AN ATTRIBUTION THEORY MODEL OF CONSUMER BEHAVIOR IN TIMES OF MARKETING CRISIS

by

Timothy M. Reilly

A DISSERTATION

Presented to the Faculty of
The Graduate College at the University of Nebraska
In Partial Fulfillment of the Requirements
For the Degree of Doctor of Philosophy

Major: Interdepartmental Area of Business
(Marketing)

Under the Supervision of Professor James W. Gentry

Lincoln, Nebraska

August, 2014

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

AN ATTRIBUTION THEORY MODEL OF CONSUMER BEHAVIOR IN TIMES OF MARKETING CRISIS

Timothy M. Reilly, Ph.D.

University of Nebraska, 2014

Advisor: James W. Gentry

In the course of doing business in the modern world organizations often find themselves involved in negative situations which can only be categorized as crises. These crises have a wide variety of causes and often result in negative outcomes for the organizations involved. While crises have been studied from an organizational view, this research investigates the consumer's experience when exposed to a crisis. To do this, the current literature on marketing crises is expanded upon to create a definition of marketing crisis, and the theoretical lens of attribution theory is applied to identify why individual consumers may respond quite differently to the same marketing crisis. The three specific research questions investigated are: 1) How do consumers make causal attributions about marketing crises? 2) What factors influence how consumers make those attributions about marketing crises?, and 3) What are the consequences of causal attributions about marketing crises? These questions are tested with an experimental design manipulating exposure to a marketing crisis and measuring antecedents, causal attribution, and consequences associated with an attribution theory model of crisis perception. A major finding of this research is that the cause of the crisis matters to consumers, and that the perception of cause can vary greatly among consumers. Specifically, and counterintuitively, this research suggests that consumers who are actually customers of organizations affected by the crisis may have a less dramatic response to a negative development than consumers who are less involved and more psychologically distant.

Acknowledgements

There are many people that I would like to thank for their participation in my life over the last 7 years I've been privileged to be a student at the University of Nebraska. I would like to start by thanking my family. My actual family has to wait a bit here, as I want to thank my Nebraska family first, particularly my advisor James Gentry and his wife Ruth Gentry. Jim, from the first day I met you I knew we would always get along. I'm sorry it took so long to get me out of here, but after me we can truly give you the title of "Miracle Worker." Ruth, thank you for being my Mom away from home. It was always a comfort to come over to your house and be mothered within an inch of my life. You contributed hugely to my experience at Nebraska, and contribute more to the program and the UNL Marketing experience than I think you know. I also want to thank the other members of my committee. Les, besides showing us how to karaoke, you showed me how to be a better writer, and how to keep a research project going through to publication. Amit, you showed me how to think theoretically, and were an excellent opponent for our political discussions until you switched sides. Mike, I enjoyed your class tremendously, and hopefully the timing data I collected will work out. Actual family is next – thank you Dad, Mom, Trish, Jon, Nash, Jen, and Colin. I appreciate all your help through this process, and it cannot be understated how much you helped get me through it. Be it weekly phone calls, or helping me think through a research hypothesis, you were all there for me. Lastly, I would like to thank my chosen family. Shannon you were one of the first people I met at Nebraska and I know it sucks for you, but you are stuck with me. Rob, the same goes for you as well… just kidding you suck… and can't eat a burrito to save your life. That being said, you can play drums in my band any day.

Jeff, my brother, what can I say? I actually mean that – it literally cannot be put into words how much I appreciate and value both your friendship and our mutual appreciation of Golden Tee golf. Ricardo, I enjoyed teaching you the finer points of sarcasm. Hopefully you never lose the innocence that let me fool you so often. I'm pretty sure you know that it was all in good fun, but if not – well, I never liked you anyway. Scott, stay the fun, unassuming person that you are. As a side note to any one reading this, Scott is really a lot of fun. Sometimes you have to trick him into it though, as he is super busy balancing work with being a good husband and father. Last, but definitely not least, I would like to thank my summer roommates Preston and Kaylee. I know I'm a package deal with the house, but I'm sure we would have all been friends anyway. Thanks for giving me a distraction free environment and putting me up indefinitely this summer. I'll finish by thanking everyone that I haven't mentioned directly, and everyone that I have mentioned again. I appreciate each and every one of you. You know who you are, and I'm already looking forward to our next adventure.

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION

Over the lifetime of a company, there is a strong likelihood that they will encounter an event or circumstance which may be deemed to be a crisis for the firm. In the Webster's New World dictionary, a crisis is defined as: "1. The turning point of a disease, for better or worse, 2. A decisive or crucial time, or 3. A time of great danger" (2003). The popular press is full of examples of companies which have faced crisis situations, ranging from the often cited case of poisoned Tylenol, to the more recent BP oil spill in the Gulf of Mexico, and the Sony PlayStation Network hacking scandal. These crises often have wide ranging effects on the overall organization. In the case of the British Petroleum disaster, perceptions of negligence on the part of BP led to consumer boycotts of BP service stations, and less than one month after the start of the oil spill, BP's stock had declined approximately 20% and the company was estimated to have lost approximately $68 billion in market capitalization (Mayo 2010). When Sony's PlayStation Network was hacked, potentially allowing access to 70 million consumers' private information and credit card numbers, the service had to be shut down for several months while security flaws were fixed. Early on in the incident, the company estimated that the hack had set them back around $170 million in costs and lost sales alone, not taking into account potential damage to their brand (Davidson 2011). More recently, Target was the victim of a security intrusion ultimately resulting in the CEO of Target losing his job. It is interesting to note that while the last three crises discussed both resulted in significant negative consequences for the organization, the Tylenol crisis is often viewed as a model for corporate crisis response, and is generally thought to have

resulted in positive consumer perceptions because of the actions taken by Johnson and Johnson immediately following the incident.

While it is simple to point to examples of marketing crises in the real world, the academic literature has not fully caught up either in terms defining crises or assessing their impacts on the companies and brands that are in crisis The communications literature has investigated crises from a perspective of communication strategy (Coombs and Holladay 1996), and attempted to identify the types of potential crises which may arise for an organization (Bradford and Garrett 1995). These perspectives were combined by Coombs in his Situation Crisis Communication theory (Coombs 2007), which suggests that there may be optimal response strategies that differ, depending on the type of crisis. The management literature has also investigated crises, although they have varied somewhat from the communication literature because an organizational crisis has been defined as any event or situation which threatens the ability of the organization to continue to survive (Dutton 1986). Perhaps because of this difference, the managerial literature perspective is often more concerned how the firm handles the crisis internally (Aguilera et al. 1990; D'Aveni and MacMillan 1990; Dutton 1986; Fink et al. 1971), and focuses on issues such as crisis recognition by managers (Dutton and Jackson 1987).

The marketing literature has also investigated crises, but from a variety of perspectives. In marketing, crises have been explored in terms of product harm crises (Dawar and Pillutla 2000; Siomkos and Kurzbard 1994) and brand crises (Ahluwalia et al. 2000; Dawar and Lei 2009; Huber et al. 2010; Roehm and Tybout 2006). Product harm crises are defined as “discrete, well publicized occurrences wherein products are found to be defective or dangerous” (Dawar and Pillutla 2000), while brand crises are

defined as "unexpected events that threaten a brand's perceived ability to deliver expected benefits, thereby weakening brand equity" (Dutta and Pullig 2011), and goes further by dividing brand crises into performance-based or values-based crises. Performance-based crises concern the organization's ability to deliver consumer benefits, while values crises focus on ethical or social issues (Dutta and Pullig 2011). Note, however, that product harm crises and brand crises are not mutually exclusive, but rather the literature differentiates them based on the perspective the researcher will use as a focus in their work. Product harm crises are investigated with an eye to the specific harm incidents, while brand crises are investigated from the perspective of the overall brand. While both of these conceptualizations have been valuable in building the stream of research in marketing on crises, only one attempt to develop an over-arching definition of a 'marketing' crisis has been identified over the course of the literature review for this dissertation (Clark 1988), and this definition was noted by Clark to be tentative.

The definitions of crisis across the marketing, management, and communications literatures have much in common. While some crisis investigations in marketing have utilized different focal criteria (brand vs. product), they have all approached the concept of crisis from an organizational perspective. That is, they investigate what is done by the company, and in some cases ask consumers how they feel about those actions. In limited cases, consumer measures (such as prior expectations) have been investigated to determine their influence on reactions to crises (Dawar and Pillutla 2000), yet research into how consumer perceptions and reactions determine the impacts of a crisis on a marketing organization remains relatively under-developed. This research seeks to further our understanding of marketing crises by investigating the crises using a

consumer-oriented perspective. Rather than focus on the company and its actions as in the previous literature, this paper will investigate how differences across consumers may lead to variation in, or differences in response to marketing crisis outcomes. At this time, this consumer-oriented perspective of marketing crisis is almost completely absent from the extant literature. This is a surprising deficit, because almost by definition, the marketing function and effectiveness of an organization is heavily dependent on how consumers and potential consumers perceive that organization. Since crises create significant changes in perceptions, and likely are perceived to be telling about the true nature of the organization, much more so than any marketing communications issued by the organization, understanding how consumers react to crises is critical.

This organizational focus of the existing literature therefore gives only a partial view of how crises operate. For example, while crises and their effects on consumers have been investigated to some degree, there has been little work which looks at how harm to brand equity comes about, and how it is distributed among consumer populations. As discussed previously, consumer expectations including brand familiarity and crisis relevance to a brand's core associations have been used to investigate how consumers respond to a crisis (Dawar and Pillutla 2000). This work, while important, fails to address the relevance of a given crisis to a consumer and how the consumer forms opinions about the crisis and the carryover of those opinions to the brand, products, and organization (although it does capture some aspects of attribution theory). The lack of investigation into consumer crisis response and the overlapping conceptualizations of what constitutes a crisis create the need for better understanding in the crisis domain. First, it will be important to define crises from a marketing perspective. This

conceptualization will allow for an expanded analysis of the marketing impacts of a crisis.

Organizational crises have the opportunity to create massive problems for a company, but need not necessarily do so. It is interesting to note that while BP bore the brunt of the public's anger and criticism for the oil spill in the Gulf of Mexico, both Haliburton (which constructed the well) and Transocean (which operated the oil rig) have received relatively less scrutiny. This suggests interesting research questions which use a consumer-oriented view of marketing crises examining consumer reactions to organizational actions, and suggesting how understanding consumer responses might allow companies to optimize their actions in response to crisis situations.

To that end, this study seeks to further our understanding of marketing crises by conducting a thorough review of the existing research on marketing crises, then offering a marketing-specific definition of crisis. Using the definition, we will identify the dimensions of marketing crises which have been presented in the extant literature, then propose and test a model which seeks to explain the antecedents and consequences of a consumer's evaluation of a marketing crisis. Based on previous research into crises, and the consumer-oriented focus of this research, the primary theoretical base for this model will be attribution theory. Using this perspective three specific research questions will be investigated:

1) How do consumers make causal attributions about marketing crises?

2) What factors influence how consumers make those attributions about marketing crises?

3) What are the consequences of causal attributions about marketing crises?

Accordingly, this can be seen as a preliminary investigation of the consumer-oriented view of marketing crises, and the potential influence of causal attributions on marketing outcomes from a crisis.

Answers to these questions may allow for organizations to mitigate damage from a crisis in the short term (to avoid, for example the massive losses suffered by BP), or to turn an existing crisis into an opportunity to solidify positive aspects of a brand in the minds of consumers (as done by Johnson and Johnson). These research questions are especially important today as the availability of information to consumers is at an all-time high, and that information is not controlled by any one person or organization, but widely distributed through both traditional media, social media, and third-party review sites. If a company is perceived to have done something wrong, it is likely to be widely disseminated, while at the same time, if a company is perceived to have done something right, that information will be spread as well. This means, inconsonant with the aforementioned dictionary definition, marketing crises represent a crucial tipping point where an organization may experience either positive or extremely negative long term effects from their actions.

Dissertation Overview

This dissertation presents and investigates a consumer orientation for analyzing and researching marketing crises, based on the state of the art in crisis research. In order to do this, an overview of the current research on crises from a variety of disciplines will be reviewed in an effort to generate an inclusive understanding and definition of

marketing crises. While reviewing the extant crisis literature, a set of inclusive dimensions of crisis will be developed as well. Once marketing crises have been defined and their dimensions identified, a model of the antecedents and consequences of a consumer's evaluation of a marketing crisis will be developed. This model will be tested in three stages. Study 1 will demonstrate initial support for the use of attribution theory in the crisis context, study 2 will develop and adapt the needed measures and scales with which to test the proposed model, and Study 3 will use an experimental design to test the model's hypothesized relationships.

Contributions

This dissertation will contribute to the marketing and management literatures in several key ways. The primary contribution of this work will be to demonstrate the importance and utility of a consumer perspective for evaluating and mitigating marketing crises. Attribution theory will provide a theoretical framework for understanding how consumers perceive and respond to the hypothetical crises in the following studies. Prior to empirical investigation, we will craft a definition of marketing crisis by assessing the current state of the art in crisis research across disciplines.

CHAPTER 2: LITERATURE REVIEW

Chapter Objectives

This chapter will review the extant crisis literature across multiple disciplines in order to develop a much needed definition of what constitutes a marketing crisis, and to conceptualize the salient dimensions which may comprise a marketing crisis. Second, this chapter will review the theoretical areas associated with consumer crisis response investigating both attribution theory and aspects of consumer distance to the crisis. In the course of this review, the current state of research on marketing crises, including its organizational focus will be assessed.

Crisis Definition

While there is much work on how to respond and deal with crises, there is a smaller body of work on how to determine what exactly constitutes a crisis. From a management perspective, a crisis is any event which threatens the ability of the organization to continue to survive (Dutton 1986; Dutton and Jackson 1987), and much of their research is concerned with responding to crises (Aguilera et al. 1990; D'Aveni and MacMillan 1990; Dutton 1986; Fink et al. 1971), and investigating how situations are categorized as being a crisis or non-crisis by managers (Dutton and Jackson 1987).

In the public relations literature, the crisis definition falls short of the survival paradigm suggested by management, but generally focuses on a negative event of a significant scale. For example, one article defines crises as events which are threatening to an organization's reputation, suggesting that crises may damage this reputation and in turn influence how stakeholders treat the company in the future (Coombs 2007). This

concept of threat and damage is present in multiple other studies (Barton 2001; Clark 1988; Dowling 2002).

In the marketing literature, the concept of crisis exists, but has been relatively under investigated. As noted earlier, researchers have looked into product harm crises (Dawar and Pillutla 2000; Siomkos and Kurzbard 1994), and work in this arena has noted an increase in their occurrence (Birch 1994; Patterson 1993). In general, organizational responses to these types of crisis have been found to be sub-optimal (Mitroff and Pauchant 1990; Pearson and Clair 1998). The only effort to define what constitutes a 'marketing' crisis is that advanced by Clark (1988), where he suggests that a marketing crisis is an event or issue which creates a threat to marketing goals, reduces a marketer's control of the marketing environment, and includes an element of temporal pressure. This definition, while valuable for its attempt to categorize what it means to have a marketing crisis, falls short when analyzed in concert with other definitions of crisis in the business literature.

Of the literature reviewed, only one effort to create a cross disciplinary definition of crises and crisis management has been discovered; however, this interdisciplinary review does not focus across the communications, management, and marketing literatures, but rather utilizes a management focus across psychological, socio-political, and technological and structural approaches (Pearson and Clair 1998). In their work, Pearson and Clair attempt to build an inclusive definition of organization crisis reflecting the three disciplines analyzed. The perspectives reviewed note that organizational crises are highly ambiguous situations (Quarantelli 1988) which are unlikely to occur often, but carry high risks to the organization if they do (Dutton and Jackson 1987; Shrivastava et

al. 1988), and contain some sort of time factor (Hermann 1963). Crises are also proposed to present situations where an organizational decision must be made which may impact the organization positively or negatively (Aguilera et al. 1990; Slaikeu 1990). Pearson and Clair compile these perspectives to create a five-part definition where "An organizational crisis is a low probability, high-impact event that threatens the viability of the organization and is characterized by ambiguity of cause, effect, and means of resolution, as well as by a belief that decisions must be made swiftly" (1998, p. 60). They then go on to define crisis management as "a systematic attempt by organizational members with external stakeholders to avert crises or to effectively manage those that do occur" (1998, p.61), and note that crisis management may be effective or ineffective.

An interesting distinction between the management and the communication literature is that while both literatures recognize the symbolic implications of a crisis, the management literature spends much more time discussing instrumental tools for responding to and minimizing harm from crises (Perrow 1984). While the instrumental literature focuses on halting damage, it tends to discuss this in a very literal sense (such as reducing the amount of radiation leaked in a nuclear disaster), rather than in the damage and severity of the damage perceived by stakeholders (and the impact these perceptions may have on their overall evaluation of the organization). Factors related to crisis management from the instrumental perspective focus on physical design, response strategies, routines, and regulations in an effort to minimize risk and make an organization prepared for a potential crisis (Pauchant and Mitroff 1992; Pearson and Mitroff 1993).

Across the literatures, there is some agreement. Crises are characterized as deviant from everyday business, are harmful or have the potential to be harmful, have facets which are causally attributable, and have aspects which may be exacerbated or ameliorated by becoming public knowledge. Many researchers also identify the importance of uncertainty and time pressure to the crisis definition (Dutton 1986), and the importance of organizational decision making is often stressed due to the large potential consequences associated with crisis response.

Based on the reviewed literature, the following definition of a marketing crisis is proposed: A marketing crisis is an atypical event which carries a large risk for the organization, where that risk is associated with threats to marketing objectives. These risks include threats to marketing variables such as brand equity, purchase intentions, word of mouth behavior, and trust in both the company and the brand involved in the crisis. The important distinction made in this definition is that for a crisis to be a marketing crisis, the primary driver of risk is based on reactions to the crisis in the market place rather than from damages specific to the crisis itself. This definition may seem somewhat simplistic at first brush, but it accomplishes the goal of identifying when a crisis may be deemed to be a marketing crisis. The idea that a risk should be "large" identifies that the crisis should be identified by the organization involved as significant. This definition is not complete in its presentation of the potential dimensions which may arise during a time of crisis, so the following section will investigate and identify the potential dimensions of a marketing crisis. In contrast with the current crisis literature, these dimensions will focus on the perceptual dimensions of a crisis which are available to consumers.

Prior to developing the potential dimensions of a crisis, a literature review of the existing work on organizational crisis response and crisis typologies will be presented. This is important, as much of the organizational response literature seeks to classify the dimensions of a crisis so as to develop response heuristics.

Crisis Response Strategies and Typologies

Much of the initial work on crises and the potential responses available to organizations has been done in the communications domain. Crises may cover a wide range of areas including natural disasters (Alpert 2011), product problems where consumers are harmed or have the potential to be harmed (Murray and Shohen 1992), and actions (or the actions of corporate representatives) which are deemed illegal, irresponsible, or unethical (Williams and Olaniran 1994). Traditionally, the communications literature has focused on the communicative responses which an organization may take when confronted with such a crisis. Researchers have worked to identify the types of crisis which an organization may be presented with (Benson 1988), as well as to identify types of corporate response which may be available (Coombs and Holladay 1996). A large part of this research is in response to a call by Benson (1988) to establish both crisis response and communication strategies.

In response to this call, researchers drew from two primary areas to establish what is now called Crisis Communication Strategy (CCS in the literature): apologia and accounts (Coombs 1998). The Apologia literature is a rhetorical approach which focuses on the communication strategies which may be used to defend oneself from public attacks (Ware and Linkugel 1973). This theory was extended from individuals to

organizations, and focuses on what an organization may do in times of crisis to protect its public image. This line of inquiry suggested multiple communication strategies in times of crisis (Benoit 1995; Hobbs 1995), and Apologia was utilized to suggest the first round of Crisis Communication Strategies (Hearit 1994; Ice 1991). The accounts literature, rather than simply focusing on apologetic strategies, moved the literature forward by suggesting additional CCSs which sought to also explain an organization's actions (Benoit 1995; Benoit 1997). This addition eventually resulted in Benoit developing 14 strategies to protect and restore an organization's image in times of crisis. Further work incorporated both the accounts literature and the impression management literature to generate a total of 20 strategic response options (Allen and Caillouet 1994). Naturally, as the total number of suggested CCSs grew, researchers began looking for underlying connections between the strategies in an attempt to establish a more viable model of organizational response to crisis.

One such model of organizational response is the communication response model suggested by Bradford and Garrett (1995), although the authors do not specifically label this as a crisis model. Bradford and Garrett's work stems from research into allegations of unethical organizational activities. According to the authors, four distinct organizational responses are available when confronted with such an organizational crisis: denials, excuses, justifications, and concessions. Denials may be focused on either the occurrence of a crisis (i.e., we didn't do anything wrong) or the cause of the crisis (i.e., someone else is doing it wrong). Excuses are communications which acknowledge the issue, but argue that the organization is not at fault. Justifications acknowledge the crisis, but argue that there may be some issues with how the potential problem is being

evaluated (i.e., we may have done something wrong, but it was unforseeable). Concessions acknowledge both the issue, and the responsibility of the organization for the problem (i.e., it is our fault, and we should have known better).

Bradford and Garrett (1995) further suggest that there are four potential crisis types, which are delineated based on both corporate responsibility, corporate control over the crisis, and agreement over the standards used to evaluate the impact of the crisis. These are defined as commission, control, standards, and agreement situations. The scale is ordinal, in that a commission situation has a crisis, but no evidence of commission; the control situation has a crisis with commission, but not control; the standards situation has commission and control, but no set standards for evaluation; and the agreement situation has all components. These definitions may be fluid as the crisis evolves. For example, during the recent BP oil crisis in the Gulf of Mexico, there was a large amount of disagreement over the potential severity of the environmental harm, as to who was responsible for the failure of the well, and as to whether the organizations involved had any control over whether or not the crisis happened. In House hearings, BP (the owner of the well), Transocean (the operator of the well), and Halliburton (a contractor who helped build the well), all claimed the other organizations were at fault for the disaster. BP scientists routinely disagreed with government scientists over the amount of oil being released from the well, and scientists also often disagreed over what the oil would actually do once it was released into the environment. While there is ambiguity in most crisis situations as they unfold, the BP situation would likely fall into either the standards or the agreement categories. BP has acknowledged responsibility for the oil spill, and has made efforts to clean the spill and make amends to those affected in on the Gulf Coast;

however, some debate still remains as to how much harm will be done overall, and whether BP has sufficiently made reparations. BP has been widely found to be in commission (there is a crisis, BP is at fault), and it is something they could have controlled (investigations have found BP was negligent in well operation – though BP still disputes this, and has sued Transocean for the spill).

Another model for crisis response has been introduced by Coombs (1998) who, in addition to communicative responses previously suggested, also included the potential for actions rather than simply words. This identifies that organizations may not only say things in times of crisis, but also do things in response to those crises. Coombs' typology includes seven potential response categories including attacking the accuser, denial of the crisis, excuse for the crisis, justification for the crisis, ingratiation with stakeholders to ameliorate the crisis, taking corrective action, and a full apology. Coombs' work eventually grew to include not only CCSs, but to include crisis types as well (based on likely attributions made by consumers – see further discussion below), a research stream now labeled by him as Situational Crisis Communication Theory (Coombs 2007).

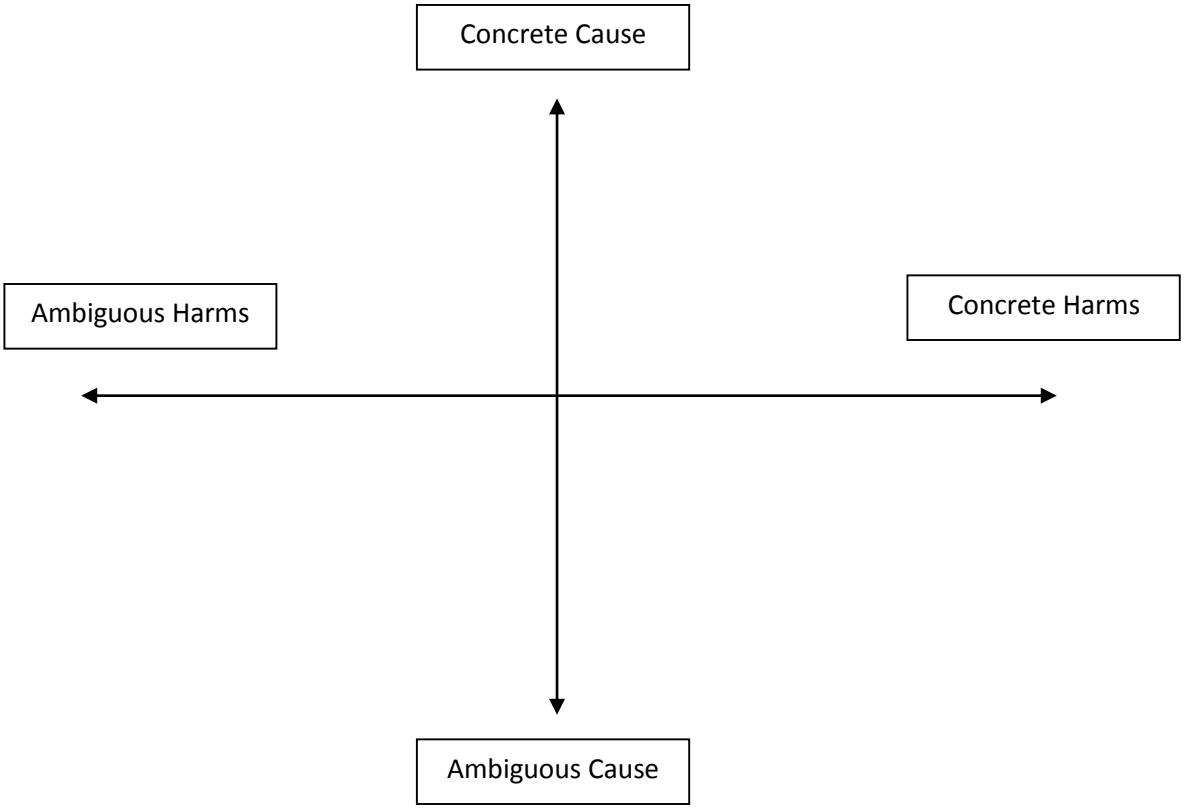
According to Coombs, crisis response strategies may be broken into three areas: denial strategies, diminishing strategies, and rebuilding strategies. Denial strategies seek to mitigate blame attributed to the organization, diminishing strategies seek to mitigate perceptions of damage and responsibility for the crisis, and rebuilding strategies seek to take responsibility, apologize, and potentially compensate victims of the crisis. These strategies are quite similar to earlier CCS models; however, Coombs (2007) goes further by creating a typology based on attributions likely to be made by stakeholders about the crisis. These categories (called clusters by Coombs) are the victim cluster, the accidental

cluster, and the preventable cluster, and vary as to the cause and controllability of the crisis. In the victim cluster, organizations may be seen as another victim of the crisis (e.g. natural disaster), while in the accidental cluster it is viewed that organizational actions caused the crisis but were unintentional (e.g., critical equipment failure). In the preventable cluster, which holds the strongest attributions of responsibility, organizations are seen to have purposefully taken actions which were inappropriate or created unacceptable risk (e.g., manipulating the books).

Crisis Dimensions

The above research on crisis response and crisis types suggests several dimensions with which to evaluate a given crisis and how that crisis will be perceived and interpreted by consumers. The first crisis dimension has to do with ambiguity related to the crisis event. This two part dimension consists of causal ambiguity, ranging from a very concrete cause to a very ambiguous cause as well as damage ambiguity, with potential damages relating to a crisis ranging from very concrete to very ambiguous harms related to the crisis. Dimensions of causal ambiguity are closely related aspects of the crisis typology suggested by Bradford and Garret (1995), which included issues of ambiguity surrounding the crisis.

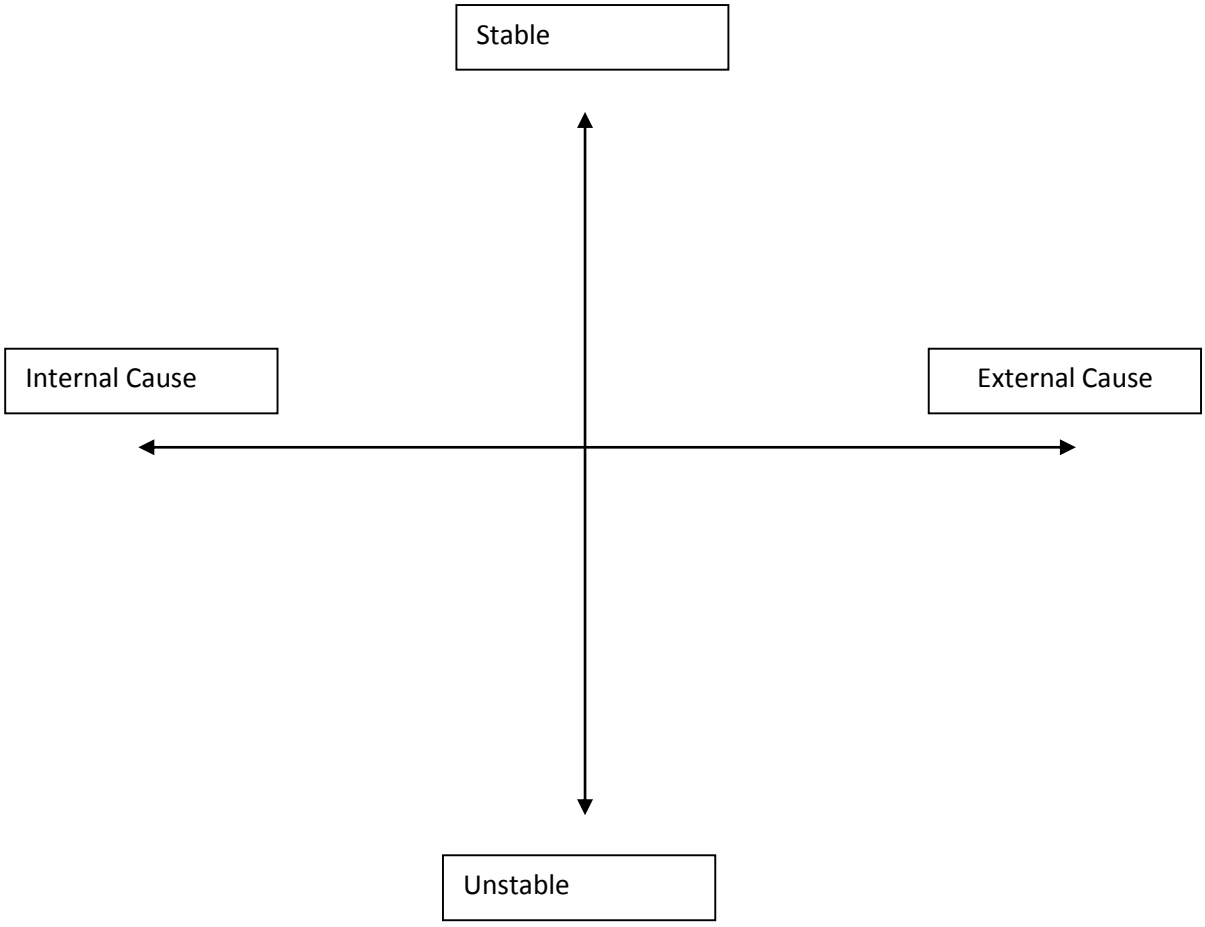
Figure 1: Crisis Ambiguity



Other crisis dimensions which have been investigated in previous work include the locus of the crisis's cause (internal vs. external) as well as the stability of the cause (stable vs. unstable). The stability of attributions have been discussed in the literature, with authors focusing on how perceptions of stable and unstable causes influence how individuals make attributions (Weiner 1985). The locus of a cause is related to attributions about who is responsible for a given event or problem. In this dimension, crises may be seen as originating within an organization, or as a result of events external to an organization. For example, the problems with the Toyota Corolla are widely viewed as something originating within the Toyota organization, while events such as the Japanese tsunami of 2011 are viewed as externally generated crises. The second aspect

of dimension two relates to determinations of fault with the crisis. The fault assigned through these attributions appears to be based in perceptions related to the causal origins of the crisis. That is, did the crisis originate within the firms as a result of firm actions or negligence, or did it originate externally to the firm as a result of causes in the firms operating environment.

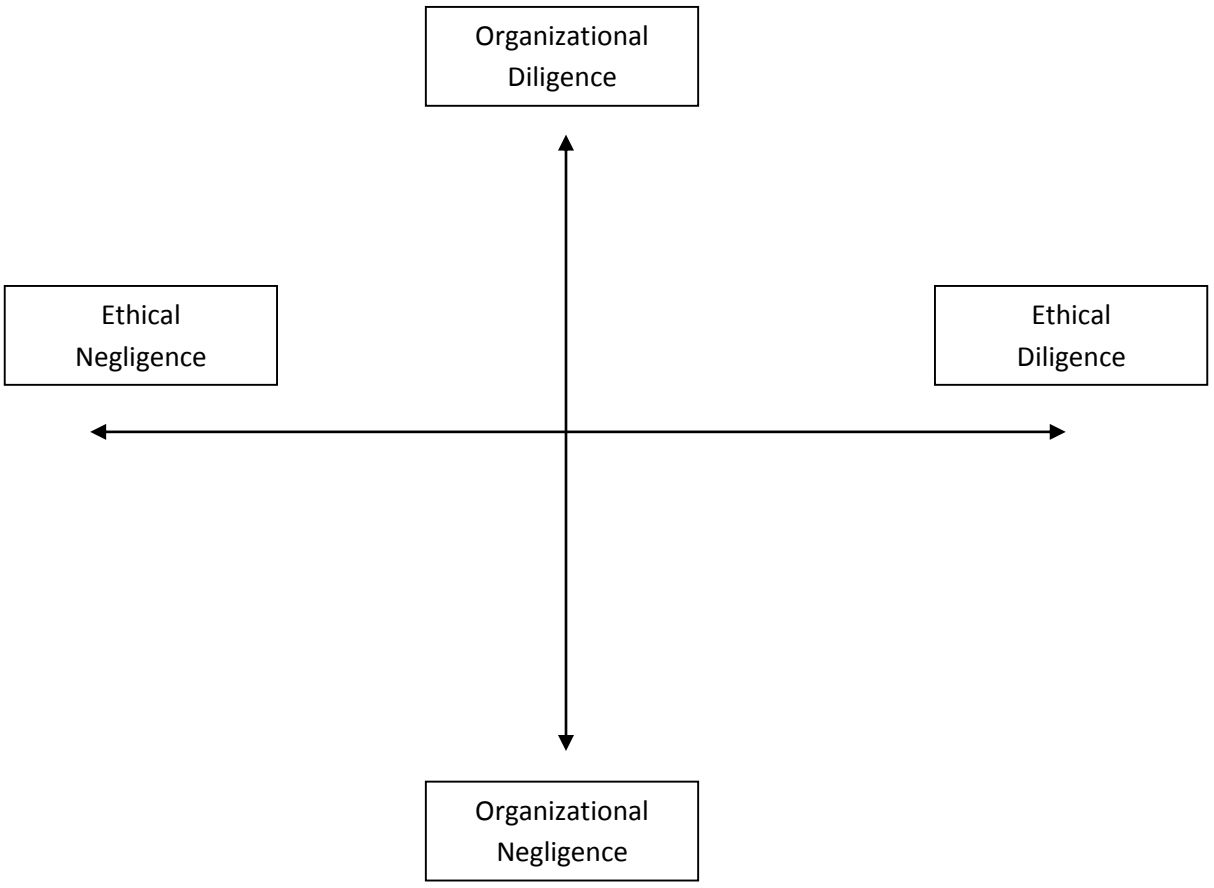
Figure 2: Crisis Causes and stability



The final dimensions of a marketing crisis deals with attributions about organizations' actions prior to the onset of the crisis. Specifically, was the organization negligent or diligent in terms of their organizational duties and operations as well as their

ethical responsibilities as an organization? Organizational diligence is conceptualized as following industry standards and practices in the course of business, while ethical diligence is conceptualized as the perception of whether an organization has behaved in a morally and ethically correct manner.

Figure 3: Dimensions of Fault (Ethical and Operational)



These dimensions of crisis allow for a framework with which to evaluate a marketing crisis utilizing a consumer perspective. While these dimensions suggest multiple potential research questions for marketing crises, the remainder of this

dissertation will focus on the causal dimension of marketing crises, specifically the internal/external dimension. This causal focus will be based in the psychological theory of attribution, and will investigate how consumer perceptions of a crisis may vary along the internal/external causal dimension.

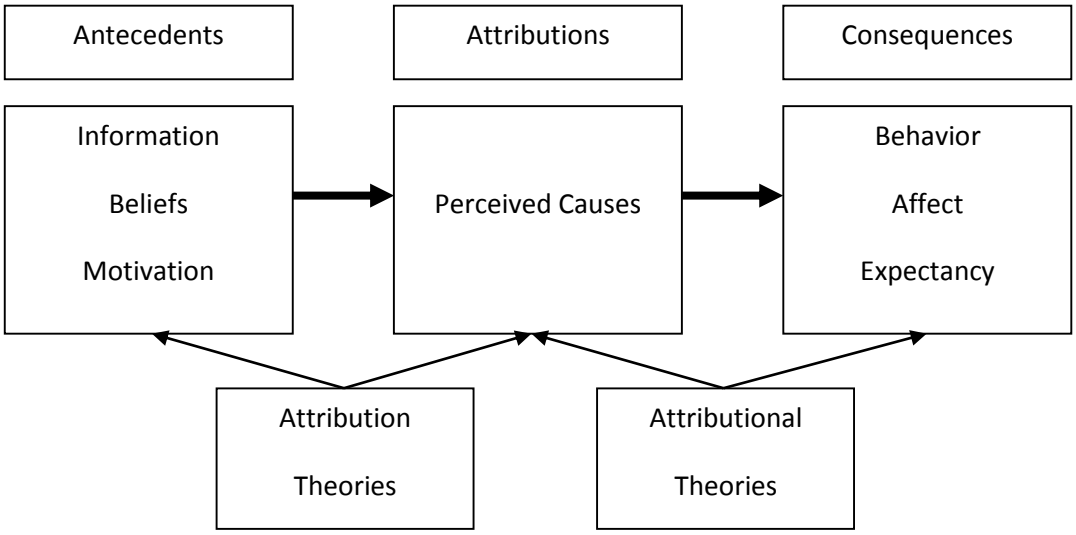
As part of the symbolic crisis communication paradigm, attribution theory is posited to contribute to how consumers and stakeholders evaluate an organization's response to a crisis (Weiner 1985; Weiner 2006). According to attribution theory, an individual attributes responsibility for a negative event (in this case a crisis), then develops an emotional response which may help drive future behavior. The link between attribution theory and crisis outcomes for organizations is relatively well documented (Bradford and Garrett 1995; Coombs and Holladay 2005; Stockmyer 1996), and suggests that a consumer's attributions in times of crisis help shape their responses to the crisis. In general, the literature finds that if an organization is held responsible for a crisis, stakeholders become upset, leading to negative outcomes for the organization (Coombs 2007), and assignations of blame and responsibility are proposed to be based in perceptions about situational and dispositional factors. Below follows an in depth review of attribution theory.

Attribution Theory

As previously stated, attribution theory deals with causal attributions and the consequences which may be associated with a person making those attributions (Kelley and Michela 1980). In attribution theory, researchers have focused on the antecedents of causal attributions using variables such as perceived locus of control (Heider 1944;

Michotte 1963; Rotter 1966; Thibaut and Riecken 1955), and the consequences or outcomes of these attributions. Causal attributions are posited to provide changes in an individual's behavior, affect, and expectancy for future events (Kelley and Michela 1980). The general model of attribution theory includes the antecedents and consequences shown in figure 4 (from Kelley and Michela 1980). Attribution theories identified in the model have to do with how an observer assigns cause to an event, while attributional theories look at how that causal assignment influences the observer.

Figure 4: The General Model of Attribution Theory



More recent work on attribution theory has investigated the process a person goes through when making an attribution (Gilbert et al. 1988; Trope 1986), with Gilbert and Malone (1995) proposing a four-part process involving aspects of situational perceptions, behavioral expectations, behavioral perceptions, and the subsequent attributions. As

suggested in the classic model of attribution theory, newer work also focuses on individual differences in the observer which may influence their attributions (Silvera and Laufer 2005). The following sections will focus on the antecedents which may influence an attribution, as well as the outcomes associated with attributions.

Antecedents

In attribution theory, information about the actor (the person or thing which attributions are being made about) and his/her actions is proposed to play a significant role in how causal attributions are constructed. Topics in this area which have been investigated include the role of non-common effects (Jones et al. 1966), where information related to the potential consequences of an act are used to make inferences about the actor's intentions. As these consequences become more unique, or non-common, the attributions which are drawn about the actor's intentions become stronger (Ajzen and Holmes 1976; Newtson 1974). Researchers have also proposed a covariation perspective which suggest that a given effect is attributed to the conditions which are present when the effect exists, and which are not present when the effect does not exist (Kelley 1967). Essentially, this theory states that attributions are based on knowledge of information which co-varies with a given act or event. In other words, the poor performance of a company may be attributed to an economic downturn as the company had been doing well when the economy was good, but poorly when the economy was bad. This work has been experimentally verified (Cunningham 1976; Shultz and Mendelson 1975); however, perceptions of co-variation have been suggested to be effected significantly by prior beliefs about potential cause and effect relationships

(Kelley and Michela 1980), especially in situations where an observer's ego may be effected by the attribution (Stevens and Jones 1976).

Other informational antecedents include information about what other people think about a given event, described as consensus information. Consensus information, as discussed by Kelly (1967), relates to information about what the person making the attribution and other people have done, or would have done in a similar situation to the actor. If other's behaviors match those of the actor, attributions about cause are thought to be generally related to environmental conditions. Consensus information has been further delineated into two categories: explicit base rates, which coincide with the definition suggested by Kelly above, and normative expectancies, which compare an actor's actions to those deemed to be likely by the perceiver. The closer the match between normative expectations and actions, the greater actions are seen as being in agreement with the general consensus (Kassin 1979).

Other informational factors include the perceived consistency of information, behavioral perceptions, similarity between cause and effect, salience, and primacy. Consistency of information allows for distinctions between attributions about internal and external causes. If a person consistently behaves a given way, attributions may be made about personality traits, while if a person behaves inconsistently, attributions may be made about environmental factors (Hayden and Mischel 1976). Perceptions of a person's behavior may also be framed by an observer's knowledge of the situation surrounding an actor. This information may be used to interpret the actors behavior based on that situational knowledge (Trope 1986; Trope and Alfieri 1997). Similarity between cause and effect relates to assumptions about a general relationship between a cause and an

effect (Shultz and Ravinsky 1977). For example, if there is a major crisis, similarity theory proposes that individuals will likely assume that there is a major cause underlying that crisis. This aspect of attribution theory has recently been applied in marketing using the product harm context, with researchers finding that consumers tend to use the consequences of an event when making evaluating its potential causes (LeBoeuf and Norton 2012). The salience of information suggests that attributions are made toward potential causes which appear to be the most salient at the time an effect is observed. Primacy is similar to salience, in its analysis of the way a person looks through current information in order to make an attribution. According to primacy theory, once an initial attribution has been made, that information remains primary in the observer's minds, leading them to disregard further information. For example, this author's brother considers white Russians to be his "lucky" drink, as he was drinking them once in Las Vegas when he won a considerable sum of money playing craps. This belief continues despite multiple experiences to the contrary.

Beliefs, as opposed to direct information, are "suppositions" about the causes of a given effect (Kelley and Michela 1980). Kelley and Michela (1980), in their review of the attribution theory literature, suggest that a person may have "expectations" about a given effect, and as a result may generate explanations for the event without evaluating information salient to that event. If information processing does occur in the presence of beliefs, it is suggested to be influenced by the existing suppositions and expectations. Beliefs may include expectations about an actor, where congruence between expectations and actual behavior (outcomes) results in attributions about traits or abilities, while incongruence between expectations and behavior (outcomes) results in attributions about

state or external factors. In general, unexpected outcomes are attributed to luck (Bell et al. 1976; Regan et al. 1974). These expectation-related beliefs extend to expectations about an actor's likely behavior in a given situation. In this case, behavior which matches situational expectations is deemed to be related to external stimuli, while behavior that does not match situational expectations is attributed to personality traits or attributes. These attributions may be trait or state attributions themselves, but are believed to reveal insight about a person (Ajzen 1971; Lay et al. 1973; Trope 1974). For example, it could be observed that a person was particularly rude to a waiter when eating lunch. This could be attributed to the person having a bad day, to the person being a grouchy person in general, or to the waiter having committed a grievous faux pas.

Researchers investigating belief-related antecedents of attributions have also identified discounting behavior, where attributions made about an individual are "discounted" from trait attributions to state and situational attributions, given relevant situational demands (Kelley 1972). These discounts are not applied, however, in situations where an individual is free of constraints, and therefore has no plausible situational explanations for their actions. In this vein, the augmentation principal suggests that behaviors which act counter to situational demands are therefore "augmented" and allow for greater attributions about a person's traits or disposition (Himmelfarb and Anderson 1975). The discounting and augmentation literature has been expanded upon, with some researchers suggesting that discounting and augmentation do not always occur. According to Jones (1979), an observer may at times fail to fully discount behaviors in the face of environmental constraints. Such observations led to the proposal of the fundamental attribution error, where personality traits are often over

valued when explaining behavior in others. This coincides with a subsequent de-valuing of situational factors when making causal attributions (Ross 1977).

The investigation of beliefs and their influence over causal attributions has been informed to some extent by the use of causal schemata. Causal schema are "a description of the common person's conception of how two or more causes combine to produce a certain effect" (Kelley and Michela 1980). These schema are viewed as reflective of underlying beliefs about causality, and it has been proposed that researchers should attempt to identify and understand the types of schema, and how they are used in an effort to further understand causal attributions (Kelley 1972).

While causal beliefs are in their own right antecedents of causal attributions, they are also found to influence how information is gathered and processed by an observer when making an attribution. Causal beliefs have been discovered to effect perceptions of covariation by suggesting correlations when none is there (Chapman and Chapman 1969; Golding and Rorer 1972), and allowing an individual to overlook correlations which are actually present.

The final antecedent of causal attributions focuses on an individual's motivations to arrive at a given conclusion. Individual differences in motivation are thought to influence an observer's perceptions of the actions of others (Blumberg and Silvera 1998). Causal attributions are often interlaced with a variety of motivation variables such as self esteem, self efficacy, and social standing (Kelley and Michela 1980). In an interesting study on this hypothesis, researchers told participants that they would be going on a date with a person of the opposite sex, then showed a video of a group discussion in which

that person participated (Jones et al. 1966). The authors found that subjects tended to pay more attention to their future date (a fairly obvious result), but that they also tended to make trait inferences which tended to be more extreme than those made about the other person in the video, and that they tended to show more confidence in those inferences. The researchers suggest that these differences were due to a motivation on the part of the research subjects to do more "attributional work" about their potential date.

From a motivational perspective, both self enhancement and self protection have been found to be influential in how a person makes causal attributions about himself/herself. These motivations often come into play when making attributions about reasons behind success or failure. Researchers have found that attributions about success tend to be related to internal factors, while failures are often attributed to external factors (Miller and Ross 1975; Zuckerman 1979). While self enhancement and self protection relate to a person's perceptions of themselves, the presentation of an individual's self to others is also seen as a motivating aspect of causal attributions. In this case, the attributions are influenced by perceptions about what effects a person's beliefs might say about themselves when communicated to others. People are generally thought to attempt to present themselves in a favorable manner, and may therefore be motivated to arrive at attributions which others will view favorably. These motivations have been found to influence the general success = internal, failure = external attributions, especially in situations where an individual may be motivated to appear modest or humble in front of others (Feather and Simon 1971). In current culture, these effects are often visible in post-game speeches by athletes following a particularly strong performance or win. Instead of arriving at an attribution which could be potentially socially damaging (for

instance, saying "We won because of how awesome I am"), they will often attribute success to factors which are socially acceptable or may reflect positively on them (for example, thanking God and saying that the credit really should go to their teammates).

Motivation theorists have also posited that when making attributions people tend to try to maintain a view of a world where negative events will not happen to them unjustly (Lerner and Miller 1978). This world view creates a motivation to view events as controllable, allowing the observer to maintain a perception of control over the world they live in. Researchers have found this motivation to lead one to negatively view others who are the victims of negative circumstances because at some level they are seen as having caused the situation which they are now victim to.

In the literature, when antecedents of attributions are discussed, the differences in perceptions between actors and observers are often investigated as well (Jones et al. 1972; Kelley and Michela 1980). In particular, actors tend to attribute their behavior to situational factors, while observers tend to attribute an actor's behavior to personal characteristics (also known as the fundamental attribution error). This is an especially important perspective for the current research on crises, as an organization may view itself as a victim while observers view them as a villain or at least a co-conspirator in the negative event. Two main areas have been suggested to be the primary drivers of difference between actor and observers: cognitive differences and motivational differences. Cognitive differences are thought to arise from informational differences between the observer and actor, differences in how events are perceived, and differences in how events are processed. Multiple studies have found that observers tend to assume that actor's behaviors will be consistent across situations, while actors believe that their

behaviors will differ depending upon situational constraints (Lay et al. 1974; Lenauer et al. 1976; Nisbett et al. 1973). These attributions have also been suggested to vary inversely depending on the information known about the actor – that is, greater trait attributions are made towards others who are not well known, while a lesser amount of trait attributions are made towards those who are known (Nisbett et al. 1973). This aspect of attribution theory is especially important to this dissertation, and will be revisited in the hypothesis development section.

Motivational differences between actors and observers are also thought to produce some of the differences in attributional outcomes, with researchers suggesting that actors and observers have differing interests in how an event is causally explained. These differences have been hypothesized to relate to egocentric differences, but further research has not always replicated an egocentric motivated difference between actors and observers (Taylor and Koivumaki 1976). Other motivational differences include differences in motivations related to attribution accuracy (Kunda 1990), as well as the presentation of self (Bradley 1978) and motivations related to the need to predict future behavior (Miller et al. 1978).

An important conclusion which may be drawn from these works is that neither actors nor observers tend to be completely accurate in their formation of causal attributions, though some researchers have argued that actors are likely to be somewhat more accurate simply because they are privy to a greater amount of information about a given event (Monson and Snyder 1977).

More recent work in attribution theory has focused on individual differences among attribution makers, suggesting that aspects such as need for cognition and need for cognitive closure (D'Agostino and Fincher-Kiefer 1992; Webster 1993), cognitive ability (Blumberg and Silvera 1998; Newman 1991), and attributional style (Dweck 1993; Silvera et al. 2000) may influence how people make attributions in general. Other aspects such as cultural aspects of individualism and collectivism are also thought to frame causal attributions to some extent (Choi et al. 1999; Newman 1993). These individual differences highlight the need to analyze aspects of the observer when investigating an attribution event such as a marketing crisis.

Consequences.

The consequences of a given causal attribution, as shown in Figure 4, are thought to influence an individual's behavior, affect, and expectancies for future events. These consequences are often thought to vary depending on where a given attribution of cause falls. The consequences which will be discussed include differences between causes attributed to a person vs. causes attributed to the environment, whether causality is seen as intrinsic or extrinsic, whether a cause is attributed to ability (lack of ability) or chance, and whether an event is intentional or unintentional (Kelley and Michela 1980). Weiner (1985) suggests that in addition, an individual may evaluate the controllability of an event, as well as the stability of the factors involved. These dimensions of causal attributions closely reflect the previously discussed dimensions of a marketing crisis. Further differences in attributional consequences are discussed in terms of how causal explanations are arrived at, such as attributions related to arousal (Schachter 1964).

If actions are attributed to an actor rather than his/her environment, it is suggested that observers will experience changes in variables such as affect and trust. A review of research in this area by Regan (1978) suggests that when a person is viewed as responsible for a helpful act, they generate a warmer response in observers than when the person's actions are attributed to external factors. Similarly, an actor's negative actions may be ameliorated when these actions are attributed to environmental factors rather than personal attributes. The attribution of cause to personal attributes versus attributions towards environmental factors is relatively similar to the intrinsic and extrinsic attributional dimensions of motivation. Intrinsically motivated actions are those which are done for the internal satisfaction generated from their performance, while extrinsically motivated actions are those which are motivated by external rewards for their performance. The primary difference between person vs. environment research and research on intrinsic and extrinsic motivations is that studies on intrinsic and extrinsic motivation have for the most part focused on how these motivations affect causal attributions made by an actor as opposed to an observer. Interestingly, researchers have found that when manipulating motivation to perform an activity which was previously intrinsic to extrinsic, they actually decreased the intrinsic desire to perform the activity (Lepper et al. 1973). For example, a person may play video games for fun, but if they begin working at a job where they are paid to play video games, they may no longer view them as intrinsically rewarding as they had previously.

Other factors related to attributional consequences relate to whether an individual perceives an event as the result of skill or chance. These types of attributions are especially important when evaluating success and failure, and have been found to affect

expectations of success or failure in the future (Kelley and Michela 1980). Those who are seen to have succeeded due to skill are seen to be likely to do so again in the future, while those who have succeeded due to luck are less likely to do so. Further work in this area has broken down the skill vs. luck aspect into two dimensions: stable vs. unstable, and internal locus vs. external locus (Weiner 1972). Using these dimensions, skill is seen as internal and stable, while luck is seen as external and unstable. Further work by Weiner (1979) shows that changes in expected outcomes appear to be primarily related to the stability of an event's perceived cause. The internal locus vs. external locus literature, which is fairly similar to the person vs. environment literature, suggests that greater affective consequences can be found in situations where the locus of causation is deemed to be internal. Work in this area has found this effect when evaluating responses to success or failure when attempting to complete a task (internal attributions resulted in higher pride for success and shame for failure) (Riemer 1975).

Another aspect of attributions proposed to influence attributional outcomes is the perception of whether an act was intentionally or unintentionally carried out by the actor. This is somewhat similar to the skill vs. luck dimensions previously discussed, but primarily focuses on the perceived motivations for actions, rather than the skill (or lack thereof) with which they were carried out. Researchers find that poor outcomes result in greater amounts of blame when deemed to be intentional (Shaw and Sulzer 1964), and further investigation suggests that morals may play a large role in these evaluations (Weiner and Peter 1973). According to Weiner and Peter (1973), when an attribution involves a moral action, evaluations of an actor are largely based on intention rather than on the outcome. Alternatively, when an attribution simply involves individual

achievement, both intention and outcome are taken into account when forming evaluations. The difference between evaluations of moral actions and evaluations of individual achievement is taken as support for the idea that the quality of an achievement or outcome is evaluated independently of the intentions behind them. Other work in this area has found that people are more likely to help others whom they view as needing help as a result of unintentional factors. Researchers found that people were more frequently willing to help someone in need due to a physical handicap (unintentional) rather than someone in need because they were drunk (intentional) (Piliavin et al. 1969).

As shown in the above literature review, attributions are open to influence from a variety of areas. The antecedents of attributions influence how the attribution is formed, then the results of that attribution influence the consequences which may arise from a given causal perception. In the cited works, authors often focused on both positive and negative events (such as success and failure), though in the following theory development this dissertation will lean somewhat towards negative events. It is important to note that in a given crisis event, there may be multiple attributional foci. For example, a consumer may make attributions about the cause of a crisis, as well as attributions about a company's actions during and after a crisis. For example, organizations often face increased scrutiny when they are deemed to have delayed beyond a reasonable amount of time in reporting potential problems with their products. The eventual consequences of an attribution are quite variable depending on the types of attribution made, and as shown in the consequences area, intentions may be evaluated separately from outcomes. Consequences may also be influenced by the perceived motivation of an actor. If a company is seen as simply attempting to minimize the damage to their organization,

rather than actually help those harmed by the crisis, they may be open to additional consequences in terms of behavior by the consumer, affect, and expected future behavior by the company. Recent work in the communications field has suggested that attribution theory is vital to the investigation of how companies communicate with their publics (Coombs 2007).

The review of the literature on attribution theory to this point has focused primarily on work done in the psychology and social psychology literatures. While a large portion of work on attribution theory was pioneered in these domains, it has seen a fair amount of use in marketing. From a consumer behavior perspective, researchers have used attribution theory to investigate the acceptance of new information (Settle 1972), suggested to help in our understanding of advertising effectiveness (Sparkman Jr and Locander 1980), and looked at how interpersonal influence affects consumer behavior (Calder and Burnkrant 1977). Attribution theory has been posited to play a role in advertiser credibility (Settle and Golden 1974), advertising claim credibility (Golden 1977), and how children experience persuasion from commercials (Robertson and Rossiter 1974). Attribution theory has also seen use from marketing strategy researchers with work in areas such as marketing channels (Frazier 1983), including investigations into opportunism in marketing channels (John 1984). Other areas include the evaluation of employees in a sales force (Dubinsky et al. 1989), and how consumers evaluate service encounters (Bitner 1990). Attribution theory is often used as a tool for investigating how opinions are formed (by both consumers and other organizations), and the potential consequences these opinions may have for an organization across various marketing variables.

Further support for the use of attribution theory in the domain of marketing (as well as documentation of its effect on marketing outcomes) can be found in the marketing and psychology literatures. The following section of this literature review will focus on aspects of attribution theory which have already been investigated in a marketing context. To that end, theories of cognitive dissonance (motivation), psychological distance (information), and product involvement and product category knowledge (beliefs) will be reviewed.

Cognitive Dissonance

As discussed in the antecedents of attribution theory, people may be motivated to arrive at a certain conclusion if a causal outcome has an effect on their view of themselves, or if it is believed to affect how others will view them. One area in marketing which is logically related to these motivations is cognitive dissonance theory. Cognitive dissonance was originally defined by Festinger (1957) as an uncomfortable psychological state related to conflicting thoughts, or cognitions, held by a single individual. For example, a person may find it uncomfortable to be physically attracted to someone whom they dislike as a person, and therefore may attempt to find a way to reconcile these two views. Critical to Festinger's definition is that cognitive dissonance motivates a person to alleviate these uncomfortable feelings. In marketing, the effects of cognitive dissonance have been studied for their influence on consumer behavior both before and after a purchase. Using dissonance theory researchers have found that cigarette smokers were more likely than non-smokers to discount the relationship between smoking and cancer (Kassarjian and Cohen 1965), that people choosing between two similar record albums rated their chosen album as more desirable following their

choice (Losciuto and Perloff 1967), and changed their evaluation of a prize depending on their choices which led up to either a grand prize or a more modest prize being awarded (Gilovich et al. 1995). Dissonance has been conceptualized in many of these studies as a form of arousal and thus measured in terms of physical measures (e.g. Elkin and Leippe 1986), although some researchers have suggested that, while dissonance does include a physical component, psychological discomfort should be included in any analysis (Elliot and Devine 1994). Some measures of dissonance have utilized measures of difficulty while making a decision (Menasco and Hawkins 1978), and anxiety or unease related to having made the right decision (Bell 1967; Hunt 1970).

Other cognitive dissonance work has suggested that dissonance may be a result of expectations of negative consequences as opposed to inconsistency between cognitions held by an individual (Cooper and Fazio 1984). Other researchers have supported this view, with Oliver (2009) defining dissonance in terms of concerns related to unknown potential outcomes, and anticipation of feeling negative emotions such as regret and apprehension. Further work in the area has resulted in the promotion of variables which are primarily related to emotional states or anticipated future emotional states (Menasco and Hawkins 1978; Montgomery and Barnes 1993) such as uncertainty, anxiety, or doubt. The cognitive dissonance literature has been relatively intertwined with the consumer satisfaction literature, with some investigators defining satisfaction as the disparity (or dissonance) between how a product performs and the normative standards to which the consumer expected it to perform (Westbrook and Oliver 1991). As with cognitive dissonance, researchers have noted that while satisfaction is generally described as an emotional response, it appears to be based on responses to a cognitive evaluation

(Dabholkar 1995; Oliver 1994). In an effort to reconcile the literature on cognitive dissonance and its measurement, Sweeney, Hausknecht, and Soutar (2000) suggested that cognitive dissonance contains both cognitive and emotional aspects and then developed a 22-item scale in an attempt to create an inclusive measure.

These aspects of cognitive dissonance will be investigated further in the theory development section, but it is important to discuss a few key factors which will come into play later in this dissertation. As discussed, motivation to arrive at a certain conclusion is a significant player in how causal attributions about an event are formed. In the case of marketing crises, the event which is the focus of an individual's attributions is negative or undesirable. In this case, there are a few logical conclusions as to how a person might be motivated to arrive at a given causal attribution. If a person has a high amount of self identification with a brand, they are now presented with two competing cognitions relative towards his/her preference of brand and his/her feelings towards the marketing crisis. For example, a person who is a diehard fan of a certain brand of shoes may feel dissonance if made aware of the company's use of child labor in the manufacturing process. According to both attribution theory and dissonance theory, this individual will now be motivated to arrive at causal attributions related to the crisis which preserve their self image. In this case, the consumer might come to the conclusion that "this was an isolated incident caused by an unscrupulous factory owner." The results of this conclusion allow the consumer to maintain the aspects of his/her identity which are supported by the brand (e.g. cool, hip, stylish), and avoid negative aspects (e.g. evil, exploitive, greedy). Conversely, a person who does not have an existing brand relationship is expected to act quite differently.

When a consumer is not in a position to be threatened by negative causal associations with a brand or an organization, their attributions are expected to focus instead on aspects related to information available about the crisis, and previously held beliefs about both the company involved in a given crisis, and beliefs about the nature of the marketplace and the industry in which the company is situated. In this case, an individual may be motivated to arrive at a conclusion which is deemed to be socially acceptable, but this motivation will not be related to feelings of self worth or self preservation associated with disparate cognitions related to an organization and the negative events of a marketing crisis. Later in this literature review, the relative distance of a consumer to a given crisis event will be discussed, with a focus on how familiar a person is with a brand, whether or not they are directly affected by the crisis, and their prior beliefs about the organization.

While individuals are motivated to arrive at a given causal conclusion to protect themselves when faced with a negative event, it is important to note that the other antecedents of causal attributions are also at play in the marketing crisis arena. In the discussion of the antecedents of a causal attribution, the amount of information known to the person making an attribution is influential, along with any previously held beliefs they may have. Using a marketing lens to view these antecedents, it is possible to view previously held beliefs as aspects of a brands relationship with a consumer, while the information known about a given event is a function of the distance between the consumer and the crisis event. This "distance" can be examined using the psychological distance component of construal theory. Psychological distance is thought to influence

the information available to observers about a given event, and is reviewed in the following section.

Psychological Distance

Psychological distance has been conceptualized and measured quite differently in the business and psychology literatures. In the marketing literature, psychological distance, also called psychic distance, has generally been defined as factors which limit how information flows between a firm and its markets (Johanson and Wiedersheim-Paul 1975). These limitations have been ascribed to differences in language, culture, religious practices, political systems, education levels, and levels of industrial development (Carlson 1974; Johanson and Vahlne 1977; Johanson and Wiedersheim-Paul 1975). While this conception of psychological distance is important, and has been used as a method of predicting how firms will enter new markets (Dow 2000), the definition of psychological distance suggested by the psychology literature is more useful when analyzing marketing crises.

In the psychology literature, psychological distance is proposed to be a function of an individual's mental construal of an object or event, using the self as a reference point (Trope and Liberman 2010). Construal Level Theory grew out of an effort to understand which characteristics are used by people as the basis for evaluation, and suggests that high and low level construals effect the way events are characterized and evaluated (Trope and Liberman 2010). According to Construal Level Theory, individuals utilize concrete, low level construals to represent psychologically near events, and abstract, high level construals for psychologically distant events (Trope et al. 2007).

Levels of construal are represented by the amount of abstraction present in the mental representation of an event by an observer. In an example given by Trope et al., they note that a low level construal of two children playing catch would include detailed concrete observations such as the age of each child, the temperature outside, the color and type of ball being thrown, and the location of the event. Conversely, a high level construal would simply represent the event as "having fun." According to Trope et al., the high level construal "disregards the unique features of the event and involves an implicit decision about which features are central to the event and which are peripheral" (Trope et al. 2007). The authors go on to note that the abstract, higher level features which are not seen as important are omitted, "decontextualizing" the event and linking it to a more general set of events. In high level construals this is suggested to bring about new meanings and definitions which are not included in the low level representations.

According to construal theory, as an event becomes psychologically closer, it will be represented by lower level construals, and as it becomes psychologically distant it will be represented by higher level construals. A given event is suggested to be psychologically distant if it is not part of a person's direct experiences, and differences in construal level are suggested to be related to the informational differences between direct experience (much contextual information) and indirect information exposure (limited contextual information). Trope et al. suggest that as an event becomes more distant, less information becomes available about it, leading to "abstract and schematic" representations of the event.

Construal level theory grew out of a focus on perceptions of temporal distance (Liberman and Trope 1998), but also allows for spatial and social distance, as well as the

perceived probability that an event could have happened to an individual. Temporal distance is defined as the perceived recency of an event, or the perceived temporal distance to a future event. Spatial distance relates to how far away an event or person is deemed to be in a geographical sense, while social distance relates to perceived similarity or difference between the observer and others. When events have a high perceived likelihood of occurring to an individual, they appear psychologically closer. Conversely, when events have a low perceived likelihood of occurring they are psychologically distant.

These factors of psychological distance have been found to influence how individuals group objects into categories (Liberman et al. 2002), whether actions were defined by super-ordinate purpose (the why) or super-ordinate means (the how) (Day and Bartels 2004; Liberman and Trope 1998), and the levels of abstraction used when describing others (Fujita et al. 2006). Especially important to the current study is the idea that an individual's representation of events is determined to some extent by the psychological distance between the observer and the event. According to Construal Level Theory, psychologically distant events will be evaluated on higher level aspects of a given situation while psychologically close events will be evaluated using lower level aspects. As higher level construals erase contextual events in favor of generalized descriptions, it appears that, in terms of mental information available, those who are psychologically distant from an event will use less contextual information when forming attributions.

Construal theory has been used in marketing, although for the most part the construals of interest have been self construals (Ahluwalia 2008). Researchers have

suggested that consumer self construal may influence perceived fit with brand extensions (Lee et al. 2000; Markus and Kitayama 1991). Self construal is defined as people's view of themselves and the structure of their self schemas (Meyers-Levy et al. 1994). In self construal theory, individuals are thought to have either independent or interdependent self construals. Independent construers are thought to hold a self view that places emphasis on separateness, uniqueness, and internal attributes, while interdependent construers are thought to hold a relationship centric self view that emphasizes social contexts and relational links (Markus and Kitayama 1991). Individuals may be both independent and interdependent in their self construal; however, one is usually more accessible than the other (Trafimow et al. 1991). Prior research suggests that individuals with low interdependent self construal tend to group things taxonomically, while those who are high in interdependent self construal tend to group things from a relational standpoint (Ji et al. 2004; Ng and Houston 2006). These aspects of self construal theory are quite similar to the construal level theory of psychological distance, in that an individual's construal of something (either an event or himself/herself) influences the information that is accessed when making decisions.

In the next chapter, the above literature bases will be utilized to generate hypotheses related to the antecedents and consequences of causal attributions which a consumer may make about a marketing crisis.

CHAPTER 3: HYPOTHESIS DEVELOPMENT

This section of the dissertation seeks to answer the following research questions: 1) how do consumers make causal attributions about marketing crises? 2) What factors influence attributions about a marketing crisis? And 3) what are the consequences of those causal attributions for organizations? In order to investigate these research questions fully, a between-groups quasi-experiment is conducted to investigate the antecedents, consequences, and attributions made by consumers when exposed to a potential marketing crisis.

Hypothesis Development

The definition of marketing crisis advanced by this dissertation defines a marketing crisis as an atypical event which carries a large risk for the organization, where that risk is associated with threats to marketing objectives. As suggested by this definition, the primary harms in times of marketing crisis are associated with marketing variables such as brand equity, behavior towards the brand and organization, and beliefs about the organization such as trust. In other words, while an individual may not have been directly harmed by the BP disaster, they will likely still adjust their affect towards BP, their behavior toward BP, and their expectations of future behavior by BP based on their perceptions about the crisis and the organizations actions. The reader will note that these are the primary outcomes associated the consequences of causal attributions in classic attribution theory. The following hypothesis development will be based on attribution theory, as well as the previously discussed literatures relating to cognitive

dissonance, psychological distance, and product involvement and product category knowledge.

Psychological distance and brand familiarity, self brand connection, product category involvement, and product category knowledge are proposed as the antecedents of a crisis attribution. These variables have a 1 to 1 relationship with the classical attribution theory antecedents of information, motivations, and beliefs. This is also reflected in the outcomes measured which include affective measures of attitude, behavioral measures (purchase intentions and word of mouth), and beliefs (trust in organization and brand). Brand equity is included as an outcome although it does not neatly fit into any one category of affect, behavior, or belief in brand.

Antecedents

Psychological Distance (information)

The construal level theory of cognitive distance (Trope and Liberman 2010) suggests a view of cognitive dissonance where construal levels vary depending upon the psychological distance a person feels between himself/herself and an event. These distances are measured in terms of time (temporal), space (geographical distance), social distance, and hypotheticality (defined as an observer's estimation of the likelihood that an event could happen to him/her). While these dimensions are conceptually different, research has found that, in terms of mental representation, they are automatically associated to form a gestalt sense of distance from a particular target (Stephan et al. 2010). Due to the mental "bleed-through" between the distance categories, it may be

useful to investigate the psychological distance variable as a reflective construct to assess mental similarity across distance dimensions.

Regardless of the construct's eventual identification as formative or reflective, psychological distance will directly influence the information accessed by consumers who are making an attribution about a crisis event. From an information perspective, the construal level theory of psychological distance suggests that observers will categorize information about an event differently depending on their psychological distance to the event (Trope and Liberman 2010). When individuals are psychologically close to an event, they tend to use concrete, low level construals which focus on detailed situational characteristics, while those who are psychologically distant tend to use high level, abstract categorizations of events. Trope et al. note that high level construals do not focus on unique aspects of any event, but instead involve a decision about what is "central" to an event, after which information regarded as important is disregarded, deemphasized, or omitted from an individual's mental representation of an event. The role of psychological distance on information categorization relates closely to the informational antecedents of attributions. In attribution theory, observers are suggested to use the information which is available to them to make a hypothesis about the causes of an event (Kelley and Michela 1980). Information may include knowledge of other covariates (Kelley 1967), consistency of information (Hayden and Mischel 1976), and the salience and primacy of information available at the time when an attribution is formed (Kelley and Michela 1980).

When a consumer is psychologically close to an event, he/she will have more access to contextual information due to their low level construal of the event. As

psychological distance decreases, observers see themselves closer to the event and are more likely to notice contextual changes, while observers who are psychologically distant tend to omit contextual variation (Trope and Liberman 2010). While attribution theory suggests markedly different causal attributions simply based on the type and amount of information accessed, the consistency of that information is also important. When information about an event or behavior is perceived to be consistent, observers are more likely to make internal or trait attributions about others, while information which is inconsistent leads to attributions about environmental factors (Hayden and Mischel 1976). This also supports the use of construal level theory, as high level construals of an event are likely to be consistent as they are abstract representations, while low level construals may allow for inconsistencies as they contain more concrete, contextual information.

Informational differences are critical in how variation in attributions about an event arise. The literature on psychological distance showcases a significant way in which an individual may reasonably vary from another in the types and amount of information used when forming an attribution. Low psychological distance is associated with the use of a greater amount of contextual information in the characterization of an event, as contextual information should be more salient and primary for the observer. High psychological distance is associated with abstract, higher level views of an event, which should limit the influence of contextual information when attributing cause in a crisis situation.

In concert with previous research on information and attributions of cause, I hypothesize that as consumers who are psychologically closer to a company, brand, or

organization in crisis will be more likely to attribute a negative marketing event to environmental (contextual) causes.

Hypothesis 1: Consumers who are psychologically close to a marketing crisis will have a less negative response to the marketing crisis than those who are psychologically distant*[1].

Brand Familiarity (Information)

Personal experience has been found to play a role in consumer learning and information acquisition (Hoch 2002; Hoch and Ha 1986). Specifically, product experience is defined as an aspect of consumer knowledge related only to direct experiences with a product or brand (Alba and Hutchinson 1987) and these experiences are more engaging, more diagnostic for the consumer, are given more emphasis due to their endogeneity, and are seen as unbiased and non-partisan when compared to information learned through education. These experiences are often categorized as a consumer's "familiarity" with a brand (Alba and Hutchinson 1987). The salience of personal experience is especially important when presented with ambiguous stimuli, as observers with prior expectations tend to encode information which agrees with their previously held beliefs while ignoring information which is incongruent with their expectations (Lord et al. 1979).

Prior personal experience will play a role in the kind and type of information used when a consumer is making an attribution. A person's familiarity with a brand captures their prior experiences with a brand which may lead to informational differences when

[1] Note, response variables measured for all hypotheses include Brand Equity, Attitude Towards Brand, Attitude Towards Company, Word of Mouth Intentions, Trust in Brand, Trust in Organization, and Future Purchase Intentions

making an attribution in a time of crisis. Following the previous arguments on the role of informational differences in attributions, increases in brand familiarity are hypothesized to decrease the likelihood a consumer will blame a company for a crisis.

Hypothesis 2: Consumers who own the brand involved in a marketing crisis will have a more positive evaluation of that brand following the crisis than those who do not own a brand involved in the marketing crisis. (Ownership Main Effect)

Self Brand Connection (Motivation)

While brand familiarity reflects informational aspects a consumer may know about a brand, it is important to investigate aspects of a consumer's relationship with a brand which may influence their motivation when evaluating a marketing crisis. Consumers are not likely to continually use a product which they dislike significantly or which they do not feel fits with their personality, and as such repeated personal experiences will allow a consumer to build a relationship with a brand, and to incorporate the brand into their identity. One such measure of this connection is the self-brand connection proposed by Escalas (2004). Using cognitive dissonance theory, these relationships are expected to provide motivations for an individual to defend their self-image when making attributions about a crisis event and the actions taken by an organization following a crisis. The cognitive dissonance literature has multiple measures of dissonance (Bell 1967; Elliot and Devine 1994; Hunt 1970; Menasco and Hawkins 1978), with many seeing dissonance as a motivating form of negative arousal.

Based on the attribution theory and cognitive dissonance literatures, higher levels of connection with a brand are hypothesized to be associated with higher levels of motivations relating to the preservation of self-image and cognitive dissonance. When a consumer has a high self-brand connection, they will be motivated to arrive at a crisis

conclusion which preserves their own self-image. It is therefore hypothesized that increases in a consumer's self-connection with a brand will be associated with decreases in internal attributions of cause for the marketing crisis (they will not blame the company).

Hypothesis 3: Consumers who own a brand with a strong Self-Brand Connection (Apple) will have a less negative response to a marketing crisis than those who own a brand with a weaker Self-Brand Connection (Google).

Involvement in the Product Category

The literature on brand knowledge notes that a consumer's knowledge about a brand reflects their cognitive representation of the brand, and that this knowledge may encompass multiple dimensions including brand awareness, brand attributes, brand attitudes, and product experiences (Keller 2003). While previous experiences with a brand have been included in this model in terms of informational differences, to complete the antecedents of the classical model of attribution theory a measure of the existing beliefs that a consumer holds towards a company must be included. Theoretically product category involvement should reflect variations in the number of beliefs a consumer holds towards a company which is involved in a marketing crisis. While product involvement may co-vary with brand familiarity, its inclusion in the model will allow for the inclusion of beliefs about a brand. From a purely informational perspective, individuals who are highly knowledgeable about a product class will have a greater amount of data available during the attribution process. Their increased knowledge of the product category will allow for a greater amount of attributional targets than will consumers with less knowledge, increasing the likelihood that a marketing crisis

may be attributed to external factors. For example, someone who is highly involved with technology may tend to overlook news stories about a large number of suicides in factories which manufacture well-known technology brands. They, in this case, are influenced by their generally positive beliefs about the technology industry, and are motivated to attribute potential causes to the outside manufacturer rather than the technology companies and their brands. The influence of product category involvement is therefore hypothesized to decrease the attribution of cause to internal factors when confronted with a marketing crisis.

Hypothesis 4: Consumers with high Product Category Involvement will be have a less negative evaluation of a brand following a marketing crisis than those with low Product Category Involvement.

Consequences

The consequences of the attribution of a crisis response will be influenced by the causal locus of the crisis attribution (internal or external to the company), as well as consumer's evaluations of the organization's response. Traditional attribution theory states that a causal attribution will result in potential changes in affect, behavior, and beliefs (Kelley and Michela 1980). The context of a marketing crisis focuses on a negative event, and therefore must measure the potential negative outcomes of this event. In order to do this, relevant marketing variables for each of the three attribution categories will be measured.

Brand Equity

Customer-based brand equity in marketing is defined based on a difference in response by a consumer between a known and unknown brand (Keller 1993). While this

difference in response identifies the basic character of brand equity, it does not explicate where brand equity comes from, although this has been the topic of much research in the marketing area. For example, researchers have studied the effects of brand knowledge (Kotler 1997) and the structure of that knowledge in consumer memory (Keller 1993), brand awareness (Baker et al. 1986; Nedungadi 1990; Rossiter and Percy 1987) , brand image (Dobni and Zinkhan 1990), brand attitudes (Ajzen 2001; Zeithaml 1988), brand attributes (Myers and Shocker 1981), favorability (MacKenzie 1986), and strength of brand associations (Keller 1993). The work on brand equity can generally be categorized within the proposed consequences of attribution theory. Brand equity, to some extent, appears to be composed largely of aspects of consumer affect, behavior, and beliefs towards a brand. Reflecting this overlap between attribution theory and brand equity, several studies have used brand equity as a dependent variable when evaluating consumer response to product harm crises (Dawar and Pillutla 2000; Klein and Dawar 2004), and attribution theory has been suggested as the primary theoretical base with which to evaluate the impact of crises in the communications literature (Coombs 2007). As such, it is hypothesized that consumers' attributions of a crisis, as well as their evaluations of an organization's response to a crisis, will directly influence brand equity. Hypothesis 5 suggests that the more the causal locus of a crisis is attributed to external events, the higher a customer's brand equity when exposed to a marketing crisis.

Hypothesis 5: Consumers who perceive the cause of a crisis to be external will exhibit higher levels of brand equity.

Attitude Towards Brand and Company (Affect)

Affect, as defined in the attribution literature, focuses on the feelings a person holds towards an attribution target (Regan 1978). Regan (1978) found that when actions are positive, attribution of internal causes results in warmer feelings towards the attribution target, while in negative circumstances negative consequences are ameliorated by attributions related to external causes. Previous work in the marketing and psychology literatures has sought to measure negative affect in relation to a stimulus (Coulter 1998; Luce 1998; Price et al. 1995; Watson et al. 1988), which in theory should allow direct measurement of how a consumer experiences negative affect when confronted with a marketing crisis.

While a marketing crisis can generally be seen as a negative event, it is clear that the results of a crisis need not always be negative (e.g. the Johnson and Johnson Tylenol crisis). Existing marketing scales of attitude towards a brand (Chang-Hoan et al. 2001; Mitchell and Olson 1981) and attitude towards a company (Goldsmith et al. 2000) will allow for measurement of affective outcomes generated by a marketing crisis. As previously suggested, when attributions are made towards external factors, the harm of a negative event may be reduced to some extent in the mind of an observer. In keeping with classical attribution theory, it is hypothesized that increases in perceptions of an environmental locus for a marketing crisis will be associated with lower levels of negative affect, and more positive attitudes towards the company and brand.

Hypothesis 6: To the extent that a crisis is perceived to be externally caused, resultant attitudes toward the brand and company will be more positive.

The second classic consequence of attribution theory relates to future behavior by the individual making the attribution. Marketing research in general is frequently concerned with the behavior of consumers and their future actions. In terms of a marketing crisis, we will investigate two significant behavioral variables: future purchase intentions and word of mouth intentions. Measures of purchase intention have often been used to evaluate advertisements and their effectiveness (Baker and Churchill Jr 1977; Kilbourne 1986), and word of mouth intentions have been used to measure how consumers intend to speak about products to others (Price and Arnould 1999). In terms of behavior, attribution theory suggests that individuals will modify their future actions based on the valence of their attributions about a stimulus. As discussed previously, attributions of events which focus on external, situational constraints tend to be seen more positively than attributions which have an internal causal locus. Therefore, it is hypothesized that increases in perceptions of an environmental locus will be associated with increases in positive word of mouth behavior and purchase intentions.

Hypothesis 7a: Perceptions of an environmental causal locus for a crisis will be associated with higher future purchase intentions.

Hypothesis 7b: Perceptions of an environmental causal locus for a crisis will be associated with increases in positive word of mouth intentions.

Beliefs

Continuing the classical attribution theory perspective, the final consequence relating to a causal attribution is consumer belief (Kelley and Michela 1980). Beliefs are described in attribution theory as expectations about the future, and these expectations may be targeted at an organization. In the marketing literature, the area which deals the

most with beliefs about future actions by a company is the trust literature. Psychologically, trust is often viewed as a belief about the risk of a given occurrence that is out of an individual's control. In his initial work on the topic, Deutch (1958) suggested that trust takes place when an individual shows some sort of confidence in the occurrence of another event, and that this confidence influences the behavior of the individual. Subsequent to Deutch, other researchers have advanced a multitude of definitions and distinctions with regard to trust including interpersonal trust (Rotter 1971; 1980), as well as dispositional, history-based, rule-based, and role-based (Kramer 1999) trust. Trust has also been conceptualized as working between individuals (Dirks 1999), between individuals and organizations, and between organizations (Fang et al. 2008). Trust in marketing generally refers to the trust between a buyer and a supplier of goods or services (Crosby et al. 1990; Doney and Cannon 1997; Jap 1999). Two measures of trust which are applicable here include those of trust in the overall organization (Crosby et al. 1990) as well as trust in the brand (Chaudhuri and Holbrook 2001). In cases where a crisis is attributed to external factors, consumers are hypothesized to hold greater trust in the brand and organization than they will in cases where the crisis is attributed to the organization.

Hypothesis 8a: Perceptions of an environmental causal locus for a crisis will be associated with higher levels of organizational trust.

Hypothesis 8b: Perceptions of an environmental causal locus for a crisis will be associated with higher levels of brand trust.

CHAPTER 4: METHOD

This dissertation will test the previous hypotheses in several steps. In study 1 a pre-test was administered in an effort to determine the reliability and validity of the consequences of a marketing crisis, as well as to investigate differences in causal loci for the crisis (manipulated). Subsequently, Study 2 will investigate the role of crisis attributions in a realistic crisis scenario.

Study 1

The objective of Study 1 was to investigate empirically the role of causal attributions on marketing outcomes in a marketing crisis situation. In this study, the causal locus of the crisis is manipulated, as well as the participant's distance to the crisis (crisis happens directly to them, or is something they hear about).

Manipulation

In total, four hypothetical scenarios were used, and all versions are presented in Appendix 2. An example of one scenario (internal fault, direct consumer experience) is shown below.

> Washington, D.C. (The Associated Press) – Personal computer manufacturer Micro Expert Technologies (MET) is currently in crisis mode after wide spread reports of problems with their MX-1000 line of laptop computers. According to industry insiders, the MX-1000 line is experiencing a battery life issue where batteries on new laptops are dying within several months of purchase. An

> investigation by the *Wall Street Journal* uncovered that the batteries are going bad because of corner cutting by MET in the manufacturing process. So far there is no word on what MET plans to do to compensate consumers affected by the issue, but retailers say a decision is expected shortly.
>
> Please take a moment to put yourself in the place of a MX-1000 owner whose battery has died after only owning the laptop for a month and a half. When you purchased the MX-1000, you considered it to be the best laptop available for you. Think about how you would feel if this situation happened to you, and how it might affect your attitudes towards the organization (MET) and towards the MX-1000 brand.

The external cause condition substituted the above wording with the following excerpt, blaming the problem on a manufacturer.

> An investigation by the *Wall Street Journal* uncovered that the batteries were part of a bad batch provided to the company by an outside manufacturer. So far there is no word on what MET plans to do to compensate consumers affected by the issue, but retailers say a decision is expected shortly.

This manipulation allows for a preliminary investigation of the relationship between causal crisis attributions and marketing outcomes.

Data

A two-part sampling of undergraduate students at a large Midwest university resulted in 116 usable responses. Following exposure to one of the four scenarios, respondents were asked to complete the following scales: attitude towards brand, attitude towards company, brand equity, involvement in product category, future purchase intention, positive word of mouth intentions, trust in brand, trust in the organization, and usage intentions. In an effort to further capture potential cognitive differences between causal locus, each respondent was also asked to rate the perceived severity of the crisis, the importance of the crisis, and the size of the crisis.

Reliability analysis of the scales show relatively good reliability across the measurements presented. Table 1 presents the reliability analysis for all measures.

Table 1: Scale Reliability

Scale	# of items	Chronbach's Alpha
Attitude Towards Brand	4	.894
Attitude Towards Organization	3	.883
Brand Equity	4	.874
Involvement in Product Category	3	.936
Future Purchase Intention	3	.939
Positive Word of Mouth Intention	3	.982
Usage Intention	3	.756
Trust in Brand	4	.880
Trust in Organization	4	.839

Subsequently ANOVA tests were conducted to investigate group differences across the causal conditions for both direct and indirect crisis experience, followed by

ANOVA tests for each experience condition to investigate differences between causal loci. Finally, ANOVA analyses were conducted to determine any between group differences for across causal loci conditions for the direct and indirect conditions.

Table 2: Internal vs. External Locus ANOVA

Scale	**Internal Cause**	**External Cause**	**F(1,114 df)**	**Sig.**
Attitude Towards Brand (ATB)	2.85	3.58	9.23	.003
Attitude Towards Organization (ATC)	2.62	3.54	24.36	.000
Brand Equity (BE)	2.26	2.68	4.01	.047
Involvement in Product Category (IPC)	6.01	5.92	.176	.676
Future Purchase Intention (PI)	2.19	2.95	10.96	.001
Positive Word of Mouth Intention (WOM)	3.84	3.38	1.59	.209
Trust in Brand (TIB)	2.61	3.56	25.25	.000
Trust in Organization (TIO)	4.75	4.90	.229	.633
Usage Intention (UI)	2.92	3.05	.385	.536
Crisis Severity (one item) (SEV)	5.81	5.39	4.13	.045
Crisis Importance (one item) (IMP)	5.90	5.67	1.48	.227
Crisis Size (one item) (SIZE)	4.15	3.98	.274	.602

(As scale values increase, ratings have a more positive valence. For SEV, IMP, and CRISZ, higher scores mean larger estimates of the severity, importance, and size of the crisis)

As predicted, there were several significant differences across the causal attribution categories in the hypothesized directions. Of all the constructs measured, only Usage Intention, Positive Word of Mouth Intentions, and Crisis Sized were not significant.

As hypothesized, when a causal locus is located external to an organization, consumers tend to feel more positively about that organization in times of crisis. Further testing revealed that many of these differences held when the ANOVA was limited to only the indirect condition in which the subject was not to imagine owning the affected brand.

Table 3: Internal vs. External Locus (Indirect Condition Only)

Scale	**F (1,56)**	**Sig.**
ATB	8.57	.005
ATC	19.52	.000
BE	5.80	.019
IPC	3.15	.081
PI	4.49	.038
TIB	7.36	.009
TIO	15.40	.000

For respondents who were asked to think about the crisis as someone who was not directly affected by the crisis, there were no significant differences in perceived crisis size, severity, or importance – yet there were notable differences across affective, behavioral, and belief consequences. This may be because the crisis does not affect them directly, but could in the future, leading them to protect themselves.

Respondents who were asked to put themselves in the place of a person who was directly involved with the crisis showed fewer differences across crisis locus, suggesting that consumers who are directly involved in a crisis may experience it differently than those who are only indirectly exposed.

Table 4: Internal vs. External Locus (Direct Condition Only)

Scale	**F (1, 55)**	**Sig.**
ATC	8.48	.005
PI	6.41	.014
TIB	11.28	.001
TIO	10.14	.002
SEV	3.29	.075

All variables shown in Table 4 were significant at the .05 level except for Crisis Size, which was marginally significant at the .075 level. While these findings are not conclusive, they do suggest that more is at play in how consumers evaluate a crisis. The manipulation used for this study is relatively weak as it uses a pretend brand and a hypothetical situation, yet respondents still responded differently to the stimuli.

This is further supported by ANOVA analyses of between group differences (direct vs. indirect experience) conducted for the internal and external crisis loci conditions. For the internal cause condition, there were no significant differences across the direct and indirect experience conditions (although trust in brand was marginally significant ($F(1,55) = 3.12$, $p < .083$). For the external cause condition, attitude towards the company ($F(1,56) = 6.94$, $p < .011$) and Involvement in Product Category ($F(1,56) = 5.94$, $p < .018$) showed significant differences across the direct and indirect groups, while attitude towards the brand was not significant ($F(1,56) = 2.64$, $p < .110$).

The data suggest a pattern which shows weak support for the proposed attribution model of consumer crisis response. Despite this, the manipulation of crisis locus appears to have been successful, and resulted in significant differences in the hypothesized

directions. Further investigation into aspects related to psychological distance (direct vs. indirect manipulation) suggests that the influence of psychological distance may be more complex than study 1 allows for. It is encouraging to find significant differences between these groups; however, it does not appear that the psychological distance manipulation in this study is driving the outcome variables to the extent that the causal locus manipulation does. This is further supported by qualitative data collected from the respondents during the survey. The data collection form allowed for respondents to write down their thoughts about the crisis, and despite the manipulation's attempt to influence the perception of causal locus, some consumers still blamed the organization for the problem. The influence of psychological distance will be further investigated in study 2, along with other antecedent variables from the attribution model of consumer crisis response.

Study 2: Hypothesis Testing

The objective of study 2 is to investigate further the attribution model of consumer crisis response by investigating the relationships between the antecedents and consequences of a causal attribution about a marketing crisis, as well as to investigate the antecedents and consequences a consumer's evaluation of a company's response to the crisis may have. As delineated in the attribution model of consumer crisis response, a consumer's evaluation of a crisis' cause is thought to be influenced by the psychological distance from the crisis, through his/her prior experience and self-connection with the company involved, and to his/her involvement in and knowledge of the product category. The attribution of the crisis event is proposed to influence multiple marketing outcomes as suggested in the above hypotheses.

Procedure

To investigate the proposed model, a quasi-experiment utilizing existing brands of smartphones was conducted with students at a large Midwestern University. As of 2011 (data was collected in 2012), it was estimated that among the student age group (18-24), approximately 53% of cell phone subscribers utilized a smartphone (Nielsen 2011). The breakdown of market penetration by brand shows phones running the Android operating system holding 44.2% market share, while Apple holds 28.6% and other platforms such as Blackberry and Windows rounding out the market with the remaining 27.2% (Nielsen 2011). The overall level of smart phone penetration, the salience of the product category to the sample, and the division among smartphone operating systems provide an excellent opportunity to investigate the influence of psychological distance, personal experience, and product category involvement on crisis attributions and the evaluation of crisis responses.

Study 2 investigated the antecedents and consequences of consumer crisis attribution by presenting two crisis scenarios involving popular smartphone brands to 349 participants (313 usable responses). Participants were placed in one of 4 total conditions, divided among two crisis scenarios and two measurement conditions. Participants were either exposed to a crisis involving Google Android smartphones, or Apple iPhone smartphones, and they had their responses to the attribution consequences measured either after the crisis exposure only, or both before and after exposure to the crisis. Table 5 shows the number of usable responses in each condition, as well as the different crisis and measurement conditions.

Table 5: 313 Participants

	Apple Crisis	Google Crisis
After Only	102	101
Before and After	45	65

The quasi-experiment was carried out using the Qualtrics survey tool. Participants in the Before/After group were measured on the following scales presented in Table 6, then shown a brief video after which they were exposed to one of two crisis scenarios. Each participant was then measured on the measures shown in Table 6.

Table 6: Scales

Scale	Author
Antecedents	
Psychological Distance	Trope and Liberman 2007
Product Category Involvement	Wulf, Odekerken-Schröder, and Iacobucci 2001
Focal Construct	
Crisis Attributions	Study 1
Consequences	
Brand Equity	(Yoo et al. 2000)
Attitude Towards the Brand	(Chang-Hoan, Jung-Gyo, and Tharp 2001; Mitchell and Olson 1981)
Attitude Towards the Company	(Goldsmith, Lafferty, and Newell 2000)
Positive Word of Mouth Intentions	(Price and Arnould 1999)
Future Purchase Intentions	(Dodds, Monroe, and Grewal 1991)
Trust in Organization	(Crosby, Evans, and Cowles 1990)
Trust in Brand	(Chaudhuri and Holbrook 2001)

The purpose of the video was to give them a mental break from the measurement process, and to distract them prior to their exposure to the crisis manipulation. Following

their viewing of the video participants were shown one of two news releases describing an impending marketing crisis. The news release was written in a news writing style, and included formatting cues taken from online news stories in an attempt to increase the authenticity with which participants viewed the release. The Google condition of the crisis manipulation is shown below.

Last updated at 07:43 GMT

Android phones to stop making calls

Google has announced a major security patch that will effectively turn off the cell phone service for customers using the Android operating system for a yet to be determined amount of time. Google CEO Larry Page announced the unprecedented security update in a press release this morning, saying the shutdown is the result of a newly discovered exploit which could result in the compromise of a user's private data. According to Page, hackers have discovered a way to use the cellular connection to access unencrypted data including credit card information, passwords, and other sensitive information.

Google says that so far the security exploit has only affected around 15 thousand users, but that as information on the hack spreads that number could rise exponentially. The security patch will cut phone service starting at 11 PM Pacific time this evening. Programmers are reportedly working around the clock to find and fix the problem, but as of now there is no set date for phone service to resume.

The FBI is currently investigating the situation, but they say it is not clear who is behind the attacks. Agents say the cell phone service disruption is particularly problematic as it will block all cell service on the phones, including access to emergency services.

According to the research firm IDC approximately 68% of all smart phones sold in 2012 were Android powered devices.

Scenario 2 utilized the exact same press release, but replaced Android phones with iPhones, and the Google brand with the Apple brand (the CEO was switched as well). All manipulations are listed in Appendix B.

This manipulation allowed consumers to self-select into the following groups: smartphone users affected by the crisis, smartphone users not affected by the crisis, and non-smartphone users. These groups are proposed to reflect varying levels of psychological distance and self-brand connection among consumers, the brand, and the crisis.

Results

Cell phone ownership among the respondents is shown in Table 7.

Table 7

		Frequency	Percent
Owned	iPhone	198	63.25
	Android	77	24.60
	Other	6	1.91
	None	32	10.22
	Total	313	100

As shown in the table, nearly 63% of respondents owned iPhones, nearly 25% owned Android devices and only 2% owned other types of smart phones. Of the 313 participants, just over 10% did not own a smart phone. As the sample size for those not owning a smartphone, and those owning a smartphone that was not an Android or Apple device was quite small, they are dropped from subsequent analysis.

Fortunately, the majority of scales measured showed a robust level of reliability with most scales showing a Cronbach's alpha of greater than 0.80. Only the items for psychological distance showed questionable reliability, with these items showing a Cronbach's alpha of only 0.605. All reliability results for Study 2 are presented in Table 8. With the questionable reliability for Psychological Distance, it becomes problematic to analyze between group differences based on that scale. This is likely due to the formative nature of the Psychological Distance construct. This issue will be discussed further in the evaluation of Hypothesis 1. A structural equation modeling measurement model is presented in Appendix 3 to further evaluate the measures.

Table 8

Variable	Apple	Google
Brand Equity	.922	.864
Attitude Towards Brand	.872	.740
Attitude Towards Company	.840	.794
Involvement in Product Category	.889	.889
Word of Mouth	.959	.833
Trust in Brand	.928	.884
Trust in Organization	.772	.761
Future Purchase Intention	.923	.889
Psychological Distance from Crisis	.652 (Apple Crisis)	.546 (Google Crisis)
Crisis Attribution	.792 (Apple Crisis)	.824 (Google Crisis)

Hypothesis 1

Unfortunately, the scale for Psychological Distance did not meet minimum reliability standards, showing a reliability of .605. While the scale designed here did not show strong reliability properties, this likely has to do with the somewhat formative nature of psychological distance. As discussed by Stephan et al. (2010), psychological distance is generally thought to be composed of a temporal component (time or recency perception); a spatial, geographic component; and a social component where the distance is judged based on an individual's perception of the closeness between themselves and others who the event may have happened to (sympathy is included here in many cases). One last component of psychological distance is hypotheticallity, or the individual's judgment about the likelihood that something could happen to them. In generating the items for this study, several issues arose which may have further complicated the measurement of psychological distance. First, all participants were exposed to the crisis manipulation in the same way at the same time, meaning that the first component of psychological distance had little to no variance and subsequently was not measured. The spatial component of psychological distance was also not relevant as all participants live within the area affected by the crisis. Both hypotheticallity and social distance were measured; however, it should be noted here that hypotheticallity is also confounded by the manipulation when participants were told they were about to be part of a marketing crisis. These issues all add toward a relatively difficult measurement, and the lack of consistency between the items and the participant experiences is reflected in the weak Cronbach's alpha. While the reliability measures here are weak, it still makes sense to

investigate the results of hypothesis 1 to see what aspects the current measure of psychological distance captured.

Hypothesis 1 states: Consumers who are psychologically closer to a marketing crisis will have a less negative response to the marketing crisis than those who are psychologically distant. To test hypothesis one, a change score has been calculated for each consequence variable, then correlated with the Psychological Distance scale and each of the component items. The change score is calculated by subtracting the post-crisis measure from the pre-crisis measure. This means that if the measurement value decreased, that we would see a negative change score, and if the measurement value increased we would see a positive change score. For example, Brand Equity for respondent x could equal 7 in the pretest, and 4 in the post test, indicating that the manipulation resulted in a decrease of 3 points in brand equity. This would be rated as a -3 by the change score. Support of hypothesis one would be indicated by a statistically significant positive correlation between the psychological distance measure and the change in brand equity. That is, those who are psychologically close to the event (high psychological distance score) are expected to have a more positive reaction to the crisis than those who are psychologically distant from the event (low psychological distance score). The correlations for the psychological distance scale and items with the outcome variables are shown below in Table 9.

Table 9: Psychological Distance Regression Results

Psychological Distance Scale	Apple Owners / Apple Crisis	Google Owners / Google Crisis
Brand Equity	r = .14 n = 29 sig. = .48	r = -.11 n = 18 sig. = .65
Attitude Towards Brand	r = .22 n = 29 sig. = .26	r = .27 n = 18 sig. = .28
Attitude Towards Company	r = -.09 n = 29 sig. = .65	r = .27 n = 18 sig. = .29
Word of Mouth Intentions	r = .32 n = 29 sig. = .09	r = .32 n = 18 sig. = .19
Trust in Brand	r = .05 n = 29 sig. = .78	r = .44 n = 18 sig. = .07
Trust in Org.	r = -.06 n = 29 sig. = .75	r = .26 n = 18 sig. = .30
Future Purchase Intentions	r = -.08 n = 29 sig. = .67	r = .10 n = 18 sig. = .68

As shown in Table 9, there is little support for hypothesis one when evaluating the psychological distance measure as a whole. When evaluating Hypothesis 1 we find no significant relationship between a consumer's psychological distance to the crisis and their change in evaluation of Brand Equity, Attitude Towards Brand, Attitude Towards the Company, Word of Mouth Intentions, Trust in Brand, Trust in the Organization, and their Future Purchase Intentions. This lack of significant results held across both the Apple and the Google conditions. Only two of the correlations approached significance with Word of Mouth intentions for Apple owners showing a marginally significant correlation ($r = .32$, $n = 29$, $p < .09$) and Trust in Brand for Google owners showing a

slightly stronger correlation with Psychological Distance (r = .44, n = 18, $p < .07$). There does not appear to be a discernable pattern here, as the Word of Mouth variable measures behavioral intentions, while the Trust in Brand variable measures attitudes towards the brand. While the lack of significant results here is disappointing, it does provide insight into the way the psychological distance measure works in this experiment. In this case, there are clearly some components of psychological distance which are not highly correlated with each other (hence the low reliability), and it may be that these unrelated items are contributing to the lack of significant results when evaluating hypothesis 1. The psychological distance measure designed for Study 2 sought to measure the hypotheticallity of the perceived crisis, as well as the social distance between participants and the crisis. As discussed previously, this likely indicates a formative measure with relatively unrelated subcomponents. As such, it will be informative to investigate how each individual psychological distance item relates to each of the outcome variables from Hypothesis 1.

Table 10: Item 1- The likelihood of something like this happening to me at some point is high

Psychological Distance Item 1	Apple Owners / Apple Crisis	Google Owners / Google Crisis
Brand Equity	r = .38* n = 29 sig. = .04	r = -.17 n = 18 sig. = .49
Attitude Towards Brand	r = .31 n = 29 sig. = .10	r = .55* n = 18 sig. = .02
Attitude Towards Company	r = .18 n = 29 sig. = .35	r = .43 n = 18 sig. = .08
Word of Mouth Intentions	r = .58** n = 29	r = .31 n = 18

	sig. = .01	sig. = .22
Trust in Brand	r = .37* n = 29 sig. = .049	r = .35 n = 18 sig. = .16
Trust in Org.	r = -.12 n = 29 sig. = .54	r = .19 n = 18 sig. = .45
Future Purchase Intentions	r = .14 n = 29 sig. = .47	r = -.10 n = 18 sig. = .70

When isolated, the Psychological Distance item designed to measure hypotheticallity shows a larger relationship with many of the dependent variables than Psychological Distance as a whole. For Apple owners, Brand Equity, Word of Mouth Intentions, and Trust in Brand all show a positive correlation with Psychological Distance. That is, as a consumer gets psychologically closer to a crisis, they tend to give higher ratings on those variables than consumers who are psychologically distant from a crisis. For Google owners, Attitude Towards Brand is significant ($r = .55$, $n = 18$, $p < .02$) while Attitude Towards the Company approaches marginal significance ($r = .43$, $n = 18$, $p < .08$). Here we appear to have a situation where a consumer's perception of the likelihood of a crisis happening to them influences behavioral variables for Apple and attitudinal variables for Google. The reasoning behind these brand differences is not immediately clear, but these differences constitute a start of a data trend that will be seen throughout the rest of Study 2. When analyzed in isolation it does seem that a consumer's perception of the likelihood of a crisis happening to them influences the consumer's evaluation of said crisis positively. This finding shows some support for Hypothesis one.

Another potential note of comparison here is the difference in the correlation coefficients between item 1 and brand equity for Apple and Google. Using Fisher's r-to-z transformation the correlation of .38 for apple is marginally significantly different from the -.17 correlation for Google (Two Tailed Z = 1.76, $p < .078$). Here we show construal theory working as expected for Apple but in the opposite direction for Google.

Table 11: Item 2 – I am someone who will be affected in some way by the service outage

Psychological Distance Item 2	Apple Owners / Apple Crisis	Google Owners / Google Crisis
Brand Equity	r = -.10 n = 29 sig. = .96	r = -.11 n = 18 sig. = .65
Attitude Towards Brand	r = .14 n = 29 sig. = .48	r = .19 n = 18 sig. = .44
Attitude Towards Company	r = -.21 n = 29 sig. = .26	r = -.08 n = 18 sig. = .76
Word of Mouth Intentions	r = .14 n = 29 sig. = .48	r = .08 n = 18 sig. = .75
Trust in Brand	r = -.188 n = 29 sig. = .33	r = .25 n = 18 sig. = .32
Trust in Org.	r = -.08 n = 29 sig. = .67	r = .20 n = 18 sig. = .43
Future Purchase Intentions	r = -.20 n = 29 sig. = .29	r = .29 n = 18 sig. = .24

Item 2 of the Psychological Distance scale shows no significant positive correlations with any of the outcome variables measured. It is interesting to note that while this item was designed to also measure a consumer's perception of hypotheticallity, it instead seems to measure their perception of the particular crisis put forth by the

experiment. In this case we ask consumers to evaluate the crisis at hand, as opposed to likelihood of "something like this" happening to themselves in the future. This distinction is important, as it suggests that a consumer's perception of the likelihood of a crisis happening is more important than their evaluation of a specific crisis (at least in terms of psychological distance). A second alternative here is that while the wording of "impact" was meant to be negatively valenced, this wording may not have allowed for enough variation in response by consumers. That is, all participants may have seen themselves as impacted in some way, but the role of this impact on the perceived psychological distance of the crisis was not captured.

Table 12: Item 3 – Someone close to me will be affected by the service outage

Psychological Distance Item 3	Apple Owners / Apple Crisis	Google Owners / Google Crisis
Brand Equity	r = .03 n = 29 sig. = .87	r = .02 n = 18 sig. = .93
Attitude Towards Brand	r = .12 n = 29 sig. = .54	r = -.13 n = 18 sig. = .60
Attitude Towards Company	r = -.05 n = 29 sig. = .79	r = .24 n = 18 sig. = .33
Involvement in product class	r = -.18 n = 29 sig. = .36	r = -.31 n = 18 sig. = .21
Word of Mouth Intentions	r = .14 n = 29 sig. = .48	r = .08 n = 18 sig. = .75
Trust in Brand	r = -.23 n = 29 sig. = .23	r = .25 n = 18 sig. = .32
Trust in Org.	r = .03 n = 29 sig. = .88	r = .20 n = 18 sig. = .43
Future Purchase Intentions	r = -.10 n = 29	r = .29 n = 18

	sig. = .59	sig. = .24

Item 3, which was designed to capture the social distance component of psychological distance also showed no significant positive correlations across either owner/manipulation combination. Again, it appears that in this case either the manipulation failed to generate variance among participants (likely everyone knew someone involved in the crisis), or that the measure failed to capture the social distance between someone and the crisis. In this case, it might be useful to operationalize social distance in terms of sympathy rather than simply measuring the presence of others involved in the crisis. For example, a future social distance item could read "I feel bad for people I know who will be affected by this crisis."

Hypotheses 2 & 3.

Hypothesis 2 states: Consumers who own the brand involved in a marketing crisis will have a more positive evaluation of that brand than those who do not own a brand involved in the marketing crisis, while Hypothesis 3 states: Consumers who own a brand with a strong Self-Brand Connection (Apple) will have a less negative response to a marketing crisis than those who own a brand with a weaker Self-Brand Connection (Google). In order to test Hypothesis 2 and Hypothesis 3, a 3 way ANOVA was conducted comparing the outcome variables of Brand Equity, Attitude Towards Brand, Attitude Towards Company, Word of Mouth Intentions, Trust in Brand, Trust in Organization, and Future Purchase Intentions across 3 experimental conditions: No Crisis, Apple Crisis, and Google Crisis. Support for Hypothesis 2 will be indicated by a significant main effect of ownership across the each of the outcome variable conditions.

Support for Hypothesis 3 will be indicated by a significant interaction term, with the mean difference in the hypothesized direction. The number of participants in each condition is shown in Table 13.

Table 13

Between-Subjects Factors			
		Label	N
Owned	1	Apple Owner	198
	2	Google Owner	77
Manip	0	Post Google Crisis	92
	1	Post Apple Crisis	88
	2	No Crisis	95

Brand Equity Apple

For the first outcome variable, we find support for hypothesis one when measuring Apple's Brand Equity with a significant main effect of ownership ($F(1,275) = 86.24$, $p<.001$). While there is support for Hypothesis 2 when measuring Apple's Brand Equity, there is no support for hypothesis 3 for this variable. Despite the lack of a significant interaction, we do see a larger difference between Google and Apple owners following the Apple crisis than we do following the Google crisis. As shown in Table 14 and Figure 5, the consumer response to the Apple crisis appears to be consistent across the conditions, with the main driver of between group differences accounted for by brand ownership. For each variable analyzed, the means, ANOVA results, and data plot will be shown immediately following the written analysis.

Table 14: Brand Equity Apple

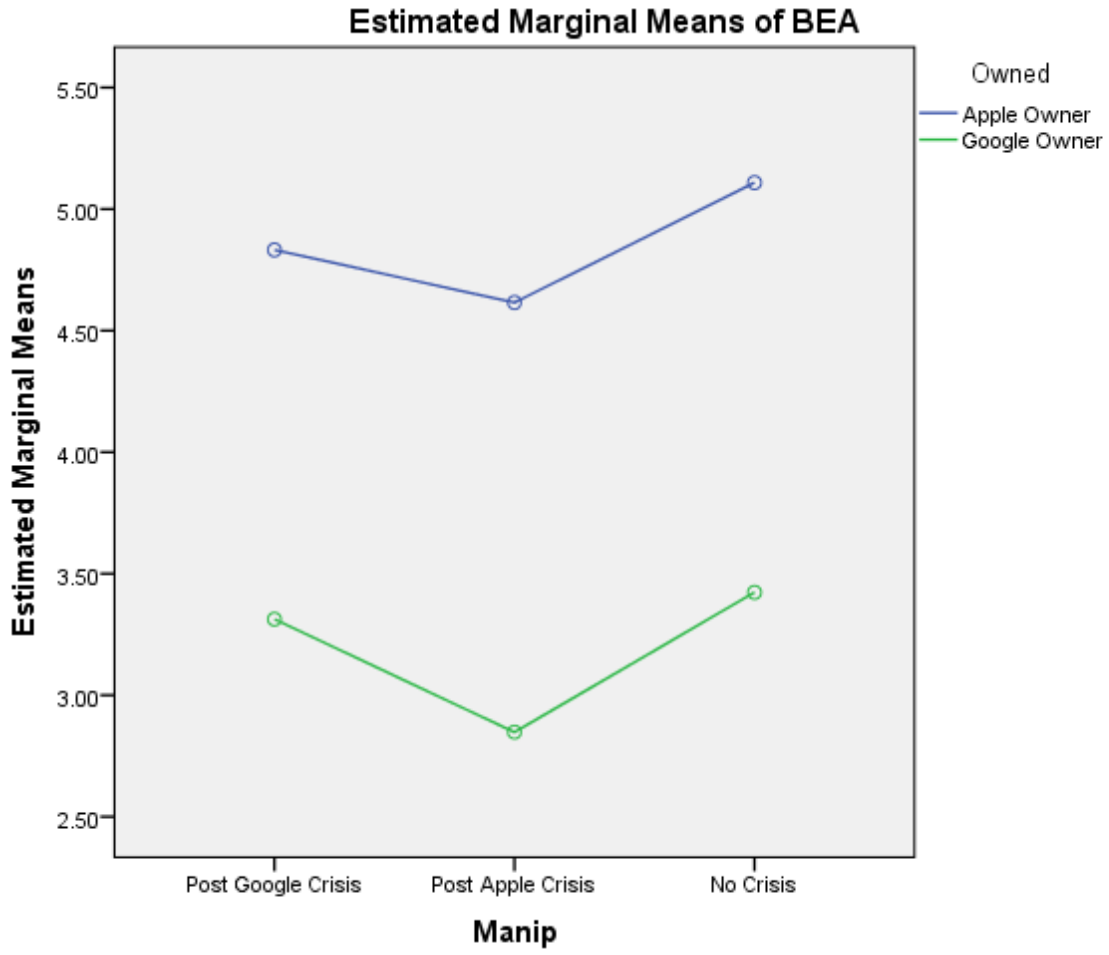
Descriptive Statistics

Dependent Variable: Brand Equity Apple

Manip	Owned	Mean	Std. Deviation	N
Post Google Crisis	Apple Owner	4.83	1.328	64
	Google Owner	3.31	1.393	28
	Total	4.36	1.514	92
Post Apple Crisis	Apple Owner	4.61	1.306	65
	Google Owner	2.84	1.510	23
	Total	4.15	1.563	88
No Crisis	Apple Owner	5.10	1.176	69
	Google Owner	3.42	1.487	26
	Total	4.64	1.470	95
Total	Apple Owner	4.85	1.280	198
	Google Owner	3.21	1.462	77
	Total	4.39	1.523	275

Eta Square = .255

Figure 5: Brand Equity Apple



When evaluating the main effect of ownership for Google's Brand Equity we find a main effect of brand ownership ($F(1,275) = 24.42$, $p < .001$), again showing support for Hypothesis 2. When evaluating Google's Brand Equity for an interaction effect, we find a marginally significant result ($F(2,275) = 2.62$, $p < .074$). This interaction is contrary to Hypothesis 3, as following a Google crisis, Google Owners show a marginally significantly increase in their evaluation of Google's Brand Equity compared to both the no crisis and Apple crisis condition. Hypothesis 3 would have expected a pattern like this for Apple owners, but not for Google owners. As shown in Table 15 and Figure 6, it

appears that Google owners are responding to the crisis information by increasing their evaluation of their chosen brand compared to both the Apple crisis and no crisis conditions. This increase in evaluation is not shown by Apple owners, who instead show a large decrease in their evaluation of Google following the Google crisis.

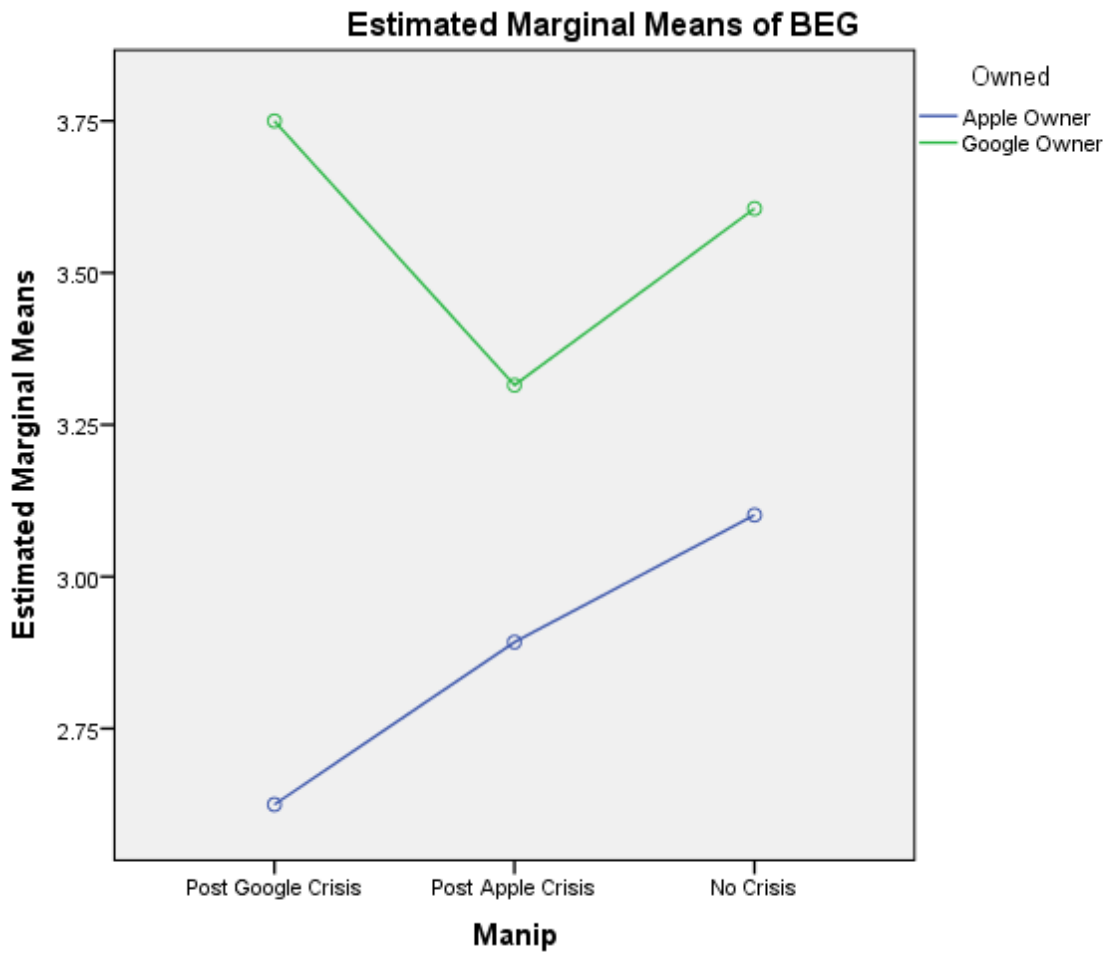
Table 15: Brand Equity Google

Dependent Variable: Brand Equity Google

Manip	Owned	Mean	Std. Deviation	N
Post Google Crisis	Apple Owner	2.62	.784	64
	Google Owner	3.75	1.166	28
	Total	2.96	1.049	92
Post Apple Crisis	Apple Owner	2.89	.942	65
	Google Owner	3.31	1.255	23
	Total	3.00	1.042	88
No Crisis	Apple Owner	3.10	1.066	69
	Google Owner	3.60	1.265	26
	Total	3.23	1.139	95
Total	Apple Owner	2.87	.957	198
	Google Owner	3.57	1.223	77
	Total	3.07	1.082	275

Eta Square = .114

Figure 6: Brand Equity Google



Attitude Towards Brand Apple

The pattern of an ownership main effect holds for Attitude Towards Brand for Apple ($F(1,275) = 78.24$, $p < .001$) showing support for Hypothesis 2. Again, there is no significant interaction between ownership and crisis condition.

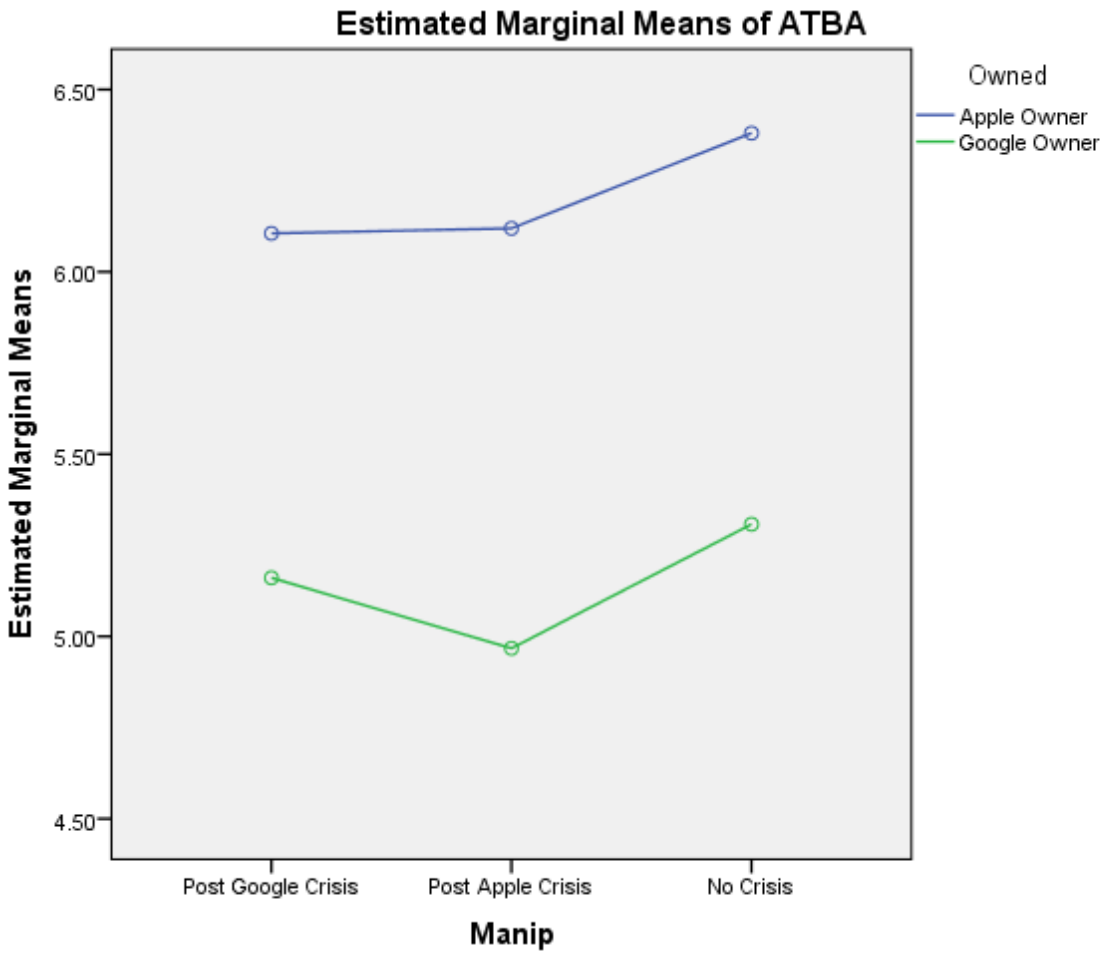
Table 16: Attitude Towards Brand Apple

Dependent Variable: Attitude Towards Brand Apple

Manip	Owned	Mean	Std. Deviation	N
Post Google Crisis	Apple Owner	6.10	.813	64
	Google Owner	5.16	1.404	28
	Total	5.81	1.111	92
Post Apple Crisis	Apple Owner	6.11	.618	65
	Google Owner	4.96	1.250	23
	Total	5.81	.967	88
No Crisis	Apple Owner	6.38	.605	69
	Google Owner	5.30	1.145	26
	Total	6.08	.919	95
Total	Apple Owner	6.20	.692	198
	Google Owner	5.15	1.266	77
	Total	5.91	1.006	275

Eta Square = .238

Figure 7: Attitude Towards Brand Apple



Attitude Towards Brand Google

There is a significant main effect of ownership across the crisis conditions for Attitude Towards Brand Google ($F(1,275) = 20.69$, $p<.001$) showing support for Hypothesis 2, but we see a similar pattern for the interaction effect as seen with Google's Brand Equity. In this case, there is a significant interaction term ($F(2,275) = 5.86$, $p < .003$), yet again we see this interaction for Google rather than Apple. In this case, Attitude Towards Brand is significantly higher following the Google crisis condition.

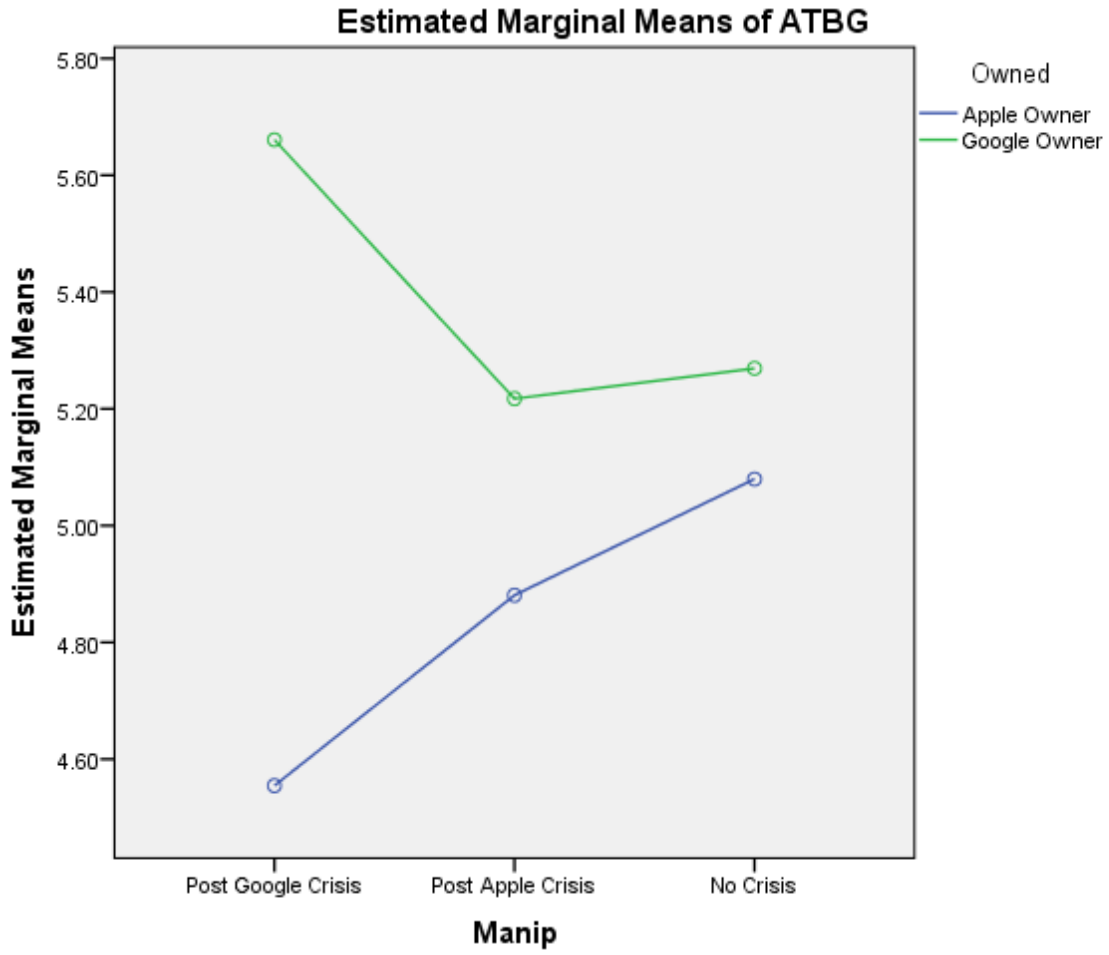
Table 17: Attitude Towards Brand Google

Dependent Variable: Attitude Towards Brand Google

Manip	Owned	Mean	Std. Deviation	N
Post Google Crisis	Apple Owner	4.55	.835	64
	Google Owner	5.66	.733	28
	Total	4.89	.950	92
Post Apple Crisis	Apple Owner	4.88	.836	65
	Google Owner	5.21	1.014	23
	Total	4.96	.892	88
No Crisis	Apple Owner	5.07	.987	69
	Google Owner	5.26	.897	26
	Total	5.13	.962	95
Total	Apple Owner	4.84	.913	198
	Google Owner	5.39	.891	77
	Total	4.99	.938	275

Eta Square = .121

Figure 8: Attitude Towards Brand Google



Attitude Towards Company Apple

For Apple, we again see a significant effect of ownership on a consumers rating of their Attitude Towards the Company ($F(1,275) = 29.51$, $p < .001$). As with the other measures, Apple owners rated Apple significantly higher than Google owners across all conditions showing support for Hypothesis 2. When testing Hypothesis 3 we do not see a significant interaction term ($F(2,275) = .67 p < .51$), but the mean differences are in the hypothesized direction. Again, this shows little support for Hypothesis 3.

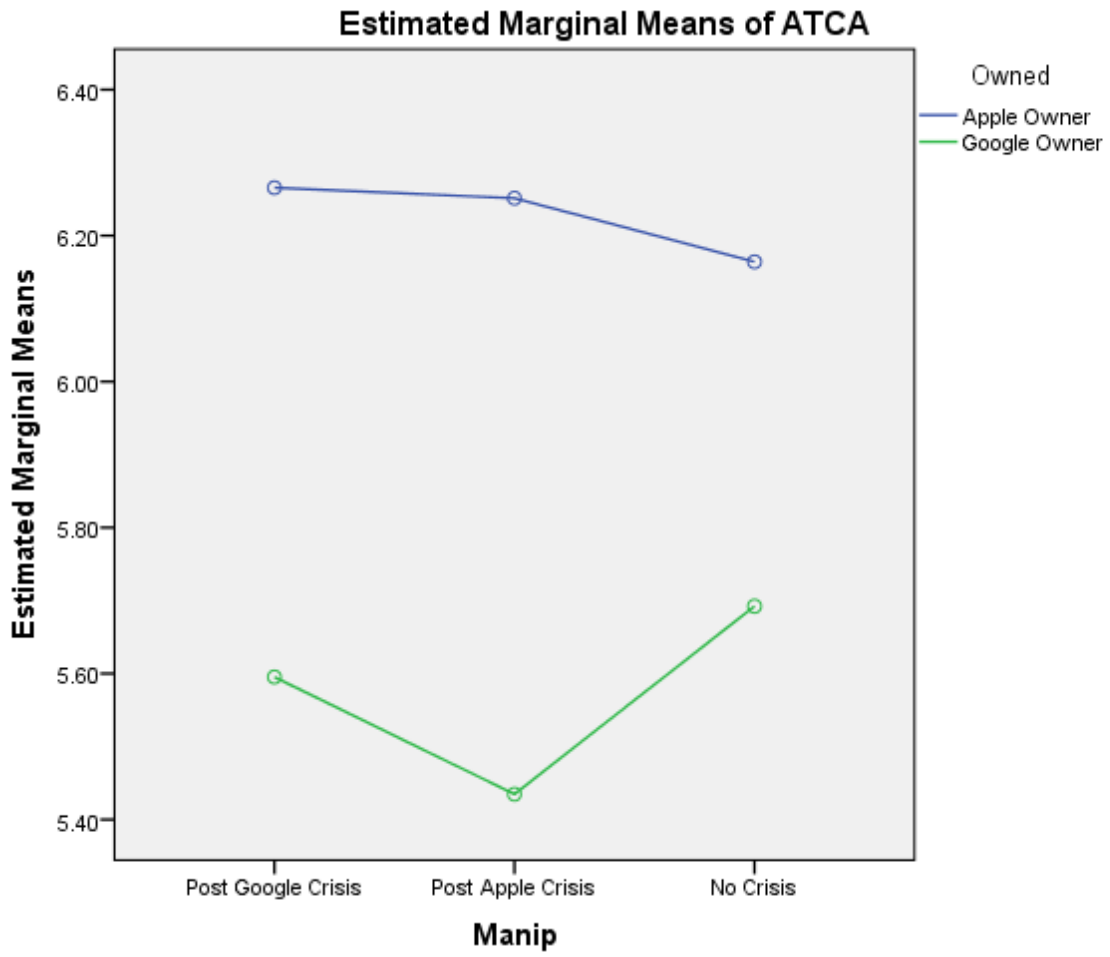
Table 18: Attitude Towards Company Apple

Dependent Variable: Attitude Towards Company Apple

Manip	Owned	Mean	Std. Deviation	N
Post Google Crisis	Apple Owner	6.26	.737	64
	Google Owner	5.59	1.170	28
	Total	6.06	.937	92
Post Apple Crisis	Apple Owner	6.25	.788	65
	Google Owner	5.43	1.319	23
	Total	6.04	1.013	88
No Crisis	Apple Owner	6.16	.821	69
	Google Owner	5.69	.873	26
	Total	6.03	.858	95
Total	Apple Owner	6.22	.781	198
	Google Owner	5.58	1.119	77
	Total	6.04	.933	275

Eta Square = .102

Figure 9: Attitude Towards Company Apple



Attitude Towards Company Google

The results for the ANOVA for the Attitude Towards Google measure provide some counterintuitive and unexpected results. Here there is no main effect of ownership, but there is a significant interaction between ownership and manipulation group ($F(2,275) = 4.51$, $p < .012$). In this case, Hypothesis 2 is not supported, and the results show a pattern where Apple owners rate Google more highly than actual Google owners when they are unexposed to the crisis manipulation. Post crisis exposure (either Apple or Google crisis) we see the expected mean differences between Apple and Google owners

with Google rating their company more highly. One possible explanation for this interaction may be that prior to exposure to any crisis information respondents who do not own an Android phone have a high opinion of Google based on their likely interaction with the Google search engine and Gmail. In this case, Apple owners are simply evaluating their prior experiences and knowledge with Google – which does not include the Android operating system – while Google owners are evaluating both Android and other Google experiences leading to a lower rating. Of note here is that Android owner evaluations of Google as a company are on average higher following a Google crisis than they are when exposed to no crisis information at all.

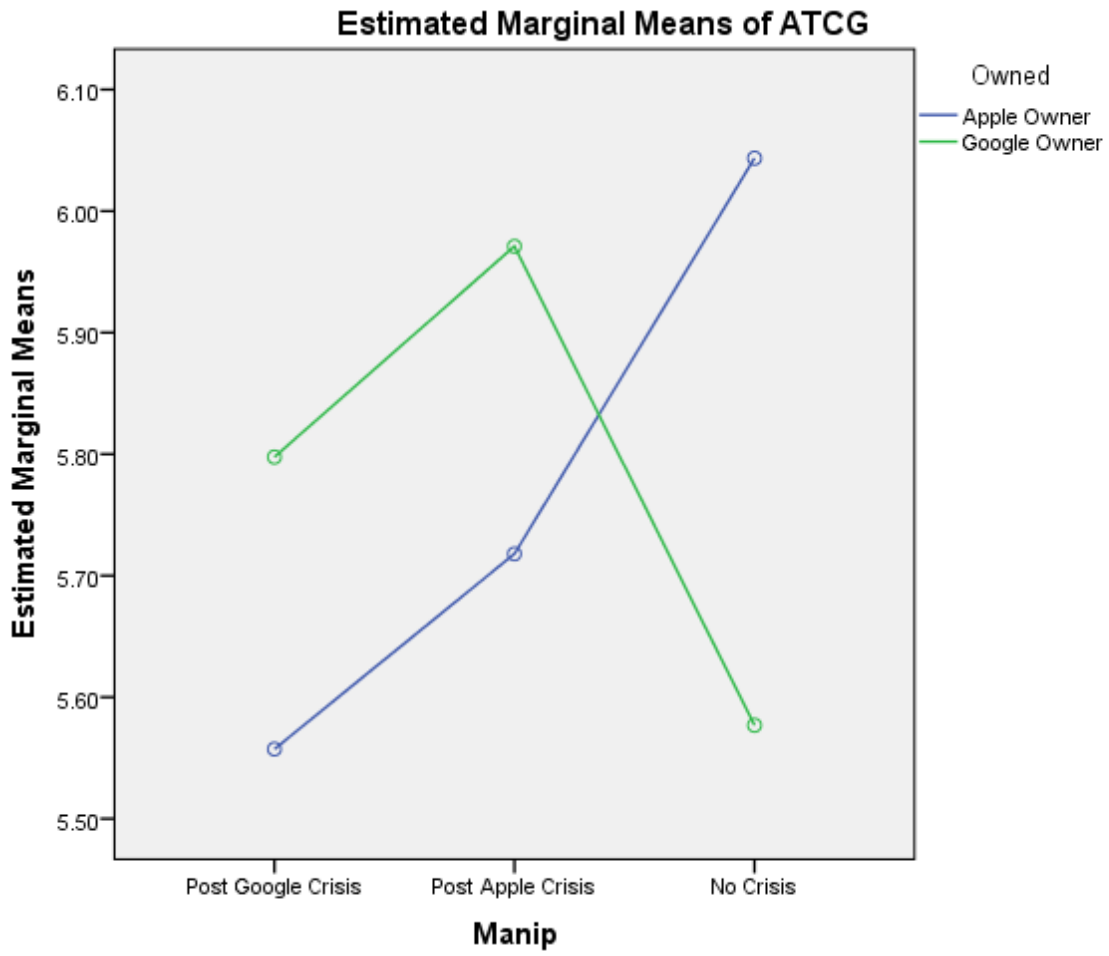
Table 19: Attitude Towards Company Google

Dependent Variable: Attitude Towards Company Google

Manip	Owned	Mean	Std. Deviation	N
Post Google Crisis	Apple Owner	5.55	.840	64
	Google Owner	5.79	1.089	28
	Total	5.63	.923	92
Post Apple Crisis	Apple Owner	5.71	.736	65
	Google Owner	5.97	.758	23
	Total	5.78	.746	88
No Crisis	Apple Owner	6.04	.851	69
	Google Owner	5.57	.780	26
	Total	5.91	.854	95
Total	Apple Owner	5.77	.833	198
	Google Owner	5.77	.902	77
	Total	5.77	.851	275

Eta Square = .051

Figure 10: Attitude Towards Company Google



Word of Mouth Apple

Of all the measures in this study, positive Word of Mouth Intentions towards Apple shows the pattern of data hypothesized in both Hypothesis 2 and 3, although the interaction term for Hypothesis 3 does not approach significance as closely as hoped. As with the other variables measured, there is a significant main effect of brand ownership ($F(1,275) = 73.37, p < .001$), with Apple owners rating their word of mouth intentions towards Apple significantly higher than the word of mouth intentions of Google owners.

The interaction between manipulation group and ownership is not significant ($F(2,275) = 2.08, p < .126$), but the data pattern is as hypothesized in Hypothesis 3. Across the crisis conditions there is virtually no difference in mean rating by Apple owners, yet for Google owners we see an elbow in the graph where they are exposed to the Apple crisis. While this result is not quite significant after controlling for the influence of ownership, the pattern hypothesized in Hypothesis 3 is present in the data. This difference in data patterns supports the idea that Apple owners will be less influence by an Apple crisis than Google owners.

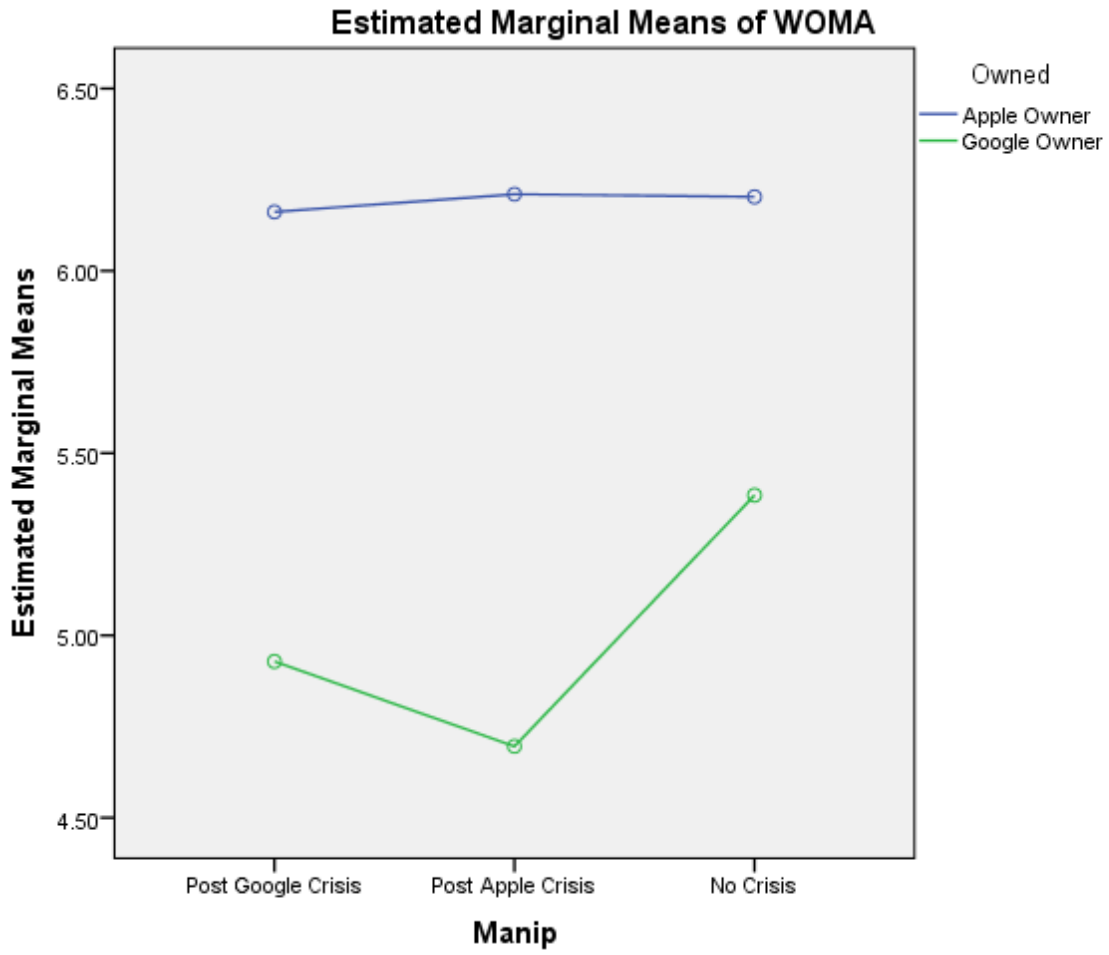
Table 20: Word of Mouth Apple

Dependent Variable: Word of Mouth Apple

Manip	Owned	Mean	Std. Deviation	N
Post Google Crisis	Apple Owner	6.16	.762	64
	Google Owner	4.93	1.595	28
	Total	5.79	1.218	92
Post Apple Crisis	Apple Owner	6.21	.809	65
	Google Owner	4.69	1.690	23
	Total	5.81	1.285	88
No Crisis	Apple Owner	6.20	.773	69
	Google Owner	5.38	1.180	26
	Total	5.97	.968	95
Total	Apple Owner	6.19	.778	198
	Google Owner	5.01	1.506	77
	Total	5.86	1.160	275

Eta Square = .226

Figure 11: Word of Mouth Apple



Word of Mouth Google

We again find strong support for Hypothesis 2, with brand ownership showing a main effect for Positive Word of Mouth Intentions towards Google ($F(2,275) = 70.110$, $p < .001$). In this case we find no support for Hypothesis 3, as Google owners did not show

a significantly larger negative response to the Google crisis than Apple owners following the Google crisis.

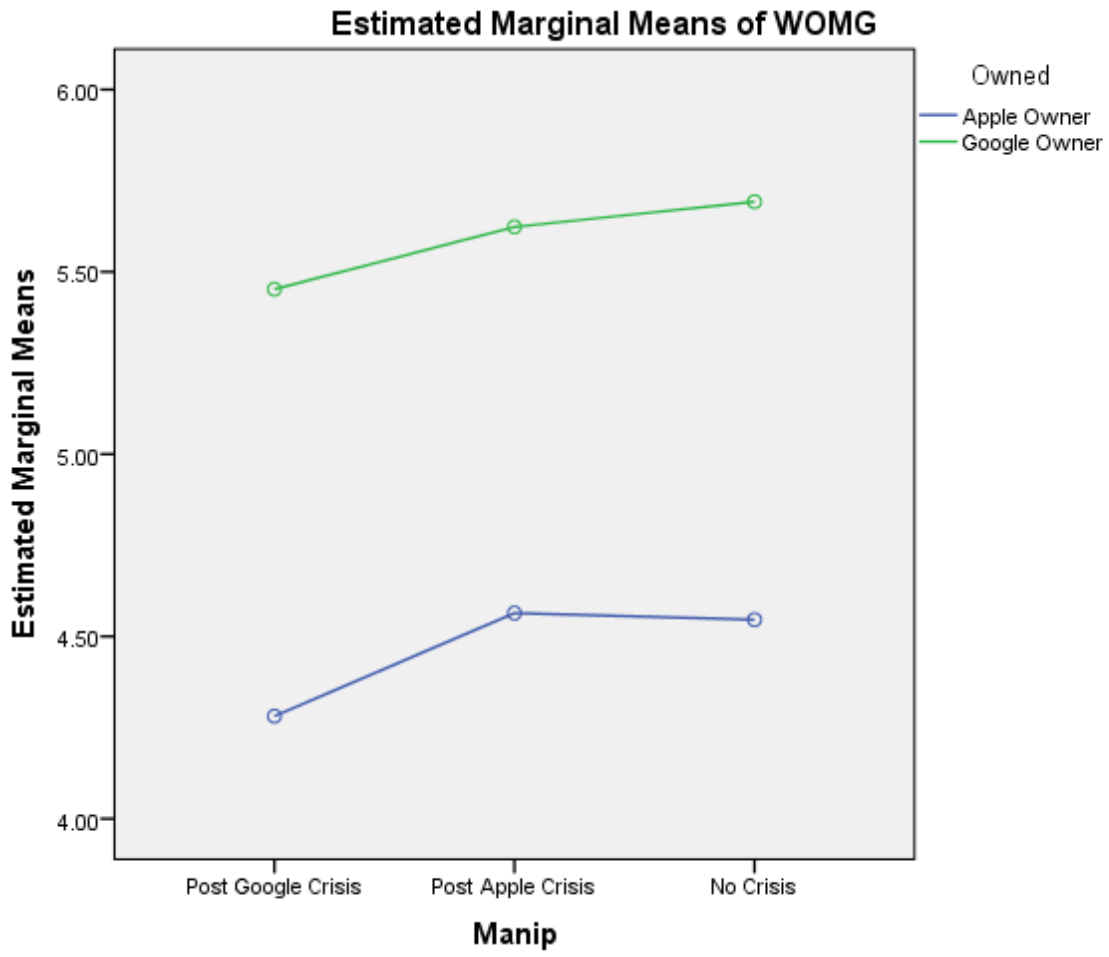
Table 21: Word of Mouth Google

Dependent Variable: Word of Mouth Google

Manip	Owned	Mean	Std. Deviation	N
Post Google Crisis	Apple Owner	4.28	.875	64
	Google Owner	5.45	.998	28
	Total	4.63	1.058	92
Post Apple Crisis	Apple Owner	4.56	1.027	65
	Google Owner	5.62	1.026	23
	Total	4.84	1.123	88
No Crisis	Apple Owner	4.54	1.041	69
	Google Owner	5.69	1.066	26
	Total	4.85	1.162	95
Total	Apple Owner	4.46	.989	198
	Google Owner	5.58	1.021	77
	Total	4.77	1.116	275

Eta Square = .215

Figure 12: Word of Mouth Google



Trust in Brand Apple

The pattern of support for Hypothesis 2 continues to hold when measuring Trust in Brand for Apple across the crisis conditions with a significant main effect of brand ownership ($F(1,275) = 37.42, p < .001$). As hypothesized, brand owners rated their brand significantly higher than non-owners. We again see a small dip in the data for Google owners compared to Apple owners when evaluating Hypothesis three, but the interaction term for ownership and manipulation condition is non-significant.

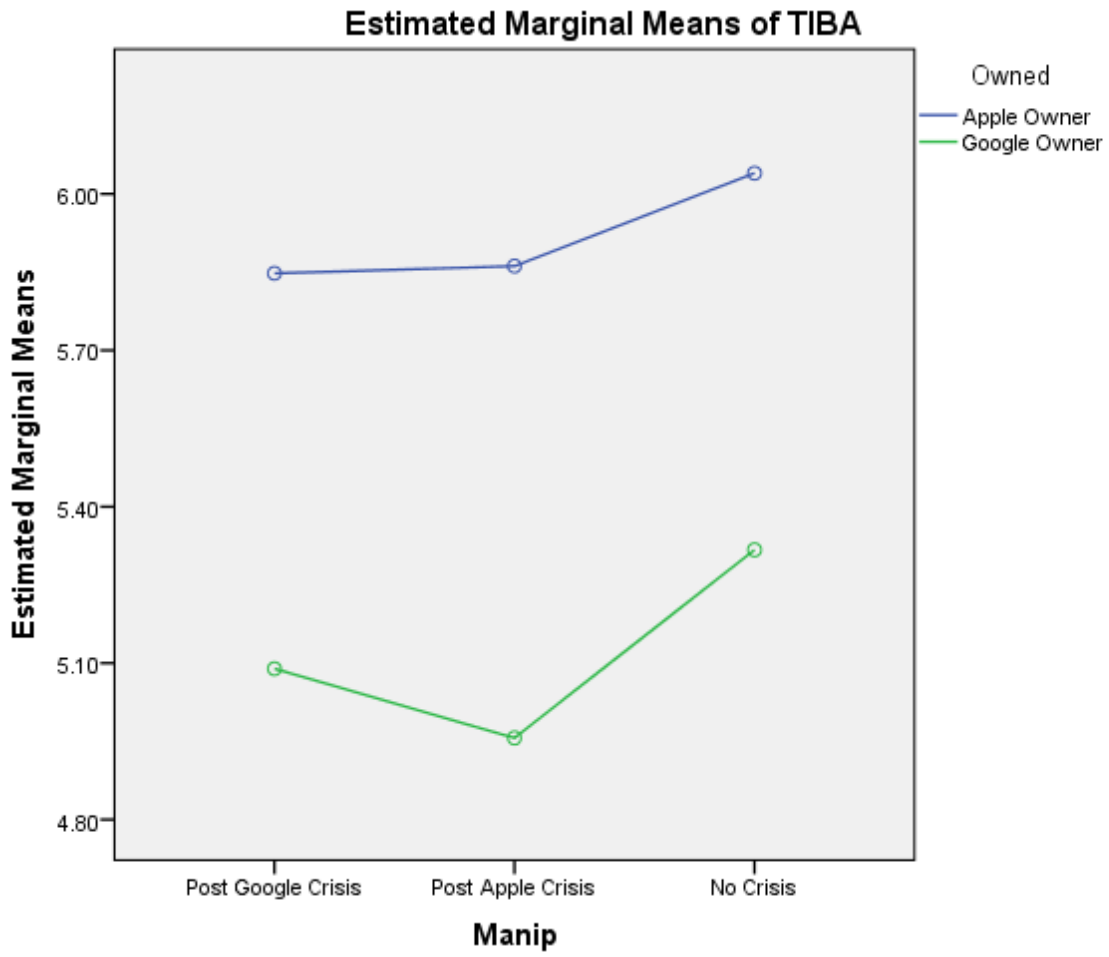
Table 21: Trust in Brand Apple

Dependent Variable: Trust in Brand Apple

Manip	Owned	Mean	Std. Deviation	N
Post Google Crisis	Apple Owner	5.84	.942	64
	Google Owner	5.08	1.147	28
	Total	5.61	1.062	92
Post Apple Crisis	Apple Owner	5.86	.851	65
	Google Owner	4.95	1.307	23
	Total	5.62	1.060	88
No Crisis	Apple Owner	6.03	.806	69
	Google Owner	5.31	1.117	26
	Total	5.84	.952	95
Total	Apple Owner	5.91	.867	198
	Google Owner	5.12	1.180	77
	Total	5.69	1.026	275

Eta Square = .132

Figure 13: Trust in Brand Apple



Trust in Brand Google

When evaluating respondents trust in the Google brand, there appears to be no support for either Hypothesis 2 or Hypothesis 3 as neither the main effect of ownership, nor the interaction between ownership and crisis manipulation is significant. All ratings for trust in the Google brand are within half a scale point of each other, but when analyzing the pattern of the data the results do mirror those of both Google Brand Equity and Attitude Towards Brand Google. In this case the largest difference in rating between Apple owners and Google owners comes following the Google crisis, with Google owners

rating their trust in the Google brand more highly than they did following the Apple crisis.

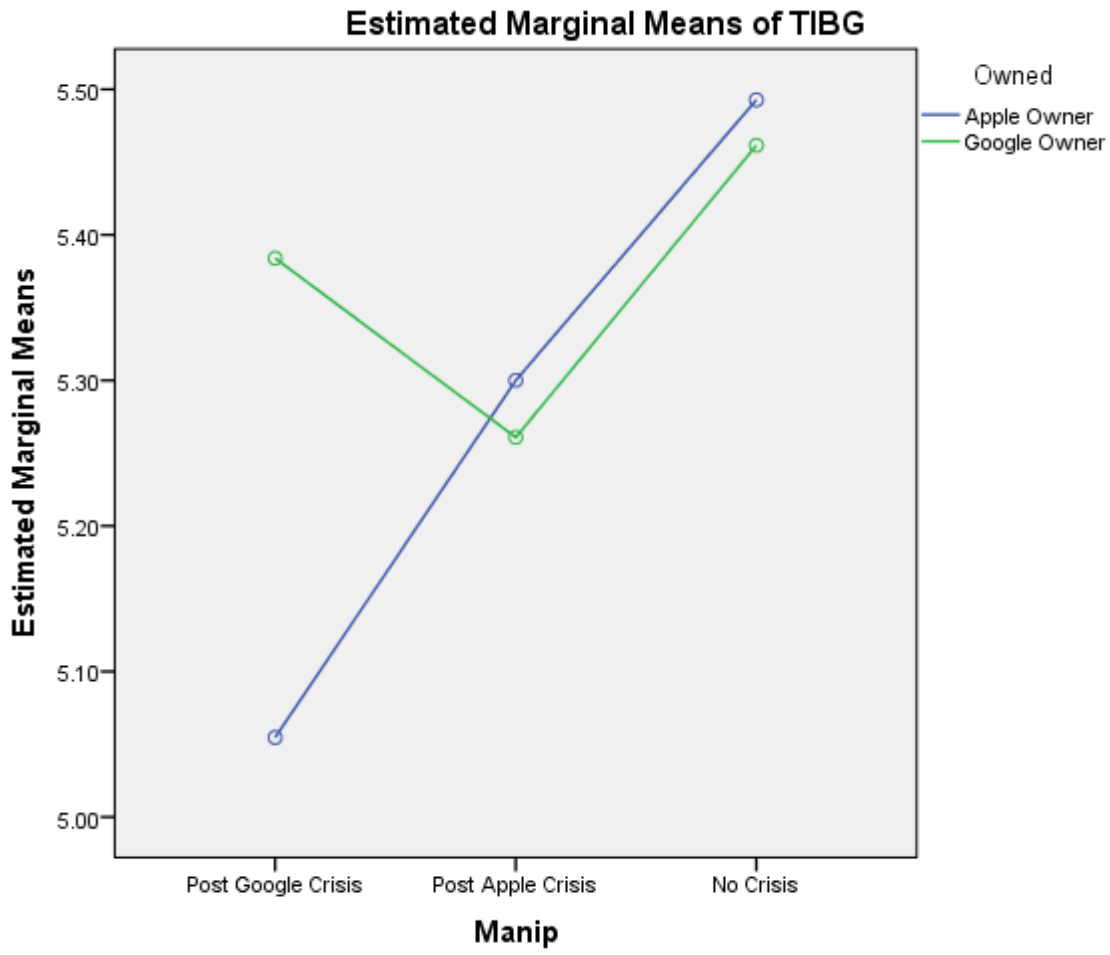
Table 22: Trust in Brand Google

Dependent Variable: Trust in Brand Google

Manip	Owned	Mean	Std. Deviation	N
Post Google Crisis	Apple Owner	5.05	.920	64
	Google Owner	5.38	1.021	28
	Total	5.15	.959	92
Post Apple Crisis	Apple Owner	5.30	.990	65
	Google Owner	5.26	1.018	23
	Total	5.28	.991	88
No Crisis	Apple Owner	5.49	.803	69
	Google Owner	5.46	1.217	26
	Total	5.48	.928	95
Total	Apple Owner	5.28	.919	198
	Google Owner	5.37	1.079	77
	Total	5.31	.965	275

Eta Square = .029

Figure 14: Trust in Brand Google



Trust in Organization Apple

Hypothesis 2 is again supported for the organizational trust measure for Apple, with a significant main effect of ownership ($F(1,275) = 17.352$, $p < .001$). Again, Apple owners rated Apple more highly than Google owners. There is no significant interaction term between brand ownership and manipulation condition, yet again we see the pattern where Google owners appear to have a slightly stronger negative reaction to the Apple crisis than Apple owners.

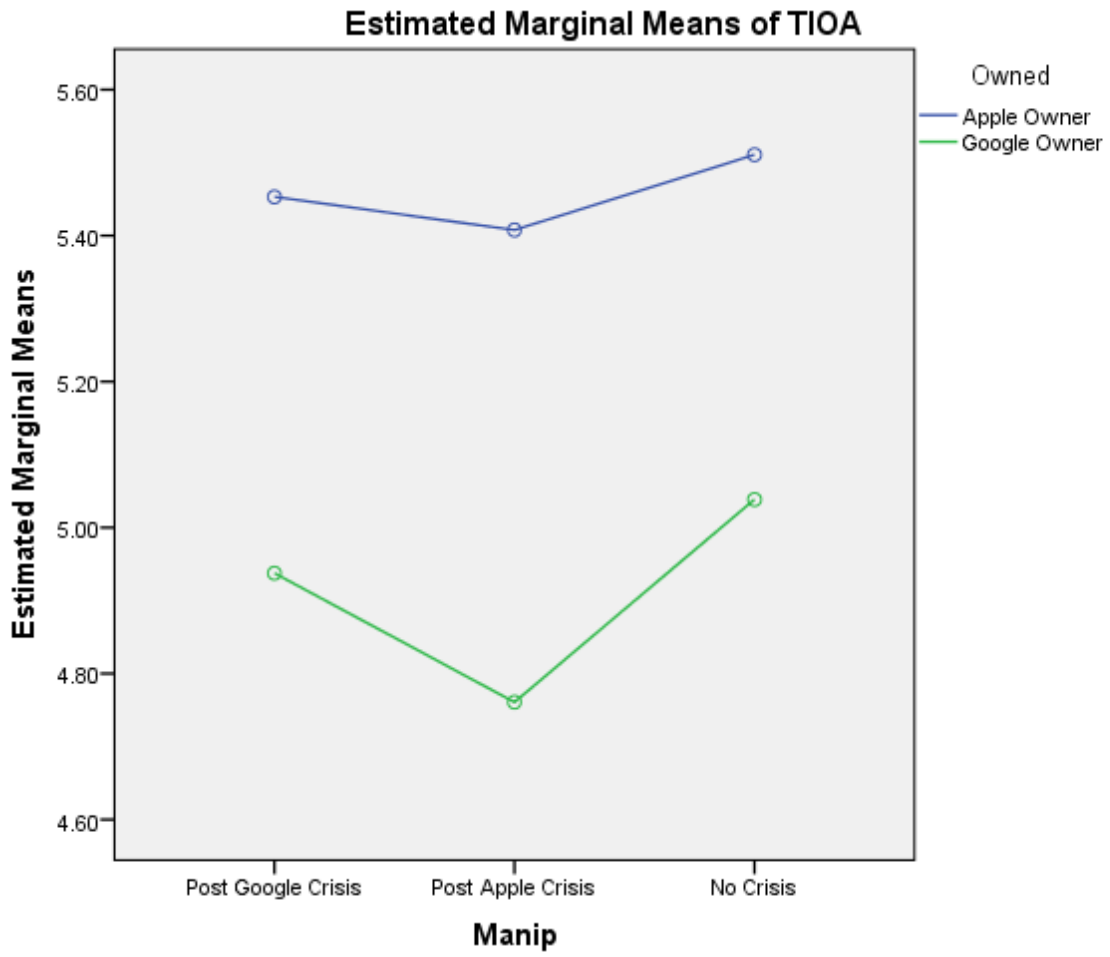
Table 23: Trust in Organization Apple

Dependent Variable: Trust in Organization Apple

Manip	Owned	Mean	Std. Deviation	N
Post Google Crisis	Apple Owner	5.45	.948	64
	Google Owner	4.93	1.216	28
	Total	5.29	1.058	92
Post Apple Crisis	Apple Owner	5.40	.802	65
	Google Owner	4.76	.998	23
	Total	5.23	.898	88
No Crisis	Apple Owner	5.51	.970	69
	Google Owner	5.03	1.097	26
	Total	5.38	1.022	95
Total	Apple Owner	5.45	.907	198
	Google Owner	4.91	1.105	77
	Total	5.30	.995	275

Eta Square = .064

Figure 15: Trust in Organization Apple



Trust in Organization Google

For Trust in Organization Google, we find no support for Hypothesis 2 or 3, with neither the main effect of ownership nor the interaction of ownership and manipulation condition showing a significant effect. Despite the lack of significant effects, we again see the data pattern where Google owners rate Google higher following the Google crisis; however this effect is quite small in this case.

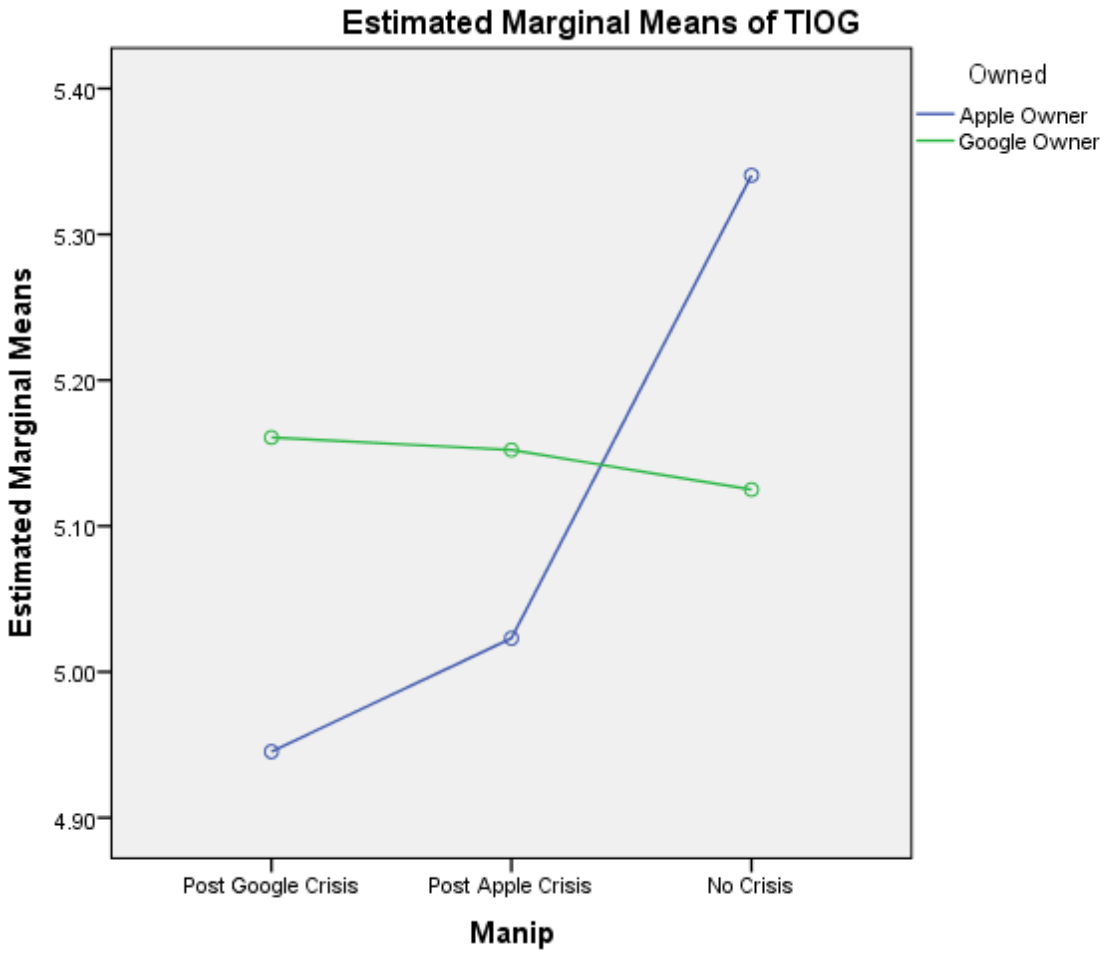
Table 24: Trust in Organization Google

Dependent Variable: Trust in Organization Google

Manip	Owned	Mean	Std. Deviation	N
Post Google Crisis	Apple Owner	4.94	.874	64
	Google Owner	5.16	1.023	28
	Total	5.01	.922	92
Post Apple Crisis	Apple Owner	5.02	.844	65
	Google Owner	5.15	.865	23
	Total	5.05	.846	88
No Crisis	Apple Owner	5.34	.879	69
	Google Owner	5.12	1.158	26
	Total	5.28	.962	95
Total	Apple Owner	5.10	.879	198
	Google Owner	5.14	1.014	77
	Total	5.11	.917	275

Eta Square = .026

Figure 16: Trust in Organization Google



Purchase Intentions Apple

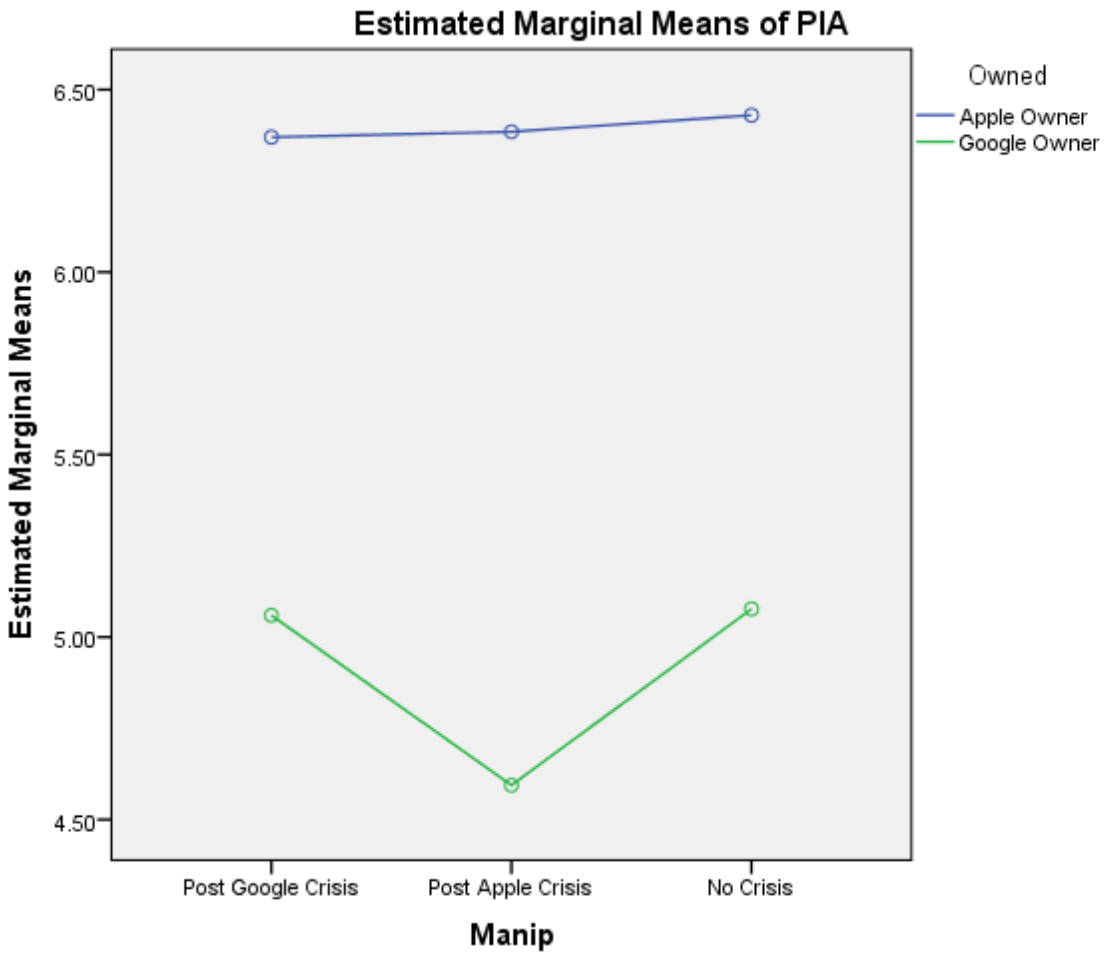
Hypothesis 2 is again supported for future purchase intentions towards Apple with a significant main effect of ownership ($F(1,275) = 113.661$, $p < .001$). Hypothesis 3 is not supported, with a non-significant interaction term; yet again we see the data pattern where Google owners show a dip in their rating of Apple following the Apple crisis condition that is not there for Apple owners.

Table 25: Purchase Intention Apple

Dependent Variable: Purchase Intention Apple

Manip	Owned	Mean	Std. Deviation	N
Post Google Crisis	Apple Owner	6.36	.765	64
	Google Owner	5.05	1.638	28
	Total	5.97	1.252	92
Post Apple Crisis	Apple Owner	6.38	.651	65
	Google Owner	4.59	1.639	23
	Total	5.91	1.271	88
No Crisis	Apple Owner	6.43	.723	69
	Google Owner	5.07	1.503	26
	Total	6.05	1.160	95
Total	Apple Owner	6.39	.711	198
	Google Owner	4.92	1.588	77
	Total	5.98	1.224	275
Eta Square = .300				

Figure 17: Future Purchase Intentions Apple



Purchase Intention Google

Hypothesis 2 is again supported, with a significant main effect of ownership in the hypothesized direction ($F(1,275) = 82.490$, $p < .001$). Hypothesis 3 is not supported here either, as there is no interaction between ownership group and manipulation condition.

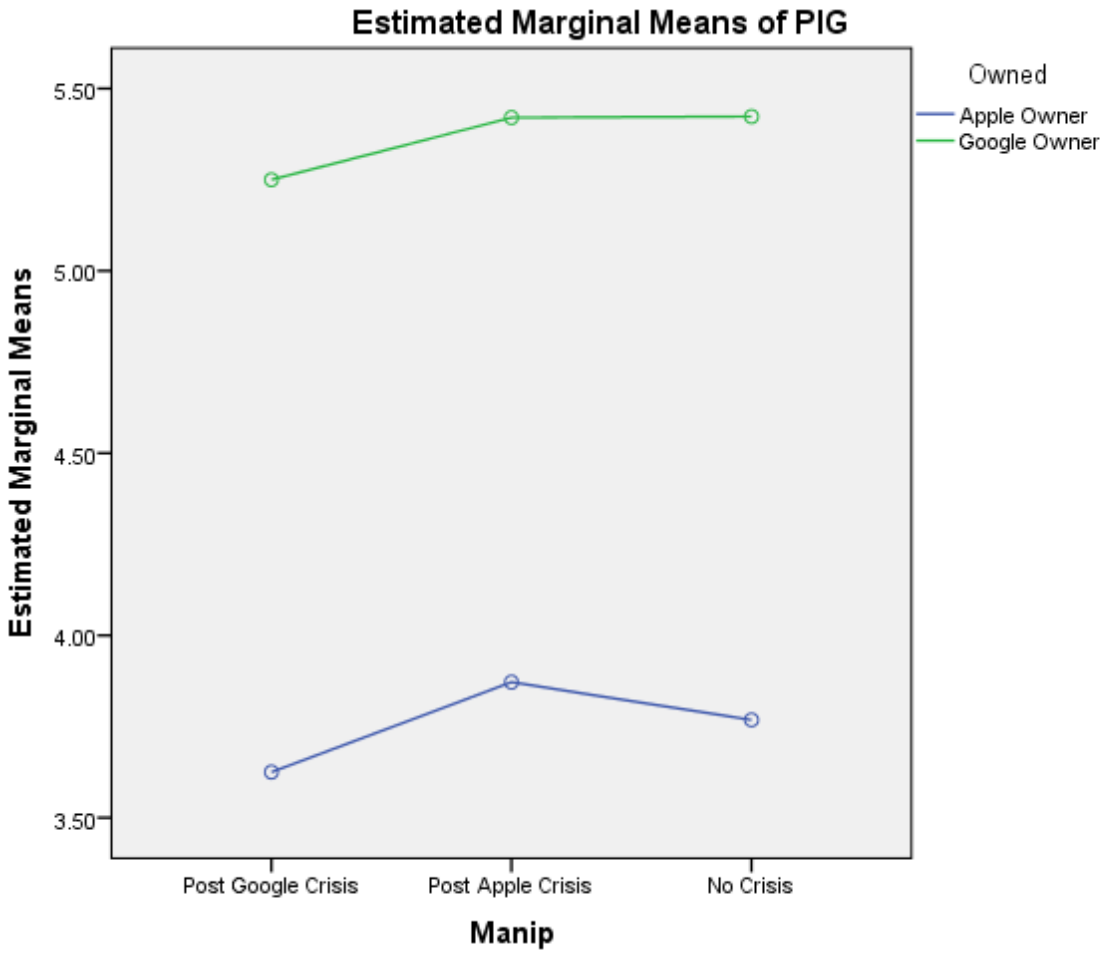
Table 26: Purchase Intention Google

Dependent Variable: Purchase Intention Google

Manip	Owned	Mean	Std. Deviation	N
Post Google Crisis	Apple Owner	3.62	1.370	64
	Google Owner	5.25	1.416	28
	Total	4.11	1.568	92
Post Apple Crisis	Apple Owner	3.87	1.370	65
	Google Owner	5.42	1.069	23
	Total	4.27	1.462	88
No Crisis	Apple Owner	3.76	1.252	69
	Google Owner	5.42	1.287	26
	Total	4.22	1.458	95
Total	Apple Owner	3.75	1.327	198
	Google Owner	5.35	1.263	77
	Total	4.20	1.493	275

Eta Square = .237

Figure 18: Future Purchase Intentions Google



Overall Results

Overall, the results of the ANOVA analysis show relatively strong support for Hypothesis 2, with significant main effects of ownership showing for 11 out of the 14 variables measured. Unfortunately, there does not appear to be strong support for Hypothesis 3. Only one variable (Word of Mouth Apple) came close to showing a significant interaction between ownership and crisis condition in the hypothesized direction, and for both Google Brand Equity and Attitude Towards Brand Google we find

a significant interaction, but opposite to Hypothesis 3. In these cases, we find that respondents actually show a positive reaction to crisis information, with Google owners rating their brand higher following the crisis condition than they did prior to exposure to crisis information. This may be the result of a self-protection response by consumers, and this possibility will be fleshed out more in the next chapter. A summary of all hypothesis tests for Hypothesis 2 and Hypothesis 3 is displayed in Table 27.

Table 27: Hypothesis Test Summary

Variable	**Hypothesis 2 (Main Effect of Ownership)**	**Hypothesis 3 (Ownership x Manipulation)**
Brand Equity Apple	Supported	Not Supported
Brand Equity Google	Supported	Marginally sig. Effect, Opposite of Hypothesis 3
Attitude Towards Brand Apple	Supported	Not Supported
Attitude Towards Brand Google	Supported	Significant Effect, Opposite of Hypothesis 3
Attitude Towards Company Apple	Supported	Not Supported
Attitude Towards Company Google	Not Supported	Not Supported, Significant Effect Driven by No Crisis Condition
Word of Mouth Apple	Supported	Weak Marginal Support
Word of Mouth Google	Supported	Not Supported
Trust in Brand Apple	Supported	Not Supported
Trust in Brand Google	Not Supported	Not Supported
Trust in Organization Apple	Supported	Not Supported
Trust in Organization Google	Not Supported	Not Supported
Purchase Intentions Apple	Supported	Not Supported

Purchase Intentions Google	Supported	Not Supported

Hypothesis 4

Hypothesis 4 states: Consumers with high Product Category Involvement will be have a less negative evaluation of a brand following a marketing crisis than those with low Product Category Involvement. In order to test Hypothesis 4, I performed a quartile split to categorize consumers with high product category involvement and low product category involvement. I then ran an ANOVA analysis comparing high category involvement and low category involvement consumers across each crisis condition. The ANOVA results following the Google crisis condition are shown in Table 28.

As shown in Table 28, following the Google crisis, the only Google outcome variables which show significant differences across crisis conditions are Attitude Towards the Company, and Trust in Brand. Despite only two outcomes showing a significant difference across the levels of involvement, both mean differences are in the direction hypothesized by Hypothesis 4. This general lack of mean differences provides only weak support for Hypothesis 4 in the Google condition.

Table 28: Involvement in Product Category Mean Differences (Google Crisis)

		N	Mean	Sig.
BEG	Low Category Involvement	24	3.10	.724
	High Category Involvement	38	3.22	
	Total	62	3.17	
ATBG	Low Category Involvement	24	5.02	.155
	High Category Involvement	38	5.40	
	Total	62	5.25	
ATCG	Low Category Involvement	24	5.08	.000
	High Category Involvement	38	6.10	
	Total	62	5.70	

WOMG	Low Category Involvement	24	4.73	.573
	High Category Involvement	38	4.92	
	Total	62	4.84	
TIBG	Low Category Involvement	24	4.96	.025
	High Category Involvement	38	5.55	
	Total	62	5.32	
TIOG	Low Category Involvement	24	4.71	.106
	High Category Involvement	38	5.15	
	Total	62	4.98	
PIG	Low Category Involvement	24	4.61	.647
	High Category Involvement	38	4.40	
	Total	62	4.48	

For the Apple condition an ANOVA analysis comparing high and low product category involvement consumers was then run, the results of which are shown in Table 29.

Table 29: Involvement in Product Category Mean Differences (Apple Crisis)

		N	Mean	Sig.
BEA	Low Category Involvement	25	3.82	.004
	High Category Involvement	32	5.06	
	Total	57	4.51	
ATBA	Low Category Involvement	25	5.50	.001
	High Category Involvement	32	6.31	
	Total	57	5.95	
ATCA	Low Category Involvement	25	5.48	.003
	High Category Involvement	32	6.32	
	Total	57	5.95	
WOMA	Low Category Involvement	25	5.25	.000
	High Category Involvement	32	6.53	
	Total	57	5.97	
TIBA	Low Category Involvement	25	5.25	.000

	High Category Involvement	32	6.32	
	Total	57	5.85	
TIOA	Low Category Involvement	25	4.88	.002
	High Category Involvement	32	5.63	
	Total	57	5.30	
PIA	Low Category Involvement	25	5.42	.001
	High Category Involvement	32	6.59	
	Total	57	6.08	

For the Apple crisis, we find that all measured outcome variables perform as hypothesized as shown in the mean differences in Table 29. The results from the Apple condition show strong support for Hypothesis 4, with high product category involvement consumers showing significantly higher evaluations of Apple than low product category involvement consumers following exposure to the crisis manipulation.

Overall, these results show moderate support for Hypothesis 4, but it appears the different brands in the experiment show different patterns of response among consumers. In order to check for differences related to brand ownership I took the initial step of running cross-tabulations to see the distribution of brand ownership among high and low category consumers across both crisis conditions. These results are displayed in Table 30 and Table 31.

Table 30: Involvement in Product Category Brand Ownership (Google Crisis)

		Percentile Group of IPC		
		Low Category Involvement	High Category Involvement	Total
	Apple Owner	11	26	37
	Google Owner	13	12	25
	Total	24	38	62

Table 31: Involvement in Product Category Brand Ownership (Apple Crisis)

		Percentile Group of IPC		
		Low Category Involvement	High Category Involvement	Total
Owned	Apple Owner	18	27	45
	Google Owner	7	5	12
Total		25	32	57

Based on the cross tabulations, it appears we have a situation where for the Google crisis condition, the majority of high involvement consumers are Apple owners, and a Chi-Square test of this response pattern shows a marginally significant result ($X^2 = 3.12$, $p < .067$). This pattern does not hold for the Apple crisis condition and where there is no significant relationship between brand ownership and product category involvment. This pattern of ownership across the different crisis conditions is likely a result of the distribution of phone ownership among the participants involved in this study. While not ideal for the testing of Hypothesis 4, this does suggest the potential for an interaction effect between product category involvement and brand ownership. To test this

interaction I ran ANOVA's for both the Google and the Apple crisis conditions comparing the main effects of ownership and product category involvement as well as the interaction effect of ownership x product category involvement on Brand Equity (BE), Attitude Towards the Brand (ATB), Attitude Towards the Company (ATC), Word of Mouth Intentions (WOM), Trust in Brand (TIB), Trust in the Organization (TIO), and Future Purchase Intentions (PI).

Apple Crisis Condition

The results for the Apple crisis condition mirrored those of previous hypothesis test, showing main effects for ownership and product category involvement, but no interaction between the two. As these main effects replicate results reported previously, only the mean plots are shown below. As with the above analyses, those in the Low Involvement group are from the lowest quartile of respondents while those in the High Involvement group are in the highest quartile of respondents to the variable Involvement in Product Category.

Figure 19: Brand Equity Apple

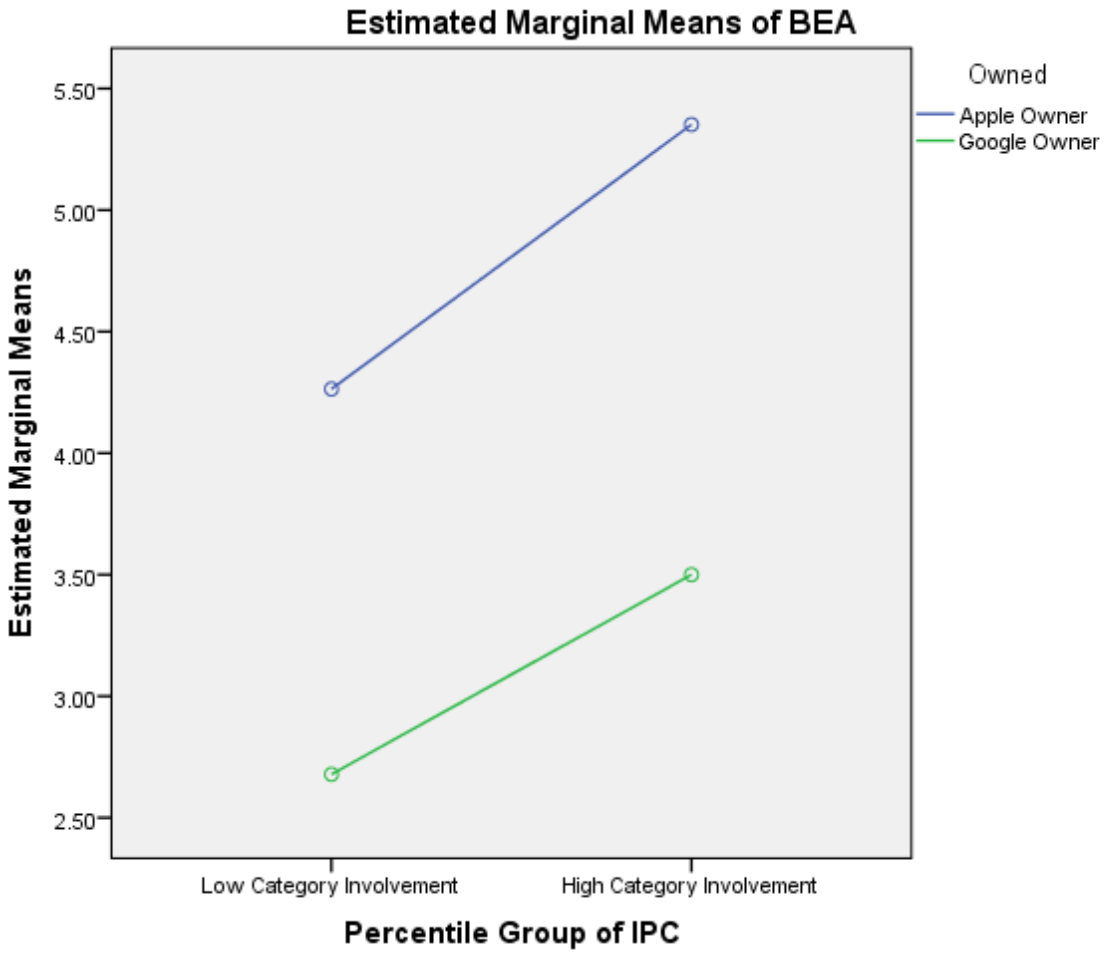


Figure 20: Attitude Towards Brand Apple

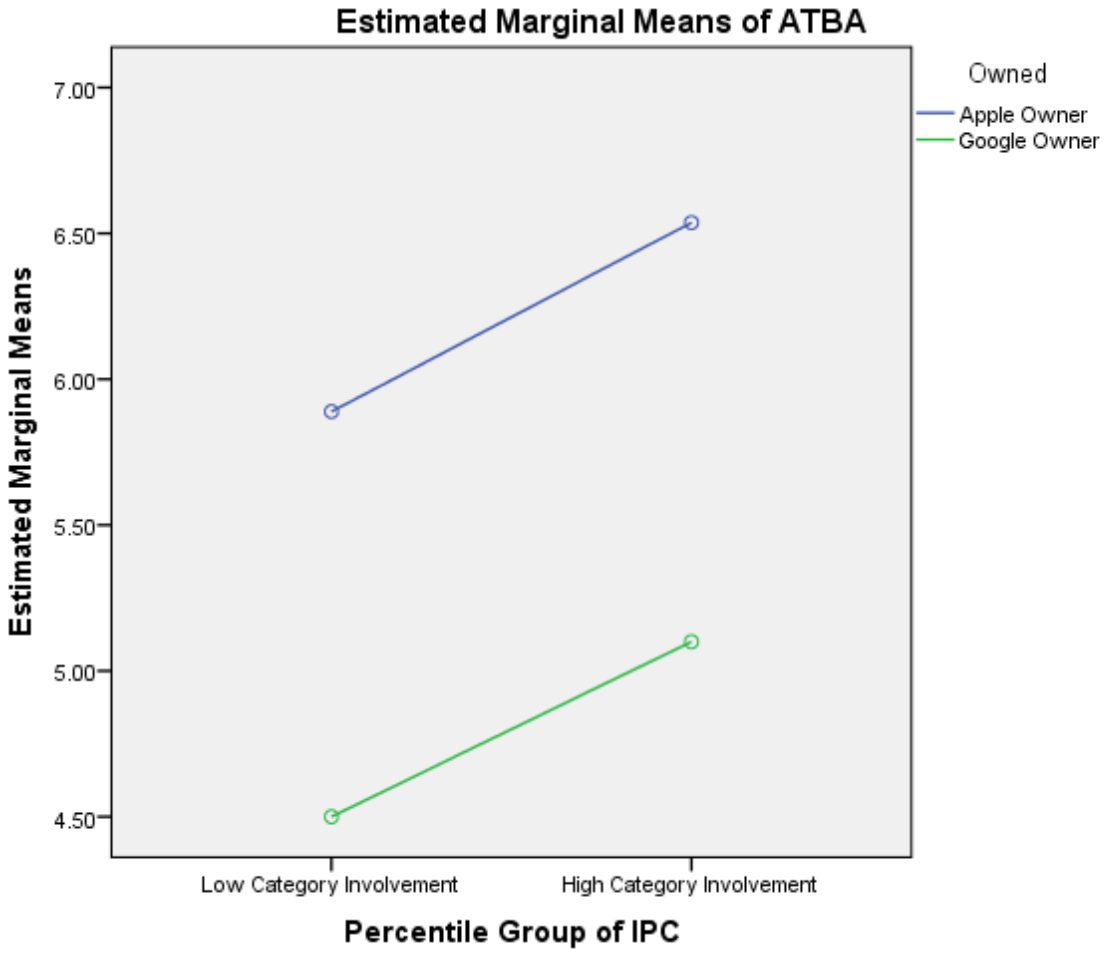


Figure 21: Attitude Towards Company Apple

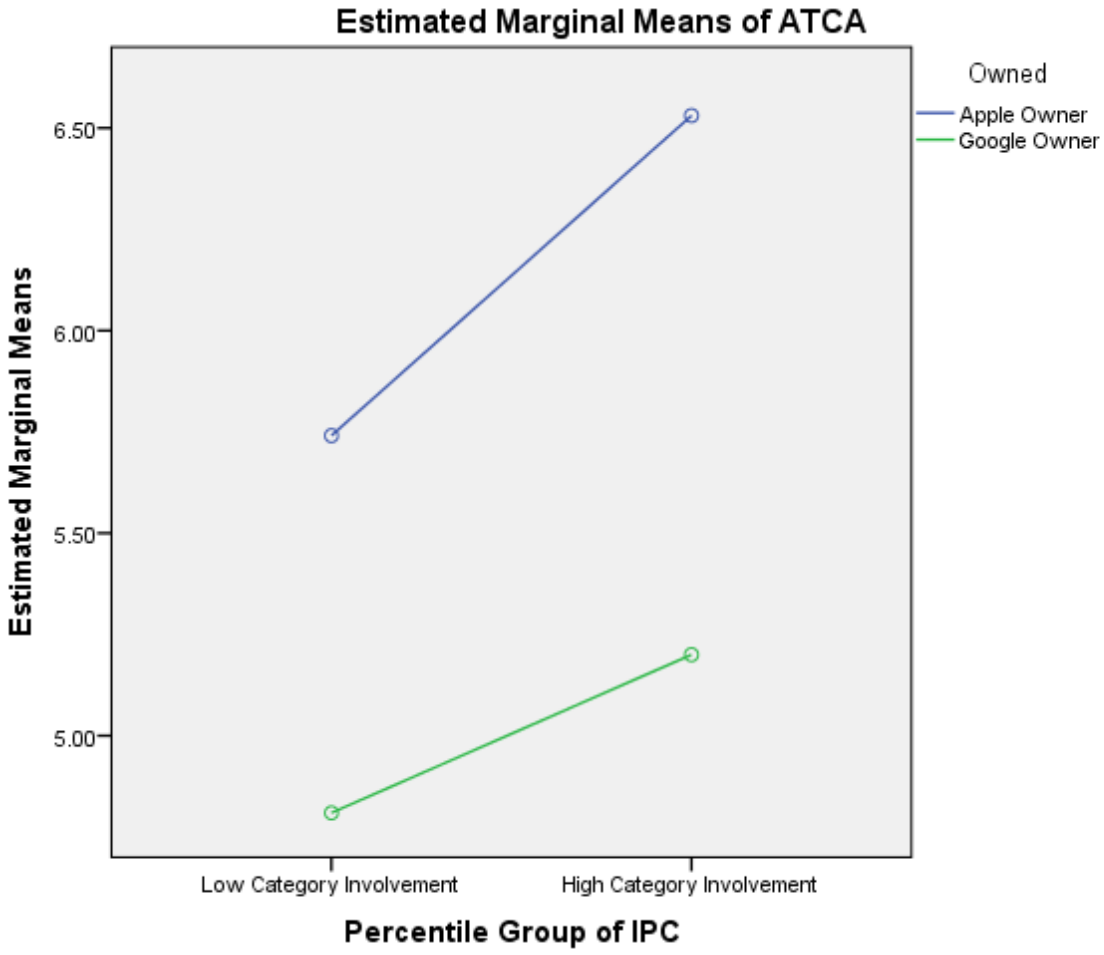


Figure 22: Word of Mouth Apple

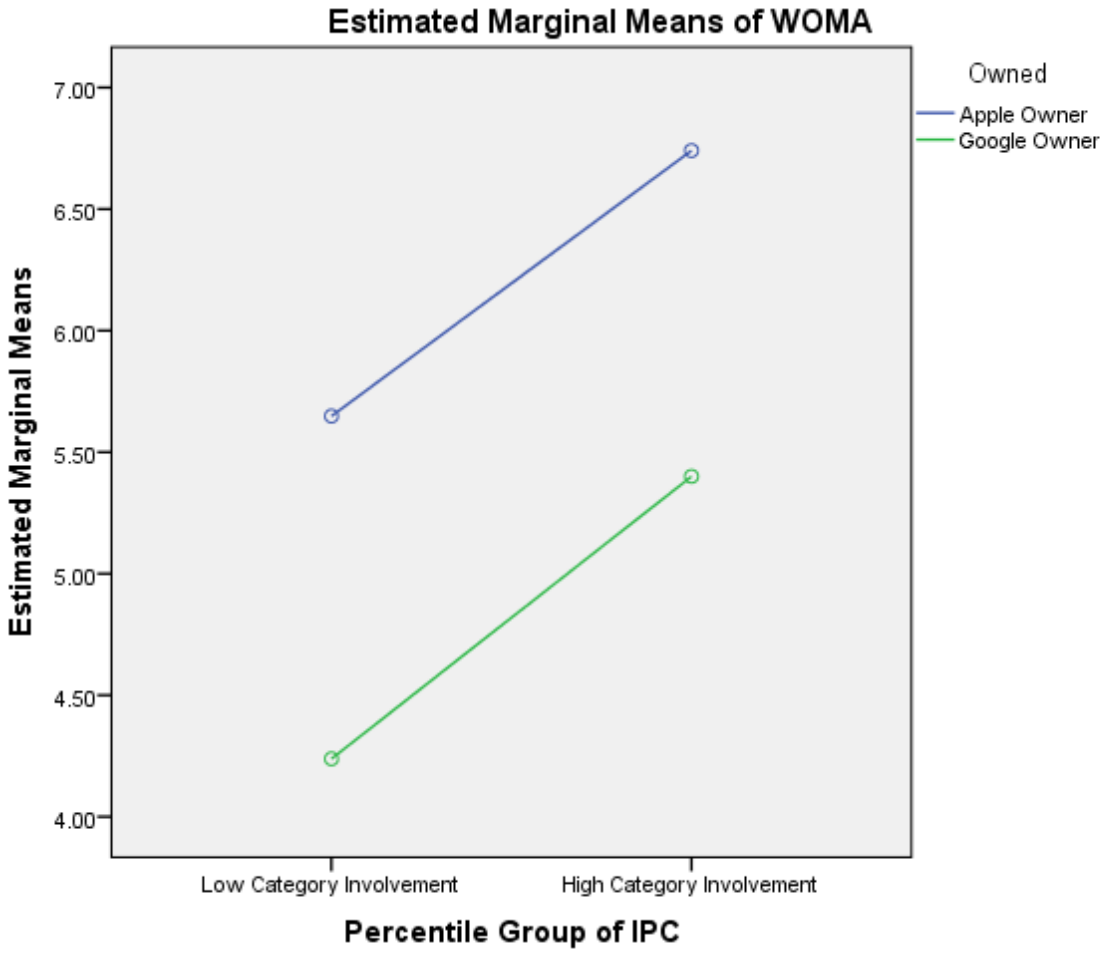


Figure 23: Trust in Brand Apple

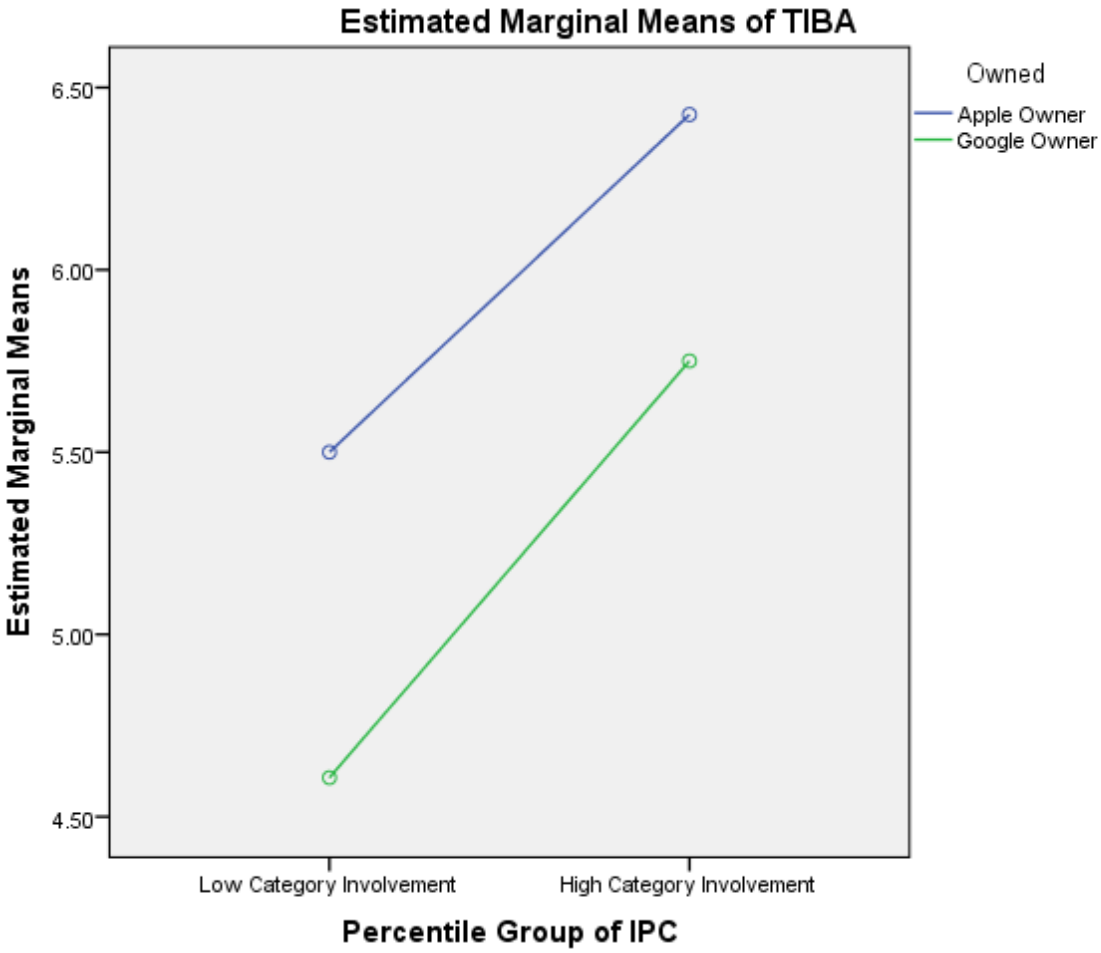


Figure 24: Trust in Organization Apple

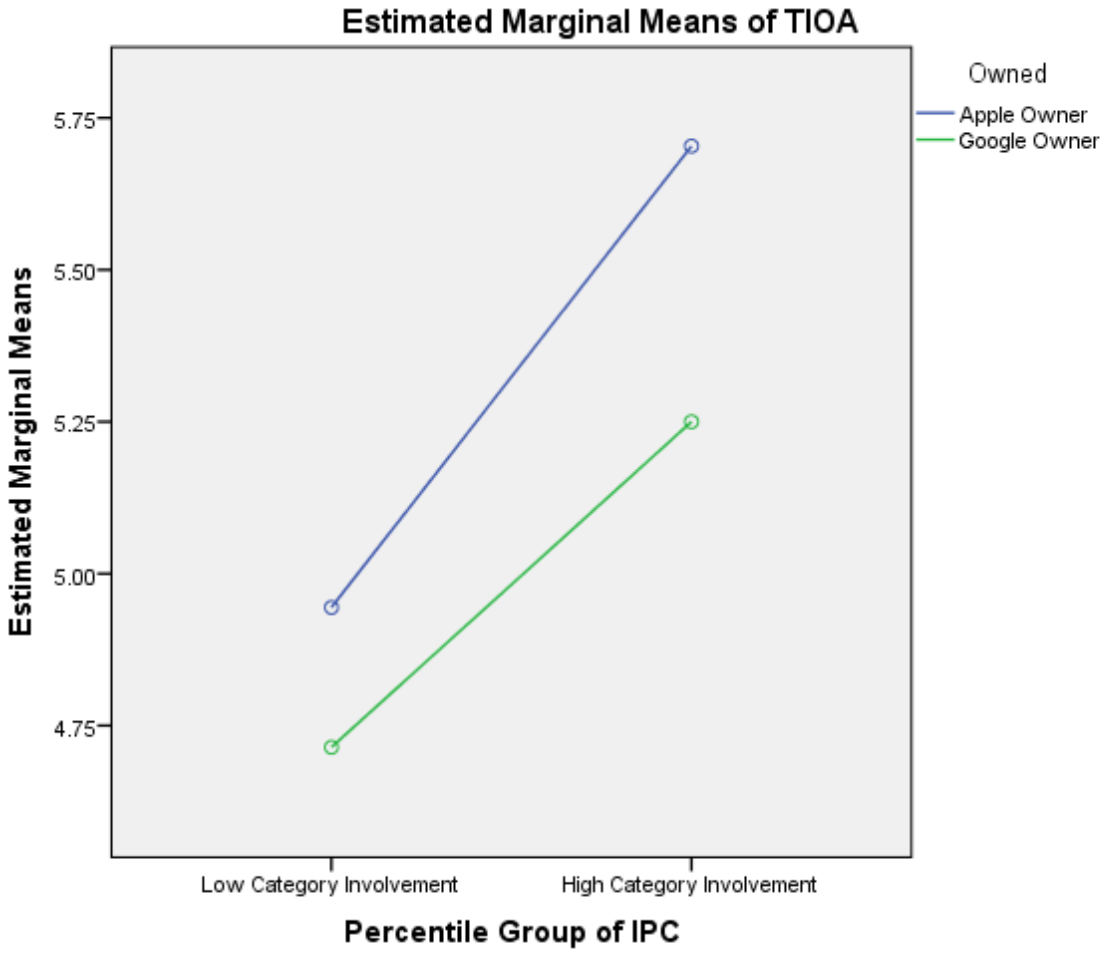
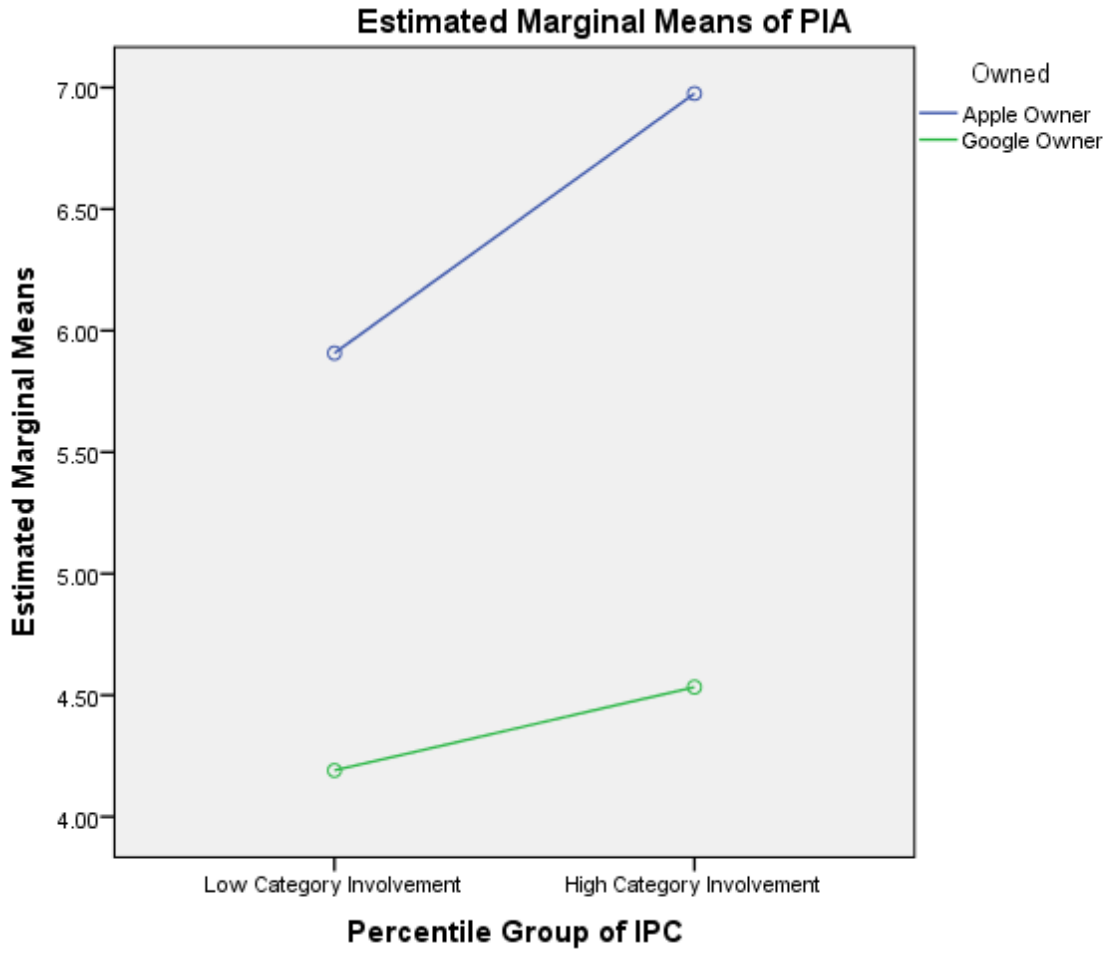


Figure 25: Purchase Intention Apple



The consistent nature of these results across all outcome variables lends significant support to Hypothesis 4.

Google Crisis Condition

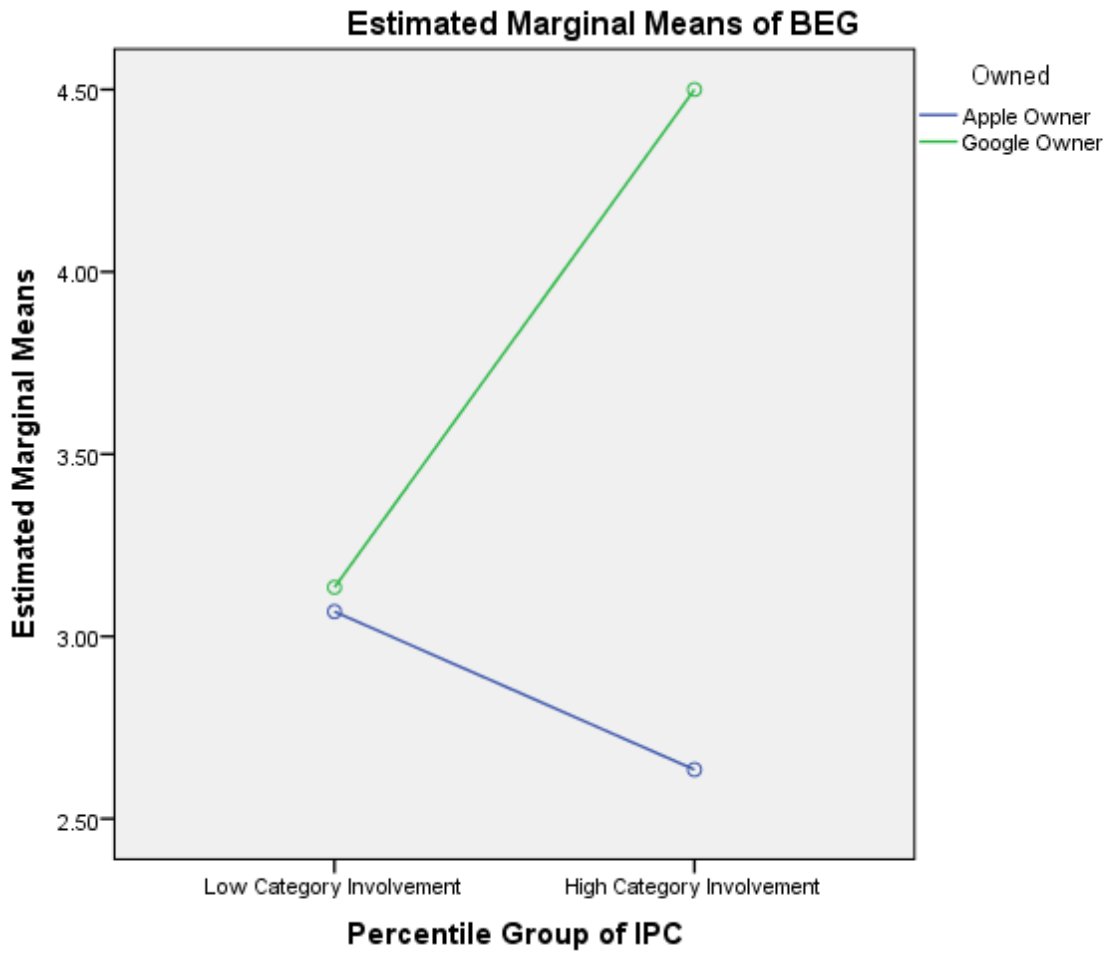
When the ANOVA test was applied to the Google crisis condition, a very different set of results appeared. The results for Brand Equity are shown below in Table 32 and Figure 26.

Table 32: Brand Equity Google

Dependent Variable: Brand Equity Google

Percentile Group of IPC	Owned	Mean	N
Low Category Involvement	Apple Owner	3.06	11
	Google Owner	3.13	13
	Total	3.10	24
High Category Involvement	Apple Owner	2.63	26
	Google Owner	4.50	12
	Total	3.22	38
Total	Apple Owner	2.76	37
	Google Owner	3.79	25
Eta Square = .288	Total	3.17	62

Figure 26: Brand Equity Google



When evaluating Brand Equity following the Google crisis condition, we do not find a significant main effect for Involvement in Product Category, but there was a significant main effect of ownership ($F(1,62) = 10.49$, $p < .002$) as well as a significant interaction effect for brand ownership and Involvement in Product Category ($F(1,62) = 9.10$, $p < .004$). These results show that following the Google Crisis manipulation there is virtually no difference in the Brand Equity rating for low involvement consumers regardless of which brand they own. When we compare those results to consumers who have high product category involvement, we see a different story. For Google owners, as hypothesized in Hypothesis 4, we see a significantly higher evaluation of Google's Brand

Equity post crisis for high involvement consumers who are Google owners compared to low involvement consumers who are Google owners. Here we also find that high involvement Apple owners decrease their evaluation of Google's Brand Equity following the Google crisis.

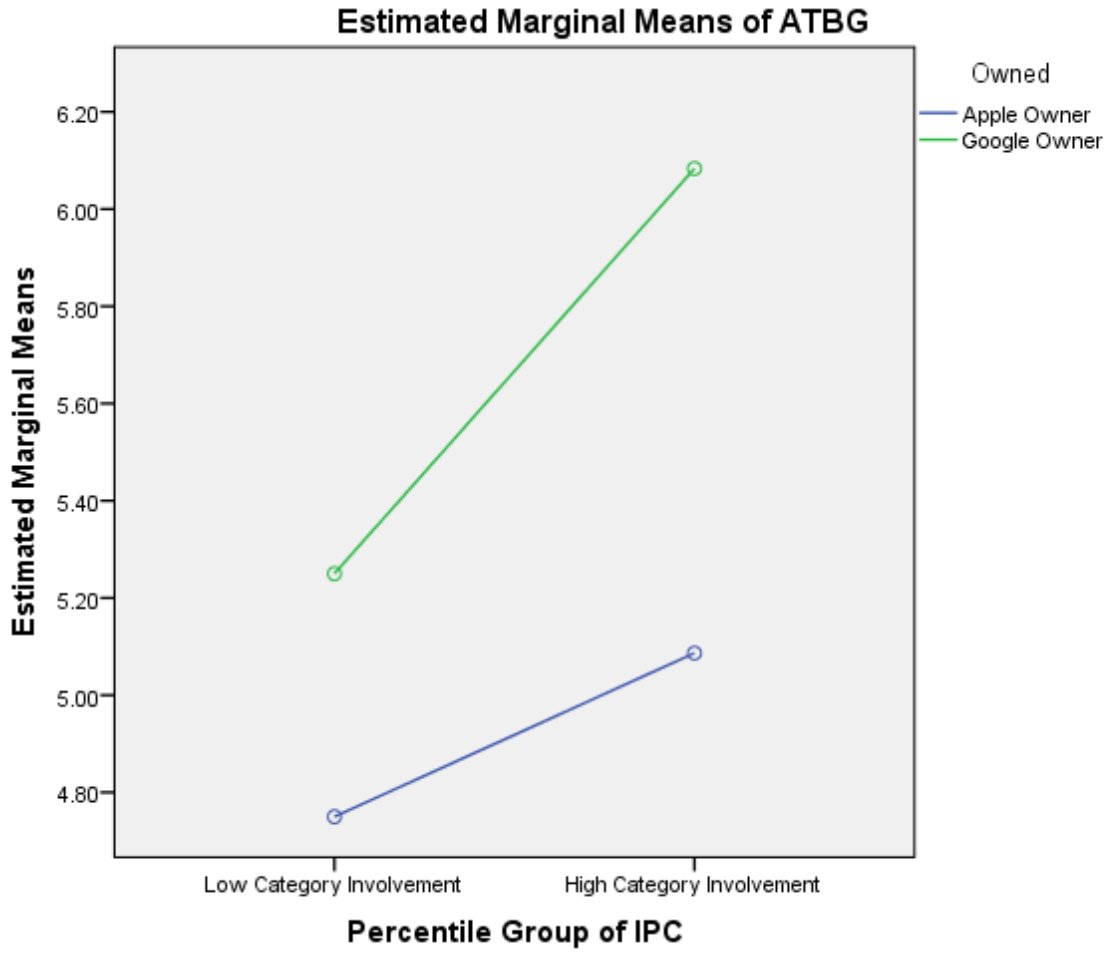
Attitude Towards Brand

In another departure from the initial ANOVA test, here we find a significant main effect of Involvement in Product Category when consumers evaluate their attitude toward the Google brand following a crisis ($F(1,62) = 5.27$, $p < .025$), and as shown in Hypothesis 2 we also find a significant main effect of brand ownership ($F(1,62) = 7.74$, $p < .005$). In this case there is NOT a significant interaction between ownership and product category involvement.

Table 33: Attitude Towards Brand Google

Percentile Group of IPC	Owned	Mean	N
Low Category Involvement	Apple Owner	4.75	11
	Google Owner	5.25	13
	Total	5.02	24
High Category Involvement	Apple Owner	5.08	26
	Google Owner	6.08	12
	Total	5.40	38
Total	Apple Owner	4.98	37
	Google Owner	5.65	25
Eta Square = .185	Total	5.25	62

Figure 27: Attitude Towards Brand Google



Attitude Towards Company

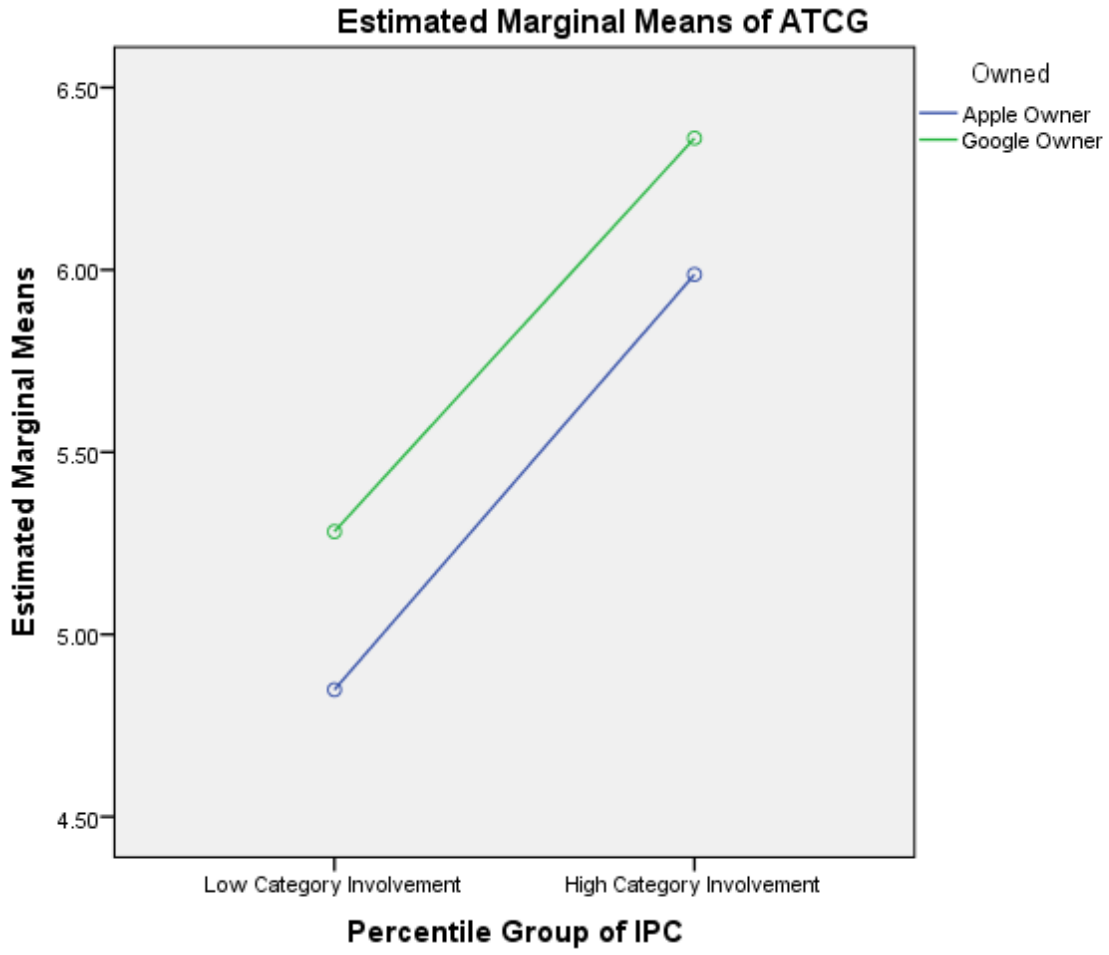
When evaluating the participant's evaluation of the company as a whole (Attitude Towards Company – Google) we find that there is only a main effect of product category involvement (as shown in the initial ANOVA test for Hypothesis 4). For Attitude Towards the Company Google we find no main effect of ownership suggesting that when evaluating the company as a whole, Apple and Google smartphone owners do not significantly vary following exposure to a crisis manipulation. This makes sense as all participants in the sample (student sample) likely have a large amount of experience with

Google as a company outside of the smartphone domain. The results of the ANOVA are shown in Table 34 and Figure 28.

Table 34: Attitude Towards Company Google

Percentile Group of IPC	Owned	Mean	N
Low Category Involvement	Apple Owner	4.84	11
	Google Owner	5.28	13
	Total	5.08	24
High Category Involvement	Apple Owner	5.98	26
	Google Owner	6.36	12
	Total	6.10	38
Total	Apple Owner	5.64	37
	Google Owner	5.80	25
Eta Square = .261	Total	5.70	62

Figure 28: Attitude Towards Company Google



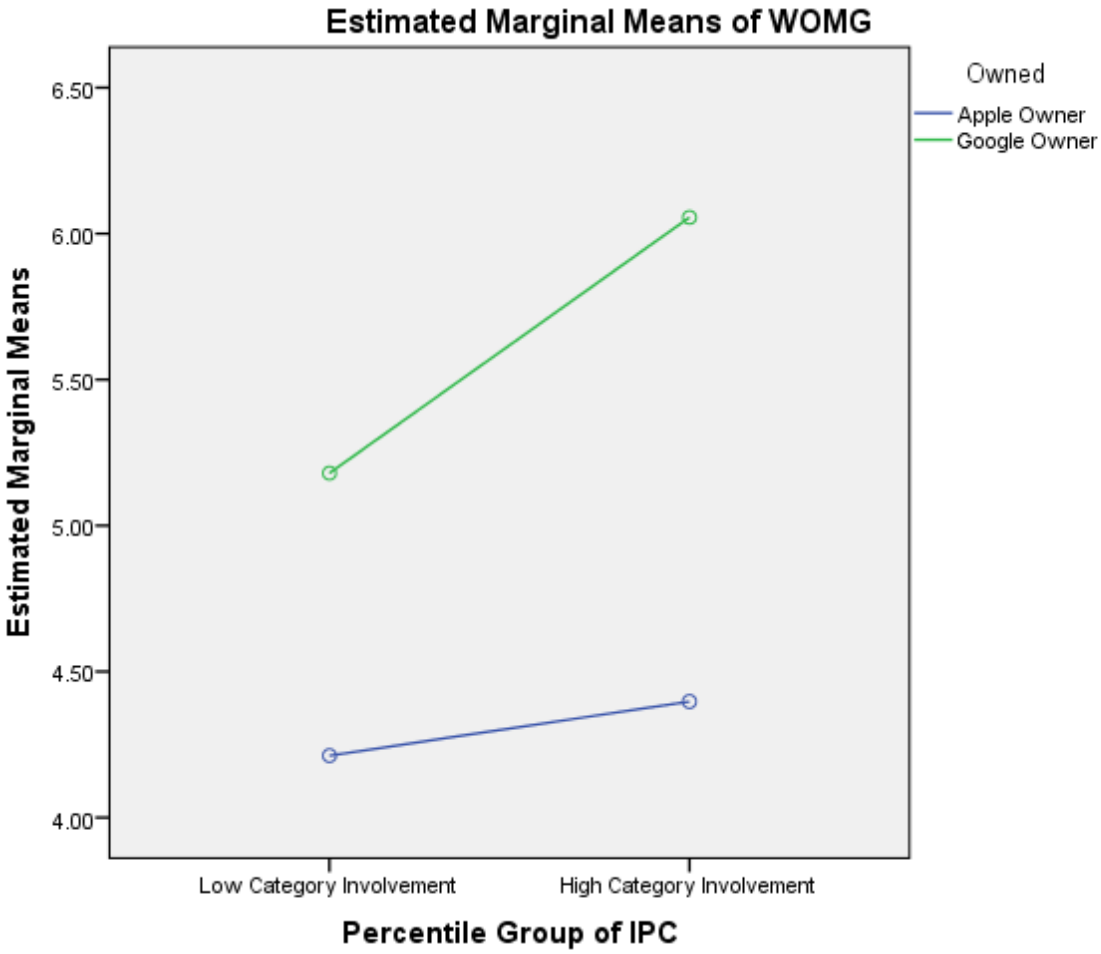
Word of Mouth

For Word of Mouth intentions following the Google crisis condition, we now find a marginally significant main effect of Involvement in Product Category ($F(1,62) = 3.42$, $p < .069$) as well as a significant main effect of ownership. Here we also find no interaction between ownership and product category involvement.

Table 35: Word of Mouth Google

Percentile Group of IPC	Owned	Mean	N
Low Category Involvement	Apple Owner	4.21	11
	Google Owner	5.17	13
	Total	4.73	24
High Category Involvement	Apple Owner	4.39	26
	Google Owner	6.05	12
	Total	4.92	38
Total	Apple Owner	4.34	37
	Google Owner	5.60	25
Eta Square = .303	Total	4.84	62

Figure 29: Word of Mouth Google



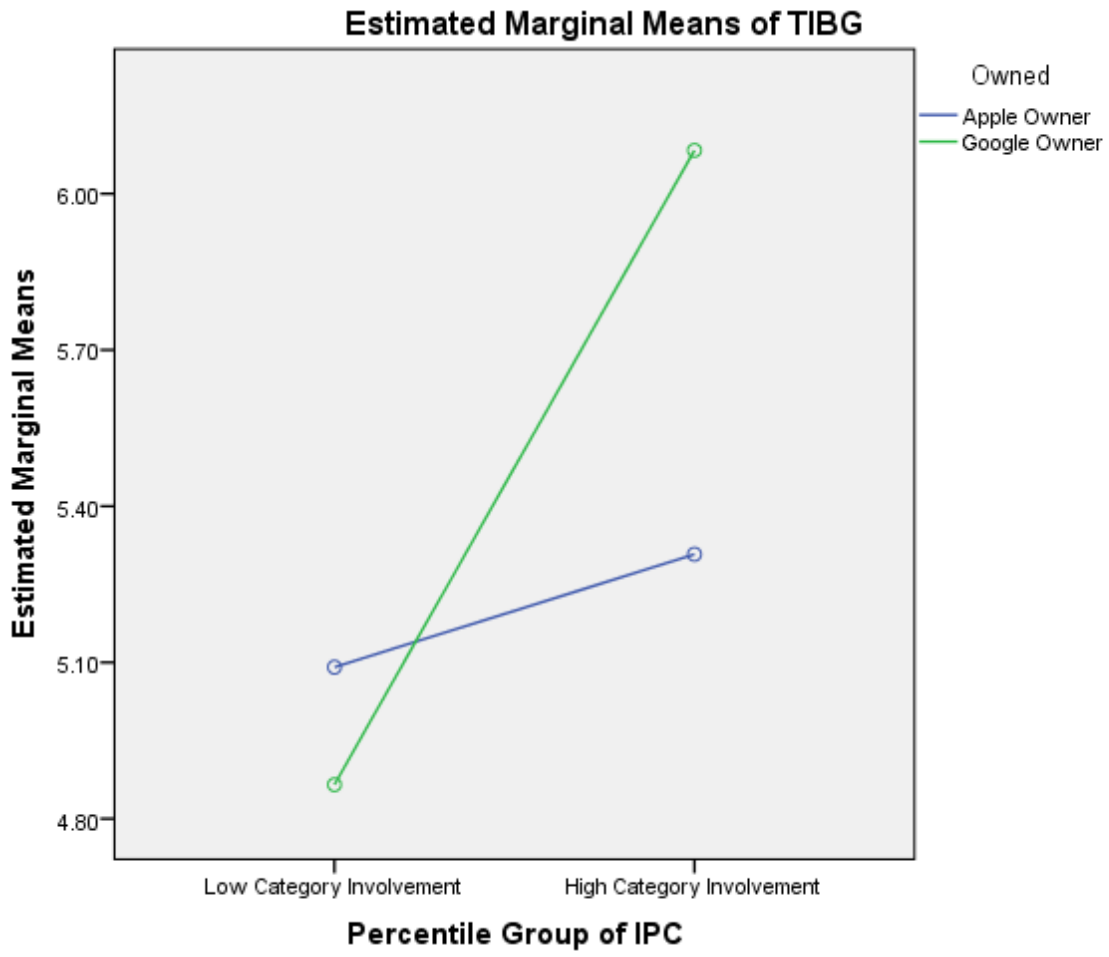
Trust in Brand

As with the initial ANOVA test, we still find a significant main effect of Involvement in Product Category on a respondents post-crisis trust in the Google Brand ($F(1,62) = 7.92$ $p < .007$). As visible in Table 36 and Figure 30, we find a situation where the main effect of ownership is not significant, yet there is a significant interaction between brand ownership and product category involvement ($f(1,62) = 3.85$, $p < .054$). The results show that following a Google crisis, high involvement Google owners have a much higher trust in the Google brand than low involvement consumers. These results provide additional support for Hypothesis 4.

Table 36: Trust in Brand Google

Percentile Group of IPC	Owned	Mean	N
Low Category Involvement	Apple Owner	5.09	11
	Google Owner	4.86	13
	Total	4.96	24
High Category Involvement	Apple Owner	5.30	26
	Google Owner	6.08	12
	Total	5.55	38
Total	Apple Owner	5.24	37
	Google Owner	5.45	25
Eta Square = .165	Total	5.32	62

Figure 30: Trust in Brand Google



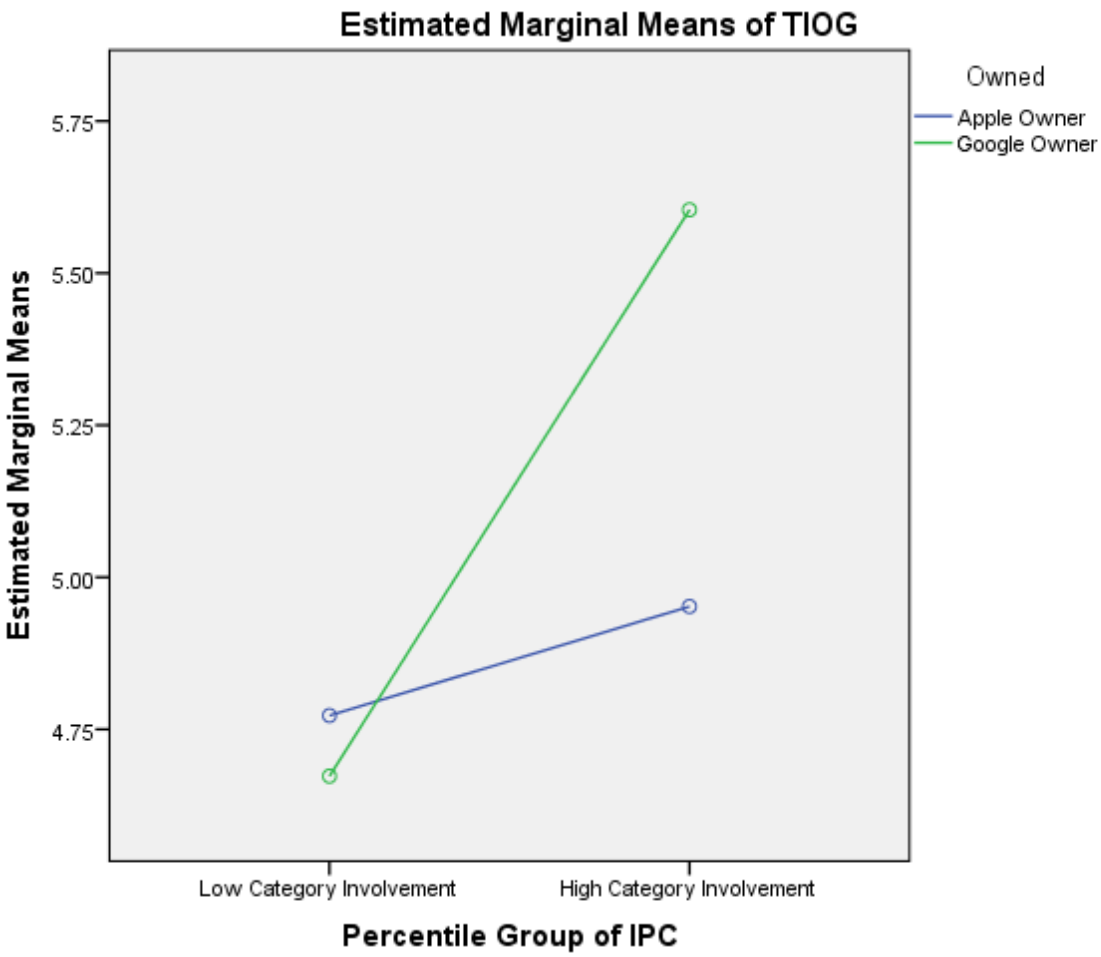
Trust in Organization

For the Google crisis, we again see a departure from the original ANOVA for hypothesis 4 with a significant main effect for Involvement in Product Category ($F(1,62) = 4.15$, $p < .046$). For the Trust in Organization outcome there is not a significant main effect of ownership, or an interaction between ownership and a consumer's product category involvement.

Table 37: Trust In Organization Google

Percentile Group of IPC	Owned	Mean	N
Low Category Involvement	Apple Owner	4.77	11
	Google Owner	4.67	13
	Total	4.71	24
High Category Involvement	Apple Owner	4.95	26
	Google Owner	5.60	12
	Total	5.15	38
Total	Apple Owner	4.89	37
	Google Owner	5.12	25
Eta Square = .097	Total	4.98	62

Figure 31: Trust in Organization Google



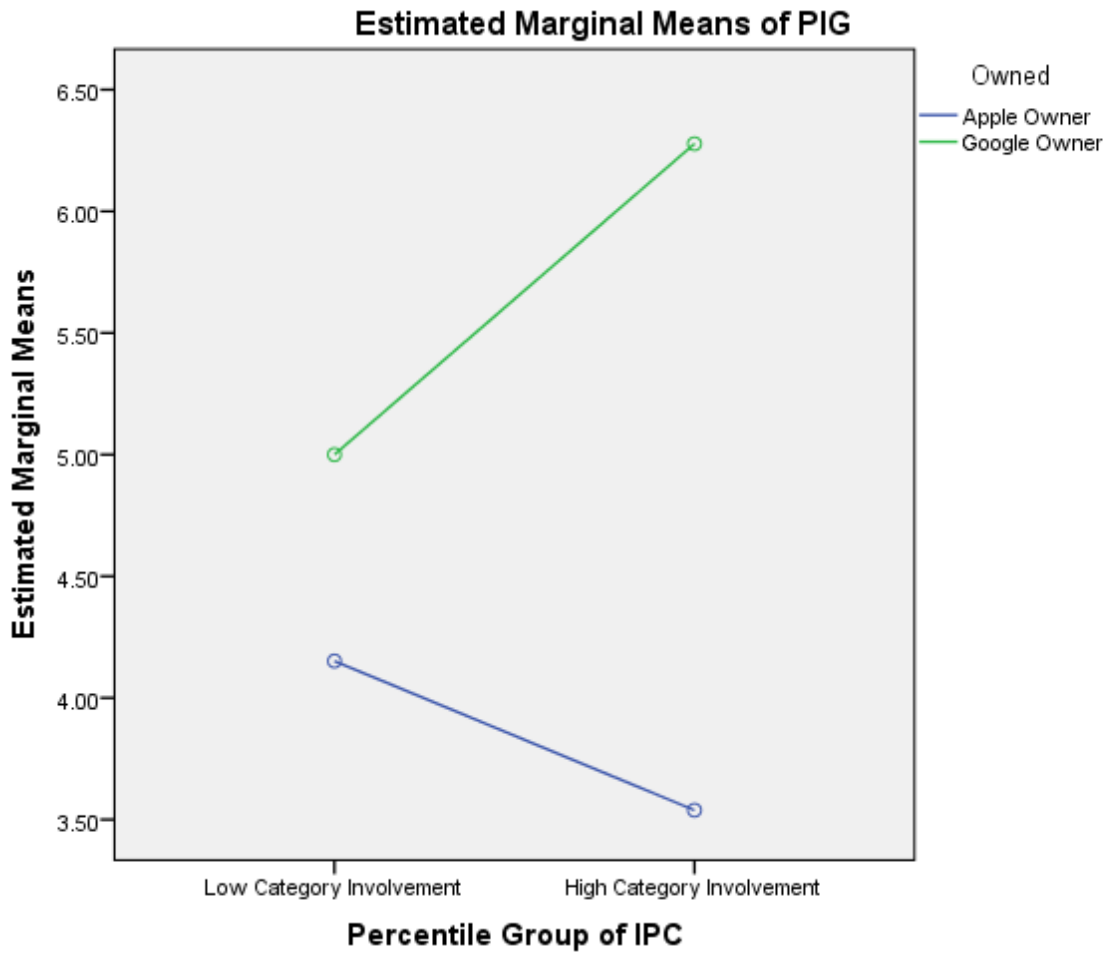
Future Purchase Intention

When analyzing Future Purchase Intentions following the Google crisis, we again see the pattern where there is no significant main effect of product category involvement, but there is a significant interaction between product category involvement and brand ownership ($F(1,62) = 6.27$, $p < .015$). As with Brand Equity, high involvement Google owners show a significantly higher Future Purchase Intention than low involvement owners.

Table 38: Purchase Intentions Google

Percentile Group of IPC	Owned	Mean	N
Low Category Involvement	Apple Owner	4.1515	11
	Google Owner	5.0000	13
	Total	4.6111	24
High Category Involvement	Apple Owner	3.5385	26
	Google Owner	6.2778	12
	Total	4.4035	38
Total	Apple Owner	3.7207	37
	Google Owner	5.6133	25
Eta Square = .368	Total	4.4839	62

Figure 32: Purchase Intentions Google



Overall, the results for Hypothesis 4 are mixed. When simply evaluating Product Category Involvement, we find the hypothesized outcomes following the Apple crisis, but not the Google crisis. Further evaluation of these results reveals that the influence of brand ownership may have been masking some of the influence of product category involvement for the Google crisis condition. Despite relatively low numbers of Google owners in the Apple crisis condition, we appear to have identified a conditional effect of product category involvement on how consumers process marketing crises. When evaluating the Apple brand following an Apple crisis, it appears that product category

involvement had a simple main effect where high involvement consumers were showed higher evaluations of the brand than low involvement consumers. Following the Google crisis, it appears that the protective effects of high category involvement do not extend to individuals who do not own the brand involved in the crisis. In several cases, we see high involvement Google owners showing the expected high evaluations of Google, but we do not see that influence for high involvement Apple owners. This finding will be discussed in further detail in Chapter 5.

Hypotheses 5

Hypothesis 5 states: Increases in perceptions of an environmental causal locus for a crisis will be associated with higher levels of brand equity. In this case, I labeled the locus variable Cause, and as it increases consumers show a more environmental locus for the cause of the crisis. A reliability analysis of Cause shows a Cronbach's alpha of .792 for the Apple crisis condition and .824 for the Google crisis condition.

For Brand Equity, a simple regression analysis was run with a consumers evaluation of the crisis as the Predictor variable and Brand Equity for both Apple and Google (depending on the condition) as the dependent variable. All regression results for Hypotheses 5-8 are shown in Table 39.

Table 39: Regression Results

Dependent Variable	R	R-Square	DF	F	Sig. B	p
Hypothesis 5						
BEA	.298	.082	1 (145)	14.01	.420	.001
BEG	.090	.002	1(166)	1.34		.249
Hypothesis 6						
ATBA	.343	.177	1(145)	19.16	.328	.001
ATCA	.250	.063	1(145)	9.64	.233	.002
ATBG	.222	.049	1(166)	8.54	.194	.004
ATCG	.232	.048	1(166)	9.37	.199	.003
Hypothesis 7						
PIA	.341	.116	1(145)	18.99	.425	.001
PIG	.062	.004	1(166)	0.64		.425
WOMA	.324	.105	1(145)	16.86	.369	.001
WOMG	.208	.043	1(166)	7.45	.212	.007
Hypothesis 8						
TIOA	.416	.173	1(145)	30.06	.349	.001
TIOG	.173	.030	1(166)	5.11	.146	.025
TIBA	.334	.112	1(145)	18.12	.326	.001
TIBG	.150	.022	1(166)	3.78	.135	.054

As shown above, we find a significant impact of causal locus on Apple's Brand Equity, but not on Google's Brand Equity. For Apple, we find that the regression equation predicts a .42 point increase in Brand Equity for each 1 point increase in a consumer's perception of the cause of a crisis. As stated before, as the cause variable increases, the locus of the cause moves from internal (company at fault) to external (company not at fault). This shows marginal support for Hypothesis 5, and again demonstrates the pattern where a consumer's evaluation of the Apple brand following a crisis differs from a consumer's evaluation of the Google brand. As with Hypotheses 2 and 3, this may be due to the experiences consumers have with the Google brand outside of the domain of electronic devices as Google provides many services utilized by the respondents in this study.

Hypothesis 6

Hypothesis 6 states: Increases in perceptions of an environmental causal locus for a crisis will be associated with higher attitudes toward the brand and company. Again, simple regression analysis was used to test the relationship between causal locus and Attitude Towards the Brand and Attitude Towards the Company for both the Apple and Google Conditions.

For Hypothesis 6 the regression analysis reveals support for both the Apple and Google crisis conditions across both the Attitude Towards Brand and Attitude Towards Company variables. For Apple, a 1 unit movement towards an external locus results in a .328 increase in Attitude towards the Brand. A 1 unit increase in the Cause variable also results in a .233 in Attitude Towards the Company following exposure to Crisis information. For Google, we find similar results, with Attitude Towards Brand increasing .194 and Attitude Towards the Company increasing .199 for each 1 unit increase in Cause. This demonstrates strong support for Hypothesis 6.

Hypothesis 7

Hypothesis 7a: Increases in perceptions of an environmental causal locus for a crisis will be associated with higher future purchase intentions. The Regression equation for Cause and Purchase Intention shows a significant regression model for Apple but not for Google. For Apple, a one unit increase in the Cause variable results in a predicted .425 unit change in the future purchase intention variable. This indicates a relationship such that the more consumers view the crisis as outside of Apple's control, the more likely they are to buy Apple products in the future. These results do not hold for Google,

with a non-significant regression model suggesting that the perception of fault holds relatively little impact on an individual's future purchase intentions towards Google. As with other brand-related artifacts found in this dissertation, this may be due to Google's primary position in the marketplace as a service provider rather than a product manufacturer. While Google makes the software used on an Android phone, consumers may not identify that software as a Google "product." Alternatively, they may see themselves as continuing to use Google products such as Gmail and the Google search engine in the future and these usage intentions may interfere with the measurement of future purchase intentions.

Hypothesis 7b: Increases in perceptions of an environmental causal locus for a crisis will be associated with increases in positive word of mouth intentions. The regression equations show significant models for Cause and Word of Mouth intentions for both Apple and Google. Here we find again that an external causal locus increases a respondent's evaluation of the focal company with Apple seeing a .369 scale point bump and Google seeing a .212 scale point bump for each one unit increase in the Cause variable. This shows strong support for Hypothesis 7b, and as discovered in Study 1, it appears the perceived cause of a crisis is vital to a consumer's evaluation of the brand and company involved afterword.

Hypothesis 8

Hypothesis 8a states: Increases in perceptions of an environmental causal locus for a crisis will be associated with higher levels of organizational trust. Again, we find strong support for the relationship between perceived cause and the outcome variables

suggested by the attribution model of consumer responses to marketing crises. Here we find that both Apple and Google benefit from an environmental cause perception with Apple showing a predicted .349 unit increase for each increase in Cause and Google showing a .146 unit increase. In other words, as the perception of cause moves outside the organizations, consumers show higher levels of trust in the organization following a crisis. These results show strong support for Hypothesis 8a, and suggest that a consumer's trust in an organization following a crisis is associated with their perception of the cause of the crisis.

Hypothesis 8b: Increases in perceptions of an environmental causal locus for a crisis will be associated with higher levels of brand trust.

As with the preceding hypotheses we again find strong support for Hypothesis 8b, with both Apple and Google showing significant regression models predicting a positive relationship between causal locus and brand trust. As the perception of the crisis cause moves 1 point towards an external causal locus the regression equation predicts a .326 unit increase in trust in the Apple brand. This result holds for Google as well, with trust in the Google brand predicted to change .135 for each 1 unit increase in the Cause variable.

Overall, we find strong support here for the Attribution Theory Model of Consumer Behavior in times of marketing crises. As with Study 1, we again find the perceived cause of a crisis to be a strong predictor of marketing outcomes in consumers who are exposed to a crisis.

So far we have seen strong confirmation for Hypotheses 5-8, but it may be important to evaluate the influence of brand ownership on these relationships. As with Hypothesis 2,3, and 4, there may be a pattern of relationships that differ based on whether or not the person reacting to the crisis owns the brand which is involved in the crisis. To investigate this I have conducted additional regression analyses on the relationship between the Cause variable and the outcome variables specified in Hypotheses 5-8. Table 40 shows the regression results for respondents who owned the brand involved in the marketing crisis manipulation, while Table 41 shows the regression results for respondents who did not own the brand involved in the crisis manipulation.

Table 40: Crisis Brand Owners

Dependent Variable	R	R-Square	DF	F	Sig. B	p
Hypothesis 5						
BEA	.252	.064	1(93)	9.60	.300	.014
BEG	.101	.010	1(45)	0.46		.502
Hypothesis 6						
ATBA	.161	.026	1(93)	2.455		.121
ATCA	.153	.023	1(93)	2.21		.141
ATBG	.310	.096	1(45)	4.68	.200	.036
ATCG	.411	.169	1(45)	8.93	.348	.005
Hypothesis 7						
PIA	.201	.040	1(93)	3.88	.130	.052*
PIG	.258	.066	1(45)	3.13	.295	.084*
WOMA	.179	.032	1(93)	3.05	.134	.084*
WOMG	.496	.246	1(45)	14.35	.403	.001
Hypothesis 8						
TIOA	.205	.042	1(93)	4.02	.158	.048
TIOG	.362	.131	1(45)	6.63	.298	.013
TIBA	.167	.028	1(93)	2.65		.107
TIBG	.255	.065	1(45)	3.05	.230	.088*

In Table 40, we see a similar pattern of confirmation for Hypotheses 5-8 as shown in the combined data; however, a issues bear further consideration. First, for Apple owners, there is no significant effect of causal locus on either Attitude Towards the Brand or Attitude Towards the Company. This effect is there for Google owners, and may indicate a stability of the Apple brand among its consumers that is not there for Google. Second, while hypothesis 7a only found partial support in the combined data set for the hypotheses, the results for crisis brand owners show full support with both Google and Apple owners having their future purchase intentions associated with the causal locus of the crisis. Again, we see the positive relationship between the perceived locus of the

crisis and the outcome variables. The last difference between the crisis brand owners and the overall data set comes in Hypothesis 8b, where causal locus does not show any association with the Trust in Brand of Apple owners. As mentioned previously, this may reflect an aspect of brand stability associated with the Apple brand.

Table 41: Crisis Brand Non-Owners

Dependent Variable	**R**	**R-Square**	**DF**	**F**	**Sig. B**	**p**
Hypothesis 5						
BEA	.274	.075	1(51)	4.07	.368	.049
BEG	.053	.003	1(120)	0.34		.560
Hypothesis 6						
ATBA	.476	.227	1(51)	14.65	.534	.001
ATCA	.293	.086	1(51)	4.69	.276	.035
ATBG	.182	.033	1(120)	4.06	.159	.046
ATCG	.143	.020	1(120)	2.48		.118
Hypothesis 7						
PIA	.460	.211	1(51)	13.41	.616	.001
PIG	.056	.003	1(120)	0.37		.545
WOMA	.423	.179	1(51)	10.92	.530	.002
WOMG	.082	.007	1(120)	0.81		.369
Hypothesis 8						
TIOA	.673	.452	1(51)	41.31	.585	.001
TIOG	.074	.006	1(120)	0.66		.418
TIBA	.478	.229	1(51)	14.83	.493	.001
TIBG	.088	.008	1(120)	0.94		.335

For respondents who did not own the brand involved in the crisis manipulation, we see a somewhat different pattern of results than the previous two regression tables. The primary difference for those who do not own the brand involved in the marketing crisis appears to be brand related as crisis causal locus appears to only influence Attitude Towards Brand for the Google crisis. It is important to note a couple of things here:

First, while there were 121 non-Google owners in the Google crisis condition, the vast majority of them owned Apple iPhones (104 participants), while of the 52 non-Apple owners only 31 owned Google devices. Here we have a situation where non-crisis owner Google owners account for only 59% of that data set while non-crisis owner Apple owners account for 86% of their respective data set. Bearing in mind the potential issues associated with the representativeness of the samples and the support found for the influence of brand ownership, some noteworthy results arise from the non-crisis owner regression models. For starters, it appears that for those evaluating Google after the Google crisis (primarily Apple owners), the causal locus of the crisis is not as influential as it appears to be in the other analyses. As previously hypothesized, this lack of influence may be a result of the prior experiences consumers have with Google are both strong, and unrelated to the crisis manipulation used in Study 2. Second, while causal locus was not important following the Google crisis, it appears to be extremely important following the Apple crisis. Here we find significant regression results for all outcome variables, with some regression weights reaching past half a scale point for each 1 point increase in external causal crisis-locus. This pattern shows that for non-Apple owners, the cause of the crisis is extremely important to marketing outcomes. Causal crisis locus predicted about 45% of the variance for Trust in the Apple Organization, and about 23% of the variance for both Attitude towards the Apple brand and Trust in the Apple brand. Here we may be facing a situation where conversely to the situation with Google, non-Apple owners do not have as much experience with the Apple brand and Apple products. This lack of experience may make the marketing crisis more diagnostic.

CHAPTER 5: DISCUSSION

The purpose of this research was to explore how the market responds to crises that may threaten the position or marketing of a brand or business. Obviously, this is an incredibly important quest for several reasons. First, a complete understanding of consumer perceptions of brands and organizations must recognize that those perceptions are subject to occasional unexpected negative shocks of varying severity. Except in extreme cases, the marketing organization is likely to survive those crises. How those crises alter and are integrated in to the consumer's overall perceptions is inherently interesting. Moreover, marketing crises are managerially significant. It is likely that the CEO of Target would have paid more attention to the possibility of a data breech if he'd recognized the potential for damage that such a breech actually created for Target's image and the impact of that damage on shopper behavior, which ultimately cost him his job.

A preliminary step in this dissertation was to survey the crisis literature from a variety of disciplines to examine how past researchers and managers have handled crises. A first finding was that there were a variety of definitions of crisis in different literatures and several perspectives on how they should be handled. The literature review suggested a gap in our understanding that is a result of not including the real time reactions of the consumer as the crisis unfolds.

Thus, the first research task was to develop a working definition of a marketing crisis. Once a workable definition of a marketing crisis was developed, Attribution Theory was applied as a theoretical basis for addressing how consumers might respond to

various types of crises. Attribution Theory suggested that an important determinant of the nature of the consumer's response would likely be dependent on whether or not the consumer "blamed" the company for the crisis or attributed that crisis to forces external to the company. Cognitive dissonance theory contributed insights that one possible source of individual differences in consumer response might depend on nature of the consumer's relationship with the entity in crisis. Specifically, and counterintuitively, those who are actually customers of organizations affected by the crisis might have a less dramatic response to a negative development than consumers who were less involved and more psychologically distant.

Ultimately, the dissertation investigates three research questions:

1) How do consumers make causal attributions about marketing crises?

2) What are the factors which influence how attributions are made about marketing crises?

3) What are the consequences of causal attributions about marketing crises?

Findings and Managerial Implications

A key issue for managers finding themselves in the midst of a marketing crisis is determining the optimal response. A major finding of this research is that the cause of the crisis matters to consumers. When the cause of the crisis was manipulated to be external to the target organization in Study 1, consumers consistently gave the company a

break in response to the crisis compared to their responses to a crisis caused by something internal to the company. This result by itself is important, as it suggests potential communication strategies when involved in a marketing crisis. Further investigation of the influence of the causal locus of a crisis was conducted in Study 2, with the results showing a general confirmation of the Attribution theory paradigm.

In Hypotheses 5-8 strong support for the association of perceived cause with marketing outcomes was found. Here we discovered that marketing outcomes were consistently more positive as the perception of causal locus moved outside of the organization involved in the crisis. While these findings show strong support for the influence of Attribution Theory upon consumers who are exposed to a marketing crisis, it is important to note that there were differences across the Apple and Google brands in Study 2. This brand difference was not present in Study 1 as a hypothetical brand was used (MX computers), and it appears that there are idiosyncratic effects which may be related to known individual brands. Overall though, the consistent association of the perceived cause of a crisis with outcome variables provides managerially relevant data for businesses who find themselves involved in a marketing crisis. If a viable explanation for the event may be found that is outside of the company's control, this should be communicated to consumers as their perception of cause will influence the marketing outcomes for the company.

Another key aspect of this dissertation with managerial significance is the role of a consumer's prior experiences with a brand when they are exposed to a crisis involving that brand. In study1 consumers were asked to imagine being directly involved in a crisis or to imagine hearing simply hearing about a crisis. When combined with the

fault/no fault hypothetical scenarios, we saw a difference in the pattern of response among consumers that suggests there are potential processing differences based on both the cause of the crisis and the consumers involvement in the crisis. This finding is important in its own right, and study 2 sought to further identify the mechanisms through which these differential responses were being generated.

The results of study 2 provided further insight into consumer reactions to a marketing crisis. While we again saw a significant influence of the perceived cause of a crisis, we also saw the influence of a consumer's distance to the crisis. As discussed previously, a major factor in how consumers responded to a crisis dealt with their ownership (or lack of ownership) of the brand in crisis. This supports the arguments made in Hypothesis 1, which suggests that the closer a person is to a crisis the easier they will go on the company. An effort to measure this distance was made using the construal theory concept of Psychological distance.

Unfortunately, the variable Psychological Distance did not work quite as hypothesized. I proposed that Psychological Distance would influence how a consumer evaluated a crisis, with those who were psychologically close to an event showing a more positive reaction than those who were psychologically distant. This argument suggested that informational differences between high distance and low distance consumers would result in those who were closer to the event showing a more positive evaluation of the company and brand. This hypothesis was not borne out by the results. At least a portion of this lack may be due to issues associated with the operationalization of Psychological distance. This is likely due to the multi-dimensional nature of the psychological distance construct as was discussed in the results section, and is discussed further in the

limitations section. Despite the lack of a reliable and consistent measure, some components of the Psychological Distance measure showed the hypothesized relationship. Most notably, Brand Equity, Word of Mouth Intentions, and Trust in Brand all showed positive associations with Item 1.

Although there was a lack of significant results associated with the Psychological Distance measure, it can be argued that brand ownership may have worked as a proxy variable for Psychological Distance. It is a logical conclusion that consumers who own a brand involved in a crisis will be psychologically closer to crisis on average than those who do not own the involved brand. As documented throughout the dissertation, brand ownership was a significant factor in how consumers evaluated marketing crisis information. This effect consistently upheld the counter-intuitive idea that people who directly own the brand involved in the crisis show more positive outcomes following the crisis than those who do not own the brand. In future studies it may be important to isolate the effects of both ownership and Psychological Distance to identify their role in marketing crisis outcomes.

The issue of ownership was further described by Hypothesis 2, which investigated the influence of a consumer's prior relationship with the brand. Hypothesis 2 was widely supported in study 2, showing strong overall support for the idea ownership matters among consumers involved in a marketing crisis. Across the board, consumers who owned a product rated it more highly than those who did not, even when confronted with the idea that their phone could stop working indefinitely. Managerially this suggests that when confronted with a crisis an organization should focus on managing its perception among consumers with whom it has not already built a strong relationship. Consumers

who already know and use the brand have been shown to be consistently resilient to crisis information. The effect of ownership was so strong in Hypothesis 2, that it provoked some un-hypothesized investigation in the analysis of Hypothesis 4 as well.

The results for Hypothesis 3 in study 2 provide insight into how consumers evaluate marketing crises. First, while Hypothesis 3 was not supported by any of the statistical tests, the overall data pattern expected was found for the brand with high levels of self-brand connection (Apple). In several cases these results approached marginal significance so there may be an issue of effect size here where the influence of self-brand connection is subtle – at least immediately following crisis exposure. What was unexpected was the reactionary response of Google owners for the variables Brand Equity and Attitude Towards Brand. Instead of the expected decrease in these variables for Google owners following exposure to a crisis involving Android phones, the results showed a significant interaction effect where Google owners actually increased their evaluation of Google. One possible explanation for this effect may be that the self-protection mechanism of attribution theory is more salient to people who have made what is seen to be a less popular or sub-optimal choice. The respondents in this study were primarily students, and as shown in the data the Apple iPhone was the most popular choice for smart phone among the population. It could be that Google owners had more to lose in terms of self-perception than Apple owners, and therefore showed a reactance to the information about the Google crisis.

Another important finding of this dissertation for managers is that the involvement of a consumer in a product category matters, and that influence of product category involvement may vary across brands. Hypothesis 4 proposed that consumers

with high product category involvement would have more positive ratings on marketing outcomes following a crisis than those with low involvement. This hypothesis found strong support for the Apple brand, with all measured variables showing the hypothesized relationship following the Apple crisis. Unlike Apple, there did not appear to be a significant pattern of relationships between product category involvement and the marketing outcomes following the Google crisis with only Trust in Brand and Attitude Towards the Company showing the hypothesized relationship. Because of the strong influence of brand ownership in Hypothesis 2, I followed up Hypothesis 4 with analyses which included brand ownership and product category involvement, and allowed for an interaction between the two. For Apple there were main effects for ownership and product category involvement (as expected based on Hypothesis 2 and Hypothesis 4), but no interaction between the two. For Google, the story changed significantly. With several variables showing interaction effects between ownership and product category involvement, and other variables now showing main effects of product category involvement when brand ownership was included in the analysis.

This data suggests that product category involvement shows a simple main effect when evaluating the Apple brand following an Apple crisis, but a more complex story for the Google brand. Following a Google crisis the data shows a general trend where the prophylactic influence of involvement in product category is conditional to those who own the Google brand. This identifies a situation where the Apple brand appears to be stronger than the Google brand in the eyes of non-brand owners following a crisis (at least for high involvement consumers).

Managerially, these findings are extremely important. Does your organization have an Apple type brand – in which case all high involvement consumers will likely still hold a relatively high opinion of your brand, or does your organization have a Google type brand – where high involvement non-brand owners will likely respond negatively to the crisis? This research suggests that the makeup of the audience experiencing a marketing crisis, as well as characteristics of the brand involved in the marketing crisis, will influence the overall consumer response.

Overall, this research provides strong support for the use of Attribution Theory as an analytical tool when evaluating a marketing crisis. In both Study 1 and Study 2 it was found that the cause of a crisis mattered to consumers, and that the consumer's perception of organization involved in a crisis varied with their relationship to that organization. In Study 1, this relationship was purely hypothetical, while in Study 2 real brands and marketing relationships were utilized. Both studies discovered that brand ownership (both hypothetical and real) influenced the outcomes for an organization following a crisis, and in Study 2 it was discovered that product category involvement plays a significant role as well in how consumers respond to a crisis. Another major finding of this research is that individual brand differences may influence how consumers respond to crisis information, with consistent differences showing in consumer reactions to crises involving the Apple and Google brands. One aspect of this dissertation that did not show strong results was the operationalization and analysis of Psychological Distance. These concerns, as well as some potential issues associated with brand ownership and the population researched are discussed below in the limitations section.

Limitations

This study was conducted with a student population. While smart phones are prevalent and significant to this population (as anybody who has tried to teach a class to students as they surf, text, and play angry birds knows), it was still a hypothetical crisis.

The operationalization of psychological distance was problematic. Upon reflection, it is perhaps not surprising, since psychological distance to a crisis event must necessarily be measured after the event (how can you measure distance from something that doesn't exist). At that point, the traditional conceptualization of psychological distance is not really relevant, since in this study it was confounded with the key manipulation—whether or not your phone was affected by the crisis. The actual measures of psychological distance used did not satisfy typical psychometric requirements to be considered a valid and reliable scale, and upon review it seems likely that psychological distance would be better modeled as a formative construct than a reflective construct.

A final limitation of this study is the brands which were chosen as part of the experimental design. While Apple iPhones are sold by Apple, Android is an operating system and Android phones are not sold, for the most part, by Google. Also, the majority of consumer involvement with Apple may be based on product perceptions (computers, iPads, iPhones) while the consumer interaction with Google likely primarily focuses on internet services, with phone operating systems as a secondary interaction. Secondly, there may be a perceptual difference in brand between Apple and Google were Apple is seen as more desirable or competent (at least in the cell phone market) than Google. This inequality in brand connection and experience with consumers may have helped drive

some of the differential results associated with brand and brand ownership that were found in this dissertation.

Further Research Directions

There are many positive findings from the current studies, but a few un-answered questions are needed to fully understand what is driving consumer responses to marketing crises. While the Attribution Theory Model of consumer crisis response was generally validated by this dissertation, it was only shown working for two brands in a closely controlled hypothetical crisis situation.

One issue that requires further investigation is the relatively unexplained role of brand. Further research is needed here to understand why we see a different effect among consumers that appears to be driven by the brand being evaluated. It will be informative to test more brands using the attribution theory paradigm to attempt to understand how these differences arise (Apple behaved quite differently from Google in many cases), and what role Attribution Theory plays in those differences. Future research of different brands in the crisis domain will help advance this cause, as well as further measurement of perceptual differences between brands involved both pre and post crisis.

Further research is also needed on the relationship between psychological distance and marketing crisis. As discussed in the limitations, the operationalization of psychological distance used was confounded with the experimental manipulation. A cleaner methodology would compare crisis across products or brands that started out at different levels of psychological centrality. It might be expected that a crisis in a brand with higher brand-self connection would be processed differently than a crisis in a lower centrality brand, and there was some evidence of this in the current study if one assumes

that Apple is a more self-connected brand than Google. Further study of the psychological distance construct is also needed to refine the measurement if at all possible. As demonstrated in study two, it is difficult to measure psychological distance following an experiment manipulation, and it may be that due to the formative nature of the construct traditional evaluations of scale reliability and validity would not apply.

Obviously, simulating a marketing crisis in an experiment is very different from how a crisis might actually unfold in the real world. A key improvement in our understanding of marketing crises would be to examine an actual crisis longitudinally and compare the perceptions of customers and non-customers as the crisis unfolds over time. Here it would also be useful to measure the consumer's perception of an organizations response to the crisis as well to determine what role a company may play in influencing the eventual outcome of a crisis. The current study shows an exciting potential for the use of Attribution Theory in both the evaluation of marketing crises, as well as the understanding of consumer response to marketing crises. Further research in this area should help marketers to understand the potential impact of a marketing crisis on their organization, as well as identify the optimal response to the audiences exposed to the crisis.

REFERENCES

(2003), "Webster's New World Dictionary," Michael Agnes (Ed.). 4 ed. Cleveland, OH: Wiley Publishing Inc.

Aguilera, D. C., J. M. Messick, and M. S. Farrell (1990), Crisis intervention: Theory and methodology (6th ed.). St Louis: Mosby.

Ahluwalia, R. (2008), "How far can a brand stretch? Understanding the role of self-construal," Journal of Marketing Research, 45 (3), 337-50.

Ahluwalia, R., R. E. Burnkrant, and H. R. Unnava (2000), "Consumer response to negative publicity: The moderating role of commitment," Journal of Marketing Research, 203-14.

Ajzen, I. (2001), "Nature and operation of attitudes," Annual Review of Psychology, 52 (1), 27-58.

Ajzen, I. (1971), "Attribution of dispositions to an actor: Effects of perceived decision freedom and behavioral utilities," Journal of Personality and Social Psychology, 18 (2), 144-56.

Ajzen, I. and William H. Holmes (1976), "Uniqueness of behavioral effects in causal attribution," Journal of Personality, 44 (1), 98-108.

Alba, J. W. and J. W. Hutchinson (1987), "Dimensions of consumer expertise," Journal of Consumer Research, 411-54.

Allen, M. W. and R. H. Caillouet (1994), "Legitimation endeavors: Impression management strategies used by an organization in crisis," Communication Monographs, 61 (1), 44-62.

Alpert, L. I. (2011), "Japan's nuclear crisis may take six to nine months to bring under control: Tokyo Electric Power Co.," in The New York Daily News Vol. April 18th. New York.

Baker, M. J. and G. A. Churchill Jr (1977), "The impact of physically attractive models on advertising evaluations," Journal of Marketing Research, 538-55.

Baker, W., J. W. Hutchinson, D. Moore, and P. Nedungadi (1986), "Brand Familiarity and Advertising: effects on the evoked set and brand preference," Advances in Consumer Research, 13 (1), 637-42.

Barton, L. (2001), Crisis in Organizations 2: South-Western College Publishing.

Bell, G. D. (1967), "The automobile buyer after the purchase," The Journal of Marketing, 12-16.

Bell, L. G., R. A. Wicklund, and G. MankoChris (1976), "When unexpected behavior is attributed to the environment," Journal of Research in Personality, 10 (3), 316-27.

Benoit, W. L. (1995), Accounts, excuses, and apologies: A theory of image restoration strategies: State University of New York Press.

---- (1997), "Image repair discourse and crisis communication," Public Relations Review, 23 (2), 177-86.

Benson, J. A. (1988), "Crisis revisited: An analysis of strategies used by Tylenol in the second tampering episode," Communication Studies, 39 (1), 49-66.

Birch, J. (1994), "New factors in crisis planning and response," Public Relations Quarterly, 39, 31-31.

Bitner, M. J. (1990), "Evaluating service encounters: the effects of physical surroundings and employee responses," The Journal of Marketing, 69-82.

Blumberg, S. J. and D. H. Silvera (1998), "An individual differences perspective on the motivational and cognitive requirements for attribution," Social Cognition, 16, 253-66.

Bradford, J. L. and D. E. Garrett (1995), "The effectiveness of corporate communicative responses to accusations of unethical behavior," Journal of Business Ethics, 14 (11), 875-92.

Bradley, G. W. (1978), "Self-serving biases in the attribution process: A reexamination of the fact or fiction question," Journal of Personality and Social Psychology, 36 (1), 56.

Brucks, M. (1985), "The effects of product class knowledge on information search behavior," Journal of Consumer Research, 1-16.

Calder, B. J. and R. E. Burnkrant (1977), "Interpersonal influence on consumer behavior: An attribution theory approach," Journal of Consumer Research, 29-38.

Campbell, M. C. and R. C. Goodstein (2001), "The moderating effect of perceived risk on consumers' evaluations of product incongruity: Preference for the norm," Journal of Consumer Research, 28 (3), 439-49.

Carlson, S. (1974), "International transmission of information and the business firm," The Annals of the American Academy of Political and Social Science, 412 (1), 55-63.

Chang-Hoan, C., L. Jung-Gyo, and M. Tharp (2001), "Different Forced-Exposure Levels to Banner Advertisements," Journal of Advertising Research, 41 (4), 45-56.

Chapman, L. J. and Jean P. Chapman (1969), "Illusory correlation as an obstacle to the use of valid psychodiagnostic signs," Journal of Abnormal Psychology, 74 (3), 271-80.

Chaudhuri, A. and M. B. Holbrook (2001), "The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty," Journal of Marketing, 65 (2), 81-93.

Choi, I., R. E. Nisbett, and A. Norenzayan (1999), "Causal attribution across cultures: Variation and universality," Psychological Bulletin, 125 (1), 47.

Churchill Jr, G. A. (1979), "A paradigm for developing better measures of marketing constructs," Journal of Marketing Research, 64-73.

Clark, T. (1988), "The concept of a marketing crisis," Journal of the Academy of Marketing Science, 16 (2), 43-48.

Coombs, W. T. (1998), "An analytic framework for crisis situations: Better responses from a better understanding of the situation," Journal of Public Relations Research, 10 (3), 177-91.

---- (2007), "Protecting organization reputations during a crisis: The development and application of situational crisis communication theory," Corporate Reputation Review, 10 (3), 163-76.

Coombs, W. T. and S. J. Holladay (2005), "An exploratory study of stakeholder emotions: Affect and crises," Research on Emotion in Organizations (1), 263 - 80.

---- (1996), "Communication and Attributions in a Crisis: An Experiment Study in Crisis Communication," Journal of Public Relations Research, 8 (4), 279-95.

Cooper, J. and R. H. Fazio (1984), "A new look at dissonance theory," Advances in experimental social psychology, 17, 229-66.

Coulter, K. S. (1998), "The effects of affective responses to media context on advertising evaluations," Journal of Advertising, 41-51.

Crosby, Lawrence A., Kenneth R. Evans, and Deborah Cowles (1990), "Relationship Quality in Services Selling: An Interpersonal Influence Perspective," The Journal of Marketing, 54 (3), 68-81.

Cunningham, John D. (1976), "Boys meet girls: Patterns of interaction and attribution in heterosexual attraction," Journal of Personality and Social Psychology, 34 (3), 334-43.

D'Agostino, P. R. and R. Fincher-Kiefer (1992), "Need for cognition and the correspondence bias," Social Cognition, 10 (2), 151-63.

D'Aveni, R. A. and I. C. MacMillan (1990), "Crisis and the content of managerial communications: A study of the focus of attention of top managers in surviving and failing firms," Administrative Science Quarterly, 35 (4).

Dabholkar, P. A. (1995), "A contingency framework for predicting causality between customer satisfaction and service quality," Advances in Consumer Research, 22 (1).

Davidson, Joey (2011), "Sony Estimates PSN Hack Costs More Than $170 Million," in Platform.

Dawar, N. and J. Lei (2009), "Brand crises: The roles of brand familiarity and crisis relevance in determining the impact on brand evaluations," Journal of Business Research, 62 (4), 509-16.

Dawar, N. and M. M. Pillutla (2000), "Impact of product-harm crises on brand equity: The moderating role of consumer expectations," Journal of Marketing Research, 37 (2), 215-26.

Day, S. B. and D. M. Bartels (2004), "Temporal distance, event representation, and similarity."

Dirks, K. T. (1999), "The effects of interpersonal trust on work group performance," Journal of Applied Psychology, 84, 445-55.

Dobni, D. and G. M. Zinkhan (1990), "In search of brand image: A foundation analysis," Advances in consumer research, 17 (1), 110-19.

Doney, Patricia M. and Joseph P. Cannon (1997), "An examination of the nature of trust in buyer-seller relationships," Journal of Marketing, 61 (2), 35.

Dow, D. (2000), "A note on psychological distance and export market selection," Journal of International Marketing, 51-64.

Dowling, G. (2002), Creating corporate reputations: Identity, image, and performance: Oxford University Press, USA.

Dubinsky, A. J., S. J. Skinner, and T. E. Whittler (1989), "Evaluating sales personnel: an attribution theory perspective," The Journal of Personal Selling and Sales Management, 9 (1), 9-21.

Dutta, S. and C. Pullig (2011), "Effectiveness of corporate responses to brand crises: The role of crisis type and response strategies," Journal of Business Research, 64 (12), 1281-87.

Dutton, J. E. (1986), "The processing of crisis and non-crisis strategic issues," Journal of Management Studies, 23 (5), 501-17.

Dutton, J. E. and S. E. Jackson (1987), "Categorizing strategic issues: Links to organizational action," The Academy of Management Review, 12 (1), 76-90.

Dweck, C. S. (1993), "Implicit theories: individual differences in the likelihood and meaning of dispositional inference," Personality and Social Psychology Bulletin, 19 (5), 644.

Elkin, R. A. and M. R. Leippe (1986), "Physiological arousal, dissonance, and attitude change: Evidence for a dissonance-arousal link and a' Don't remind me' effect," Journal of Personality and Social Psychology, 51 (1), 55.

Elliot, A. J. and P. G. Devine (1994), "On the motivational nature of cognitive dissonance: Dissonance as psychological discomfort," Journal of Personality and Social Psychology, 67 (3), 382.

Fang, E., R. W. Palmatier, L. K. Scheer, and N. Li (2008), "Trust at different organizational levels," Journal of Marketing, 72 (2), 80-98.

Feather, N. T. and J. G. Simon (1971), "Attribution of responsibility and valence of outcome in relation to initial confidence and success and failure of self and other," Journal of Personality and Social Psychology, 18 (2), 173.

Festinger, L. (1957), A theory of cognitive dissonance: Stanford Univ Pr.

Fink, S. L., J. Beak, and K. Taddeo (1971), "Organizational crisis and change," The Journal of Applied Behavioral Science, 7 (1), 15.

Frazier, G. L. (1983), "Interorganizational exchange behavior in marketing channels: A broadened perspective," The Journal of Marketing, 68-78.

Fujita, K., M. D. Henderson, J. Eng, Y. Trope, and N. Liberman (2006), "Spatial distance and mental construal of social events," Psychological Science, 17 (4), 278.

Gerbing, D. W. and J. C. Anderson (1988), "An updated paradigm for scale development incorporating unidimensionality and its assessment," Journal of Marketing Research, 186-92.

Gilbert, D. T. and P. S. Malone (1995), "The correspondence bias," Psychological Bulletin, 117 (1), 21.

Gilbert, D. T., B. W. Pelham, and D. S. Krull (1988), "On cognitive busyness: When person perceivers meet persons perceived," Journal of Personality and Social Psychology, 54 (5), 733.

Gilovich, T., V. H. Medvec, and S. Chen (1995), "Commission, omission, and dissonance reduction: Coping with regret in the" Monty Hall" problem," Personality and Social Psychology Bulletin, 21 (2), 182-90.

Golden, L. L. (1977), "Attribution theory implications for advertisement claim credibility," Journal of Marketing Research, 115-17.

Golding, Stephen L. and Leonard G. Rorer (1972), "Illusory correlation and subjective judgment," Journal of Abnormal Psychology, 80 (3), 249-60.

Goldsmith, R. E., B. A. Lafferty, and S. J. Newell (2000), "The impact of corporate credibility and celebrity credibility on consumer reaction to advertisements and brands," Journal of Advertising, 43-54.

Hayden, Teresa and Walter Mischel (1976), "Maintaining trait consistency in the resolution of behavioral inconsistency: The wolf in sheep's clothing?," Journal of Personality, 44 (1), 109-32.

Hearit, K. M. (1994), "Apologies and public relations crises at Chrysler, Toshiba, and Volvo," Public Relations Review, 20 (2), 113-25.

Heider, F. (1944), "Social perception and phenomenal causality," Psychological Review, 51 (6), 358-74.

Hermann, C. F. (1963), "Some consequences of crisis which limit the viability of organizations," Administrative Science Quarterly, 8 (1), 61-82.

Himmelfarb, Samuel and Norman H. Anderson (1975), "Integration theory applied to opinion attribution," Journal of Personality and Social Psychology, 31 (6), 1064-72.

Hobbs, J. D. (1995), "Treachery by any other name," Management Communication Quarterly, 8 (3), 323.

Hoch, S. J. (2002), "Product experience is seductive," Journal of Consumer Research, 29 (3), 448-54.

Hoch, S. J. and Y. W. Ha (1986), "Consumer learning: Advertising and the ambiguity of product experience," Journal of Consumer Research, 221-33.

Huber, F., K. Vollhardt, I. Matthes, and J. Vogel (2010), "Brand misconduct: Consequences on consumer-brand relationships," Journal of Business Research, 63 (11), 1113-20.

Hui, M. K., M. V. Thakor, and R. Gill (1998), "The effect of delay type and service stage on consumers' reactions to waiting," Journal of Consumer Research, 24 (4), 469-80.

Hunt, S. D. (1970), "Post-transaction communications and dissonance reduction," The Journal of Marketing, 46-51.

Ice, R. (1991), "Corporate publics and rhetorical strategies," Management Communication Quarterly, 4 (3), 341.

Jap, Sandy D. (1999), "Pie-Expansion Efforts: Collaboration Processes in Buyer-Supplier Relationships," Journal of Marketing Research (JMR), 36 (4), 461-75.

Ji, L. J., Z. Zhang, and R. E. Nisbett (2004), "Is it culture or is it language? Examination of language effects in cross-cultural research on categorization," Journal of Personality and Social Psychology, 87 (1), 57.

Johanson, J. and J. E. Vahlne (1977), "The internationalization process of the firm-a model of knowledge development and increasing foreign market commitments," Journal of international business studies, 23-32.

Johanson, J. and F. Wiedersheim-Paul (1975), "The Internationalization of the firm: Four Swedish cases," Journal of Management Studies, 12 (3), 305-23.

John, G. (1984), "An empirical investigation of some antecedents of opportunism in a marketing channel," Journal of Marketing Research, 278-89.

Jones, E. E., D. E. Kanouse, H. H. Kelley, R. E. Nisbett, S. Valins, and B. Weiner (1972), Attribution: Perceiving the causes of behavior: General Learning Press Morristown, NJ.

Jones, Edward E. (1979), "The rocky road from acts to dispositions," American Psychologist, 34 (2), 107-17.

Jones, Edward E., Keith E. Davis, and Berkowitz Leonard (1966), "From acts to dispositions: The attribution process in person perception," in Advances in Experimental Social Psychology, Vol. 2: Academic Press.219-266

Kassarjian, H. H. and J. B. Cohen (1965), "Cognitive dissonance and consumer behavior," California Management Review, 8 (1), 55-64.

Kassin, S. M. (1979), "Consensus information, prediction, and causal attribution: A review of the literature and issues," Journal of Personality and Social Psychology, 37 (11), 1966.

Keller, K. L. (2003), "Brand synthesis: The multidimensionality of brand knowledge," Journal of Consumer Research, 29 (4), 595-600.

Kelley, H. H. (1972), "Attribution in Social Interaction," in Attribution: Percieving the Causes of Behavior. Morristown, NJ: General Learning Press.

---- (1967), "Attribution theory in social psychology," Nebraska Symposium on Motivation University of Nebraska Press.

Kelley, Harold H. and John L. Michela (1980), "Attribution Theory and Research," Annual Review of Psychology, 31 (1), 457-501.

Kilbourne, W. E. (1986), "An exploratory study of the effect of sex role stereotyping on attitudes toward magazine advertisements," Journal of the Academy of Marketing Science, 14 (4), 43-46.

Klein, J. and N. Dawar (2004), "Corporate social responsibility and consumers' attributions and brand evaluations in a product-harm crisis," International Journal of Research in Marketing, 21 (3), 203-17.

Kotler, P. (1997), Marketing Management-Analysis, Planning, Implementation, and Control, Prentice Hall," Inc., New Jersey.

Kramer, R. M. (1999), "Trust and distrust in organizations: Emerging perspectives, enduring questions," Annual Review of Psychology, 50 (1), 569-98.

Kunda, Z. (1990), "The case for motivated reasoning," Psychological Bulletin, 108 (3), 480.

Lay, C., M. Ziegler, L. Hershfield, and D. Miller (1974), "The perception of situational consistency in behaviour: Assessing the actor-observer bias," Canadian Journal of Behavioural Science/Revue Canadienne des Sciences du Comportement, 6 (4), 376.

Lay, Clarry H., Bryan F. Burron, and Douglas N. Jackson (1973), "Base rates and informational value in impression formation," Journal of Personality and Social Psychology, 28 (3), 390-95.

LeBoeuf, R. A. and M. I. Norton (2012), "Consequence-Cause Matching: Looking to the Consequences of Events to Infer Their Causes," The Journal of Consumer Research (Forthcoming).

Lee, A. Y., J. L. Aaker, and W. L. Gardner (2000), "The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus," Journal of Personality and Social Psychology, 78 (6), 1122.

Lenauer, M., L. Sameth, and P. Shaver (1976), "Looking back at oneself in time: Another approach to the actor-observer phenomenon," Perceptual and Motor Skills, 43 (3f), 1283-87.

Lepper, M. R., D. Greene, and R. E. Nisbett (1973), "Undermining children's intrinsic interest with extrinsic reward: A test of the" overjustification" hypothesis," Journal of Personality and Social Psychology, 28 (1), 129.

Lerner, M. J. and D. T. Miller (1978), "Just world research and the attribution process: Looking back and ahead," Psychological Bulletin, 85 (5), 1030.

Liberman, N., M. D. Sagristano, and Y. Trope (2002), "The effect of temporal distance on level of mental construal," Journal of Experimental Social Psychology, 38 (6), 523-34.

Liberman, N. and Y. Trope (1998), "The role of feasibility and desirability considerations in near and distant future decisions: A test of temporal construal theory," Journal of Personality and Social Psychology, 75 (1), 5.

Lord, C. G., L. Ross, and M. R. Lepper (1979), "Biased assimilation and attitude polarization: The effects of prior theories on subsequently considered evidence," Journal of Personality and Social Psychology, 37 (11), 2098.

Losciuto, L. A. and R. Perloff (1967), "Influence of product preference on dissonance reduction," Journal of Marketing Research, 286-90.

Luce, M. F. (1998), "Choosing to avoid: Coping with negatively emotion-laden consumer decisions," Journal of Consumer Research, 24 (4), 409-33.

MacKenzie, S. B. (1986), "The role of attention in mediating the effect of advertising on attribute importance," Journal of Consumer Research, 174-95.

Markus, H. R. and S. Kitayama (1991), "Culture and the self: Implications for cognition, emotion, and motivation," Psychological Review, 98 (2), 224.

Mayo, Elena (2010), "BP Shares Plunge," in The Guardian.

Menasco, M. B. and Del. I. Hawkins (1978), "A field test of the relationship between cognitive dissonance and state anxiety," Journal of Marketing Research, Vol. 15 No. 4, 650-55.

Meyers-Levy, J., T. A. Louie, and M. T. Curren (1994), "How does the congruity of brand names affect evaluations of brand name extensions?," Journal of Applied Psychology, 79 (1), 46.

Michotte, A. (1963), The perception of causality. New York: Basic Books.

Miller, D. T., S. A. Norman, and E. Wright (1978), "Distortion in person perception as a consequence of the need for effective control," Journal of Personality and Social Psychology, 36 (6), 598.

Miller, Dale T. and Michael Ross (1975), "Self-serving biases in the attribution of causality: Fact or fiction?," Psychological Bulletin, 82 (2), 213-25.

Mitchell, Andrew A. and Jerry C. Olson (1981), "Are Product Attribute Beliefs the Only Mediator of Advertising Effects on Brand Attitude?," Journal of Marketing Research, 18 (3), 318-32.

Mitroff, I. I. and T. C. Pauchant (1990), We're so big and powerful nothing bad can happen to us: An investigation of America's crisis prone corporations. Secaucus, NJ: Carol Pub. Group.

Monson, Thomas C. and Mark Snyder (1977), "Actors, observers, and the attribution process: Toward a reconceptualization," Journal of Experimental Social Psychology, 13 (1), 89-111.

Montgomery, C. and J. H. Barnes (1993), "POSTDIS: A short rating scale for measuring post purchase dissonance," Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior, 6, 204-16.

Morton, Deutsch (1958), "Trust and Suspicion," The Journal of Conflict Resolution, 2 (4), 265-79.

Murray, E. and S. Shohen (1992), "Lessons from the Tylenol tragedy on surviving a corporate crisis," Medical Marketing and Media, 27 (2), 14-19.

Myers, J. H. and A. D. Shocker (1981), "The nature of product-related attributes," Research in Marketing, 5 (5), 211-36.

Nedungadi, P. (1990), "Recall and consumer consideration sets: Influencing choice without altering brand evaluations," Journal of Consumer Research, 263-76.

Newman, L. S. (1993), "How individualists interpret behavior: Idiocentrism and spontaneous trait inference," Social Cognition, 11 (2), 243-69.

---- (1991), "Why are traits inferred spontaneously? A developmental approach," Social Cognition, 9 (3), 221-53.

Newtson, D. (1974), "Dispositional inference from effects of actions: Effects chosen and effects forgone," Journal of Experimental Social Psychology, 10 (5), 489-96.

Ng, S. and M. J. Houston (2006), "Exemplars or beliefs? The impact of self-view on the nature and relative influence of brand associations," Journal of Consumer Research, 32 (4), 519-29.

Nielsen (2011), "State of the Media: The Mobile Media Report Q3 2011."

Nisbett, R. E., C. Caputo, P. Legant, and J. Marecek (1973), "Behavior as seen by the actor and as seen by the observer," Journal of Personality and Social Psychology, 27 (2), 154.

Oliver, R. L. (1994), "Conceptual issues in the structural analysis of consumption emotion, satisfaction, and quality: evidence in a service setting," Advances in consumer research, 21, 16-16.

---- (2009), Satisfaction: A behavioral perspective on the consumer: ME Sharpe Inc.

Patterson, B. (1993), "Crises impact on reputation management," Public Relations Journal, 49 (11), 46-47.

Pauchant, T. C. and I. I. Mitroff (1992), Transforming the crisis-prone organization: Preventing individual, organizational, and environmental tragedies. San Francisco: Jossey-Bass.

Pearson, C. M. and J. A. Clair (1998), "Reframing crisis management," The Academy of Management Review, 23 (1), 59-76.

Pearson, C. M. and I. I. Mitroff (1993), "From crisis prone to crisis prepared: A framework for crisis management," The Executive, 7 (1), 48-59.

Perrow, C. (1984), Normal accidents: living with high-risk technologies. Princeton, NJ: Princeton University Press.

Piliavin, I. M., J. Rodin, and J. A. Piliavin (1969), "Good samaritanism: An underground phenomenon?," Journal of Personality and Social Psychology, 13 (4), 289.

Price, L. L. and E. J. Arnould (1999), "Commercial friendships: service provider-client relationships in context," The Journal of Marketing, 63 (4), 38-56.

Price, L. L., E. J. Arnould, and P. Tierney (1995), "Going to extremes: managing service encounters and assessing provider performance," The Journal of Marketing, 83-97.

Quarantelli, E. L. (1988), "Disaster crisis management: A summary of research findings," Journal of Management Studies, 25 (4), 373-85.

Regan, D. T. (1978), "Attributional Aspects of Interpersonal Attraction," in New Directions in Attribution Research, J.H. Harvey, Ickes, W.J., Kidd, R.F., Ed. Vol. 2. HIllsdale, NJ: Erlbaum.

Regan, D. T., E. Straus, and R. Fazio (1974), "Liking and the attribution process," Journal of Experimental Social Psychology, 10 (4), 385-97.

Riemer, B. S. (1975), "Influence of causal beliefs on affect and expectancy," Journal of Personality and Social Psychology, 31 (6), 1163.

Robertson, T. S. and J. R. Rossiter (1974), "Children and commercial persuasion: An attribution theory analysis," Journal of Consumer Research, 13-20.

Roehm, M. L. and A. M. Tybout (2006), "When will a brand scandal spill over, and how should competitors respond?," Journal of Marketing Research, 43 (3), 366-73.

Ross, L. (1977), "The intuitive psychologist and his shortcomings: Distortions in the attribution process," Advances in Experimental Social Psychology, 10, 173-220.

Rossiter, J. R. and L. Percy (1987), Advertising and promotion management: McGraw-Hill Book Company.

Rotter, J. B. (1966), "Generalized expectancies for internal versus external control of reinforcement," Psychological Monographs: General and Applied, 80 (1), 1.

---- (1971), "Generalized expectancies for interpersonal trust," American Psychologist, 26 (5), 443.

---- (1980), "Interpersonal trust, trustworthiness, and gullibility," American Psychologist, 35 (1), 1.

Schachter, S. (1964), "The interaction of cognitive and physiological determinants of emotional state," Advances in Experimental Social Psychology, 1, 49-80.

Settle, R. B. (1972), "Attribution theory and acceptance of information," Journal of Marketing Research, 9 (1), 85-88.

Settle, R. B. and L. L. Golden (1974), "Attribution theory and advertiser credibility," Journal of Marketing Research, 181-85.

Shaw, M. E. and J. L. Sulzer (1964), "An empirical test of Heider's levels in attribution of responsibility," The Journal of Abnormal and Social Psychology, 69 (1), 39.

Shrivastava, P., I. I. Mitroff, D. Miller, and A. Miclani (1988), "Understanding industrial crises," Journal of Management Studies, 25 (4), 285-303.

Shultz, T. R. and R. Mendelson (1975), "The use of covariation as a principle of causal analysis," Child Development, 394-99.

Shultz, T. R. and F. B. Ravinsky (1977), "Similarity as a principle of causal inference," Child Development, 1552-58.

Silvera, D. H. and D. Laufer Eds) (2005), Recent developments in attribution research and their implications for consumer judgments and behavior. Mahwah, NJ: Erlbaum.

Silvera, D., S. K. Moe, and P. Iversen (2000), "The association between implicit theories of personality and the attributional process," Scandinavian Journal of Psychology, 41 (2), 107-11.

Siomkos, G. J. and G. Kurzbard (1994), "The hidden crisis in product-harm crisis management," European Journal of Marketing, 28 (2), 30-41.

Slaikeu, K. A. (1990), Crisis intervention: A handbook for practice and research: Allyn & Bacon.

Sparkman Jr, R. M. and W. B. Locander (1980), "Attribution theory and advertising effectiveness," Journal of Consumer Research, 219-24.

Stephan, E., N. Liberman, and Y. Trope (2010), "Politeness and psychological distance: A construal level perspective," Journal of Personality and Social Psychology, 98 (2), 268.

Stevens, Laura and Edward E. Jones (1976), "Defensive attribution and the Kelley cube," Journal of Personality and Social Psychology, 34 (5), 809-20.

Stockmyer, J. (1996), "Brands in crisis: Consumer help for deserving victims," Advances in Consumer Research, 23, 429-35.

Sweeney, J. C., D. Hausknecht, and G. N. Soutar (2000), "Cognitive dissonance after purchase: A multidimensional scale," Psychology and Marketing, 17 (5), 369-85.

Szulanski, G., R. Cappetta, and R. J. Jensen (2004), "When and how trustworthiness matters: knowledge transfer and the moderating effect of casual ambiguity," Organization Science, 600-13.

Taylor, S. E. and J. H. Koivumaki (1976), "The perception of self and others: Acquaintanceship, affect, and actor-observer differences," Journal of Personality and Social Psychology, 33 (4), 403.

Thibaut, John W. and Henry W. Riecken (1955), "Some Determinants and Consequences of the Perception of Social Causality," Journal of Personality, 24 (2), 113.

Trafimow, D., H. C. Triandis, and S. G. Goto (1991), "Some tests of the distinction between the private self and the collective self," Journal of Personality and Social Psychology, 60 (5), 649.

Trope, Y. (1986), "Identification and inferential processes in dispositional attribution," Psychological Review, 93 (3), 239.

Trope, Y. and T. Alfieri (1997), "Effortfulness and flexibility of dispositional judgment processes," Journal of Personality and Social Psychology, 73 (4), 662.

Trope, Y. and N. Liberman (2010), "Construal-level theory of psychological distance," Psychological Review, 117 (2), 440.

Trope, Y., N. Liberman, and C. Wakslak (2007), "Construal levels and psychological distance: Effects on representation, prediction, evaluation, and behavior," Journal of Consumer Psychology, 17 (2), 83.

Trope, Yaacov (1974), "Inferential processes in the forced compliance situation: A Bayesian analysis," Journal of Experimental Social Psychology, 10 (1), 1-16.

Ware, B. L. and W. A. Linkugel (1973), "They spoke in defense of themselves: On the generic criticism of apologia," Quarterly Journal of Speech, 59 (3), 273-83.

Watson, D., L. A. Clark, and A. Tellegen (1988), "Development and validation of brief measures of positive and negative affect: the PANAS scales," Journal of Personality and Social Psychology, 54 (6), 1063.

Webster, D. M. (1993), "Motivated augmentation and reduction of the overattribution bias," Journal of Personality and Social Psychology, 65 (2), 261.

Weiner, B. (1985), "An attributional theory of achievement motivation and emotion," Psychological Review, 92 (4), 548.

---- (2006), Social motivation, justice, and the moral emotions: An attributional approach: Lawrence Erlbaum.

---- (1979), "A theory of motivation for some classroom experiences," Journal of Educational psychology, 71 (1), 3.

Weiner, B., Frieze, I., Kukla, A., Reed, L., Rest, S., Rosenbaum, R.M. (1971), "Perceiving the Causes of Success and Failure," in Attribution: Perceiving the Causes of Behavior. Morristown, NJ: General Learning Press. 95-120

Weiner, B. and N. Peter (1973), "A cognitive-developmental analysis of achievement and moral judgments," Developmental Psychology, 9 (3), 290.

Westbrook, R. A. and R. L. Oliver (1991), "The dimensionality of consumption emotion patterns and consumer satisfaction," Journal of Consumer Research, 84-91.

Williams, D. E. and B. A. Olaniran (1994), "Exxon's decision-making flaws: The hypervigilant response to the Valdez grounding," Public Relations Review, 20 (1), 5-18.

Yoo, B., N. Donthu, and S. Lee (2000), "An examination of selected marketing mix elements and brand equity," Journal of the Academy of Marketing Science, 28 (2), 195.

Zeithaml, V. A. (1988), "Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence," The Journal of Marketing, 2-22.

Zuckerman, M. (1979), "Attribution of success and failure revisited, or: The motivational bias is alive and well in attribution theory," Journal of Personality, 47 (2), 245-87.

APPENDIX A

Survey Items

Attitude Towards Brand	Strongly Agree						Strongly Disagree
I like (BRAND) laptop computers	1	2	3	4	5	6	7
(BRAND) laptop computers are satisfactory	1	2	3	4	5	6	7
(BRAND) laptops are desirable	1	2	3	4	5	6	7
I feel favorably towards (BRAND) laptops	1	2	3	4	5	6	7

(Chang-Hoan, Jung-Gyo, and Tharp 2001) and (Mitchell and Olson 1981)

Attitude Towards Company	**Very Bad**						**Very Good**
My overall impression of (COMPANY) as an organization is	1	2	3	4	5	6	7
	Very Favorable						**Very Unfavorable**
My overall impression of (COMPANY) as an organization is	1	2	3	4	5	6	7
	Very Satisfactory						**Very Unsatisfactory**
My overall impression of (COMPANY) as an organization is	1	2	3	4	5	6	7

(Goldsmith, Lafferty, and Newell 2000)

Brand Equity	Strongly Agree						Strongly Disagree
It makes sense to buy (BRAND) laptops instead of any other brand, even if they are the same	1	2	3	4	5	6	7
Even if another brand has the same features as (BRAND) laptops, I would prefer to buy (BRAND) laptops	1	2	3	4	5	6	7
If there is another brand as good as (BRAND) laptops, I still prefer to buy (BRAND) laptops	1	2	3	4	5	6	7
If another brand is not different from (BRAND) laptops in any way, it seems smarter to purchase (BRAND) laptops	1	2	3	4	5	6	7

(Yoo, Donthu, and Lee 2000)

Involvement in Product Class	Strongly Agree						Strongly Disagree

Generally, I am someone who finds it important what kind of laptop I buy	1	2	3	4	5	6	7
Generally, I am someone who is interested in the kind of Smartphone I buy	1	2	3	4	5	6	7
Generally, I am someone for whom it means a lot what kind of Smartphone I buy	1	2	3	4	5	6	7

(Wulf, Odekerken-Schröder, and Iacobucci 2001)

Purchase Intention - Direct	Very High						Very Low
The likelihood of purchasing the (BRAND) laptop brand again is…	1	2	3	4	5	6	7
	Strongly agree						Strongly Disagree
I would consider buying the (BRAND) laptop brand again	1	2	3	4	5	6	7
	Very High						Very Low
My willingness to buy the (BRAND) laptop brand again is…	1	2	3	4	5	6	7

(Dodds, Monroe, and Grewal 1991)

Word of Mouth Intentions	**Strongly Disagree**						**Strongly Agree**
I would recommend the (BRAND) laptop brand to someone else	1	2	3	4	5	6	7
I would say positive things about the (BRAND) laptop brand to other people	1	2	3	4	5	6	7
I would recommend (BRAND) laptops to others	1	2	3	4	5	6	7

(Price and Arnould 1999)

Switching Costs	**Strongly Agree**						**Strongly Disagree**
In general, it would be a hassle changing laptops	1	2	3	4	5	6	7
It would take a lot of time and effort changing laptops	1	2	3	4	5	6	7
for me, the costs in time, money, and effort to switch laptops are high	1	2	3	4	5	6	7

(Ganesh, Arnold, and Reynolds 2000)

Trust in Brand	Strongly Agree						Strongly Disagree
I trust the (BRAND) brand	1	2	3	4	5	6	7
The (BRAND) brand is an honest brand	1	2	3	4	5	6	7
The (BRAND) brand is safe	1	2	3	4	5	6	7
I would rely on the (BRAND) brand	1	2	3	4	5	6	7

(Chaudhuri and Holbrook 2001)

Trust in Organization	Strongly Agree						Strongly Disagree
I believe that (COMPANY) could not be relied upon to keep its promises	1	2	3	4	5	6	7
I believe (COMPANY) is trustworthy	1	2	3	4	5	6	7
I would be cautious in dealing with (COMPANY)	1	2	3	4	5	6	7
Overall, I believe (COMPANY) is honest	1	2	3	4	5	6	7

(Crosby, Evans, and Cowles 1990)

Usage Intention (adapted)	Strongly Agree						Strongly Disagree
I intend to continue using the (BRAND) laptop	1	2	3	4	5	6	7
It is likely going to take too much effort to switch laptop brands	1	2	3	4	5	6	7
I prefer the (BRAND) laptop	1	2	3	4	5	6	7

(Lane 2000)

Psychological Distance (Created)	Strongly Agree						Strongly Disagree
The likelihood of something like this happening to me at some point is high	1	2	3	4	5	6	7
I am someone who will be affected in some way by the service outage	1	2	3	4	5	6	7
Someone close to me will be affected by the service outage	1	2	3	4	5	6	7

Crisis Attribution	Strongly Agree						Strongly Disagree
(Company) is to blame for the service outage	1	2	3	4	5	6	7
I don't think (Company) is at fault for what is happening	1	2	3	4	5	6	7
I think the current situation is a result of large mistakes on (Company) part	1	2	3	4	5	6	7

Crisis Variables	Strongly Agree						Strongly Disagree
I feel this is going to be a very large problem (Size)	1	2	3	4	5	6	7
The (Brand) service outage is a crisis (Crisis Recognition)	1	2	3	4	5	6	7
I think this is going to be an important problem (Importance)	1	2	3	4	5	6	7

APPENDIX B

Study 1:

A

Please read the following news article and scenario, and then answer the questions below. Note that the scale anchors (e.g. Strongly Agree vs. Strongly Disagree) may change in both labeling and position (e.g. Not Very Good vs. Very Good).

Washington, D.C. (The Associated Press) – Personal computer manufacturer Micro Expert Technologies (MET) is currently in crisis mode after wide spread reports of problems with their MX-1000 line of laptop computers. According to industry insiders, the MX-1000 line is experiencing a battery life issue where batteries on new laptops are dying within several months of purchase. An investigation by the *Wall Street Journal* uncovered that the batteries are failing because of corner cutting by MET in the manufacturing process. So far there is no word on what MET plans to do to compensate consumers affected by the issue, but retailers say a decision is expected shortly.

Please take a moment to put yourself in the place of a MX-1000 owner whose battery has died after only owning the laptop for a month and a half. When you purchased the MX-1000, you considered it to be the best laptop available for you. Think about how you would feel if this situation happened to you, and how it might affect your attitudes towards the organization (MET) and towards the MX-1000 brand.

B

Washington, D.C. (The Associated Press) – Personal computer manufacturer Micro Expert Technologies (MET) is currently in crisis mode after wide spread reports of problems with their MX-1000 line of laptop computers. According to industry insiders, the MX-1000 line is experiencing a battery life issue where batteries on new laptops are dying within several months of purchase. An investigation by the *Wall Street Journal* uncovered that the batteries are failing because of corner cutting by MET in the

manufacturing process. So far there is no word on what MET plans to do to compensate consumers affected by the issue, but retailers say a decision is expected shortly.

Please take a moment to put yourself in the place of a consumer who is thinking about purchasing a new laptop. Prior to these events, you had considered the MX-1000 laptop to be a good product. Think about how the above information might affect your attitudes towards the organization (MET) and towards the MX-1000 brand.

C

Washington, D.C. (The Associated Press) – Personal computer manufacturer Micro Expert Technologies (MET) is currently in crisis mode after wide spread reports of problems with their MX-1000 line of laptop computers. According to industry insiders, the MX-1000 line is experiencing a battery life issue where batteries on new laptops are dying within several months of purchase. An investigation by the *Wall Street Journal* uncovered that the batteries were part of a bad batch provided to the company by an outside manufacturer. So far there is no word on what MET plans to do to compensate consumers affected by the issue, but retailers say a decision is expected shortly.

Please take a moment to put yourself in the place of a MX-1000 owner whose battery has died after only owning the laptop for a month and a half. When you purchased the MX-1000, you considered it to be the best laptop available for you. Think about how you would feel if this situation happened to you, and how it might affect your attitudes towards the organization (MET) and towards the MX-1000 brand.

D

Washington, D.C. (The Associated Press) – Personal computer manufacturer Micro Expert Technologies (MET) is currently in crisis mode after wide spread reports of problems with their MX-1000 line of laptop computers. According to industry insiders, the MX-1000 line is experiencing a battery life issue where batteries on new laptops are dying within several months of purchase. An investigation by the *Wall Street Journal* uncovered that the batteries were part of a bad batch provided to the company by an outside manufacturer. So far there is no word on what MET plans to do to compensate consumers affected by the issue, but retailers say a decision is expected shortly.

Please take a moment to put yourself in the place of a consumer who is thinking about purchasing a new laptop. Prior to these events, you had considered the MX-1000 laptop to be a good product. Think about how the above information might affect your attitudes towards the organization (MET) and towards the MX-1000 brand.

Study 2

BBC NEWS

Android phones to stop making calls

Google has announced a major security patch that will effectively turn off their cell phone service on phones using the Android operating platform for a yet to be determined amount of time. Google CEO Larry Page announced the unprecedented security update in a press release this morning, saying the shutdown is the result of a newly discovered exploit which could result in the compromise of a user's private data. According to Page, hackers have discovered a way to use the cellular connection to access unencrypted data including credit card information, passwords, and other sensitive information.

Google says that so far the security exploit has only affected around 15 thousand users, but that as information on the hack spreads that number could rise exponentially. The security patch will cut phone service starting at 5 PM Pacific time this evening. Programmers are reportedly working around the clock to find and fix the problem, but as of now there is no set date for phone service to resume.

The FBI is currently investigating the situation, but they say it is not clear who is behind the attacks. Agents say the cell phone service disruption is particularly problematic as it will block all cell service on the phones, including access to emergency services.

According to the research firm IDC approximately 59% of all smart phones sold so far in 2012 use the
Android operating system.

BBC NEWS

iPhones to stop making calls

Apple computers has announced a major security patch that will effectively turn off their customers cell phone service for a yet to be determined amount of time. Apple CEO Timothy Cook announced the unprecedented security update in a press release this morning, saying the shutdown is the result of a newly discovered exploit which could result in the compromise of a user's private data. According to cook, hackers have discovered a way to use the cellular connection to access unencrypted data including credit card information, passwords, and other sensitive information.

Apple says that so far the security exploit has only affected around 15 thousand users, but that as information on the hack spreads that number could rise exponentially. The security patch will cut phone service starting at 5 PM Pacific time this evening. Programmers are reportedly working around the clock to find and fix the problem, but as of now there is no set date for phone service to resume.

The FBI is currently investigating the situation, but they say it is not clear who is behind the attacks. Agents say the cell phone service disruption is particularly problematic as it will block all cell service on the phones, including access to emergency services.

According to the research firm IDC approximately 23% of all smart phones sold so far in 2012 have been
Apple iPhones.

APPENDIX C

A measurement model of the variables used in Study 2 was run using the M-Plus software resulting in the following fit statistics:

Chi-Square Test of Model Fit

Estimate	3292.924

RMSEA

Estimate	0.068

CFI/TLI

CFI	0.826
TLI	0.802

SRMR (Standardized Root Mean Square Residual)

Value	0.088

While none of these fit statistics are spectacular, the RMSEA approaches the desired level of .05, both the CFI and the TLI are above .8 (although not higher than .9 which indicates "good" fit) and the SRMR is less than .10 indicating an adequate model fit. Standardized factor loadings for each variable and item are reported below. Items are in the order reported in the survey items in Appendix 1. Thus, BEA1 is "It makes sense to buy (APPLE) products instead of any other brand, even if they are the same.

Standardized Factor Loadings for Measurement Model

PD	BY		ATBA	BY		IPC	BY		TIBG	BY
PD1	0.516		ATBA1	0.835		IPC1	0.787		TIBG1	0.746
PD2	0.856		ATBA2	0.665		IPC2	0.824		TIBG2	0.766
PD3	0.634		ATBA3	0.669		IPC3	0.758		TIBG3	0.826
			ATBA4	0.856					TIBG4	0.754
CAUSE	BY					WOMA	BY			
CAUSE1	0.94		ATBG	BY		WOMA1	0.918		TIOA	BY
CAUSE2R	0.75		ATBG1	0.27		WOMA2	0.954		TIOA1R	0.644
CAUSE3	0.633		ATBG2	0.792		WOMA3	0.894		TIOA2	0.832
			ATBG3	0.761					TIOA3R	0.681
BEA	BY		ATBG4	0.679		WOMG	BY		TIOA4	0.585
BEA1	0.796					WOMG1	0.778			
BEA2	0.913		ATCA	BY		WOMG2	0.656		TIOG	BY
BEA3	0.934		ATCA1R	0.722		WOMG3	0.642		TIOG1R	0.73
BEA4	0.828		ATCA2	0.909					TIOG2	0.86
			ATCA3	0.89		TIBA	BY		TIOG3R	0.565
BEG	BY					TIBA1	0.804		TIOG4	0.628
BEG1	0.716		ATCG	BY		TIBA2	0.85			
BEG2	0.932		ATCG1R	0.478		TIBA3	0.703		PIA	BY
BEG3	0.835		ATCG2	0.799		TIBA4	0.879		PIA1	0.755
BEG4	0.689		ATCG3	0.91					PIA2	0.799
									PIA3	0.893
PIG	BY									
PIG1	0.699									
PIG2	0.928									
PIG3	0.898									

Construct	Composite Reliability	Average Variance Extracted
Psychological Distance	.715	.467
Perceived Cause	.824	.615
Brand Equity Apple	.925	.765
Brand Equity Google	.878	.646
Purchase Intention Google	.883	.719
Purchase Intention Apple	.858	.669
Attitude Towards Brand Apple	.844	.579
Attitude Towards Brand Google	.734	.435
Attitude Towards Company Apple	.881	.713
Attitude Towards Company Google	.785	.565
Involvement in Product Category	.833	.624
Word of Mouth Apple	.945	.851
Word of Mouth Google	.739	.488
Trust in Brand Apple	.885	.659
Trust in Brand Google	.856	.598
Trust in Organization Apple	.783	.478
Trust in Organization Google	.79	.496