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According to the Center for Disease Control, 7-in-10 people use their smartphones while driving. This includes behaviors such as sending or reading text messages or emails, taking photos, or using social media. Despite its prevalence amongst drivers, using one's phone while driving is considered one of the worst types of distracted driving since it is a visual, manual and cognitive disruption. This has resulted in a behavior where 9 Americans lose their lives each day. In a response to this issue, the cell phone company, AT&T, began a media campaign to curb texting while driving behaviors. The following thesis examines one of the AT&T commercials and its efficacy on decreasing texting while driving. To accomplish this, a study was developed to test individual's attitudes, behaviors, and information-seeking strategies in regards to the behavior of texting while driving. Azjen's (1985) Theory of Planned Behavior was used to measure attitudinal and behavioral outcomes regarding texting while driving. In addition, Afifi and Weiner's (2004) Theory of Motivated Information Management measured information-seeking behavior for texting while driving. The results of this study found that both theories were a good model fit for understanding the subject of texting while driving. Despite this, there were no significant results that indicated that the commercial had an effect on the participants. The thesis argues that the AT&T commercial would have had an impact on the viewers, however this was not the case. Results indicate that predicting behavior is possible through the theories, but there is no direct effect from the commercial on those behaviors. The end of this study will conclude with a discussion of why these findings occurred.

Texting and Driving: How the Media Shapes Attitudes, Behaviors, and Information-Seeking Strategies

by
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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

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Stephanie Saracco, Author

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Chapter One: Introduction

Each day, 9 Americans lose their lives due to distracted driving (Schumaker, 2015).
According to the Center for Disease Control, distracted driving is "driving while doing another
activity that takes your attention away from driving" (CDC, 2016). This behavior consists of
three types of disruption: visual, manual, and cognitive. Visual is taking ones eyes off the road,
manual is taking ones hands off the wheel, and cognitive is taking ones mind off of driving
(CDC, 2016). The act of texting while driving is "especially dangerous because it combines all
three types of distraction" (CDC, 2016). Despite these dangers, drivers continue to engage in the
behavior. In fact, the cell phone company, AT&T, reports that nearly 7-in-10 people use their
smartphone while driving (CDC, 2016).

As cell phone technology has substantially developed, phone behavior while driving has
shifted from simple phone calls to the use of a variety of cell phone applications. Although a
majority of distracted drivers reported that their main activity was texting (61%), people have
also admitted to checking and sending email (33%), checking the Internet (28%), checking
Facebook (27%), or even taking a video (12%) (Schumaker, 2015). Regardless of initial efforts
to reduce this behavior, cell phone use while driving continues to be a modern day epidemic
(Schumaker, 2015). While there have been many steps to mitigate this habit, teenagers and adults
are especially persistent with this behavior. In response, many states have enacted legislation to
ban the act of texting while driving; however these laws vary across states.

States such as California penalize offenders by a mere twenty dollars, while the state of
Alaska charges citizens ten thousand dollars for a first time offense (Johnson, 2016). Conversely,
there are several states, including Arizona, Montana South Carolina, and South Dakota, that have
no ban on texting while driving (Johnson, 2016). Regardless of this variation, studies have

shown that texting bans only partially alleviate the behavior. In 2014, the University of Alabama at Birmingham School of Public Health found that "primary texting bans were significantly associated with a 3 percent reduction in traffic fatalities among all age groups, which equates to an average of 19 deaths per year" (Ferdinand, Menachemi, Sen, Blackburn, Morrisey, & Nelson, 2014, p. 1374). In addition, there was a greater reduction of traffic fatalities with the 15- to 21-year old age group (Ferdinand et al., 2014). While these results do mitigate the behavior to an extent, there is still much work to be done. In fact, texting while driving is a serious, yet common, behavior taken by as many as 92% of college-aged students (Atchley, Atwood, & Boulton, 2011).

Since the act of texting did not become popular until about ten years ago (Stewart, 2012), research has only begun to explore the impact that it makes on relationships, business, health, and more. As a consequence, there has been little research on the behavior of texting and driving. Rather than looking at what methods can reduce texting while driving, many researchers have examined the behavior characteristics that make an individual more inclined to engage in texting while driving (Hayashi, Russo, & Wirth, 2015). For example, Hayashi et al. (2015) found that texting while driving behavior was associated with "low level mindfulness, habitual texting tendencies, cell phone dependence, and risky behavior tendencies" (Hayashi et al., 2015, p. 183). These findings describe the type of person who is more likely to engage in texting while driving, rather than what may influence the person to stop.

In order to avoid the ambiguity of psychological behavior, Hayashi et al. (2005) used a "behavioral economic approach" (p. 183). These researchers observed texting while driving as an impulsive decision, where some drivers chose small immediate rewards while others chose larger delayed awards (2015). The study consisted of college students taking a survey on their

impulsive tendencies, which were then compared to their texting and driving habits (Hayashi et al., 2015). The results showed that the students who were more impulsive were significantly more likely to text while driving (Hayashi et al., 2015). Although these findings help clarify which personality types are more likely to engage in the behavior, this does not indicate how commercials directly affect behavior.

By acknowledging these discoveries, it is important to have another compelling means of persuasion for the general population. Previous research has shown media campaigns to be effective in changing an individual's behavior. These may consist of television or radio commercials, billboards, and other means of advertising. In response to the widespread behavior, the cell phone company AT&T launched a campaign in 2010 aimed at reducing texting while driving (No texting, 2016). The slogan that surrounded this campaign was "It Can Wait;" with the intent to encourage drivers to wait to use their phone until they were not driving (No texting, 2016). The AT&T website maintains a page dedicated to the campaign which includes videos, information, and discussion pages related to the movement (No texting, 2016). The webpage also has a pledge that drivers can take against texting while driving. By the end of the year 2015, nearly 10 million people had taken the pledge to never text and drive (No texting, 2016).

Although individuals have signed the pledge, there is little evidence on whether these pledges are honored. In 2014, the National Highway Traffic Safety Administration (NHTSA) launched a similar campaign to highlight the dangers of texting while driving (Hayashi et al., 2015). This operation was labeled *U Drive. U Text. U Pay*, and was advertised through television, radio, and other digital mediums (Hayashi et al., 2015). Unfortunately, this campaign did not find any substantial results (Hayashi et al., 2015, p. 183). It is imperative to test this

subject with different measures in order to provide a greater general understanding of this subject.

Study Objective

Since the dangers of texting while driving is a health and safety concern, it is crucial to find ways to mitigate this behavior for both practical and theoretical purposes. The following research consists of two main objectives. First, to test the efficacy of measuring ones attitudes and behaviors, and second, to measure the impact of a texting and driving commercial on those attitudes and behaviors. The AT&T campaign provides a suitable opportunity for understanding the relationship between the media and persuasion. Although the "It Can Wait" campaign has several media factors, it was initiated by a series of fear inducing commercials that showed the repercussions of texting and driving. For this research, a video released in 2016 was used. The commercial is a three minute and fifty second video titled, "Wait for it…this could save your life." A detailed explanation of the video will be provided in the methods section, but should be noted that the clip uses the emotional appeal of fear. Because of this, the following study examined the effects of this commercial on behavior and information-seeking strategies. After viewing the AT&T video, this study measured the persuasiveness of the commercial. This included whether or not the issue was considered important, how it affected the participant's attitudes toward the behavior, and whether or not they would seek information regarding the repercussions of the behavior. The goal was to understand how this commercial could directly persuade participants from engaging in the behavior of texting while driving.

Commercial effectiveness on persuasion has been studied thoroughly when it comes to subjects such as political campaign commercials or product advertising. However, measuring "effectiveness" may vary depending on the topic. For example, effectiveness for political

campaign commercials has often been measured by an individual's likelihood to vote for a particular candidate. Product advertising measures success by whether or not the product sells. While these commercials have been labeled as "effective," this doesn't mean that the results will be the same for other campaigns. Texting while driving campaigns would therefore view effectiveness as a reduction in the individual's behavior or a change in their attitude. Currently, there has been little research that measures commercial effectiveness on the behavior of texting while driving.

The objective of this study was to address these deficiencies while bolstering a greater understanding of commercial success. Regarding the research deficit, Public Service Announcements (PSAs) have studied behaviors like the reduction of smoking (Pierce, Anderson, Romano, Meissner, & Odenkirchen), and marijuana use (Jackson & Muth, 2001). The anti-smoking campaign provided a "help line" for people to call and receive assistance for their smoking addiction (Pierce et al., 1992). This study found that antismoking PSAs resulted in a significant increase of calls to the support line (Pierce et al., 1992). Another study found that PSA's directed towards the reduction of marijuana consumption effectively reduced marijuana usage in adolescents (Jackson & Muth, 2001). Similar to the current study, the National Institute on Drug Abuse used dramatic commercials throughout a campaign to influence adolescents from drug use (Jackson & Muth, 2001). Although previous PSA studies have not been applied to the subject of texting while driving, there is still significant support for PSA campaigns in general and its ability to influence behavior. It is on this success that PSA effectiveness should be extended to the behavior of texting while driving in order to find an compelling means of behavior deterrence.

Because of the success of previous PSAs, this study was intended to measure the impacts of a texting while driving commercial on an individual's attitudes, behaviors, and information-seeking strategies. To accomplish this, an experiment was conducted to measure the commercial's efficacy. This thesis took an interdisciplinary approach in order to adequately support each aspect of this study. Since individuals are motivated in a variety of ways, it is fitting to test the influence of several lenses of persuasion. Participants were exposed to a commercial from the AT&T "It Can Wait" campaign that was designed to induce fear and deter viewers from texting while driving. Immediately following the commercial, participants answered a survey that measured various factors from three theories. The results from the survey were intended to measure attitudes, behaviors, information-seeking strategies, and issue salience.

Scholarly Rational

To understand an individual's behavior, it is vital to consider the elements that may influence that very behavior. Icek Ajzen developed the Theory of Planned Behavior (TPB) as a formula for predicting behavioral choices (Ajzen et al., 1975). These factors assess an individual's attitude toward the behavior, how much control the individual has over engaging in the behavior, and finally, how other people influence the behaviors of an individual (Ajzen, 1980).

Thus far, the Theory of Planned Behavior has not measured commercial effectiveness. However, previous studies have used TPB to understand texting while driving behavior. In 2016, researchers examined the relationship between texting while driving and personality traits (Chen, Donmez, Atwood, & Marulanda, 2016). Chen et al. (2016) found that individuals who frequently text and drive were associated with "impulsive, venturesome, and sensation seeking

personalities" (p. 4). These findings highlight TPB's application on texting while driving research and will be discussed in further detail in the literature review.

The next theory used in this study concerns the relationship between uncertainty and seeking information. The Theory of Motivated Information Management (TMIM) (Afifi & Weiner, 2004) observes how individuals search for information when confronted with doubt (Afifi et al., 2004). In general, this theory asserts that information-management follows three phases: "interpretation, evaluation and decision" (Afifi et al., 2004, p. 171). Although TMIM has been used to study other high-risk behaviors, it would benefit the theory to be tested in other topic areas of communication. Thus far, there has been no research on the behavior of texting while driving for TMIM. In addition, there is no identifiable research on how commercials impact TMIM's information-seeking strategies.

Afifi and Weiner (2004) write how the presence of uncertainty acts as a motiving factor for individuals. With the topic of texting and driving commercials, viewers face uncertainty when it comes to personal safety and/or legal punishment. Using TMIM provides evidence to the notion that the safety and legal concerns of texting while driving may lead to uncertainty; thus, motiving the individual to reduce that uncertainty. Using TMIM will measure if the commercial first, produces uncertainty in the participant and second, whether or not that uncertainty leads to an information search.

The third and final element of the methodology and analysis is through the concept of issue salience (Epstein & Segal, 2000). This thesis will be supported through two perspectives on issue salience. The first evaluation will consist of an explanation of *political* salience, while the second concept represents a rhetorical approach to salience. Political salience observes the depth of importance an individual may have with particular political issues (Epstein et al., 2000). Thus,

if an issue is asserted as significant, then the receiver of the message will perceive the issue as significant (Epstein et al., 2000).

There are several different measures for evaluating political salience; however, this research will use the Spatial Model of Voting (Enelow & Hinich, 1984). The model provides several questions that will be added to the survey. This section is important to this research since understanding whether or not individuals even find the issue *important* serves as a control variable for the analysis. Salience is a concept that stretches across disciplines. In addition to the concept of political salience, it is also key to observe the impact of rhetorical salience on an individual's mentality. Persuasion is understood beyond social science. Because of this, multiple mediums of communication should be integrated into this research. Rhetoric is commonly defined as, "the faculty of *observing* in any given case the available means of persuasion" (Aristotle's *Rhetoric*). Accordingly, rhetoric is manifested in both persuasion and political salience.

To accomplish this, a rhetorical theorist and his concept on issue salience was used in this thesis. Richard E. Vatz, a Mass Communication professor at Townson University wrote on how meaning is not intrinsic in an event, but rather, composed by the *rhetor* whom/that delivers the message (1973). In his piece, "The Myth of the Rhetorical Situation," Vatz develops the term of "salience" (1973). The rhetor (the creator of the message; in this case, a commercial) will control *how important* an issue will be for an audience based on the facts and language that the rhetor chooses to emphasize (Vatz, 1973). Thus, Vatz's concept of salience explains how and why issues become significant for an audience member, while *issue* salience measures the extent to which an issue is important.

Although there will not be a direct rhetorical analysis in this thesis, the theory strengthens the concept of issue salience within the literature review. Thus, this methodology will only consist of the Theory of Planned Behavior Questionnaire (Ajzen, 2013), the Theory of Motivated Information Management Questionnaire (Afifi et al., 2004), and The Spatial Theory of Voting Questionnaire (Enelow et al., 1984). The intention of this comprehensive survey is to measure whether or not the commercial is persuasive and to observe the extent that each conceptual area is effective. The survey questions allow for an analysis that can dissect which components were more persuasive than others.

Practical Rationale

This research is essential in several regards. First, and most importantly, the issue with texting while driving is concerning. This study will provide support as to whether or not texting and driving commercials are effective. By adding to the scarce research, future campaigns may consider what methods are most persuasive in reaching out to the public. Overall, the hope is to save lives. To better understand this topic is to contribute to public safety.

Research has shown that media campaigns are influential on viewers (Elder, Shults, Sleet, Nichols, Thompson, & Rajab, 2004). "Success" in these campaigns is often indicated by the perception of societal benefits outweighing the costs (Elder et al., 2004). Common themes of successful campaigns were one's that were "Carefully planned, well executed, and attained an adequate audience" (Elder et al., 2004, p. 57). By exploring each method of persuasion, there will be a greater understanding of both the independent and collective methods of influence. In essence, the combination of surveys together can aid in strengthening the research and reliability on persuasion and behavior.

Preview of Thesis

Chapter two of this thesis will provide a literature review on the current relationship between the media and persuasion, an overview of the Theory of Planned Behavior, and of the Theory of Motivated Information Management. Once the theories and hypotheses are presented, chapter three will introduce the methods section. The study will consist of two groups; which includes one control group and one experimental group. The experimental group will be exposed to a commercial that is intended to evoke an emotional response and deter viewers from texting while driving. All participants will take a survey that will question ones attitudes and perceptions on the act of texting while driving. The goal of this study is to measure the effects of the theoretical models, and to test group differences between the experimental and control group. Once data is collected, the hypotheses will be tested and analyzed for significance. As the study concludes, there will be notes on findings, shortcomings, and future areas of research. The intention of this study is to provide both theoretical and practical findings for the study of communication.

Chapter Two: Literature Review

The following literature will be composed of three major sections. This investigation first opens with an overview of the current research on the relationship between the media and persuasion. Within this portion will be two subsections. First, commercial effectiveness will be addressed. Since the commercial used in this thesis uses fear appeals, the commercial's effectiveness hinges on the level of fear in the participant. Second, the topic of issue salience will explain the connection between the media and issue prominence. Issue salience will be supported by both research and theory.

The second main section describes the Theory of Planned Behavior. This concept will provide theoretical reasons as to why commercials are consistently effective in regards to

influencing behavior. This theory will also be part of the methodology of this research. The third and final section of the literature review will explain the Theory of Motivated Information Management. This concept will provide theoretical backing on information-seeking strategies, while also serving as a portion of the methodology.

Media and Persuasion

The subsequent section will discuss the dominance that the media has on society. Ejupi, Sijanovska, and Iseni (2015), wrote,

> The media is the only one which has the greatest influence on our attitudes, thoughts and interests. It is the media with its mixture of languages, image, tone and context which is the main source of information for the twenty-first century and which has an enormous influence on the public, thus creating the values of society." (p. 645)

To narrow the broad subject, this unit will first observe the impact that commercials have on attitudes and behavior, specifically with using the emotional appeal of fear. In addition, this section will explain how the media influences the importance of an issue through the concept of issue salience. The section on salience will be supported with both empirical research and with Vatz's rhetorical concept.

Commercial effectiveness. There are numerous studies on PSA/commercial effectiveness regarding risky behavior. One study by Weber, Dillow and Rocca (2011) observed the techniques used in anti-drinking and driving commercials. The research consisted of multiple focus groups of college students who discussed the repercussions of drinking and driving (Weber et al., 2011). The focus groups spoke of the most effective deterrents in PSA commercials (Weber et al., 2011). The results revealed consequences that were both lethal and non-lethal (Weber et al., 2011). The lethal fears consisted of losing ones life or the life of another, while the

non-lethal fears consisted of police officers giving a DUI or parental figures sanctioning a severe punishment to the individual (Weber et al., 2011). This research shows that both lethal and non-lethal punishments have elements of persuasion that influence behavior.

A different study examined the effects of anti-marijuana PSAs (Zimmerman, Cupp, Abadi, Donohew, Gray, Gordon, & Grossi, 2014). Participants were exposed to several PSAs about the health impacts of marijuana (Zimmerman et al., 2014). After the commercial, the participants took a survey that measured their attitudes about marijuana and their intentions to engage in the behavior (Zimmerman et al., 2014). The overall results were mixed. Nevertheless, it was found that moderate to high threat commercials would likely prompt fear, which would then lead to fear reducing behavior (Zimmerman et al., 2014). The presence of fear and emotional appeals are prevalent throughout the study of persuasion in the media. Because of this, the following section will examine the influence of negativity and emotional appeals in commercials.

Emotional appeals. A noteworthy factor in successful media campaigns is the presence of negativity and emotional appeals. Past studies have found that negatively framed messages have a greater impact on attitude formation when compared to positively framed messages (Meyerowitz & Chaiken, 1987). This is because people perceive the negative content as "clues about events or situations that people should avoid" (Fridkin & Kenney, 2008, p. 697). These avoidable situations are what have the potential to influence behavior in participants. Studies regarding campaigns have found how relationships may directly impact public opinion (Banks & Bell, 2013). In fact, evidence has demonstrated that "emotional appeals from ads can successfully persuade voters" (Brader, 2005, p. 549). Influence is possible through two types of appraisals (Banks et al., 2013). Banks et al. (2013) argues that individuals assess whether their

actions are congruent or incongruent with their goals. If goals are incongruent, then individuals will experience negative emotions (Banks et al., 2013). These negative emotions are what lead to coping mechanisms (Banks et al., 2013) and arguably a change of behavior.

Specific to this study is the concept of fear. Brader (2005) considers fear as a "hallmark of contemporary television advertising" (p. 388). Consistently, both psychologists and political scientists have affirmed the claim that emotions serve as a fundamental role in an individual's reasoning (Brader, 2005). *Emotional appeals* occur when the expressed communication works to elicit any type of emotional response from the receivers of the communication (Brader, 2005). Brader (2005) defines *Fear or anxiety* as, "a reaction to a threat. Fear breaks a person out of routines, directs attention to relevant portions of the environment, and activates thinking about alternative courses of action" (Brader, 2005, p. 390). The commercial in this study is intended to induce fear and direct viewers to change previous behaviors.

Emotions such as fear are described as "motivational impulses" (Lodge & Taber, 2005). The presence of fear causes individuals to do whatever they can to reduce that alarm. Researchers Marcus, Neuman, and MacKuen (2000) support this premise by asserting, "appeals to emotion can *cause* changes in how citizens respond to political messages. The results not only add to our knowledge of advertising effects, but also show that emotional appeals can stimulate behavior." The relationship between the media and persuasion prompts advertisers to use this approach as a technique for influence.

Valentino, Hutchens, and White (2008) write about the concept of the "surveillance system" in fear appeals. The surveillance system is intended to create fear or anxiety as a response to a threat. This anxiety will prompt individuals to seek information about the behavior, thereby creating an opportunity for the individual to be persuaded (Brader, Valentino, & Suhay,

2008). In a study on anti-immigration policies, Brader et al., (2008) found that anxiety and fear had a direct link on the participant's behavior. This study induced anxiety about immigration and measured its effect on voting behavior (Brader et al., 2008). The results showed that the integration of anxiety significantly impacted the participant's opinions, emotions, and subsequent behavior (Brader et al., 2008). In a separate study, Brader (2005) found that public health campaigns are most effective at changing behaviors when fear appeals were used. Motivation to change behavior is exceptionally high when participants are presented with a means of reducing or eliminating that fear (Brader, 2005).

Commercials have a unique opportunity to elicit an emotional response. Media elements such as sounds and images can strategically work together to impact the viewer. Brader (2005) claims that commercials can "significantly alter the motivational and persuasive power of ads simply by using music and images to elicit emotions, such as fear" (p. 388). Viewers have multiple senses affected at one time. Thus, the messages that are seen have a greater likelihood of arousing emotions in the viewer.

Salience. When predicting an individual's behavior, the importance of the issue to the participant must be considered. Issue salience is a term that is used across disciplines, particularly in political science and communication studies. Although viewpoints vary in degree, there are common themes that should be observed for the sake of interdisciplinary research. Hence, the following section will observe the concept of issue salience through the scope of both political science and rhetorical theory.

Political salience. Political salience is a concept that often considered in political science research (Wlezien, 2001). Traditionally, "salience" has been used to "designate the importance of issues, particularly for voters" (Wlezien, 2001, p. 2). In essence, greater salience typically

means greater importance (Wlezein, 2001). By understanding salience, outcomes in research can be understood by both the survey results, and by how important the issue is to the participant.

Issue salience in the political realm has helped significantly in research. Brians and Wattenberg (2011) researched how the media impacts issue salience. The researchers expressed that the most important variables in measuring salience are exposure and attention (2011). In addition, they cite Shapiro and Rieger (1992) when asserting that negative issue-based ads are more memorable and persuasive that positive issue-based ads. Wicks and Drew (1991) assert "Media-based experimental research shows that receiving conflicting, inconsistent information forces one 'to think more deeply about the incoming facts…[leading] to greater recall'" (p. 163).

Epstein and Segal (2000) observed how the media could influence the importance of issues for citizens. In order to measure the media's impression, the researchers examined the *New York Times'* front-page story on a potential Supreme Court case and then investigated to see if that was the case that the Supreme Court would select to hear (Epstein et al., 2000). Through the use of two measurements, these researchers found that the Supreme Court chose nearly *85 percent* of the cases that were listed on the front page of the *New York Times* (Epstein et al., 2000). Epstein et al. (2000) contends that the featuring of certain cases on the front page of the newspaper is what lead to the Supreme Court choosing those cases. Arguably, this research asserts that the media *does* have an impact on what issues are salient to not only the general public, but to the Supreme Court (Epstein et al., 2000).

In addition to media coverage, emotions also have an effect on what issues are considered salient to viewers. Bradley (2005) addressed how fear appeals change behaviors through decreasing the salience of former beliefs. He states, "Fear appeals—featuring content and imagery associated with threat—should motivate a search for information, decrease the salience

of prior beliefs and encourage reconsideration of choices on the basis of contemporary evaluations" (Bradley, 2005, p. 391). By presenting a fear inducing commercial, participants will likely be discouraged from engaging in the presented behavior. If participants had formally held that a behavior was acceptable, then the presence of fear may change that interpretation of importance. Overall, the media's strategic use of fear appeals can increase influence. It is vital to recognize however that persuasion is effective to the extent that the issue is important to the viewer. To continue the discussion on issue importance, the discipline of communication also offers an interpretation on salience. It is in the following section that the rhetorical concept of salience will be explained.

  Richard E. Vatz and rhetorical salience. The study of rhetoric is often regarded as a response to a situation (Bitzer, 1968). Lloyd Bitzer, was a famous rhetorician who developed the concept of "The Rhetorical Situation" (1968). Bitzer stated in his article on "The Rhetoric Situation" that, "Rhetorical discourse is called into existence by a situation" (1968, p. 9). This means that in order for rhetorical discourse to develop, there needs to be a situation in which a response is prompted. While Bitzer and his "Rhetorical Situation" are regarded as staples of rhetorical theory, Richard E. Vatz, rejected Bitzer's concept in his 1973 response, "The Myth of the Rhetorical Situation."

  Vatz established his position by arguing that meaning was not created by a situation ("situation" being events, facts, or people) (1973, p. 156). In addition, neither the situations nor its facts are "publically observable" (1973, p. 156). Instead *individuals* develop meaning from events, facts, and situations by communicating with others (Vatz, 1973). Therefore, people will learn about situations based on how others communicate about the situation (Vatz, 1973). What makes this argument compelling is Vatz's recognition of context. In Bitzer's opinion, the context

of the situation is what defines the situation. Vatz, however, contends, "one never runs out of context. One never runs out of facts to describe the situation" (1973, p.156).

Because of this, the nature of "the situation" is both ambiguous and subjective to the individual. In addition, the very words that are chosen to explain the situation depends on the view of the rhetor (the creator and distributor of a message). Hypothetically then, if a rhetor perceives a situation to be "threatening," then the listeners of the message will consider the situation as threatening. Vatz supports this by referencing the writings from Murray Edelman's book, *Politics as Symbolic Action*. Edelman asserts, "People can use only an infinitesimal fraction of the information reaching them. The critical question, therefore, is what accounts for the choice by political spectators and participants of what to organize into a meaningful structure and what to ignore" (Edelman, 1971, p. 33). By this, Edelman argues that the transmitter of the message has control over the information given to the receptor (1971). This strengthens Vatz's assertion that the rhetor likely engages in "sifting and choosing" what points should be emphasized when responding (1973, p. 156).

Conceptually, Vatz expresses that there are certain "steps" rhetors take in "communicating 'situations'" (1973, p. 157). First, the rhetor's choice of what facts are emphasized is what Vatz describes as *salience* (1973). Vatz relates this to Chaim Perelman's argumentative term of "presence" (Vatz, 1973). Pearlman wrote, "the very fact of selecting certain elements and presenting them to the audience, [in itself implies the] importance and pertinency to the discussion" (1969, p. 116-117). For Perelman (1969), the rhetor is capable of making numerous arguments based on the amount of options the rhetor can select. Perelman (1969) asserts that the concept of presence is what will draw the listener in since "all argumentation is selective" (p. 119).

The second way to communicate a situation is the rhetor's work in translating the information into meaning for the audience (Vatz, 1973). Events will develop value by the linguistic selections of the rhetor (1973). Thus, the very words that the rhetor uses carry connotative implication for the rhetor and for the audience. This serves as its own form of communication and can create meaning for the listener. For support, Vatz again refers to Edelman's work, "Political events can thereby become infused with strong affect stemming from psychic tension, from perceptions…and from interaction between social and psychological responses. These political 'events,' however, are largely creations of the language used to describe them" (Edelman, 1971, p. 65). Edelman states that language has the ability to create "shared meaning, perceptions, and reassurances among mass publics" (1971, p. 65). Hence, the very language that is used by the rhetor is what dictates how the audience will respond to the situation. On this notion, "meaning is not discovered in situations, but *created* by rhetors" (Vatz, 1973, p. 157). Rhetors use what Vatz calls "evocative language" to influence listeners (Vatz, 1973, p. 157). This language is intended to elicit a response from the audience. Vatz, amongst other cited scholars, asserts that language is undergirded by values (Vatz, 1973). The rhetor's syntax may then create different interpretations for the same situation (Vatz, 1973). This control gives rhetors the power to arouse, and effectively persuade an audience.

Subsequently, Vatz explains the implications of these steps on the study of rhetoric. To understand the essence of a rhetorical artifact, Vatz expresses that the largest concern for a critic would be to observe how individuals react to the evocative language (Vatz, 1973). Vatz concludes his argument by insisting, "rhetoric is a *cause* not an *effect* of meaning [and] rhetors choose or do not choose to make salient situations, facts, events, etc." (Vatz, 1973, p. 160). Thus, messages are strategically developed to make specific information appear relevant.

The dispute between Bitzer and Vatz extended beyond Vatz's 1973 article. In the 1981 issue of the *Quarterly Journal of Speech*, Bitzer, Vatz, and several other individuals exchanged ideas in an article titled, "The forum" (Tompkins, 1981). Vatz addressed Bitzer's defense of the rhetorical situation by pointing to a few gaps in his argument (Tompkins, 1981). Vatz asserted that Bitzer never spoke to his two main contentions. The first being that "situations" are really just the choice facts that are articulated by the rhetor (Tompkins, 1981). Secondly, success is not necessarily measured as the depiction of an objective situation, but rather the rhetors ability to manipulate the audience (Tompkins, 1981). Vatz then claimed that Bitzer was wrong to declare that there are "definable situations with inherent and knowable perimeters and meaning or that such 'situations' can be reduced to finite facts and events" (Tompkins, 1981, p. 97). In addition, Vatz argued that the nature of speaking and language is inherently persuasive, since the chosen words reflect the perceptions of the rhetor (Tompkins, 1981).

After Vatz's writings, Bitzer responded in the same forum (Tompkins, 1981). Rather than directly answering Vatz's contentions, Bitzer claimed that he did not understand Vatz's positions and believed that much of this debate was a misunderstanding (Tompkins, 1981). Bitzer proceeded to highlight the ambiguity of Vatz's word choice, such as "real meaning," "intrinsic meaning," "inherent," arbitrary," and so on (Tompkins, 1981, p. 100). Both the rhetors attempted to deconstruct the arguments of the other, which led to more questions than answers.

Since his work in 1973, Vatz's writings from "Myth of the Rhetorical Situation" were applied to his book, *The Only Authentic Book of Persuasion: The Agenda/Spin Model* (Vatz, 2014). It is in this book that Vatz elaborated on his idea of salience and how it applies to political and psychiatric persuasion. In a review of Vatz's book, Dolores Puterbaugh wrote, "the way questions are worded impacts emotions and the kind of information that is recalled" (2014, p.

81). Vatz, along with Puterbaugh recognize and emphasize that the situation, and its consequent importance, is controlled by the rhetor.

As this section ends, it is important to reflect on the arguments made thus far. While the media has its own methods of persuasion, it is also crucial to consider why issues become important to individuals in the first place. The concept of salience explains how issue importance is developed and how it can potentially lead to persuasion. In the next section of this literature review, the Theory of Planned Behavior will be explained. It is here where a discussion on attitudes, intentions, and behaviors will occur.

Theory of Planned Behavior

When predicting human behavior, Ajzen (1975) developed the Theory of Planned Behavior as an extension of the previous Theory of Reasoned Action (TRA). Initially, the Theory of Reasoned Action was intended to explain the reasons behind human behavior (Azjen, 1991). In order to improve the theory and its components, TPB was developed (Azjen, 1991). One of the major changes from TRA to TPB was to include the impact of people's volitional control in regards to behavior. TPB is composed of three types of beliefs that are each related to a construct. The first belief is a behavioral belief, with the measurable construct of an attitude (Azjen, 1991). The second belief is normative, with the construct of the subjective norm (Azjen, 1991). The third, and final belief is the control, with the construct of the perceived behavioral control (Azjen, 1991). Ajzen hypothesized that behavior is predictable through the analysis of these three types of beliefs.

Before explaining the model, there are a few terms that need definition. It is essential to note that behaviors are relatively predictable based on several elements. These include the theoretical concepts of traits, attitudes and consistency. Ajzen (2005) describes traits as a

"characteristic of an individual that exerts pervasive influence on a broad range of trait-relevant responses" (p. 15). Examples of traits describe an individuals disposition, such as "dominance, sociability, hostility, ambitiousness, self-esteem" etc. (Ajzen, 2005, p. 14). Expanding upon those traits are an individuals attitudes. Attitudes are constructs that are only measured through direct observation rather than measurement (Ajzen, 2005). This interpretation focuses on explaining an individual's attitude *towards* something (Ajzen, 2005). For example, and individual may hold attitudes about smoking, political parties, the church, or doctors (Ajzen, 2005). These attitudes are "relatively enduring dispositions" (Ajzen, 2005, p. 26), which explain its influence over a broad range of behaviors (Ajzen, 2005).

Another element of predictability is an individuals desire to be consistent. Behaving with consistency allows people to make sense and create order out of the numerous events, opinions, and interactions that occur each day (Bem, 1965). Theories on consistency argue that critically thinking and evaluating every decision would be mentally exhausting (Bem, 1965). Although humans are not forced to act out of consistency, the act of being consistent can help with developing and shaping one's identity in regards to attitudes, personality traits, and actions (Bem, 1965). This is also the basis of Festinger's Cognitive Dissonance Theory (1957); which is summarized as a psychologically unpleasant state that motivates the individual to change one or more cognitive elements in an attempt to eliminate or reduce the magnitude of the existing dissonance. Thus, when a persons overt actions conflict with their private attitudes or values, they are expected to "try to reduce the resulting dissonance either by modifying their behaviors or by changing their attitudes" (Ajzen, 2005, p. 26). It is argued that inconsistency and dissonance drives individuals to act and change behavior (Ajzen, 2005). Thus, when a person

values life or safety, yet engages in a dangerous behavior, individuals may experience tension.

This discomfort forces an individual to chose to between changing or continuing their behavior

Constructs. As stated in the beginning of this section, TPB addresses three types of

beliefs: behavioral, normative and control beliefs (Miniard et al., 1989). These views are

represented by constructs, which serve to measure each type of belief through theoretical and

empirical support. In addition, these constructs are what the TPB survey is composed of. Past

research attempted to predict behavior either through attitudes *or* beliefs (see Ajzen, 1988;

Campbell, 1963; Sherman & Fazio, 1983). This isolated approach resulted in insignificant

findings and a near abandonment of researching attitude concepts altogether (Wicker, 1969). In

response, Ajzen combined the separated variables into one comprehensive model to predict

behavior (Ajzen, 1991) (See Figure 1).

Attitude toward the behavior or *behavioral beliefs* refers to "the degree to which a person

has a favorable or unfavorable evaluation…of the behavior in question" (Ajzen, 1991, p. 187).

Attitudes and beliefs are explained more elaborately in Fishbein and Ajzen's Expectancy-Value

Model of Attitudes (1975, p. 191). This model articulates how people develop attitudes from the

beliefs he or she may hold (Fishbein et al., 1975). Individuals form these principles based or

what the belief can be associated with (Fishbein et al., 1975). In theory, people will naturally

associate a behavior to an outcome. Thus, if the *outcome* of the behavior is perceived as bad,

then the behavior will likely be considered bad (Fishbein et al., 1975). For example, if an

individual sees that the *behavior* of texting while driving has a *negative outcome* of injury, arrest,

or even death, then the individual would perceive this behavior as negative. This process will

shape an individuals attitude toward a belief and serve to guide future behavior (Fishbein et al.,

1975).

The *subjective norm* or *normative belief* refers to the "perceived social pressure to perform or not to perform the behavior" (Ajzen, 1991, p. 187). Individuals and groups can influence another's behavior through approval or disapproval (Ajzen, 1991). Regardless of the attitude towards a behavior, the potential consequences of social pressure can often influence intentions (Ajzen, 1991). Drivers are faced with a multitude of social pressures regarding texting while driving. These could consist of parents, law enforcement, or passengers in the car. For the most part, it can be assumed that these social pressures attempt to discourage drivers from texting while driving. Similarly, the peer pressure to actively engage in behaviors is equally possible. When predicting behavior in the TPB survey, the strength of the normative belief and the person's motivation to comply are considered when evaluating the strength of the behaviors likelihood.

The *perceived behavioral control* or *control belief* is the third construct for the Theory of Planned Behavior (Ajzen, 1991). "Control" is whether or not the behavior in question is under volitional control (Ajzen, 1991). This means that the person can *willfully* decide whether or not they will perform the behavior (Ajzen, 1991). This control also includes sources such as time, money, and ability, which could influence a person's capacity to engage in the behavior (Ajzen, 1985). For example, if an individuals was asked about the behavior of texting while driving, but that individual did not have a car, a license, or even a cell phone, then they would have low to no behavioral control. Thus, there is little they could do to engage in the behavior.

The manifestation of these elements helps in understanding *intention*. An individual's intention is defined as a person's objective to perform a behavior (Ajzen, 1991). These intentions are described as indicators of what an individual will do and how hard they will work in order to engage in the behavior (Ajzen, 1991). With this logic, it is assumed that the stronger the

intention, the more likely that the behavior will occur (Ajzen, 1991). Each construct of the theory is essential as it provides valuable insight towards motivation and intention. Behaviors are unlikely to occur if an individual does not have control or is influenced by the repercussions of subjective norms.

Empirical support. The Theory of Planned Behavior has been used to predict a wide variety of behavior. Topics such as anti-smoking (Norman, Conner, & Bell, 1999), eating a healthy diet (Armitage & Conner, 1999), and drug use (Jackson et al., 2001) have each been studied with TPB. Thematically, each of these referenced studies involves a high-risk behavior, whether that pertains to ones health and/or safety. Acalari and Kasap (2014) used TPB to examine the smoking behaviors of high school students. The researchers conducted a qualitative study of face-to-face interviews in order to understand factors that prompt smoking (Acalari et al., 2014). Participants where asked about each concept of TPB in addition to the harms and benefits of engaging in the behavior of smoking (Acalari et al., 2014). These findings supported that, "anti-smoking campaigns running in the media in recent years have been effective on students" (Acalari et al., 2014, p. 505). Not only did these students directly refer to deterrent campaigns in their reasoning, but they also mentioned additional concerns (Acalari et al., 2014). Overall, the researches advocated that the most effective method of persuasion is to educate students on the dangers from different angles (Acalari et al., 2014). These could include, videos, "simulations, hospital visits, or interviews" (Acalari et al., 2014, p. 505).

Conversely, Prat et al. (2015) measured the different variables that may influence decision-making. These factors included the use of bans, the risk of being caught, and the risk of crashing (Prat et al., 2005). As expected, the TPB concepts were supported in predicting the behavior of texting while driving (Prat et al., 2015). However, the additional risk variables that

were added had mixed results. Individuals were not likely to change their behavior based on the perceived risk of being caught (Prat et al., 2015). An interesting finding was that the perceived risk of crashing was significant for *reading* a text message, but it was not significant when *sending* a text message (Prat et al., 2015). This could mean that participants perceived reading a text messages as more dangerous than sending one.

TPB and distracted driving has been previously studied, however, the focus of these studies was around personality traits, rather than how behavior is influenced (Chen, Donmez, Hoekstra-Atwood, & Marulanda, 2016). Although these researchers focused on distracted driving in general, texting was a considered as a noteworthy variable. This study assessed how specific personality traits influenced a driver's intention to engage in the behavior of texting while driving (Chen et al., 2016). Some of the traits associated with greater likelihood to engage in the behavior were "impulsiveness, venturesome and sensation seeking personalities, and other unsafe driving behaviors" (Chen et al., 2016). The results showed a significant correlation between the above behaviors and the participant's attitudes, perceived behavioral control and subjective norms (Chen et al., 2016). Again, this survey shows high reliability for this subject and illuminates how exterior factors can influence behavior.

The Theory of Planned Behavior was also used to measure the relationship of demographics with texting while driving (Prat, Gras, Planes, & Sillman, 2015). Prat et al. (2015), amongst other researchers found that young drivers engage in the behavior more often than older drivers. In fact, studies in Australia (McEvoy, Stevenson, & Woodward, 2006) and New Zealand (Hallet, Lambert, & Regan, 2012) have cited similar patterns like those in the United States. Prat et al. (2015) conducted a meta-analysis on the results of several studies regarding TPB and texting while driving (Nemme & White, 2010; Walsh, White, Hyde, & Watson, 2008; Gauld,

Lewis, & White, 2014). From these studies, Prat et al. (2015) discovered that intention is the

central indicator in predicting behavior. Of the TPB concepts, attitudes toward the behavior and

behavioral control had a higher likelihood of predicting the behaviors over subjective norms

(Prat et al., 2015). While there have not been any studies that use TPB and commercial

effectiveness, the theory still has an extensive record of success. In the final section, the Theory

of Motivated Information Management will be explained. This research will extend beyond

individuals attitudes and examine how uncertainty and anxiety impact the behavior of

information-seeking.

Theory of Motivated Information Management

Research has consistently found a relationship between uncertainly and information

seeking (Afifi & Weiner, 2004). However, the theorists behind the Theory of Motivated

Information Management (TMIM) assert that many of these theories are much too broad. Walid

Afifi and Judith Weiner (2004) narrowed previous uncertainty theories in order create a better

understanding of information-management. This theory is pertinent to the following research

since individuals face uncertainty in regards to risky behavior. Afifi and Weiner adopted the

definition of "uncertainty" and "information" from work by Brashers (2001).

For this theory, "uncertainty" is "when details of the situation are ambiguous, complex,

unpredictable, or probabilistic; when information is unavailable or inconsistent; and when people

feel insecure in their own stage of knowledge or the state of knowledge in general" (Brashers,

2001, p. 478). In addition, Brashers (2001) defines information as, "stimuli from a person's

environment that contribute to his or her knowledge or belief" (2002, p. 259). In order to focus

the study of information seeking, TMIM emphasizes its effects on interpersonal relationships.

Although the construction of the theory seeks to find the impact of information-management via

interpersonal relationships, the principles of the theory still permit its application with different scenarios. Because of this, TMIM will be applied to the topic of texting while driving behavior.

Constructs. The theory is constructed by two "scope conditions" (Afifi et al., 2004, p. 170). These conditions create a framework that specifies the information-management discussion. The first scope condition is the channel; which is the source by which individuals get their information (Afifi et al., 2004). The second scope condition is how individuals attain information (Afifi et al., 2004). The acquisition falls on the range of "completely accidental, passive reception, or highly strategic" (Afifi et al., 2004, p. 170). For example, a PSA would be considered as highly strategic channel.

Afifi and Weiner state that "information-management is represented generally by three hierarchal phases: "interpretation, evaluation, and decision" (2004, p. 171) (See Figure 2). Interpretation is when the individual becomes aware of an "uncertainty discrepancy about an important issue and the anxiety that ensues" (Afifi et al., 2004, p. 171). In essence, a person will realize that his or her behavior is one that has uncertain consequences. These consequences may be probable, which causes the individual to feel negative emotions about its possibility (Afifi et al., 2004).

The second phase of evaluation "reflects expectations about the outcomes of an information search and perceived abilities associated with that decision" (Afifi et al., 2004, p. 171). This is where an individual will critically think about what a search for information my look like (Afifi et al., 2004). Prior to this investigation, the person will reflect on his or her abilities in regards to the outcome of the information found (Afifi et al., 2004). These expectations from an investigation are composed by two general perceptions (Afifi et al., 2004). With the evaluation phase, individuals first seek to find expected outcomes with their search, and

second, individuals will perceive the extent to which they are "able to successfully reduce the anxiety through such a search" (Afifi et al., 2004, p. 175). Depending on the behavior, results from an information search might have findings that either help to mitigate the anxiety or exacerbate it. People must choose between finding these results or maintaining their current understanding (Afifi et al., 2004). Since the results of the information search could be negative, individuals may willfully choose to refuse information seeking (Afifi et al., 2004).

The third and final phase of evaluation is the decision (Afifi et al., 2004). It is important to know that all types of uncertainty cannot be resolved through information seeking (Afifi et al., 2004). Thus, the decision phase of TMIM consists of three strategies for reducing anxiety: "seek relevant information, avoid relevant information, or cognitively reappraise the situation" (Afifi et al., 2004, p. 181). The strategy of *seeking relevant information* is when individuals actively pursue and engage in the information seeking process (Afifi et al., 2004). The second strategy of individuals *avoiding relevant information* is the opposite method of information seeking. People often choose this route to control a fear response (Witte, 1998). Studies by both Fanos and Johnson (1995) and Lerman et al. (1999) argue that individuals purposefully remain unaware as to avoid the negative "psychological functions for individuals at risk" (Fanos et al., 1995, p. 85). The third and final strategy is *cognitive reappraisal*. Individuals alter the importance of the issue, or change the meaning of "uncertainty" (Afifi et al., 2004). In essence, and individual will reframe the situation through self-talk in order to reduce anxiety (Afifi et al., 2004).

Empirical support. As individuals are presented with anxiety, they then make a decision on what is most advantageous for them, "given physiological, cognitive, social, and behavioral concerns and cognitive limitations" (Afifi et al., 2004, p. 185). TMIM has had success with topics similar to texting while driving. Although no research has been done with TMIM on

commercial effectiveness or texting while driving, there are pertinent findings to extrapolate from previous studies.

An article applying TMIM to a sexual health information search came from Afifi and Weiner (2006). The study objective was to measure information seeking behavior for participants who read a fact sheet on sexually transmitted infections (STIs) (Afifi et al., 2006). This study had mixed results; which is in contrast to other studies using TMIM (Afifi et al., 2006). An interesting find was that the presented anxiety ended up *discouraging* information seeking behavior (Afifi et al., 2006). This is consistent with the decision-making behavior of *avoiding relevant information*. Overall, the "uncertainly discrepancy" variable (which is measured through the TMIM survey), worked as predicted, and the model was a good fit for the targeted group (Afifi et al., 2006). In addition, over a 3-week period, the TMIM model effectively predicted information seeking behavior (Afifi et al., 2006). In 2014, Dillow and LaBelle used the revised TMIM (Afifi & Morse, 2009) to conduct a nearly identical study on sexual health. The revised model extended the emotional response beyond anxiety to include guilt and anger (Dillow et al., 2014). This resulted in a strong performance of behavior predictability (Dillow et al., 2014). It addition, it was supported that TMIM is more accurate when the "outcome expectancies are negative" (Dillow et al., 2014, p. 687).

In the same year Chang (2014) also used TMIM to measure information seeking and sexual health. Similarly to Dillow's et al. (2014) findings, participants in this study were likely to seek information, despite if the outcomes would be negative (Chang, 2014). However, Chang (2014) also found that participants who felt positive about the outcome of information seeking were more likely to discuss the topic of sexual-health with friends. In addition, Chang (2014) argues that when the "issue is related to health risks, perceived vulnerability can play a

substantial role in individuals' information seeking behavior" (p. 202-203). This is drawn from the results of the study, which found that if individuals predicted a high level of efficacy and felt a high level of vulnerability then they were most likely to engage in information seeking (Chang, 2014).

Tian, Schrodt, and Carr (2016) most recently applied TMIM to observe how young adults responded to adverse life experiences. This research was founded on the psychological concept of "posttraumatic growth" (Tian et al., 2016, p. 282). In essence, "posttraumatic growth" occurs when individuals experience growth through life changing or highly stressful situations (Tian et al., 2016). These adverse life experiences may lead to a "greater appreciation of life and a changed sense of priorities" (Tian et al., 2016, p. 282). The findings of Tian et al. (2006) showed that participants were "more likely to experience posttraumatic growth when they seek information from a parent" (Tian et al., 2016, p. 295). Contrary to the research by Dillow et al. (2014), these results found that information seeking was most likely to occur when the participants expected a *positive outcome* (Tian et al., 2016). While there were no conclusive results for negative outcomes and information seeking, these findings challenge the notion that negative outcomes may lead to information seeking behavior.

Synthesis

The concepts and theories described in this literature are each distinguishable yet share common themes. What can be deduced from this research is that the presence of anxiety, fear, and uncertainty, can all act as motivating factors for individuals to either change their behavior or seek information about that behavior. Although there has not been substantial research on texting while driving, there are still several inferences that can be made from previous findings.

Media and salience. First, the act of texting while driving is a risky behavior that may have lethal and/or non-lethal repercussions for the individual (similar to that of drinking while driving) (Weber et al., 2011). As discussed, texting while driving may likely result in killing or injuring oneself or others and/or being punished by the legal system or a parental figure (Weber et al., 2011). The commercial that is used in this study highlights lethal repercussions as the commercial features a woman who is paralyzed in the face and has lost her family due to a texting while driving crash. Since lethal consequences have a high likelihood of changing behavior, the use of the AT&T commercial may motivate viewers to reject the behavior of texting while driving.

A second inference is that the AT&T commercial will cause fear and/or anxiety to the viewers; which may lead to a behavior change (Brader, 2005; Fridkin et al., 2008; Banks et al., 2013). The commercial used in this study features a young woman who has half of her body paralyzed. In addition, she explains that she lost her entire immediate family due to a texting while driving crash. While the commercial appealed to emotions like sadness and guilt, the outcome is to show what negative outcomes may happen if one engages in the behavior. As shown in countless previous studies, fear is a stimulus for change (Marcus et al., 2000). The viewers of the commercial see the repercussions of texting while driving after seeing the woman's face and hearing her story. This situation triggers overwhelming emotions of guilt, fear, and sadness (Banks et al., 2013). By showing viewers that texting while driving can have detrimental consequences, those viewers will be confronted with feelings of fear, anxiety and uncertainty. Knowing this, participants may be motivated to change their behavior in order to mitigate that fear.

It is almost indisputable that the media, specifically PSA's, have an impact on an individuals emotions, attitudes, and perceptions of importance (Weber et al., 2011; Zimmerman et al., 2014). The AT&T "It Can Wait" campaign is no exception. The carefully crafted message in this commercial has the ability to directly influence its viewers. The "It Can Wait" video uses several tactics that are frequently effective. The commercial includes the emotional appeal of fear, which has a steady history of persuading behavior (Weber et al., 2011; Zimmerman et al., 2014). In addition, the feelings of fear and guilt are what bolster the dual concept of salience. In the political science sense, the issue will (if it hasn't already), become important to the viewer. Rhetorically speaking, the issue becomes salient because the commercial writers and directors intentionally made the message seem important.

The commercial itself serves as the method of content delivery. The video used in this study is a rhetorical artifact and may be observed as an intentional message composed by the AT&T campaign managers. Every word, scene, and sound is orchestrated to dissuade viewers of this commercial from engaging in the behavior of texting while driving. Vatz's ideas are applicable to this research since his concepts explain how the developers of the commercial had specific goals in mind for the viewers. By considering the presence of the media, emotional appeals, and salience on behavior, the following hypothesis will be tested:

> H1: The experimental group will perceive the issue of texting and driving as more important than the control group.

Theory of planned behavior. The Theory of Planned Behavior has been used for studies that are similar to texting while driving. TPB has measured smoking (Norman et al., 1999; Acalari et al., 1999), diet (Armitage et al., 1999), and drugs (Jackson et al., 2001), which are all risky for one's health and/or safety. Texting while driving is no different, as this activity poses safety/health, and legal risks. The findings from these studies establish that the most effective

method of persuasion was through educating participants through several mediums, such as interviews, simulations, or videos (Acalari et al., 2014). The AT&T commercial uses several methods of education. It is a commercial, which includes an interview between college-aged students and a young woman who was a victim of a texting while driving crash. This risky behavior may directly influence individual's attitudes toward the behavior. Since the outcomes are largely negative, the behavior may also be perceived as negative.

TPB research has also indicated the impact of independent variables on behavior influence such as personality traits (Chen et al., 2016) or demographic information (McEvoy et al., 2006; Hallet et al., 2012; Prat et al., 2015). The AT&T commercial introduces an independent variable, which warrants studying. Not only will TPB be tested within the control and test groups, but it will test group differences as well. While TPB has been supported through multiple studies (Acalari et al., 2014; Prat et al., 2015), the introduction of an additional variable has not always had success (Prat et al., 2015). The results of this study will provide greater support for the impact of independent variables on TPB.

As stated at the beginning of the literature review, TPB has been used to measure an individual's intention to engage in the behavior of texting while driving (Nemme & White, 2010). Although this research was not framed around the media effects of a commercial, Nemme et al. (2010) still found a strong correlation between the participant's intention to engage in the behavior and actual behavior. These conclusions bolster the reliability of TPB as this questionnaire has been successful in relation to the topic of texting while driving. In addition, the demographic of college students is an appropriate choice for this study as this age group engages in the behavior of texting while driving at the highest rate (McEvoy et al., 2006; Hallet et al., 2012; Prat et al., 2015). These conclusions lead to the following hypotheses:

H2: There is a positive relationship between attitudes toward the behavior and intention to engage in the behavior.

H3: The experimental group will have a more positive attitude toward the behavior than the control group.

H4: The experimental group will respond with a higher intention to engage in the behavior than the control group.

H5: Attitude toward the behavior will have a stronger influence on intention than perceived behavioral control and perceived norm.

Theory of motivated information management. The use of TMIM is intended to

measure the uncertainty that may come from the concerns of texting while driving. Since this

behavior has both lethal and non-lethal consequences, individuals in both the control and

experimental group may feel emotions, such as anxiety or fear. Specifically, viewers of the

commercial may feel a heightened sense of insecurity in regards to their safety and/or about legal

punishment. The experimental group that views the fear inducing commercial may be triggered

into feeling uncertainty; thus making TMIM applicable. Since fear and the reduction of anxiety

are directly related to TMIM, the previous research on emotional and fear appeals intersects. In

addition, information seeking strategies serves as a method of reducing anxiety.

TMIM would label this uncertainty discrepancy and the subsequent emotions of fear and

anxiety as the "interpretation phase." Following the initial uncertainly is the "evaluation phase"

of TMIM, in which individuals will consider whether an information search will result in

positive or negative information. More importantly, the participant will deliberate if the

information search will reduce uncertainty. Once this conclusion has been made, the individual

will move into the "decision phase," where they choose to either seek or reject information. The

search for information may include understanding legal or safety repercussions (such as the fines

of being caught, or the fatality rate from texting while driving). As this information would not be

considered as *positive*, the individual may be more or less likely to engage in information seeking.

If the study by Afifi et al. (2006) is correct; participants in this study may be dissuaded from information seeking in order to avoid greater anxiety. However, if research by Dillow et al. (2004) is accurate, then TMIM is more successful when the outcome expectancies are negative. Dillow's et al. (2004) findings are similar to Tian's et al., (2016) concept of "posttraumatic growth." If individuals experience a highly stressful situation, either through the commercial, or through the evaluation phase, they may be led to a "greater appreciation of life and a changed sense of priorities" (Tian et al., 2016, p. 282). The findings in this research should indicate which result is more accurate.

From these studies, there are several reasons as to why the behavior of texting while driving can be measured with TMIM. First, a majority of TMIM studies involve risks that are related to one's health or well being (Tian et al., 2006; Chang, 2014). The topic of texting while driving shares this theme as individuals may face legal trouble, end up hurt, or killed. In addition, each of these studies focus on TMIM regarding teens or young adults. Similarly, the current study examines young adults since this age group dominates the texting while driving epidemic.

By merging together these arguments, it is apparent that there is a need for expanding texting while driving research. Previous research provides a strong case for understanding a commercials impact on behavior in general and regarding the behavior of texting while driving. Since various theories were addressed in this literature, there will be several hypotheses presented. These will develop a comprehensive understanding of both the independent concepts and the overall synthesis of these arguments. Thus, the final hypotheses to be tested are:

H6: There will be a positive relationship between anxiety and information-seeking strategies.

H7: There will be a positive relationship between issue importance and information-seeking strategies.

H8: The experimental group will have higher anxiety about the behavior than the control group.

H9: The experimental group will have higher information-seeking strategies than the control group.

H10: There will be a positive relationship between outcome expectancy and information-seeking.

H11: The control group will have a larger uncertainty discrepancy than the experimental group.

Chapter Three: Methods

Participants

The participants in this study consisted of 222 undergraduate students attending Oregon State University. Specifically, students in the mass lecture course of Argument and Critical Discourse (Speech Communication 114) and Research Methods (Political Science 300) took the survey. Of the participants, 93 were female, 127 were male, and 2 preferred not to answer. The ages of the participants ranged from 18-50 years old with a mean of 19.37 (SD 3.00). Six participants did not give their age. 164 of the participants defined themselves as white, while 16 were Hispanic, 6 were black/African American, 16 Asian, 7 as "other", and 8 preferred not to answer. 94% of the participant's said they drove, 5% said they did not drive and 1% did not answer. In addition, 98% had a cell phone and 2% did not answer. College-aged students were chosen for this study since they are the demographic that engages in texting and driving the most. In this study, 76% of the participants admit to texting while driving, which is higher than the national average of 7-in-10 (CDC, 2016).

Procedure

Teachers in each of the sections of COMM 114 and PS 300 directed students to a link for this study. The test that was executed was a posttest study. The students were either part of the control group or the experimental group. When students took the survey, they were randomly selected through Qualtrics to be in the control group or experimental group. All students voluntarily participated in the survey. The COMM 114 instructors had the option to offer the students extra credit. Those students who did not want to take the survey were also given an alternative extra credit assignment. Besides the incentive from the instructors, there was no other compensation for the students. Taking the survey was not offered during class time. Participants were provided a link to an online survey, so they were able to take the survey outside of the classroom on the device of their choice. The PS 300 class took survey in class as an in class activity. Since this was a research methods class, this was an activity for students to learn about the research process. The students were provided a link to the study and took the survey in class. There was no compensation for these participants, but no requirement for the survey to be taken.

The control group only participated in the survey portion of the test. They answered questions related to the topic of texting and driving and then concluded the test. The experimental group was first exposed to a three minute and fifty second texting and driving commercial. This commercial was chosen for several reasons. First, it was part of a larger campaign by the cell-phone company AT&T. AT&T is a recognizable company that represents the emotional appeals discussed in the literature review. Secondly, other commercials from the AT&T campaign where much shorter, lasting about 30 seconds to one-minute. In order to successfully convey the emotional appeals of fear, guilt, and uncertainty, a longer commercial was selected for the participants to view. Finally, this video was the most recent of the AT&T

campaign, as it came out in August of 2016. By using the most recent video, the intention was that participants had not already seen it prior to the study. Once the commercial concluded, the participant was directed to the same survey that was taken by the control group. Once the survey was completed, these participants were done with the test. This concluded the testing portion of the study. Once the surveys were collected, the data was analyzed.

An experimental design was chosen for this research since it allowed for a controllable environment of study. This created a measurable scenario for the group difference tests. Experimental designs such as this are fitting for drawing conclusions in causal research. The hypotheses in this study seek to find causal relationships between the experimental and control group, making this method preferable for research.

Measures

The commercial that was used for the experimental group was from the AT&T campaign "It Can Wait." On August 23rd of 2016, AT&T posted the video on YouTube with the title, "Wait for it…this could save your life." The video runs for three minutes and fifty seconds and is set in an empty room with two wooden chairs. Eight young adults, both male and female, sit in one of the wooden chairs for an individual interview. The individuals speak to an off-screen cameraman while the other wooden chair remains empty. The cameraman asks each individual, "What are your reasons for using a phone while driving?" Each of the participants responded with his or her habitual act of texting, using phone applications, and even using the Internet while driving.

After a minute of these interviews, a young woman, Jaycee, walks into the room and reaches out her hand. From her appearance, it is apparent that Jaycee has experienced a traumatic event. She walks with a limp, cannot move her left arm, and half of her face is paralyzed. As the

individuals listen, Jaycee begins to share the narrative of what happened to her and her family. Due to someone else texting and driving, Jaycee was in a severe wreck that led to the death of both her parents on the day of her college graduation.

As Jaycee speaks of her recovery and struggle, the individuals are clearly shocked, hurt, and above all, feel guilt. Together, Jaycee and the individuals made commitments to one another to stop texting while driving. As the video turns black, the viewer is presented with small, white, words in the middle of the screen. It flashes, "TRAFFIC," "STOPLIGHTS," "SELFIES," "FRIENDS," "BOREDOM," "THERE ARE NO GOOD REASONS," "IT CAN WAIT." Viewers then see the "It can wait" logo along with the ItCanWait.com website.

Once the commercial was completed, the participants were directed to take the survey. The participants who did not view the commercial took the same survey. All of the questions in the survey were asked on a 1-7 Likert-type scale. The internal reliability estimate, means, standard deviations and intercorrelations for the study are found in Table 1.

Positive and negative mood was measured through the two mood scales offered in PANAS (Watson et al., 1988). The participant was presented with a list of 15 emotions such as, *interested*, *distressed*, or *guilty*. Participants were asked, "We'd like to know how you feel in general about the behavior of texting while driving. Please read each item below, and then select the appropriate number between 1 and 7." Participants were directed to rank those emotions on a 1 to 7 Likert-type scale with (1) *not at all* to (7) *extremely*. Each emotion is categorized as being a positive or negative affect. PANAS is considered to have strong validity in the subject areas of distress and anxiety (Montpetit, 2007; Friedman, 1991; Tellegen, 1985).

Participants were asked to answer seven questions pertaining to the TPB constructs (Afifi & Weiner, 2006). These constructs consisted of an individual's attitude toward the behavior, the

participant's behavioral control, the subjective norm, and the participant's intention to engage in the behavior. This study adapted questions from the TPB Questionnaire to the behavior of texting while driving.

Attitude toward the behavior questions measured how valuable and/or pleasant a specific behavior is. Participants were asked one question to measure their attitude ("My support of a decrease in the behavior of texting while driving would be?").

The subjective norm acknowledges the importance of the behavior based on the influence or opinion of an "important other," that being, their parents (Afifi et al., 2006). The participants were asked two questions to measure the subjective norm ("Most people who are important to me would disapprove of me engaging in the behavior of texting while driving").

The goal of *perceived behavioral control* questions is to capture how confident an individual is about their capability of performing the specified behavior (Afifi et al., 2006). Participants were asked two questions pertaining to the perceived behavioral control ("My selection of how I behave while driving is up to me"). This may include the difficulty of engaging in the behavior, whether the participant has the available means, or the likelihood that the individual could perform the behavior (Afifi et al., 2006).

The *intention to engage in the behavior* measured the participant's intention to engage in the behavior of texting while driving. Participants were asked two questions about their intentions of engaging in the behavior, but only one was used for measuring the hypotheses ("I intend to decrease my texting while driving behavior in the future").

The next set of questions comes from the Theory of Motivated Information Management (Afifi et al., 2006). Afifi and Weiner developed a set of questions in a previous study about sexual health (2006). Twenty of these questions were altered to fit the topic of texting while

driving. These questions measured an individual's uncertainty, anxiety, and information seeking strategies about the behavior. Participants were asked to indicate the degree to which they agreed or disagreed to statements about talking to their parents about texting while driving. The choices where presented in a Likert-type scale, which ranged from (1) *strongly agree* to (7) *strongly disagree*. Each question was representative of the TMIM concepts.

Uncertainty discrepancy measures the difference between how much an individual knows about the subject of texting while driving and how much the individual desires to know about the behavior. Arguably, anxiety will increase as the discrepancy between current and desired knowledge spreads. This concept was measured in this study through four questions ("I know less than I would like to about the risks of texting while driving").

Anxiety quantifies the amount of anxiety that comes from uncertainty discrepancy. There were two questions that were asked to participants regarding anxiety ("It worries me to think about how little I know about the risks of texting while driving," and "It makes me anxious to think about the difference between how much I want to know about the risks of texting while driving and how much I actually know").

Outcome expectancy asked participants to measure whether an information search would result in negative or positive emotions. For measurement, this survey asked two questions related to outcome expectancy ("Asking my parents about the risks for texting while driving would produce a very positive outcome").

Efficacy evaluated how much the participant could rely on an information search. For this component, five TMIM questions were used. ("I know how to talk to my parents about the risks of texting while driving," and "My parents would be forthcoming about sensitive issues that we would need to discuss about the risks of texting while driving").

Information seeking directly asked participants the extent to which they already have or intend on seeking information from their parents about the behavior of texting while driving. These questions come as a response to the uncertainty discrepancy or anxiety that an individual may experience. Four TMIM questions were given to measure information-seeking behavior ("If I talk with my parents about the risks of texting while driving, I'll be completely upfront about my interest in the information"). The hypotheses were addressed using only one question ("It is very unlikely I will have a conversation with my parents about the risks of texting while driving").

Issue importance was the measure that gauged how the individual felt about the behavior in general. To evaluate issue importance, four questions where asked in the survey ("How important is it that you change your behavior so it aligns with your beliefs about this issue?").

The final set of questions was intended to measure issue salience and its impact on behavior. These questions came from the Spatial Model of Voting and were measured on a 1-7 Likert-type scale (Enelow & Hinich, 1984). This model provided specific scale measure questions that pertain to issue salience. Three questions from the original scale were altered to fit this study, with (1) *most important* to (7) *not important at all*. ("How important is the issue of texting and driving to you?") Participants finished the survey by answering demographic questions. Once the data was collected, each hypothesis was tested to see if there were significant differences between the groups and to separately measure model significance within the each group.

Chapter Four: Results

Descriptive Statistics

Prior to testing the hypotheses, some demographic information was considered for any significant results. Sex was the first factor that was measured, as there were 93 female participants and 127 male participants. Regarding issue importance, male participants ($M = 2.60$, (t (218) = -3.35, p = .001) found the issue of texting while driving to be significantly more important than female participants ($M = 3.07$), (t (218) = -3.35, p = .001). However, when asked about attitudes toward decreasing the behavior of texting while driving, the female participants ($M = 1.61$), (t (218) = 2.19, p = .03) viewed the *behavior* as significantly more important than the male participants ($M = 1.93$), (t (218) = 2.19, p = .03). In addition, females ($M = 1.95$), (t (218) = -3.56, $p < .001$) were significantly more likely to claim a decrease of texting while driving behavior in the future when compared to males ($M = 2.56$), (t (218) = -3.56, $p < .001$).

When observing information seeking behaviors, male participants ($M = 4.54$), (t (218) = -3.20, p = .002) were significantly more likely to talk to their parents about the risks of texting while driving than females ($M = 3.76$), (t (218) = -3.20, p = .002). Finally, females ($M = 2.52$), (t (218) = -2.36, p = .02) viewed the outcome expectancies of talking to one's parents about the risks of texting while driving as significantly more positive than males ($M = 2.82$), (t (218) = -2.36, p = .02).

Regarding the age of the participants, there were no significant correlations in the responses. A final note to make pertains to the participants who watched the commercial. Overall, there were 100 participants who watched to texting while driving commercial. Of those 100, only 4 participants stated that they *did not* find the commercial to be persuasive.

Hypotheses

This section addresses the eleven hypotheses in this study. First, the Theory of Planned Behavior was used to measure intention to engage in the behavior of texting while driving (including the variables of attitudes, behavioral control, subjective norm, and intention). These questions tested the validity of the theory itself and the interrcorrelations of each variable within this study. Hypotheses also addressed the Theory of Motivated Information Management and the focus on information seeking strategies for the behavior of texting while driving (including uncertainty discrepancy, anxiety, outcome expectancy, efficacy, information seeking, and issue importance). Finally, hypotheses attempted to predict the group differences between the control group and the experimental group.

H1. Hypothesis 1 predicted that the experimental group would perceive the issue of texting and driving as more important than the control group. A *t*-test was used for this hypothesis. The experimental group ($M = 2.90$, SD = 1.04, (t (218) = -0.21, p = .68) and the non-experimental group ($M = 2.84$, SD = 107), (t (218) = -0.21, p = .68) had no significant difference. H1 was not supported.

H2. The second hypothesis predicted that there would be a positive relationship between attitudes toward the behavior and intention to engage in the behavior. A correlation was run (as seen in Table 1) and found that these results were significant (r (218) = .23, p = .001). H2 was supported.

H3. Hypothesis 3 predicted that the experimental group would have a more positive attitude toward the behavior than the control group. A *t*-test was used to test this hypothesis. The experimental group ($M = 1.72$, SD = 0.90), (t (218) = 0.86, p = .39) had no significant difference

in attitude than the non-experimental group (M = 1.84, SD = 1.19), (t (218) = 0.86, p = .39). H3 was not supported.

H4. Hypothesis 4 predicted that the experimental group would respond with a higher intention to engage in the behavior than the control group. The experimental group (M = 2.31, SD = 1.25), (t (218) = -0.04, p = .97), and the control group (M = 2.30, SD = 1.34), (t (218) = - 0.04, p = .97) had virtually no difference in response. This hypothesis was not supported.

H5. Similar to H2, the variables of TPB were used to measure correlations. H5 predicted that the attitude toward the behavior would have a stronger influence on intention than perceived behavioral control *and* perceived norm. This question tested two projections, first being that attitude would have a stronger influence on intention when compared to behavioral control, and second, that attitude would have a greater influence on intention rather than the perceived norm. This hypothesis was partially supported and was tested via a correlation (Found in Table 1). Attitudes influence on intention (r (218) = .23, p < .01) was statistically significant when compared to the correlation between attitude and perceived behavioral control (r (218) =.11). However, attitude and intention (r (218) = .23, p < .01) had a weaker correlation when compared to attitude and perceived norm (r (218) = .38, p < .01).

H6. Hypothesis 6 predicted that there would be a positive relationship between anxiety and information-seeking strategies. A correlation was used to interpret these results (Found in Table 1). Anxiety and information-seeking strategies (r (218) = .08, p = .26) had a minute correlation. The hypothesis was not supported.

H7. H7 also predicted a relationship between variables from TMIM. It was hypothesized that there would be a positive relationship between issue importance and information-seeking strategies. A correlation was run (Found in Table 1), and found that the relationship with issue

importance and information seeking (r (218) = .28, p < .001) was significant. This hypothesis was supported.

H8. The eighth hypothesis projected that the experimental group would have higher anxiety about the behavior than the control group. While the experimental group (M = 4.63, SD = 1.53), (t (218) = 0.82, p = .41) did not have as much anxiety about the behavior as the non-experimental group (M = 4.80, SD = 1.51), (t (218) = 0.82, p = .41), these numbers were not significant. This hypothesis was not supported.

H9. Similar to H8, this hypothesis predicted that the experimental group would have higher information-seeking strategies than the control group. These results were also not significant as the information-strategies for the experimental group (M = 4.26, SD = 1.82), (t (218) = -0.30, p = .77) were only slightly higher than the control group (M = 4.19, SD = 1.84), (t (218) = -0.30, p = .77). This hypothesis was not supported.

H10. This hypothesis predicted that there would be a positive relationship between outcome expectancy and information-seeking. This was tested through a correlation (Found in Table 1) and was significant (r = .31, p < .001). This hypothesis was supported.

H11. The final hypothesis predicted the control group (M = 1.10, SD = 1.59), (t (218) = 1.92, p = .05) would have a larger uncertainty discrepancy than the experimental group (M = .70, SD = 1.50), (t (218) = 1.92, p = .05). These results were significant and support this hypothesis.

Chapter Five: Discussion

This research was intended to answer two major questions. The first was to measure the extent of influence that the AT&T commercial had on changing behavior. The second direction was the testing of the Theory of Planned Behavior and the Theory of Motivated Information Management regarding texting while driving behavior. Overall, this study questioned how a fear

inducing commercial could influence concepts found in these theories (including attitudes, behaviors, intentions, and information-seeking strategies). The goals were to test the reliability of these theories, but to also find if there is an effective way via the media to change the behaviors of commercial viewers. The following section will summarize the results of this study, followed by a discussion of its implications. Finally, there will be a section of the strengths, limitations, and future directions of related research.

Research Summary

Group difference. The questions in this survey had two purposes. First, was to measure a group difference between the experimental group and the control group. Second, was to measure theoretical correlations of the Theory of Planned Behavior and the Theory of Motivated Information Management. Regarding the group differences, there was very little support of the commercial having an impact of the participant's behaviors. H1 predicted that the issue of texting while driving would be considered more important to the experimental group than to the control group. There was only a slight difference in the responses of participants, which leads to the conclusion that the commercial had virtually no impact on the viewers. H3 also was not supported, which argued that the experimental group would have a more positive attitude toward reducing their texting while driving behavior. H4's prediction that the experimental group would respond with a higher intention of reducing their texting while driving behavior was not supported. Finally, H8 and H9 were not supported, which predicted that the experimental group would have higher anxiety and information-seeking strategies about the behavior than the non-experimental group.

These findings directly contradict what previous research found in similar studies, such as the impact of media campaigns with drinking and driving commercials (Weber et al., 2011)

and marijuana commercials (Zimmerman et al., 2014). In addition, this rejects the notion of emotional/fear appeals having an impact on the behavior of viewers (Meyerowitz et al., 1987; Banks et al., 2013; Brader, 2005). Upon further research, there have been some studies that claim that media campaigns are often ineffective and may even have the reverse effect on behavior. One study found that media campaigns and PSAs may be effective if the argument is considered strong and if the argument is considered quality (Weber, Huskey, Mangus, Westcott-Baker & Turner, 2015). Thus, if the argument does not seem strong enough to the viewer, then they are simply not persuaded. Another factor to acknowledge is the participants issue involvement (Weber et al., 2015). Petty and Cacioppo (1986) assert that when an individual is highly involved in an issue, then the individual is likely to defend their prior beliefs and knowledge, rather than changing them. Thus, participants who engage in texting while driving may remain neutral or defend their behavior, rather than changing it. The results of this study show that 76 percent of participants engage in the behavior of texting while driving; supporting the notion that participants are highly involved. Participants may not perceive the behavior as high risk, nor do they feel the desire to change.

In addition to high involvement, other studies have found that behavior-changing campaigns may even have the reverse effect on behavior. One study on healthy food alternatives found that attitude scores became less positive over the course of the study (Godfrey & Feng, 2015). Through interview data, Godfrey et al. (2015) argued that participants are overwhelmed by convenience and pressures; making the overall benefits of a behavior change not worth the costs. These results are comparable to the lack of behavior change in this texting while driving study. Participants likely weighed the risks of texting while driving against the convenience of

their current habits and where not motivated enough to change. Thus, the texting while driving media campaign aligns with the findings of Petty et al. (1986) and Godfrey et al. (2015).

While the behavior of texting while driving is considered to be high risk, lethal, and fear inducing, this is still not enough to outweigh the perceived benefits. When the video was over, the experimental group was asked, "Overall, did you find this video persuasive?" Of the 100 participants who watched the video, 98 of them said "yes". This presents an interesting dichotomy. While the participants claimed that the video was persuasive when asked directly, these feelings were not consistent with the responses in the remainder of the study. Although almost all the hypotheses regarding group differences were not supported, H11 was the only exception. This hypothesis predicted that there would be a larger uncertainty discrepancy for the the control group than the experimental group. This hypothesis was supported, which asserts that the participants who did not watch the commercial felt a greater discrepancy between what they knew about the behavior of texting while driving and what they wanted to know. Arguably, the commercial did not prompt an information search, but perhaps acted as one. The commercial in itself may have served as an information search rather than being a motivator for engaging in an information search. Because of this, the experimental group felt a smaller discrepancy in what they knew and what they wanted to know about the risks of texting while driving.

Theory of planned behavior. Beyond the scarce results of the commercials impact on behavior, there are some promising findings when considering the legitimacy of the Theory of Planned Behavior. Overall, most of the hypotheses pertaining to TPB where supported. H2 and H5 tested TPB. H2 predicted that attitudes toward the behavior would be correlated with intention to engage in the behavior. This hypothesis was supported and shows that TPB can reliably predict the relationship between an individuals attitudes and intentions. Attitudes are one

of the main concepts referenced in the literature on TPB. Ajzen (2005) states that attitudes are difficult to change since they are somewhat permanent dispositions. One's attitude will then influence a broad range of intentions and subsequent behaviors (Ajzen, 2005). In addition, Fishbein et al. (1975) asserted that the process of shaping ones attitude toward a belief would serve as a guide for future behavior. This would explain why participants who had a negative attitude of texting while driving had the intention of decreasing their texting while driving behavior.

H5 was partially supported since it predicted two claims in one hypothesis. The first facet of the hypothesis stated that attitude toward the behavior would have a greater impact on intention than the perceived behavioral control. This prediction was supported; meaning that an individual's attitude toward the behavior of texting while driving was more likely to indicate the individual's behavior rather than their ability to engage/eliminate the behavior. This could be explained by referring back to the notion that people have an inherent desire for consistency (Ajzen, 2005; Bem, 1965). Considering that a majority of the participants in the study admit to texting while driving, they are likely to feel dissonance about what they believe and how they are acting. Since attitudes and the perceived norms are correlated with intention in this study, it is clear that the participants have a desire to be consistent with how they act.

The second part of this hypothesis argued that attitude would have a stronger correlation to intention than the perceived norm. This hypothesis however was not supported, making the perceived norm a greater indicator of intention. Through these results, it would appear that the perceived norm had the greatest correlation with intention, followed by attitudes, and then finally, the perceived behavioral control. To reiterate, the perceived norm is the impact of how

others feel about the behavior. These findings would suggest that the opinions of others are a greater predictor of an individual's behavior than the individual's own attitudes.

In past research, attitudes and behavioral control were stronger at predicting behaviors (Prat et al., 2015). This study however found the opposite, with the subjective norm being the most influential with predicting behavior. While the opinions of others may matter with the risky behaviors of smoking or drinking, the impact of those behaviors do not often *directly* affect the disapproving person. The behavior of texting while driving however, may involve the disapproving person more than an individual who engages in a behavior like smoking. For example, if one individual was texting while driving, and the other was a passenger in the car, the danger affects both parties, rather than just the one person engaging in the behavior. This may be a reason as to why the subjective norm was correlated the way it was with intention.

Theory of motivated information management. Finally, there were hypotheses that measured the reliability of the Theory of Motivated Information Management. H6, H7, and H10 observed TMIM and its effectiveness as a model. H6 predicted that anxiety about the behavior of texting while driving would be correlated with information-seeking strategies. This hypothesis was not supported, which indicates several possibilities. One reason may be that anxiety is not the strongest indicator of information seeking. As stated in the literature review, some individuals who feel anxiety actively reject information by avoiding relevant information (Afifi et al., 2006). This is consistent with the TMIM study by Afifi et al. (2006) in which the anxiety ended up discouraging information seeking behavior. In addition, Afifi et al. (2004) states that TMIM consists of three strategies for reducing anxiety; one of those being to avoid relevant information. Similar to the studies by Fanos et al. (1995) and Lerman et al. (1999), where it is argued that individuals purposefully remain unaware to avoid potential negative psychological

damage. Another possibility is that participants do not feel as much anxiety as predicted. To refer to the data, 76 percent of the participants admit to engaging in texting while driving. It is conceivable that the participants have reduced their anxiety by justifying the behavior and mitigating the repercussions.

While H6 was not supported, H7 and H10 did have significant findings. H7 predicted that there would be a positive relationship between issue-importance and information seeking strategies. These findings suggest that while participants may not feel anxiety about the behavior of texting while driving, they still recognize that the issue is important in general. Issue importance may be a greater indicator of predicting information seeking because the variable of anxiety may not be the only factor that influences information seeking (Tian et al., 2016). There are suggested emotions in the TMIM, but these emotions are not emphasized to the extent of anxiety (Tian et al., 2016). Some of these negative emotions include "fear, sadness, jealousy, ambivalence" (Tian et al., 2017, p. 284). By including these other emotions in the survey, there may be greater findings. In addition, "issue importance" is a broader categorization on how the participant may have felt about the issue. This may have encapsulated a variety of emotions beyond just anxiety; explaining why issue importance and information seeking was a significant finding.

H10 measured for a positive relationship between outcome expectancy and information seeking. This hypothesis was supported, showing that a potential conversation about the behavior with the participant's parents was correlated with information seeking. Specifically, these questions measured if the participant believed that speaking to her or his parents about the behavior of texting while driving would lead to a constructive outcome. Thus, if participants believed that the outcome of speaking with one's parents would be encouraging, then the

correlation to information seeking was high. These findings support that a positively perceived outcome can indicate information seeking behavior. Afifi et al. (2004) stated that individuals would perceive the extent to which they are "able to successfully reduce anxiety through a search" (p. 175). Since parents/guardians are generally seen as credible sources of information, it is logical to deduce that participants would turn to parents/guardians for information if the participant believed that the outcome would be positive.

Theoretical and Practical Implications

Overall, the theories that were used in this study worked well with measuring the behavior of texting while driving. The results indicate that the constructs in TPB effectively predicted the individual's intention to engage in the behavior. Furthermore, these findings support that individuals have a desire for consistency in what they believe and how the individuals desire to act in the future. While previous research has found attitudes and behavioral control to be stronger indicators of intention, this study discovered that the greatest predictor was the subjective norm. While all three of the constructs where correlated with intention in this study, this revitalizes the value of the subjective norm in TPB. Additionally, TPB had not been studied with a focus on commercial effectiveness. The model fit provides insight on its efficacy for both texting while driving and commercial research. TPB would be a valuable measure to use in future studies on commercial effectiveness; whether that is with other risky behaviors, political campaign commercials, or product advertising commercials. The findings in this study are a new addition to TPB research and expand the scope of which this theory may be applied.

The Theory of Motivated Information Management continues to face a discrepancy in regards to anxiety and information seeking. While previous studies have found that anxiety will lead to direct information seeking, other studies, including this one, show the opposite. The

future of the theory may need to take into account this reality and specify which types of anxieties are more likely to prompt or discourage information seeking. In addition, anxiety may not be the only/best concept to evaluate information seeking. These findings support the idea that there are other emotions, besides anxiety, that may lead to more accurate results. Despite this, TMIM appeared fitting for this research. The theory correlated several of its concepts. This shows that the model predicts information seeking strategies in regards to issue importance and outcome expectancies. TMIM has not been applied to the behavior of texting while driving prior to this study. These results reveal that the theory is applicable to this topic area and behavior.

Regarding practical implications, it is important to refer back to the practical rationale. First and foremost, this thesis was intended to find an effective solution for mitigating the act of texting while driving. The conclusions in this study indicate that texting while driving commercials that use fear appeals do not provide the desired results of changing attitudes, intentions, behaviors, or information-seeking strategies. Future campaigns should acknowledge these findings and shift the approach in order to effectively target the audience.

The results from this study highlight the fit of both TPB and TMIM. While there were no significant group differences in the results, the independent models of TPB and TMIM were relatively accurate in measurement. Not only does this help each of these models theoretically, but it also produces understanding on how risky behavior can be addressed. In this study, the subjective norm was the most significant correlation with intention. In past research, attitudes and behavioral control were stronger indicators. This shows that the beliefs and opinions of others have a larger impact on one's actions than previously thought. Knowing this, future campaigns should shift the approach from individual attitude appeals to an appeal that includes the subjective norm. Applying these theories expands the legitimacy of the models, while

strengthening the understanding of how attitudes, behaviors, and information seeking are influenced. These findings indicate that TPB and TMIM are quality models for measuring behaviors, however, there is still work that needs to be done on variables that may affect the outcome.

Limitations & Future Research

The topic of "texting and driving" could likely be considered abstract. In the survey, participants were asked about their texting while driving behaviors; however, this might be ambiguous for those taking the survey. For example, texting while driving is more than just texting. With the current technology, people are able to check social media, send emails, take photos, and use applications. The questions in the survey do not specify what the participant is actually doing on their phone. In addition, there are different scenarios that may be considered less dangerous for driving cell phone users. If, for example, a participant only sends text messages while she or he is at a stoplight, they might not consider this behavior as "texting while driving." Another possibility is that participants may engage in reading text messages but not sending messages while driving. Although reading text messages is arguably as dangerous as sending, participants may not consider this as "texting while driving." In the future, being specific as to what the terms mean would provide greater accuracy in the results.

Overall, the use of Qualtrics helped in effectively randomizing the participants. A majority of the students who took the survey were given the link so they could take it on their own personal devices at a time that was convenient for them. 25 of the participants however came from the Political Science 300 course. These students took the survey in class at the same time. Since half of the participants watched the commercial while the other half did not, it became obvious to the students that there was a control group and an experimental group. This

could have skewed the data as participants might have responded differently by knowing the video was intended to influence responses. In addition, a larger sample size could have produced more accurate results.

The Theory of Motivated Information Management was used in this study to observe the information seeking behavior of college-aged students. The questions were directed at a student's likelihood to ask her or his parents about the behavior of texting while driving. The specificity of these questions led to a few problems. First, not all students were in the targeted age group of young/emerging adult. Some of the participants were older students who may or may not have living parents. In addition, some of the participants may have no relationship or existing parents. Because of this, some of the participants were not able to effectively answer the questions in this section. In future research, it would be advised to add parent *and/or guardian or close friends/significant other*.

There were a few questions that could have been included to create a better experimental control. First, individuals may have been impacted by the topic more than others based on previous experiences. For example, the participant may have personal involvement with a texting and driving accident, or may have received a ticket for texting while driving. Past occurrences could impact how these participants took the survey or viewed the behavior. Adding a question to observe that could provide insight. Another variable could measure the novelty of the commercial. While the commercial used in this study was the newest in the AT&T campaign, it was released six months prior to collecting data. It would benefit the results to ask whether participants had been exposed to this commercial, or similar commercials preceding the study. Questions on exposure could indicate a participant's lack of an emotional response.

The surplus of research about PSA and media effectiveness shaped a thesis that focused heavily on this premise. The literature review and hypotheses fixated on the assumption that the commercial would change the attitudes and behaviors of the viewers. However, when many of these hypotheses were not supported, it did not leave many hypotheses left that concentrated on the theories alone. It is important to include significant alternatives if a large portion of the research is relying on one outcome.

Future Directions

This research was propelled by the necessity of reducing texting while driving behavior. The fact that this video was not significantly persuasive, even in the short term, illuminates a flaw for this approach. While former risk behavior media campaigns have boasted effective results, this was not consistent with the behavior of texting while driving. It is most important to remember that the goal is to reduce texting while driving. These findings show that media campaigns alone may not be enough to reach those goals.

This implies that there needs to be greater research and/or different approaches in attempting to mitigate the behavior. One suggestion would be to focus on different methods of persuasion, such as harsher financial or legal penalties. Studying and measuring the impact of influence of legal or financial repercussions may have a greater impact on behavior change. With an issue as widespread as this however, there may not be one correct answer. It is possible that a combination of approaches may be what is most effective. Acalari et al. (2014) advocates that the most effective method of persuasion is to educate individuals on specific dangers from different angles. Rather than focusing on a commercial, it would be beneficial to have a holistic approach. The results may be more conclusive by observing a campaign as a whole, rather than just one aspect of it. While this research did not focus on the overall intentions of the commercial

or the campaign, it would be beneficial to assess the rhetorical techniques behind the commercial and the campaign as a whole to understand the results.

Previous studies found that personality traits (such as impulsivity) are a good indicator of texting while driving behavior. Future research on media campaigns should take into account the impact of other variables on attitudes and behavior (such as personality traits, sex, age, etc.). While this may not draw conclusions for all people, it may distinguish which types of people are more likely to be influenced.

Considering the age demographic could also show stronger results. This study observed the age group that has the highest rate of texting while driving behavior. It is likely that at this point, that these habits have already formed and the individuals have no desire or intention on changing. A different approach may be to observe the media campaigns effectiveness on a younger demographic. This could be pre-teens or high-school students who are just getting a cell-phone or just learning how to drive. This novelty, along with a commercial, would perhaps bolster the uncertainty and anxiety that is needed to prompt behavior change.

A final suggestion is to observe the long-term impacts of media campaigns on the behaviors of participants. By conducting a longitudinal study, one could observe if the commercial ended up actually changing the behaviors of the experimental group. The intention of this study was to understand how to effectively change behavior in the short-term, but more importantly in the long-term. A longitudinal study would solidify whether commercials have no effect, or incite a subconscious change in behavior for the future.

Conclusion

In this study, 76 percent of the participants admitted to texting while driving, which is similar to the CDC statistic of 7-in-10 people. Texting while driving continues to present a risk

to drivers all over the road, yet there is no conclusive answer on the best way to combat it. As time goes on, the behavior continues to be perceived as normal, since individuals downplay the risks, and choose to believe that an accident just won't happen to them. While past research indicates that PSAs and media campaigns are effective at changing behavior, the research in this study challenges those very findings. For texting while driving, this approach is not enough to serve as a deterrent. It is imperative to observe other methods of persuasion to effectively reduce this behavior. Only then will we see a reduction of these overwhelming numbers.

Despite the slight group differences in this study, the theoretical findings of the Theory of Planned Behavior and the Theory of Motivated Information Management are promising. The consistency of the models indicates an accurate fit for the research topic of texting while driving. These successes continue to move communication research toward a fuller understanding of attitudes, influence and behavior.

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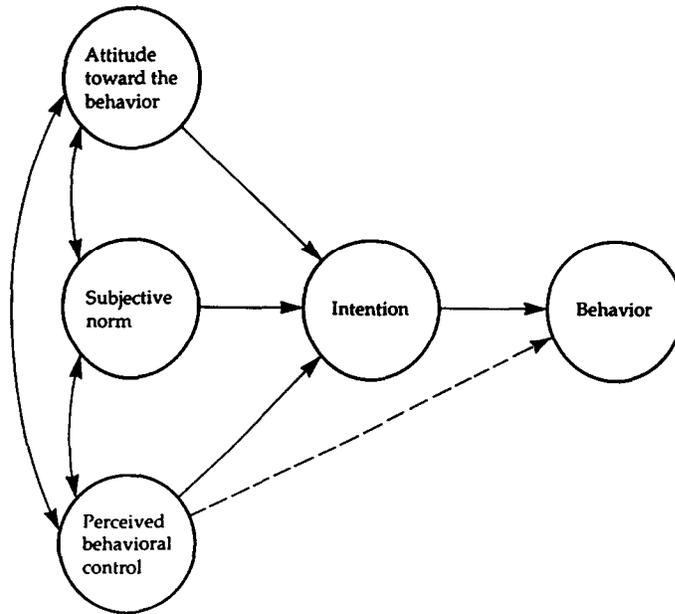
FIGURE 1

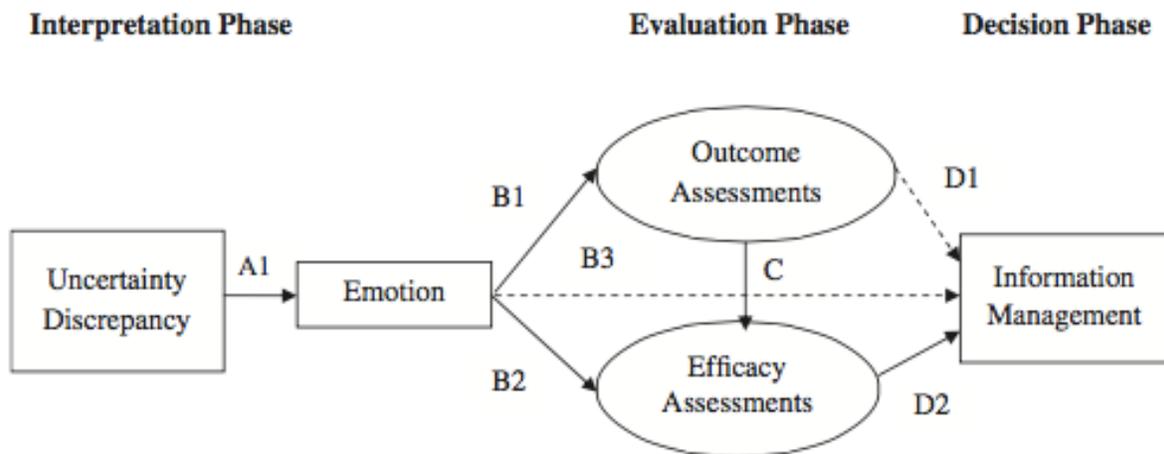
Figure 1: Theory of Planned Behavior (Ajzen, 2005)

FIGURE 2

Figure 2: The Information Management Process as Proposed in the Theory of Motivated Information Management (Afifi et al., 2004, p. 172; Dillow & LaBelle, 2014, p. 679)

TABLE 1

Descriptive Statistics, Alphas, and Intercorrelations for Predictor and Outcome Variables

Variable	*M*	*SD*	α	1	2	3	4	5	6	7	8	9	10
1. Issue Importance	2.87	1.05	.73										
2. Attitudes	1.79	1.07	--	.33**									
3. Intention	2.31	1.29	--	.44**	.23**								
4 Per. Norms	1.77	0.81	.67	.26**	.38**	.26**							
5. Behav. Control	2.63	1.49	.66	-.03	.11	-.09	.07						
6. Anxiety	4.72	1.52	.83	.11	-.09	.20**	-.07	-.02					
7. Infor seeking	4.22	1.82	--	.28**	.06	.17*	-.05	-.04	.08				
8. Uncer. Disc.	0.92	1.56	--	-.27**	-.09	-.15*	-.19**	.02	.02	-.13*			
9. Outc. Exp.	2.69	0.94	.91	.57**	.14*	.18**	.09	.01	.06	.31**	-.13*		
10. Comm. Efficacy	2.45	1.15	.85	.36**	.14*	.11	.26**	.03	-.21**	.12	-.16*	.41**	

Notes. All variables were measured on a 1-7 scale wherein higher scores indicate greater levels of the variable. There was no alpha for relational closeness since it was a single-item measure. *p < 05; **p < 01.

APPENDIX A

Here is the link for the commerical that will be used in the study:
https://www.youtube.com/watch?v=E9swS1Vl6Ok

The video is a YouTube link that will be embeded in the Qualtrics survey. It is titled "Wait for it…this could save your life," and was posted on August 22, 2016.

APPENDIX B

Survey Questions

Instructions: Please take a few minutes to tell us what you think about the behavior of texting while driving. There are no right or wrong responses; we are merely interested in your personal opinions. In response to the questions below, please select the number that best represents your opinion of each question.

We'd like to know how you feel in general about the behavior of texting while driving. Please read each item below, and then select the appropriate number between 1 and 7.

	Not at all	A little	Somewhat	Moderately	Very	A lot	Extremely
Interested?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○
Distressed?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○
Excited?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○
Upset?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○
Guilty?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○
Stressed?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○
Scared?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○
Alert?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○
Inspired?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○
Ashamed?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○
Nervous?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○
Attentive?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○
Proud?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○
Active?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○
Enthusiastic?	1 ○	○ 2	○ 3	4 ○	5 ○	6 ○	7 ○

Have you ever engaged in the behavior of texting and driving?
Yes/No

How frequently would you say that you text and drive?
Never:__1__:___2__:___3__:__4__:___5__:___6__:7: Almost Always

How frequently would you say that you are in a vehicle where the behavior of texting and driving occurs?

Never:__1__:___2__:___3__:___4__:___5__:___6__:7: Almost Always

How frequently are you a passenger in a care where a friend is texting while driving?
Never:__1__:___2__:___3__:___4__:___5__:___6__:7: Almost Always

How frequently are you a passenger in a care where a parent is texting while driving?
Never:__1__:___2__:___3__:___4__:___5__:___6__:7: Almost Always
My support of a decrease in the behavior of texing while driving would be?

bad :___1__:___2__:___3__:___4__:___5__:___6__:___7___: good

Most people who are important to me approve of me not engaging in the behavior of texting and driving.

agree :___1__:___2__:___3__:___4__:___5__:___6__:___7___: disagree

Most people like me support a decrease in texting while driving behavior.

unlikely :___1__:___2__:___3__:___4__:___5__:___6__:___7___: likely

I am confident that I can behavior however I want.

true :___1__:___2__:___3__:___4__:___5__:___6__:___7___: false

My selection of how I act is up to me.

disagree:___1__:___2__:___3__:___4__:___5__:___6__:___7___: agree

I intend to decrease my texting while driving behavior in the future.

likely :___1__:___2__:___3__:___4__:___5__:___6__:___7___: unlikely

In the past, I have made an effort to limit my texting while driving behavior.

false :___1__:___2__:___3__:___4__:___5__:___6__:___7___: true

Please indicate the degree to which you agree or disagree with the following statements about talking to your parents about texting while driving.

I know less than I would like to about the risks of texting while driving.
Agree:__1….7__:Disagree

I want to know more than I currently know about the risks for texting while driving.
Agree:__1….7__:Disagree

It makes me anxious to think about the difference between how much I want to know about the risks of texting while driving and how much I actually know.
Agree:__1….7__:Disagree

It worries me to think about how little I know about the risks of texting while driving.
Agree:__1….7__:Disagree

I know what I need to say to successfully discuss the risks of texting while driving with my parents.
Agree:__1….7__:Disagree

I feel that I have the ability to ask my parents about the risks of texting while driving.
Agree:__1….7__:Disagree

My parents are well informed about the risks of texting while driving.
Agree:__1….7__:Disagree

I know how to talk to my parents about the risks of texting while driving.
Agree:__1….7__:Disagree

My parents would be forthcoming about sensitive issues that we would need to discuss about the risks of texting while driving.
Agree:__1….7__:Disagree

It is very unlikely I will have a conversation with my parents about the risks of texting while driving in the next few years.
Agree:__1….7__:Disagree

If I have a talk with my parents about the risks of texting while driving, I'll directly ask them to give me information.
Agree:__1….7__:Disagree

If I have a talk with my parents about engaging in texting while driving, I'll probably be completely upfront about my interest in that information.
Agree:__1….7__:Disagree

It is important that I know the risks of texting while driving.
Agree:__1….7__:Disagree

Please indicate the degree to which you are knowledgeable about the following questions regarding talking to your parents about the risks of texting while driving.

How knowledgeable do you want to be about the risks of texting while driving?
Extremely knowledgeable:__1…7__:Not knowledeable at all

How knowledgeable are you about the risks of texting while driving?
Extremely knowledgeable:__1…7__:Not knowledeable at all

Please indicate the level of importance of talking to your parents about the risk of texting while driving.
How important is it for you that you talk about the risks of texting while driving with your parents?
Very Important:__1…7__:Not important at all

The following questions ask you to think about the possible results of talking to your parents about the risks of texting while driving
Asking my parents about the risks for texting while driving would produce _____.
A very positive outcome:__1….7__:A very negative outcome

Talking to my parents about the risks of texting while driving would produce _____.
A very positive outcome:__1….7__:A very negative outcome

Approaching my parents with questions about the risks of texting while driving would produce _____.
A very positive outcome:__1….7__:A very negative outcome

Please indicate how direct you would be in discussing textng while driving behavior with your parents.

How direct would you be in discussing the risks of texting while driving with your parents?
Entirely direct:__1….7__:Not direct at all

Please indicate the importance of the texting while driving topic

How important is the issue of texting and driving to you?
1—most important….7—not important at all

How important is the problem of texting and driving to you in deciding how you would act in the future?

1—most important…..7—not important at all

How important is it that the you change your behavior so it comes closer to the belief that you old about this issue?

1—most important….7—not important at all

Demographic Questions:

How old are you?

What is your gender?

Do you drive?

Do you own a cell phone?

What is your race/ethnicity?