prejudice, but also to oppose their own manipulation by external forces, such as the media.

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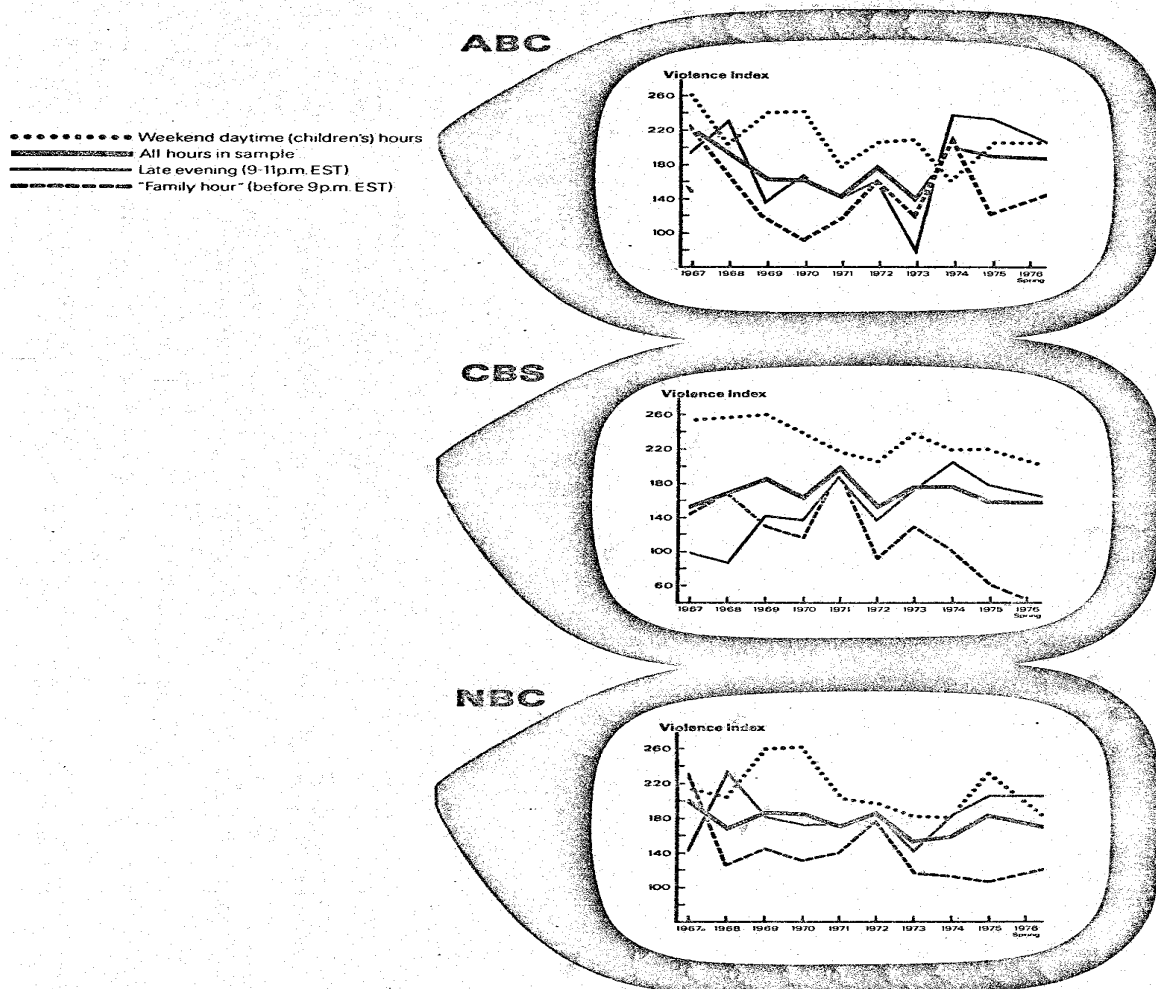
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Figures



The graphs at left show the trends for the past 10 years for different hours of programming and separately for each network. The "violence index" is based on specific incidents and characters noted by trained observers and tabulated by the author and his associates in a long-range project. The zigzagging lines indicate a slight and tentative downward trend in violence, perhaps due to the "family hour" and most clearly evident on CBS.

Figure 1. Violence Index trends from 1967 to 1976 as measured by Gerbner for different hours of programming and by the different television networks, ABC, CBS, and NBC. The uncertain direction of the trends supports a conclusion that violence portrayed in entertainment media is not on a decline. Overall, CBS shows the most promise toward a decrease in the amount of programming that incorporates violence. Adapted from "Television Violence: Measuring the Climate of Fear," by George Gerbner, 1976, *American Medical News*, Impact Section. Copyright 1976 by the American Medical Association.



Figure 2. Fox News coverage screenshot from an interview with Morten Storm on November 17, 2015. In this interview, Storm announced a certain terror strike by ISIS was to occur within a 2-week time frame. This is an example of breaking news that is not factually supported and unnecessarily invokes fear into viewers. Adapted from “Once Again, Media Terrorize the Public for the Terrorists,” by A. Johnson, 2015. Copyright 2019 by Fairness & Accuracy in Reporting.

Gov 'gave pardons to 21 drug dealers'

Will Dukakis Turn Gun Owners Into Criminals... While Murderers Go Free?

The Most Soft-on-Crime Governor in Massachusetts History Is a Leading Advocate of Gun Control

Gun Owner Magazine quotes Dukakis as saying in 1986, "I don't believe in people owning guns, only the police and military. And I'm going to do everything I can to disarm this state." In 1976 Dukakis supported a (losing) statewide referendum which would have done just that. Dukakis has called for federal registration of all concealable handguns and has written, "... the solution to the problem of gun-inflicted violence must come at the national level."

Michael Dukakis talks about fighting crime, but there is a big gap between the rhetoric and the record. Maybe that's why the Boston Police Patrolman's Association unanimously endorsed George Bush for President.

While trying to deny the citizens of Massachusetts the right to defend themselves, Dukakis has put more convicted criminals on the streets than any governor in his state's history.

- He has used his gubernatorial pardoning power to commute the sentences of 44 convicted murderers—a record for the state of Massachusetts.
- He has vetoed and continues to oppose the death penalty under any circumstances, even for cop-killers, drug kingpins and traitors.
- He opposes mandatory sentences for hardcore criminals but supports mandatory sentences for anyone caught with an unregistered gun of any kind.

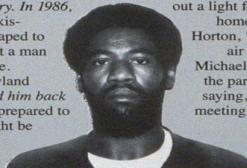
Dukakis has also presided over and actively endorsed the most liberal prisoner furlough program in America, the only one in the nation releasing prisoners sentenced to life without parole.

- On average, in the state of Massachusetts, one convicted first degree murderer was released every day over the last seven years.
- Since the beginning of Dukakis' second term as Governor, 1,905 furloughs have been granted to first degree murderers and at least 4,459 furloughs to second degree murderers. He has given 2,565 furloughs to drug offenders.
- In 1986 alone, Dukakis gave 1,229 furloughs to sex crime offenders, including 220 to persons charged with six or more sex offenses.
- Today 85 violent felons from Massachusetts are on the loose in America—set free on furloughs, they never bothered to come back.

Meet Willie Horton.

Willie Horton was convicted in 1975 and sentenced to life in prison without parole for stabbing a 17-year-old to death during a robbery. In 1986, on his tenth release under the Dukakis-supported furlough program, he escaped to Maryland where he stabbed and beat a man and then repeatedly raped his fiancée.

Horton was captured, but Maryland Judge Vincent Femia refused to send him back to Massachusetts saying, "I am not prepared to take the chance that Mr. Horton might be furloughed or otherwise released ..."



I would strongly urge the people of Massachusetts not to wait up for Mr. Horton ... not to bother to put out a light for him because he won't be coming home." Judge Femia recommended that Horton, "should never draw a breath of free air again ... and should die in prison." Michael Dukakis refused to even meet with the parents of the couple Horton attacked, saying, "I don't see any particular value in meeting with people ... I'm satisfied ... we have the kind of furlough policy we should have."

Paid for by Victory '88, New Jersey

Figure 3. Example of the Bush campaign strategy that induced fear using the convicted criminal, William Horton. The advertisement induces fear by the description of Horton's crimes, and connects Dukakis with Horton in an effort to induce negative emotions toward him. Adapted from "How the Willie Horton ad played on racism and fear," by E. Blakemore, 2018. Copyright 2019 by A&E Television Networks.