

A barrier to building a traffic safety culture in America:

Understanding why drivers feel invulnerable and ambivalent when it comes to traffic safety

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Overview

Every day in America, over 100 deaths and 8,000 injuries result from motor vehicle accidents [National Highway Traffic Safety Administration (NHTSA) 2006]. Among those between the ages of 4–34, motor vehicle crashes are the leading cause of death (Subramanian 2006). In addition to personal suffering, the estimated 2004 annual economic cost exceeded 230 billion dollars (NHTSA 2006).

In spite of these facts, Americans still feel surprisingly safe on the roads. According to the U.S. Department of Transportation’s Federal Highway Administration, only 5% of people feel that the roads are unsafe (FHWA 2005). Drivers report that they are satisfied with road conditions, as well as enforcement of key safety laws, such as those that pertain to speeding, drinking and driving, and safety-belt use.

The disconnect between the threat of being involved in a serious motor vehicle crash and the perception of safety is puzzling given the frequency of serious and even fatal vehicle accidents. The effective disconnect may be, however, the reluctance—or even inability—of many drivers to assume responsibility for safe driving and safety on the roads. Driving a vehicle is a convenience, a necessity, a habit, and, even, a “right.” It makes life better, easier, and more efficient. But, lost somewhere in the taken-for-granted convenience and necessity of vehicles and driving is recognition of the responsibility of the driver to “keep it safe.” Drivers often seem not to recognize consciously their own responsibility for driving safely. Failure to recognize this responsibility means they also do not adopt safe driving behavior. The result can be carelessness, lack of attention, failure to use safety belts, excessive speed, driving while talking on their cell phones, and a host of other dangerous habits.

Understanding the “reluctance” of drivers to accept responsibility for safe driving can be addressed by better understanding how drivers “attribute” the cause of accidents. Specifically, this paper examines how drivers who are involved in vehicle accidents are viewed. It asks, “What is the perceived character of drivers who are involved in accidents or who exhibit unsafe driving habits?” Are these people viewed as somehow “different” and as not recognizing the hazards and danger they create? Are they viewed as unfortunate victims of circumstance? Are they viewed as careless or not attentive and, thus, blamed for causing accidents? This paper

argues that to avoid the negative self-perception of a “bad” driver, individuals view themselves as safe drivers. In order to align driving behavior with this positive self-perception, drivers exhibit safe or safer driving habits.

This paper uses attribution theory—from its base in social psychology—to develop a framework for understanding how drivers attribute responsibility for auto accidents. It argues that drivers explain why accidents occur by attributing cause or responsibility for an accident. It further examines the extent to which drivers attribute the responsibility for safety to themselves. The fundamental premise is that when drivers attribute the “cause” of accidents to drivers, they also come to attribute responsibility to themselves for driving safely.

The analysis explores how the attribution process “works”. In an innovative application of attribution theory, it develops a framework for intervening in the attribution process to impact its outcome. The analysis argues that by redirecting the attribution process away from other drivers or external events (e.g., traffic congestion caused the accident) to themselves, drivers come to recognize and assume responsibility for driving safely. The paper proposes that by intervening in the attribution process, drivers will be less likely to “blame” external situations (e.g., the “other” driver, weather, road conditions, etc.) for accidents and assume a greater sense of responsibility for driving safely. By impacting that attribution process, marketing communications can help drivers come to recognize and accept their own responsibility for safe driving—and, hence, foster the development of a culture of safety. The eventual outcome of this process is to turn the *negativity* of assigning “blame” for an accident to another driver to the *positive* of acceptance of personal responsibility of driving safely or driving more safely. The outcome of this perspective has both heuristic and pragmatic value. It advances understanding of human response to vehicle accidents, and it provides a framework for bringing about driver acceptance of responsibility for safe driving.

Introduction

Traffic fatalities have become an acceptable consequence of modern day mobility. In 2004, 6.2 million motor vehicle crashes resulted in 42,636 deaths and almost 2.8 million injuries. Media stories of motor vehicle related injuries and death are commonplace. Yet, as media reports of vehicle crashes and related deaths accumulate, Americans seem to become more and more desensitized to needless loss of life. Rather than demanding national traffic safety reform, American drivers openly exhibit what statistics clearly suggest are unsafe driving practices—driving without seatbelts, talking on cell phones, speeding through work safety zones, and so forth—putting themselves and others at a greater risk of becoming the next statistic.

Drivers often act as if motor vehicle accidents are events that happen to other people, not themselves. When hearing about horrific accidents, many seem to think that if they were confronted with the same set of circumstances, they would avoid the accident entirely. Those involved in accidents often “blame” the occurrence on someone or something rather than recognizing or accepting personal responsibility. Cause for an accident, for example, is often attributed to the other driver, weather, condition of the roads, construction, vehicle problems, etc. Acceptance of personal responsibility for an accident often seems to be resisted.

This ability to attribute cause and deflect *personal* responsibility when it comes to operating a motor vehicle is a fundamental barrier to cultivating a national safety ethic that prioritizes vehicle and pedestrian safety. To overcome this barrier, transportation and safety administrators, car manufacturers, insurance agencies, and travel related associations must develop a greater understanding of how people attribute cause and responsibility when it comes to serious motor vehicle accidents and identify ways to make traffic safety messages more relevant and personal. Only when drivers recognize and accept their responsibility for traffic safety will a culture of safety be reality.

A guiding framework for understanding how drivers attribute causes of accidents and responsibility for safety can be found in the tenants of attribution theory. The field of attribution research provides a potentially valuable analytical paradigm for understanding and affecting motorists' concerns and sense of responsibility for vehicle accidents. Attribution research addresses *perceptions* through its focus on the human inclination to look for and identify the causes of events and to make subsequent causal inferences about these events. This perspective is sometimes called “naïve theory” because it reflects the everyday, commonsense explanations that people—lay persons from the perspective of psychology—use to explain events and the world around them. Formal study of the attempt to identify and assign causality is found in the basics of attribution theory.

This paper explores how the attribution process “works” and extends that analysis to use attribution theory to explore how the “blame” for accidents can be re-directed to positive self-perceptions and the personal acceptance for driving safely. The paper proposes that by intervening in the attribution process, drivers will be less likely to “blame” external situations (e.g., the “other” driver, weather, road conditions, etc.) for accidents and assume a greater sense of responsibility for driving safely. Since the analysis begins and ends in the attribution process, a more thorough grounding in attribution theory will help to develop the perspective.

Attribution theory

Attribution theory has a long and rich history in the field of psychology and social psychology. It has made important contributions simply because it attempts to account for and explain everyday explanations—explanations that bring order and predictability to a world that might not otherwise be orderly and predictable. Attribution theory (which is actually a group of theories) is all about explanations of “why.” “Why am I being ignored?” “Why didn’t I get that job?” “Why won’t the kids eat broccoli?” “Why was I broadsided on my way to work?” Attribution theory looks for the patterns, consistencies, and outcomes of everyday explanations of “why.”

The search for an understanding of causality dates back several thousand years to the insights of Aristotle in his analysis of the types of causes. This perspective is adopted and adapted, as Forsterling (2001) points out, in the works of Hume, Kant, and Mill, whose theories of causality are integral to contemporary psychology. This interest in causality became more explicitly tied to the “naïve theories” of everyday life in the works of Fritz Heider, particularly in his *The Psychology of Interpersonal Relations* (Heider 1958). Heider is generally considered to be the founder of attribution theory. His works were expanded and formalized by psychologists Harold Kelley and Edward Jones throughout the 1960s and 1970s. Psychologists today continue this

classic tradition by utilizing attribution theory to help understand human behavior in the work setting, health care, deviance, the marital relationship, educational attainment, alcoholism, and myriad other dimensions of individual well-being and personal attainment.

Attribution theory attempts to understand how people explain and account for causality. It is based upon the premise that individuals are seldom passive observers of events and behavior (Shaver 1975). Rather, they are active perceivers searching for the reasons accounting for what they observe. It classifies attributions according to two fundamental types:

- External or situational attributions that account for causality by assigning responsibility to external factors (e.g., the weather)
- Internal or dispositional attributions answer the “why” question by assigning responsibility to the person

In practice, these two perspectives can produce different research focuses. The first can produce research that addresses control, management, and environmental issues. The second can produce examination of issues related to personality and self-worth. But, this perspective can also produce keen insights related to control, e.g., self-control and behavior change.

The position developed in this paper utilizes attribution theory as a guide to understanding perceptions of unsafe drivers. In doing so, it actually combines these two perspectives of attribution theory. It proposes that by better understanding how people view or perceive those involved in motor vehicle crashes, it will be possible to better communicate with motorists in ways that will help them to manage their own behavior to be better, safer drivers (using self-attribution). To the extent that drivers involved in vehicle accidents are perceived as careless, irresponsible, negligent, or even “bad” people, others will work to manage their own behavior by driving responsibly—and avoiding negative self-perceptions. Attributions that place the responsibility for accidents on “bad” people will produce safe driving habits. Responsibility attributed to others for “causing” accidents can be re-directed to develop a sense of responsibility among drivers for “driving safely.” In order to develop and maintain positive self-attributions (and, hence, positive self-perceptions), drivers will adopt safe driving habits.

Attributions and behavior

In addition to helping to explain why people act as they do, attribution theory offers a glimpse into how to change driving behavior. Drivers feel they cannot control many external situations, such as poor weather or other drivers. But, they do feel they can control themselves. Consider someone who has a perfect driving record. If he attributes this record to an external source, such as luck, he is less likely to behave in a manner consistent with good driving. If, however, he believes he is a good driver, he is likely to try to act like one—stopping completely at stop signs, following the speed limit, and using turn indicators. The attribution that he is a good driver influences his behavior. Those who accept or feel a sense of responsibility for their behavior will be more likely to behave in a way consistent with that feeling.

Researchers and safety experts have made some—but limited—use of attribution theory in explaining and understanding careless and irresponsible driving. There is, however, research in complementary fields that suggests the value of the application of attribution theory in the role of

personal responsibility for the outcome of situations and events. Rothman et al. (1993), for example, studied the role of personal responsibility in the willingness of women to get regular mammograms. In this research, women who had not in the past undergone regular mammograms were shown one of three messages: one that focused on internal attributions, another that focused on external attributions, and a third that just provided information. Women who were shown the internal attribution message, in which they were given persuasive information emphasizing their personal responsibility for getting mammograms, were more likely than the other groups to have gotten a mammogram one year later. In this instance, strengthening internal attributions has been used to successfully change behavior. Building on this perspective, this paper proposes that attributions can also be used to change driving behavior by creating a sense of personal responsibility for safe driving.

Attributions and traffic safety

Vehicle safety research guided by attribution theory has been somewhat disparate in that a variety of issues and substantive areas have been addressed. But, most often, the research examines the psychological well-being of accident victims, particularly in terms of how they explain the “cause” of the accident. This research asks a fundamental question: “Are accident victims psychologically better if they assign responsibility to themselves for the accident or if they blame others?” Such research tends to be based in health and medical fields and industrial safety, rather than traffic safety. Its focus, ultimately, is the development of support or therapeutic services that help accident victims to better cope with the accident and the outcome of the accident (e.g., paralysis).

Common sense would suggest that attributing responsibility for an accident to the “other” driver would be associated with a stronger self-concept and more positive adaptive behavior. But, research connecting internal or external attribution and adaptation has been somewhat inconsistent and not always clear-cut. Most often, this research tends to show that assigning cause to others does not lead to a better sense of well-being. In a review of published studies that have measured external attribution and adaptation to the outcome of accidents and other victimizing experiences, Tennen and Affleck report that assigning cause to others for the accident or victimizing event is related to a lower sense of well-being. In none of the 25 studies they reviewed, did they find blaming others (external attribution) to be associated with more positive attribution (Tennen and Affleck 1990).

A study that focuses specifically on vehicle accidents advances our understanding of the relationship between internal and external attribution and the sense of well being. This seminal study, conducted by Ho et al. (2000), examines how vehicle accident survivors place responsibility for the accident and how well they adapt to the outcome of the accident. This research assesses the effects of motor vehicle accidents on levels of psychological distress and well-being on drivers and passengers and their responsibility attribution. In this study of 321 drivers and passengers involved in motor vehicle accidents, the authors report that only 20% of drivers perceived themselves to be at fault. The other 80% believed they were not at fault. Additionally, the research reported an overall decrease in the feeling of well-being among both drivers and passengers following the accidents. This was particularly important for drivers in that it was linked to their attributions of the cause of the accident. Drivers who did not find fault in themselves—but attributed responsibility to the other driver instead—experienced a

greater decrease in their sense of well being. They experienced more psychological distress and a lower level of well being than did drivers who viewed themselves as responsible. Ho et al. conclude that internal attribution (i.e., self-blame) lessens the emotion of anger. This, in turn, reduces the sense of psychological distress and intrusive negative thoughts. Thus, self-blame actually helps accident victims to cope.

Another study (Stewart 2005) found support for what is called *defensive attribution theory* (DAT). DAT focuses primarily on how people make attributions that make them feel safe. DAT suggests that accident survivors make attributions of responsibility in a way that reduces their experience or sense of vulnerability. In Stewart's research, vehicle accident survivors completed a survey in which they gave attribution ratings to various "causes" of their accident: other drivers, themselves, road conditions/weather. Those who had been in serious accidents attributed greater responsibility to other drivers and environmental conditions. Those in less severe accidents attributed about the same level of responsibility to themselves as to others. Stewart interpreted this to suggest that those involved in serious accidents used the attribution of the cause to others to make them feel "safe" or less vulnerable because they would be unlikely to be traveling under those same circumstances again. Attributing causality to weather or road conditions gave victims a sense of control because they could choose to avoid similar circumstances in the future. But, Stewart also found that those who attributed cause to other drivers were more likely to exhibit avoidance behavior in regard to driving or riding in a vehicle.

A literature review sponsored by the U.S. Department of Transportation, National Highway Traffic Safety Administration, provides additional insight into how people attribute responsibility to victims of car accidents (Eby and Molnar 1998). One course this research follows focuses on the severity of the crash and the attribution of responsibility (for failure to drive safely). Eby and Molnar (1998) report that when alcohol is involved in the accident and when it is not, attributing the cause of the crash tends to reflect the severity of the crash. As crashes become more severe, responsibility is increasingly attributed to victims. When accidents are minor or "near misses", little effort is expended in attempting to attribute causality. This research has produced recommendations for driver training and driver improvement programs that stress teaching students to analyze their own driving behavior in relationship to accidents and near misses—and stresses the need for drivers to assume responsibility for their driving.

Studies of attribution suggest that attributing causality for a motor vehicle accident is a complex process. Self-attribution occurs, but it can be a painful experience. Consequently, people may use attribution to judge themselves differently than they do others or to judge others rather than themselves. There may even be a self-serving bias at work in the attribution process as people tend to attribute good things to themselves and bad things to others or to the situation. This self-serving bias may help explain why people tend to feel invulnerable to car crashes despite the amount of attention these events receive from the media.

The study of accidents, attribution, and personal well-being tends to express two common focuses of concern:

1. Victims of accidents, i.e., individuals who have actually experienced accidents and
2. Psychological outcome experienced by victims

This paper adopts a slightly different focus by utilizing attribution theory for the analysis of

perceptions of vehicle accident causality—a perspective that has direct application for the development of a culture of safety. It expands the analysis of attribution by examining the personality and character traits attributed to those who are viewed as causing accidents. This approach sets aside differences between internal and external attribution and assumes that cause is attributed **someone** (i.e., it excludes non-human culpability). This approach also assumes that to attribute responsibility for an accident—or driving safely—the individual does not have to experience an accident. They might witness an accident, observe reckless driving, or hear about an accident in the news. By adopting this approach, attribution theory can be used to develop a better understanding of the dispositional attributions made to reckless drivers and drivers who are in accidents—and lead to recognition and acceptance by drivers of their role in vehicle safety.

Extending attribution theory to develop a culture of safety

An important component of the proposed approach is a perspective labeled “person perception” (Shaver 1975). As active participants in interpreting and understanding their world, individuals explain the behaviors of others by attributing reasons, motives, histories, personality traits, and so forth to the other person. Because these “objects” (the observed individuals) are external to the observer, they are referred to as *distal objects* (Shaver 1975). The information needed to account for or explain the behaviors of others (distal objects) is not always available or apparent. Thus, in attempting to explain specific behaviors of others, individuals often categorize or classify people. Categorizing someone as Democrat, friendly, careless, or generous, for example, helps to explain behavior and attribute causality. The ultimate result of this process is a definition and evaluation of the other person that allows the observer to relate to the other. The categorizations and attributions applied to others are guides that provide order, meaning, and predictability to social life.

In the study of vehicle accidents, research has tended to focus on the attributions of those involved in the accidents and the manner in which they have attributed causality. For example, Stewart’s (2005) research focused on how drivers attributed crash events to external circumstances rather than their own driving performance at the time of the incident. Beyond identifying the extent to which accident victims attribute responsibility to themselves or to external causes, research has not yet examined in depth the categorizations or classifications of drivers who are responsible for accidents. By extending the attribution analysis beyond the act of attribution to the interpretations and “naïve” psychology utilized to understand those blamed for the accident, the perspective can be used to understand the “kinds” of people who are blamed for accidents.

As illustrated in Figure 1, the attribution sequence begins with the observation of an event or situation. This observation may take place in “real life” in that the observer is actually present in the physical space in which the incident occurs and, thus, witnesses the incident. The observation might also occur more indirectly—such as hearing about an incident (through word-of-mouth, a news report, and so forth) or even imagining it. In either case, the observer does not passively “observe” the incident. He *interprets* the event or incident. Through interpretation, the observer

interjects personal views, expectations, values, and past experiences into understanding the occurrence and is thereby able to assign causality.

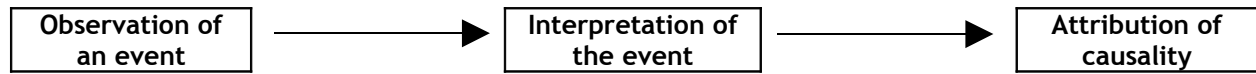


Figure 1. The attribution sequence

This basic process can be defined more explicitly and expanded to incorporate its impact on the observer. The first change to this model is the specification that causality is attributed to a person rather than some environmental factor or combination of factors. To focus on the person rather than the situation is a position well supported by attribution research. Citing work by Nisbett and Ross (1980) and Fiske and Taylor (1984), Haunschild and Sullivan (2002) points out that “there is a tendency to focus on the person, not the situation, as the cause of events.” Then, building on the fundamentals of “person perceptions,” the model proposes that the observer does more than attribute cause to a person. The observer classifies or even evaluates the person causing the incident. Depending on the outcome or nature of the incident, the other person might be viewed positively, negatively, or even neutrally. The final outcome of this process is self-examination as the observer examines his own behavior in reference to the classification of the other person. This process is diagrammed in Figure 2.

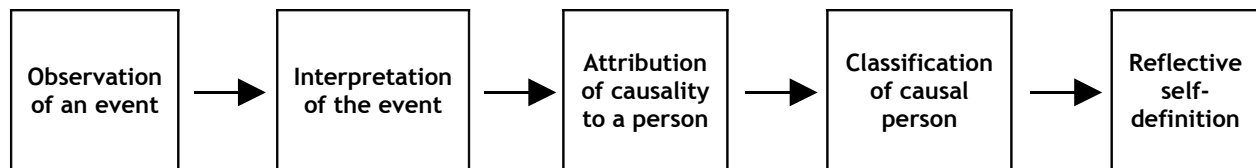


Figure 2. The attribution sequence extended to personal reflection

This expanded model can be applied specifically to vehicle accidents. First, the observer sees (or hears) an accident, either witnessing the accident or hearing about it (e.g., in the news, by word-of-mouth). Then, the accident is interpreted as something “bad”—it’s frightening, upsetting, dangerous, and so forth. The observer then looks for and tries several explanations for the cause of the accident. Ultimately, in at least some accidents, the cause of the accident is attributed to the (other) driver and that driver is classified or defined. The (other) driver may be viewed as careless, lazy, negligent, unlucky, and so forth. The final step proposed in this model is observer self-examination. The observer examines his own “driver behavior” in reference to the definition applied to the other driver. To avoid a negative self-concept, the observer does not want to perceive himself as careless, lazy, negligent, and so forth. Instead, he views himself as responsible, diligent, and careful. According to the self-fulfilling prophecy (Merton 1968), the driver who views himself as responsible, diligent, and careful is more likely to behave that way, i.e., to drive responsibly. To the extent that drivers view those who cause accidents negatively, they will attempt to avoid comparable negative self-perceptions by driving safely. This process is diagrammed in Figure 3.

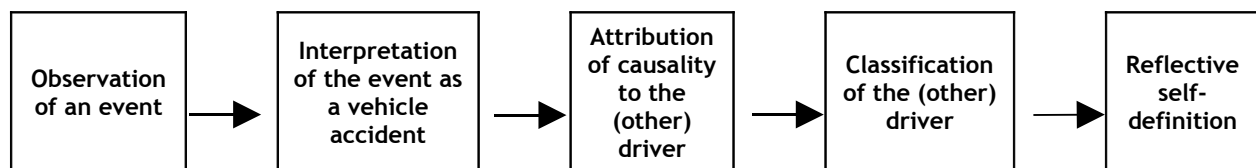


Figure 3. The attribution sequence applied to vehicle accidents

The value of this model extends beyond its potential heuristic contributions to suggest a pragmatic outcome. It suggests that it is possible to impact self-perceptions in such a way as to grow and enhance a culture of safety. Marketing communications can be used to “remind” or educate drivers about the “types” of drivers who cause accidents, such as careless, irresponsible, and negligent drivers. This model of perceptions of the cause of vehicle accidents, based in attribution theory, can be used to develop marketing strategies, tactics, and activities to educate and remind drivers of their role in driving safety. Communications would be used to develop an image of “bad” drivers—by attributing the cause of accidents to carelessness, recklessness, irresponsible drivers, and so forth. As drivers come to “recognize” the negative traits, personality characteristics, and driving habits of “bad” drivers, they also reflect upon their own driving. To avoid a negative self-perception, they view themselves as responsible, careful, attentive, and safe drivers. They attribute accidents to bad drivers, but they avoid negative self-perceptions by viewing themselves as safe drivers. Over time, their behavior (i.e., driving safely) reflects this positive self-perception more and more as drivers align their self-perception and their driving. Thus, as marketing communications succeed, drivers come to automatically think *and* act as safe and responsible drivers, an integral component to a culture of safety.

Recommendations

The focus of this paper has been on how attribution theory can be applied to improve traffic safety. Drivers’ feelings of invulnerability surely contribute to their feelings of safety on the road. While it is not clear why people feel so safe, given the volume of fatal crashes and serious injuries that occur, it is clear that attribution theory can produce better insight and understanding of these complex issues.

Past research focuses on the attributions of actual car crash victims—how drivers attribute crash events to external circumstances rather than their own driving performance at the time of the incident. This research suggests just how easily drivers can deflect their sense of personal responsibility.

Common sense suggests that this same kind of deflection or attribution happens to many drivers when they are confronted with facts suggesting that driving is dangerous, and, in some cases, deadly. When presented with seemingly unassailable facts that accidents happen, many can simply attribute involvement in accidents to what must be mistakes by the “other driver.”

The studies reported in this paper are an excellent foundation for development of an analytic framework that uses attribution theory to create a greater sense of driver safety responsibility. Rather than focusing on those who have already been in accidents, this perspective expands to address drivers in general, whether or not they have been in accidents. It may be easy or comforting for drivers to deflect responsibility for accidents. But, research into the attribution process suggests that this process can be mediated and its conclusion redirected.

Much remains to be done to bring this perspective to a pragmatic conclusion. The theoretical foundation is sufficiently solid to warrant research into the process of redefining and redirecting the attribution process as it relates to motor vehicle accidents. This research would investigate and identify the common character and personality traits and driving habits that are attributed to

drivers whose carelessness or failure to drive safely causes accidents—or drivers who are simply viewed as “bad” drivers. But, the research would also need to identify those attributions that are viewed as most negative or undesirable—particularly in regard to potential self-attribution. Fundamentally, research would need to address the identification of the attributions that are most aversive, i.e., the self-perceptions that drivers most want to avoid. Based on this understanding, communications research could be used to develop the most compelling and meaningful messages that can re-direct common attributions that produce greater awareness and acceptance of personal responsibility. Ultimately, this investigation could lead to the production of a resource guide for safety campaigns that lists the most compelling messages. Such a reference could help safety professionals better achieve the goal of increased driver safety—the basis of a culture of safety.

Summary

Driver safety is a critical concern. Lives are at stake. Creating a culture of safety in which people hold and express beliefs and attitudes that value vehicle, driver, passenger, and pedestrian safety is increasingly important. Attribution theory provides a powerful lens for getting to the heart of feelings of invulnerability when it comes to traffic safety. The feeling that it “just can’t happen to me” is one that must change in order to embrace a culture of safety. Attribution theory can guide the process of becoming a more safety conscious America.

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Biographical statements

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John began his career at a mid-Atlantic advertising agency, where as President he led the agency's planning and research work in healthcare, B2B services, and travel marketing. Many of John's initiatives while at the agency received the American Marketing Association's (AMA) Effie Award, for the most effective marketing campaigns in the country.

John received a master's of business administration from Virginia Commonwealth University in 1984 and graduated from Washington & Lee University with a bachelor's degree in economics in 1982. John is often a featured speaker at marketing workshops around the country and most recently addressed the Southern Newspapers Publishers Association annual conference.