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The Effect of Online Reviews on Attitude and Purchase Intention: How Consumers Respond to Mixed Reviews

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THE EFFECT OF ONLINE REVIEWS ON ATTITUDE AND PURCHASE

INTENTION: HOW CONSUMERS RESPOND TO MIXED REVIEWS

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ABSTRACT

Three studies investigate how consumers respond to mixed reviews under personal and social influences. The first study looks at how individual self-construal influences the way consumers process mixed reviews from professional critics vs. regular consumers. The study finds consumers with an independent (interdependent) self-construal to have less favorable attitude and to be less likely to purchase the product when the negative review comes from professional critics (consumers). Study 2 explores how consumption social context determines the way consumers respond to mixed reviews and how consumer knowledge moderates this behavior. For public consumption, the study finds that both attitude and purchase intention are affected equally by mixed reviews regardless of the source of such reviews, and consumers utilize other cues such as well-known actors to guarantee collective satisfaction. However, consumer knowledge is found to moderate consumer reactions under private consumption such that highly knowledgeable consumers prefer to process intrinsic information such as mixed reviews regardless of the source, while novice consumers prefer less complicated information and side themselves with other consumers' opinions. Finally, Study 3 looks beyond the informational role of product reviews and introduces them as a social tool for managing one's impression on others. It finds that when consuming with strong connections such as friends, consumers have less favorable attitude and are less likely to purchase a product when negative reviews come from other consumers than when negative reviews come from professional critics. In contrast, consumers in the presence of weak connections such as work acquaintances rely not only on what other consumers say but also on what

professional critics say. The results from these studies shed new light on what product

reviews can do and how consumers use product reviews under different contexts in

everyday life.

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CHAPTER I

INTRODUCTION

Suppose you are going to see a movie or going out for dinner. You come across online reviews of the movie or the restaurant from both professional critics and other consumers, but they are not in agreement. Whom will you choose to believe? If you are asked to choose the movie or the restaurant based on these reviews, to whom will you choose to listen in order to prevent yourself from making a mistake and embarrassing yourself in front of your friends or peers. At some point in time, most consumers who read reviews will ask themselves this question.

Past research indicates that social influences play a major role in shaping consumers' attitude and behavior (e.g., Granovetter 1973; Godes and Mayzlin 2004; De Bruyn and Lilien 2008). In fact, social influences via word-of-mouth (WOM) have been recognized as one of the most influential forms that have a significant impact on decision-making (Henning-Thurau et al. 2004; Herr et al. 1991). Consumers rely on others' opinions to help make their own decisions, and online reviews have become an effective tool providing consumers with information and even a vicarious virtual consumption experience without actually purchasing the product (Herr et al. 1991; Chatterjee 2001).

Naturally, positive WOM could enhance the perceived quality of a product and result in a more positive attitude and higher purchase intention, while negative WOM could lead to a less positive atttiude (Liu 2006). These effects have been studied extensively in the WOM and social influence liturature (e.g., Eliashberg and Shugan 1997; Basuroy et al. 2003; Chevalier and Mayzlin 2006; Liu 2006). When there is a consensus among reviewers, consumers can simply make their decisions based on this agreement. However, because people's opinions are often different, consumers are likely to find a mix of opinions on many products. This can cause difficulty and uncertainty to consumers, who may not know what to do with this information and there is no evidence to support whether one opinion is superior than another.

Traditional research on negativity bias would suggest that negative reviews will trump positive reviews because it is more salient and dominant and people weigh negative information more heavily than positive information (Feldman and Lynch 1988; Kanouse and Hanson 1972; Herr et al. 1991; Lee et al. 2009). That is, in the case of online reviews, one will place more weight on consumer reviews if those are negative, and conversely if professional reviews are negative, one will consider those reviews more. This research suggests that the answer is not so straightforward. As regular consumers and professional critics are distinct information sources representing different types of social groups, consumers will consider various aspects of the source type in addition to the valence of the reviews. Moreover, there may be other factors that could affect this phenomenon. How consumers respond to such conflicting reviews is the research question this dissertation seeks to answer.

Specifically, the author proposes that factors such as individual or situational differences could affect how consumers respond to mixed reviews. Research has found that the degree of social influence depends on what individuals perceive as similar in relation to others (Brown and Reingen 1987; De Bruyn and Lilien 2008) and the strength of the relationship between them (Godes and Mayzlin 2004). This dissertation draws upon self-construal literature to examine how it could moderate the way consumers process mixed reviews since much research has found an impact of self-construal on decision-making, attitude change, and diagnosticity of information (Gardner et al. 1999 ; Aaker and Lee 2001). Focusing on the same underlying foundation of social influence, this dissertation investigates further how consumption context can moderate the way consumers respond to mixed reviews. While self-construal reflects a consumer's view of him or herself in relation to others, consumption context serves as situational influences that can change consumer responses to conflicting reviews. The impression management literature posits that consumers choose to consume certain products in order to make other people think they are interesting even though those products are not something they actually want (Ratner and Kahn 2002). The same literature also suggests that consumers aim to achieve certain goals when they try to impress others, and that the specific social counterparts (e.g., friends, acquaintances, etc.) can determine what impression tactics consumers employ to achieve those goals (Tice et al. 1995). This suggests that consumers may utilize online reviews differently depending on whether they are in public versus private and with whom they are surrounded by when consuming the product.

Based on these literatures, this dissertation proposes the moderating effects from self-construal, consumer knowledge, consumption context, and tie-strength. Through

three experimental studies, the author finds that the handling of mixed reviews is an idiosyncratic process, and both individual and social differences can determine whom one chooses to listen to. *Study 1* finds that independent self-construal consumers exhibit less favorable attitudes and lower purchase intention when they see negative review from critics than from consumers, whereas interdependent self-construal consumers exhibit less favorable attitudes and lower purchase intention when they see the negative review from consumers than from critics.

In *Study 2*, the author finds that both attitude and purchase intention are affected equally by professional vs. consumer reviews during public consumption. Furthermore, consumers use other cues such as the quality of actors to guarantee collective satisfaction. In the case of private consumption, results show that consumers with greater knowledge prefer to process more intrinsic information such as mixed reviews regardless of the sources. Thus, their attitude and purchase intention are not affected by who offered the negative reviews. In contrast, novice consumers choose to process less complicated information and simply rely on other consumers' opinions to make their decision.

Finally, *Study 3* suggests the possibility of using online reviews as an impression management tool to accomplish different goals. To be liked by their close friends, consumers conform to other people's opinions and side themselves with consumer reviews. However, to demand respect when the social context involves mere acquaintances, consumers exhibit the tendency to rely not only on what other consumers say but also what professional critics say.

This dissertation contributes to the marketing research and practitice in several ways. First, there is inconclusiveness in the literature in terms of which valence is more

influential and what infomation source is more credible. Although it is quite common in real life to encounter conflicting reviews from various sources, very little research has been devoted to how consumers handle such mixed reviews. This dissertation fills the gap by exploring multiple moderating factors, both individual and situational, which could play a role in the way consumers process mixed reviews.

Second, there is very little empirical evidence on how consumers deal with online reviews under different consumption contexts, and most focus on a single context or ignore it completely (Mizerski 1982; Mudambi and Schuff 2010; Zhu and Zhang 2010). These existing evidences do not reflect the rich reality consumers face. Addressing this issue, this dissertation looks at how consumption context determines the way individuals respond to conflicting information and finds that consuming a product in public vs. in private does make a difference in whose opinions consumers listen to. Reflecting on the subtleties of consumption contexts, this dissertation further investigates how tie strength with the social partner can determine the way consumers utilize online reviews. These results provide a better understanding of the impact of online reviews in a more realistic context.

Last but not least, this dissertation contributes to the self-construal literature and the impression management literature by introducing online reviews as an impression management tool used to create the proper impression that is consistent with one's self-construal. Although there is much research on the effects of self-construal on the diagnosticity of single pieces of information, none has looked at how self-construal could influence the way different pieces of information relate to each other. This dissertation fills this gap by showing that when faced with diverse information from multiple sources,

consumers side with a source congruent with their self-construal. Furthermore, they leverage mixed reviews to achieve the specific impression management goal in a given social context.

CHAPTER II

LITERATURE REVIEW

The purpose of this chapter is to review the literature relevant to this dissertation. It is divided into two sections. The first section reviews the definitions of both traditional WOM and eWOM, the difference between them, possible antecedents of eWOM, its effects, and determinants of eWOM effectiveness. The subsequent section identifies theoretical foundations and frameworks that lead to the conceptual framework of this dissertation.

UNDERSTANDING AND DEFINING ONLINE PRODUCT REVIEWS AS A FORM OF eWOM COMMUNICATION

1.1. Electronic Word-of-Mouth (eWOM)

Word-of-Mouth or WOM is defined as "oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as noncommercial, regarding a brand, a product, a service or a provider" (Arndt 1967). WOM is a way to communicate between customers about their feeling or experience toward products or services. Marketers have realized the potential of WOM in influencing evaluation and purchase intention. It has been recognized as one of the most influential and important sources of information and has a significant impact on decision-making (Godes and Mayzlin 2004; Henning-Thurau et al. 2004; Herr et al. 1991). The lack of commercial agenda makes WOM a very effective source of information, particularly with products or services where previous experience may be limited (East et al. 2007).

There are various forms of WOM including both offline communication (traditional WOM) and online or Internet facilitated communication or Electronic Word-

of-Mouth (eWOM). New technology brings more alternative and convenient ways for consumers to gather the information they need. Consumers could gain access to more information, at a faster speed. With Internet technology, everything seems to be just one click away. Many stores have created online portals for their consumers. Websites such as Amazon.com or ePinions.com have extensive database of consumer reviews for a variety of products provided by actual consumers. Through product search, a consumer can easily search for products that best fit their preferences, wants, and desires (Clemons et al. 2006). This new platform offers a better way for consumers to communicate and exchange their opinion on a grand scale. In other words, consumers can communicate with the whole world (Steffes and Burgee 2009). Many websites provide ways for consumer to communicate to others via web boards, forums, blogs, reviews, instant messengers and so on (Liu 2006). Instead of using traditional WOM, online consumers use electronic word-of-mouth or eWOM.

eWOM is "any positive or negative statement made by potential, actual, or former consumers about a product or company, which is made available to a multitude of people and institutions via the Internet" (Henning-thurau et al. 2004 p. 39). The fact that consumers started to use the Internet to get the information they need from one another has changed the balance of power from companies to consumers (Bernoff and Li 2008). For a wide range of products and services, online reviews are increasingly available to consumers. From simple products such as toothpaste to more complicated products such as electronics or automobiles, consumers can easily find related information either directly from the companies themselves or from other consumers electronically. When consumers want to do online research for product information and evaluation, not only do

they have access to the companies' website for detailed information on the products, but they can also easily access thousands of reviews other consumers have posted online. These consumers reviews are provided by sellers or websites along with product description, website recommendation, or even reviews from industry experts. Empowered by the Internet, eWOM has become a new and important force that many companies and marketers are trying to utilize and maximize to its full potential.

1.2. Differences between Traditional WOM and eWOM

Traditional WOM and eWOM are quite similar in the sense that they both provide person-to-person or person-to-group product recommendations. However, there are a few notable differences between traditional WOM and eWOM. First is the relationship between sources and receivers. Traditional WOM usually spreads from someone individuals know and trust. Consumers do not just walk up to another person and tell him/her what they think about the products or services. They need to know each other well enough to be able to share their opinions. It is usually a process of sharing information between small groups or on a one-to-one platform(Dellarocas 2003; Steffes and Burgee 2009). Thus, traditional WOM usually happens among consumers who may already know each other or have certain social relationships. Unlike traditional WOM, online customers may not even know each other; normally they are random customers with a made up registered name on websites. eWOM provides information, tailored solutions, empathetic listening, and interactivity, while the relationship between the sources and receivers is distant (Chatterjee 2001; Herr et al. 1991).

Another major difference is location. While the immediate intimate conversation, possibly at the same place and time, is required for traditional WOM, eWOM

conversations can be separated by space and time (Steffes and Burgee 2009) and can reach beyond geographically local members (Park et al. 2007). For eWOM to occur, all that is needed is a computer with Internet connection. A sender from one place can post a review of a product online and a receiver who lives in another part of the world can read it at a later time.

Another aspect of timing difference between traditional WOM and eWOM lies in the immediacy of information sharing. Consumers tend to pass along online contents (i.e., sharing online articles or giving online reviews) immediately after they read or experience them. However, traditional WOM discussion is usually about their experiences in the remote past (Berger and Schwartz 2011).

A fourth difference that distinguishes eWOM from WOM is accessibility. eWOM maintains persistent, easily accessible, and public records of everything that has been posted online (Dellarocas et al. 2007). The consumer can acquire the information at his or her own pace and time. The ability to come back to eWOM allows the consumers to be able to collect greater amount of information, or acquire it easily from more sources or reviewers compared to traditional WOM. These differences may produce different effects on consumer behaviors, which make it critical for marketers to understand and utilize it in its full capacity.

Finally, the decision on what to share is also different between offline and online WOM. For traditional WOM, the partner(s) usually determines what contents to share with. For eWOM, contents are more important. Online consumers share what they believe to be interesting to pass along (Berger and Schwartz 2001). The summary of the differences is shown in table 1.

Table 1. The summary of the differences between traditional WOM and eWOM

Differences	Traditional WOM	eWOM	Authors
Relationship	Know each other well, strong-tie, occasionally weak-tie. One-to-one or small group.	Strangers or friends, both strong and weak-tie or no-tie at all. One-to-many or many-to-one	Dellarocas 2003; Steffes and Burgee 2009
Location and Time	Usually same place and time	Can be separated by space and time	Park et al. 2007; Sen and Lerman 2007; Steffes and Burgee 2009
Immediacy of Information Sharing	Distal information sharing	Proximal information sharing	Berger and Schwartz 2011
Accessibility	Intimate Personal conversation, difficult or impossible to access by others, no record	Publicly and easily accessible recorded	Dellarocas et al. 2007
Contents	Determined by partner(s)	Determined by sender(s)	Berger and Schwartz 2011

1.3. Antecedents and Effects of Electronic Word-of-Mouth

Past research has investigated the motivations that drive consumers to post their opinions online and to seek online opinions. For instance, Anderson (1998) found that very satisfied and dissatisfied customers are more likely to engage in WOM. Henning-Thurau et al (2004) found several motives leading to engagement in eWOM giving behavior, including desire for social interaction, desire for economic incentives, concern for other consumers, and the potential to enhance own self-worth. Because consumers are concerned about risks or uncertainty involved in purchasing products and services, whether the chance of purchasing pirated goods (Hung and Li 2007), or simply the possibility that they may not be satisfied with products, they tend to seek more information to assure their purchase decision and reduce the uncertainty (Hu et al. 2008). Goldsmith and Horowitz (2006) found different factors that drive consumers to seek opinion from others, including risk reduction, popularity, lowering costs, easy information, by accident or unplanned, perception, inspiration from offline inputs, and

pre-purchase information acquisition.

eWOM has two significant consequences: increasing consumer awareness through *informative effect* and changing the attitude through *persuasive effect* (Liu 2006). These two effects have been studied extensively in the marketing literature. As for the informative effect of eWOM, Godes and Mayzlin (2004) posit that the more conversation about the product, the more likely consumers will be informed about it. As a result, it could possibly lead to greater sales. As for the persuasive effect on attitude, positive WOM could enhance the perceived quality of product, which in turn, leads to better attitude. In the meantime, negative WOM could lead to less positive attitude (Liu 2006). Previous studies focus mainly on purchase decision and overall sales as final results of informative and persuasive effect.

1.3.1. Purchase decision

Online consumers cannot use their senses to assess products before purchase, their judgment will be solely based on the information provide on the websites. Thus, they incorporate eWOM into their decision making process. Studies found that online reviews play a significant role in purchase decisions (Chen and Xie 2005; Clemons et al. 2006; Davidow 2003; Hu et al. 2008) with the main purposes of eWOM being either to recommend or to discourage other consumers from purchasing products and services (Sen and Lerman 2007). Consumers who gather more information from online source report greater interest in the product or company, which could eventually lead to purchase behavior (Bickart and Schindler 2001). Gauri et al. (2008) found that the percentage but not the volume of positive reviews influences purchase intention. Abundant information

and quality of eWOM also have a positive effect on interest, attitude, and purchase intention (Chu and Shiu 2008; Park et al. 2007; Wyatt and Badger 1990).

The way eWOM influences purchase intention could be different based on the expertise of consumers. According to Park and Kim (2008), the purchase likelihood of expert consumers is increased when they are being exposed to eWOM containing technical information (attribute-centric) while the purchase likelihood for novice consumers is increased when they receive eWOM containing benefit-centric information (what benefits users will get from using the product).

1.3.2. Overall Sales

The effects of eWOM on sales have been studied in different contexts. For instance, online book industry (Chevalier and Mayzlin 2006; Godes and Mayzlin 2004) movie and entertainment industry (Liu 2006), and even beer and beverage industry (Clemons et al 2006). The overall results indicate that eWOM has positive effects on product sales. However, when looking at the characteristics of eWOM (i.e. valence and volume) and their impacts, the results are mixed. Gauri et al. (2008) found maximum impact of positive WOM on repurchase intention. Hu et al. (2008) found that the magnitude of change in sales of DVDs and videos from additional negative reviews is greater than the change from additional positive reviews. Eliashberg and Shugan (1997) examined the role of critic reviews and its influence on movie box office performance and found that positive reviews is a significant predictor for later weeks' and overall box office performance and that the total number of reviews is a significant predictor of early box office performance. This is in contrast with Gauri et al. (2008) discussed earlier, who found that the percentage of positive reviews, not total number of reviews, has the

maximum influence on repurchase intention. The reason behind the contradictory findings could be that the former looked at actual sales while the latter looked at repurchase intention. It is possible that the two types of outcomes are driven by different mechanisms. Duan et al (2008) also looked at the volume aspect and its impact on movie box office. They found that higher volume of reviews correlates with higher box office revenues and the volume creates informative effect on consumers. This is more in line with Eliashberg and Shugan (1997) conclusions.

1.4 Determinants of eWOM effects: The Recipient-Source Framework

WOM is a dyadic communication between the source and the recipient (Gilly et al 1998). It can be inferred from the literature on traditional WOM that the source, the recipient, and the relationship between them determine the effects of eWOM. In addition to these three components (source, recipient, and their relationship) from the recipient-source framework, this study also considers the fourth component, the characteristics of the message itself, that is also important and determines the effect of eWOM. All of these factors have been studied extensively in marketing and other literatures (Brown et al. 2007; Brown and Reingen 1987; Fong and Burton 2008; Gilly et al. 1998; Huang and Chen 2006; Mudambi and Schuff 2010; Steffes and Burgee 2009; Zhu and Zhang 2010).

First, regarding recipient characteristics, research has found that consumers are influenced by WOM unequally based on their individual characteristics (i.e. age, gender, culture) or personality traits (Gilly et al. 1999). For instance, recommendation by others has a stronger effect on female consumers' willingness to purchase than on male consumers (Garbarino and Strahilevitz 2004). Furthermore, Asian investors are most

influenced by the trustworthiness of a source while American investors are most influenced by the attractiveness and expertise of a source (Tseng and Stern 1996).

Regarding source characteristics, research has found that source credibility is one of the most important factors that can determine the effects of WOM (Ohanion 1990; Gilly et al. 1998; Smith et al 2005; Huang and Chen 2006; Brown et al 2007. Research has examined different sources of WOM to see which one is perceived as the most trustworthy. In their study, Huang and Chen (2006) looked at recommendations from two different sources (consumer and expert) and found that recommendations from other consumers are perceived as more trustworthy compared to recommendations from experts or to no recommendation at all. When the information comes from other consumers, consumers may perceive that, first, it is more trustworthy because consumers honestly discuss about strengths and weaknesses of a product on a consumer's viewpoint, and second, it is consumer-oriented information, which is understandable and familiar (Park et al. 2007). However, there may be some cases that WOM from experts are more influential than other sources. In contrast with Huang and Chen's study, Smith et al (2005) found that when consumers have utilitarian shopping motivations, perceived expertise becomes more important and reviews or recommendations from experts (i.e., critics or editors) are more influential than those from other consumers.

The third component of recipient-source framework is the relationship between the recipient and the source of WOM. The more individuals interact with each other, the more information will be exchanged (Brown and Reingen 1987). Social ties and tie strength are important concepts in the WOM literature, especially related to the spreading and influencing of WOM. In his "the strength of weak ties theory", Granovetter (1973)

posited that without weak ties, WOM may not be able to spread from one social group to another. Additionally, people tend to be more influenced by WOM when it comes from strong tie individuals such as parents, siblings, or close friends (Godes and Mayzlin 2004). The explanation could be that the credibility of sources is already well known by receivers (Steffes and Burgee 2009).

The final component is the characteristics of the message itself. Research has examined different characteristics and effects of messages, such as information quality (including richness, usefulness, and vividness) (Herr et al 1991; Chu and Shiu 2008), depth (by looking at word count)(Chevalier and Mayzlin 2006), types of message (Park and Kin 2008), and volume (Godes and Mayzlin 2004; Liu 2006). However, the most common characteristic that has been studied extensively in marketing, psychology, advertising, and communication literature is *Valence* (positive, negative, or neutral) (e.g., Eliashberg and Shugan 1997; Basuroy et al 2003; Chevalier and Mayzlin 2006; Liu 2006; Zhang and Dellarocas 2006).

THEORETICAL FRAMEWORK

2.1. THE ACCESSIBILITY-DIAGNOSTICITY MODEL

Originally proposed by Feldman and Lynch (1988), the accessibility-diagnosticity model explains how consumers form belief, attitude, intention, and behavior. To briefly summarize the model, any piece of information will be used for judgment or choice depends on whether 1) how accessible is the input, 2) how accessible are the alternatives inputs, and 3) how diagnostic is the input (Lynch et al. 1988).

First, whether or not information will be used as an input for judgment and choice is determined by the accessibility of that information from the memory and the

diagnosticity of the information. The information may not be used as an input if more diagnostic information is available Feldman and Lynch (1988). Any factor (i.e. vividness) that could increase the accessibility of an input may increase the chance that the input will be used (Herr et al 1991). To be considered as diagnostic, the information has to help the consumers distinguish all product alternatives and assigning the product into one, and only one, category without being ambiguous. Information that has several interpretations is not diagnostic.

Second, the accessibility-diagnosticity model proposes that negative information is more diagnostic. Extreme negative attributes generally have strong implications for one particular category membership, whereas positive or less negative attributes may be ambiguous and have implications for a variety of categories (Feldman and Lynch 1988; Herr et al. 1991). In their study, Herr et al (1991) found that negative WOM has a stronger impact than positive WOM.

Third, the accessibility-diagnosticity model posits that early information is more diagnostic than later information. The prior impressions or evaluations are persistent and resistant to change, and being exposed to additional information, even contradictory one, could increase the confidence in prior impressions (Herr et al. 1991).

Before making a purchase decision, unless it is impulse buying, consumers usually gather some information, which later contributes to the attitude formed toward a particular product. According to the accessibility-diagnosticity model, retrieving prior information or evaluations from memory reshapes the attitude of consumers. In addition to information stored in the memory, consumers also use external information to which they are exposed. If the consumer doesn't have any prior information related to the

product of choice, the accessibility of the alternative inputs will increase and may be used for judgment or choice decision. Moreover, the presentation of the input is also a factor affecting the accessibility and diagnosticity of the information as well. According to Herr et al. (1991), vividly presented information (WOM), as opposed to pallid information (printed communication), is more accessible and weighted more heavily in judgment.

2.2. NEGATIVITY BIAS

Negativity bias is the principal that explains most situations when people tend to weigh negative information more heavily than positive information when they judge objects (Kanouse and Hanson 1972). Moreover, negativity bias posits that negative events are more salient and dominant than positive events (Lee et al. 2009; Rozin and Royzman 2001). This principle can be applied across a wide range of domains. For instance, the negative contamination embedded in an age-old statement. "a spoonful of tar can spoil a barrel of honey, but a spoonful of honey does nothing for a barrel of tar" and another example would be the castes system in Hindu religion, which believes that the higher castes are easily contaminated by having contacts with people from lower castes (Rozin and Royzman 2001). In their study, Rozin and Royzman (2001) proposed four different aspects of Negativity Bias as follows.

1) **Negative Potency.** This principle explains that, given an equal level of negative and positive events, negative events are more potent and salient than positive one. The example of this principle can be found in the concept of loss aversion, where people demand more to give up what they possess (loss) than to pay to get the same thing (gain).

2) **Greater steepness of Negative Gradients.** This principle explains that negativity events grow faster than do positive events. In other word, the additional negativity units will create more effects than additional positive ones.

3) **Negativity Dominance:** It is probably the most robust principle and common example of negativity bias. According to this principle, when we combine the events of equal but opposite valence, the final result will be negative.

4) **Negative Differentiation:** This principle explains that the negative events are generally more elaborate and different than the positive events.

Usually negative information tends to receive more attention and be perceived as more diagnostic (Feldman and Lynch 1988; Rozin and Royzman 2001). The simple explanation could be that negative events are more rare, so people tend to pay more attention when they happen (Godes and Mayzlin 2004; East et al. 2007). Another explanation could be that negative information needs more complex appraisal because the actions to cope with are varied (Rozin and Royzman 2001). Negativity bias also reflects risk avoidance behavior. In a personal relationship, the response toward negative information of a target person is to avoid any contact with him or her. One study has found that when there is extreme mixed information about a person, the evaluation of that person would be negatively biased, especially when the extreme negative information is related to moral traits (Wojciszke et al. 1993). Even though it is rare, there are some cases where positive events have more value than negative ones or could possibly offset negativity bias. In their study, Skowronski and Carlston (1987) found positive ability behaviors were more diagnostic than negative ability behaviors. However, they also

found the dominance of negativity bias in the context of moral behaviors. Dishonest behavior was seen as more diagnostic than honest behavior.

When consumers read reviews, they digest negative and positive reviews differently. Studies found that negative reviews are more influential than positive reviews (Ahluwalia and Shiv 1997; Arndt 1967; Herr et al. 1991; Liu 2006) and negative reviews are more helpful for readers compared to positive ones (Sen and Lerman 2007). Research has also found that negative consumer reviews carry more weight and have a greater influence on consumer attitudes than positive or neutral reviews, consistently with negativity bias or negativity effect (Lee et al. 2009). In the movie industry, negative reviews also play a significant role in predicting box office revenues. In their study, Basuroy et al found that negative reviews hurt revenue more than positive reviews produce revenue (Basuroy et al. 2003). According to the literature, it could be inferred that when consumers are exposed to mixed reviews, the negative reviews would prevail over positive ones and have more influential power because they are more potent and diagnostic, regardless of where the reviews come from.

2.3. ATTRIBUTION THEORY

Attribution theory explains how people make casual inference regarding why a communicator supports a certain position or behaves in a certain way (Kelley 1973). When they receive the persuasive message, consumers often attribute that message to either product stimulus (i.e. product performance) or non-product stimulus (i.e. characteristics of communicator or circumstances) (Mizerski 1982). This theory predicts that the more consumers perceive that the message is really related to the product stimulus, 1) the more the communicator will be perceived as credible, 2) the more

confidence consumers will have in the accuracy of the message, 3) the stronger consumers' belief that the product really has those attributes mentioned, and 4) the more consumers will be persuaded by the message. However, if consumers suspect that the message is influenced by non-stimulus factors (i.e. personal incentives, bias) 1) the more they will discount the accuracy of the message and the actual performance of product, 2) the more they will perceive the communicator as being biased, and 3) the less they will be persuaded by the communicator and the message (Kelley 1973; Mizerski 1982; Sen and Lerman 2007). This latter phenomenon is called *the discounting principle of attribution theory.*

Consumers will attribute the message to non-stimulus factors or non-product related motivations when it comes from a communicator that is endorsed by a commercially linked third party. For instance, consumers may believe that the reviewers (i.e. critics, company website, blogs, etc.) write reviews because they are paid to do so or other incentives (non-stimulus), they will perceive reviews as biased and not be persuaded by them. On the other hand, if consumers believe that reviewers (i.e. other consumers) write review truly representing the performance of products, they may find these reviewers to be more credible and be persuaded by them. Even though the communicator is likely to really attribute their actions to product-related stimulus, consumers may still attribute the message to the communicator's personal reasons, especially when the product is difficult to evaluate (i.e. an experience product). This phenomenon is called *actor-observer bias* (Sen and Lerman 2007). In their study, Sen and Lerman (2007) found that negative reviews for search products are more useful and readers attribute those reviews to product-related stimulus or actual product performance.

At the same time, when readers see negative reviews for experience products, they discount the accuracy of the reviews and attribute them to internal motivations of reviewers.

On the factors that can influence the attribution process, the literature suggests that platforms, types of reviewers, and source credibility can all play a role. According to Attribution theory, sources or platforms such as other consumers and non-commercial or third-party review websites are more trustworthy than experts or retailers' websites because they do not endorse the company's product or receive incentives by doing so. However, by looking at the recommendation source (other consumers, human expert, and a recommendation system) and the types of website (retailer, 3rd party linked to retailers, and non-commercial), Senecal and Nantel (2004) found that other consumers were perceived as less of an expert than recommendation system and human experts but more trustworthy than recommendation system and as trustworthy as human experts.

Senecal and Nantel (2004) also found that consumers focus more on specific sources (i.e., the writer of a review) rather than the particular website where reviews were found. Instead of considering a recommendation system as part of a company's marketing scheme and attribute its messages to non-product related motivation, they found a recommendation system to be the most influential Senecal and Nantel (2004). This could be because consumers recognize a recommendation system simply as computer-generated content based on logical information that has nothing to do with the company's agenda. Thus, there is no bias here, nor a need to discount.

Looking at the platform where reviews are located (brand's site, independent review site, and personal blog), Lee and Youn (2009) found that consumers who read

reviews posted on blogs were more likely to suspect certain circumstances (i.e. personal interest of blogger). Those exposed to blogs were less likely to recommend the products to their friends. These results support the discounting principle theory. However, consumers exposed to reviews posted on brand and independent sites did not differ in casual attribution, and whether the website is marketer-generated or non marketer-generated does not seem to play a significant role in influencing product judgment. Bickart and Schindler (2001) found that consumers who gathered information from online discussions reported greater interest in learning more about the product than did those consumers who acquired the information from the corporate website. In this case, consumers may have found the information more interesting and accurate when it came from other consumers compared to the corporate website, which is in line with the discounting principle theory.

When it comes to reviews from professional critics, Clement et al. (2007) found several potential biases of critics that may be related to personal factors (non-stimulus): 1) the interests of their employers 2) self-promotion (choose to review books that could establish their image) 3) choosing to reviews books that are already successful 4) acting as a talent scout to support young and talented authors 5) presenting themselves as possessing elite tastes (counter to public opinions) 6) reviewing based on what other critics say and 7) reviewing only books sent to them by publishers. Consumers sometimes may not believe in such reviews from professional critics because they attribute critic reviews to their personal incentives as mentioned above and hence believe that critics are biased. This is also in line with discounting principle theory.

2.4. THEORIES OF SOCIAL INFLUENCES

A review of the literature has found the influence of other people in a social network in consumer decision-making process and consumption behavior. Each person in a social network possesses a different degree of influential power based on different factors, for instance, the strength of a relationship, similarity between individuals, how individuals psychologically identify themselves, and so forth. When it comes to product reviews, because reviews come from different sources who may possess different levels of influential power due to factors mentioned above, consumers process the information from them differently. Consumers may find certain sources more credible, which in turn, are more influential than others. The followings are theories and concepts related to social influences.

2.4.1. Tie Strength

Social ties and tie strength are important concepts in the WOM literature, especially related to the spreading of WOM. *Tie strength* is a "combination of the amount of time, the emotional intensity, the intimacy (mutual finding), and the reciprocal services that characterize the tie" (Granovetter 1973, p. 1361)". The promising explanation of WOM process was proposed in his "the strength of weak ties" theory. It explains the flow of WOM behavior via strong ties and weak ties. He posits that weak ties play a crucial role in spreading WOM. Without weak ties, a system would consist of only disjointed subgroups and WOM will not be spread from one group to another.

As weak ties are important to the spreading of WOM between groups, strong ties are important to the influential power of WOM messages. Consumers may have a wide range of relationships within their network from very strong ties (i.e., family and close

friends) to weak ties (i.e., colleagues or acquaintances). The way they spread WOM can be different based on the strength of their relationships. People tend to believe what other people say if they have strong ties between them, for example, they could be siblings, relatives, or friends, compared to strangers or acquaintances (Godes and Mayzlin 2004). Because senders and receivers are likely to know each other, the credibility of the source can be judged by receivers (Steffes and Burgee 2009). Research suggests that the strength of relationship influence the information flow; those who interact with each other more tend to exchange more information, compared to those who do not (Brown and Reingen 1987).

2.4.2. Homophily and Social Identity/Identification theory

Another construct that has been studies in WOM literature is homophily. Homophily refers to the level of similarity individuals share in certain attributes such as age, gender, education, or lifestyle (Rogers 1983). While tie strength refers to the strength of the relationship, homophily refers to similarities in characteristics of individuals. A person can have a high level of homophily with a weak tie acquaintances and vice versa (Steffes and Burgee 2008). Some researchers argue that homophily may not only mean demographic similarity such as age, gender, education and occupation (Brown and Reingen 1987), but also the similarity in values, preferences, and lifestyle (Gilly et al 1998). This latter type of similarity has been called perceptual affinity (De Bruy and Lilien 2008), which is defined as "similarities between two people's values, likes, dislikes, and experience" (De Bruy and Lilien 2008, p. 154).

When they see reviews from different sources, consumers may find reviews from one source whom they perceive as being homophilous to them to be more influential than

others because they think that these reviewers share the same tastes and preferences with them. Research found that consumers seek information from sources they perceive similar to them and under certain circumstances, homophilous sources may be more influential than expert sources (Brown and Reingen 1987; Gilly et al 1998).

The feeling of homophily with others may contribute to the formation of a social identity. Social Identity Theory tries to explain why people tend to classify themselves and others into various social categories such as organization membership, religious affiliation, gender, and age cohort (Tajfel and Turner 1986). Social identifications are not based on any formal group membership, but rather self-perceived membership in a particular group (Greene 2004). In line with the *Social Identity Theory*, Festinger (1954) theory of social comparison suggests the impact of reference groups on attitude change and formation. It explains that, when missing personal experience, people use others as a point of reference. Jones and Gerald (1967) theory of Co-orientation further demonstrates that an individual is more likely to compare him or herself to another individual or group perceived as being similar to him or her than those who were not.

The above theories all suggest that people use others they perceived as similar to themselves as references. This is part of the identification process. Formally defined, *Identification* is the psychological process through which an individual "consciously or unconsciously recognizes him/herself in, or wishes to be, another individual so that he/she becomes involved in that individual and vicariously participates in his/her activities, feeling, and thoughts" (Feilitzen and Linne 1975, p. 52).

According to *Social Identity Theory* (Tajfel 1978), people try to answer the question "Who AM I" by perceiving themselves as a part of human aggregate. It is part

of the self-concept derived from combining the knowledge of memberships with the values and emotions attached to the memberships (Tajfel 1978). When one perceives him or herself as a part of a group, he or she shows *in-group favoritism*, which is the tendency to exaggerate and enhance the favorable qualities relevant to the group he belongs. On the other hand, he or she may show *out-group derogation*, which is the exaggeration of the negative characteristics of out-group in order to make him or her feel more superior (Brewer and Brown 1998). People can also form a psychological group, which is far more than the extension of personal relationship. This type of group arises even without interpersonal interaction, yet still has a powerful impact on attitude and behavior (Ashforth and Mael 1989).

Ashforth and Mael (1989) proposed several antecedents and effects of social identity in their study. They proposed group distinctiveness, prestige of the group, salience of the out-groups, and others factors (i.e. interpersonal interaction, similarity, liking, proximity, shared goals, common history, etc.) as antecedents of social identity. For the consequences of social identity, they suggest the following three effects:

1) Individual tends to choose activities congruent with salient aspects of their identities. Identification with an organization enhances support for and commitment to it.

2) Social identification affects the outcomes of group formation including cohesion, cooperation, intragroup, and evaluation of the group.

3) Identification may enhance the internalization of group values, norms, and attitude formation, and behavior.

When consumers are exposed to reviews from different sources, they may identify themselves similarly to one of the sources. For instance, they may identify themselves as a part of professional critic group because they believe that they have superior knowledge about certain products and may find reviews from professional critics more credible and accurate and evaluate the product accordingly. In contrast, consumers may identify themselves as a part of regular consumers and find reviews from other consumers more credible because they think that they share the same taste and preference. Because of in-group/out-group favoritism, consumers will be influenced by and evaluate the product according to the group they identify themselves with and perceive reviews from out-group to be unfavorable.

CHAPTER III

STUDY 1: THE EFFECTS OF CONSUMER'S SELF-CONSTRUALS

HYPOTHESES FORMULATION

According to the literature on social influences (e.g., Festinger 1954; Brown and Reingen 1987; Godes and Mayzlin 2004), people in a social group can influence each other's decisions. The degree of influence depends on several factors such as the strength of relationship between individuals (Granovetter 1973; Godes and Mayzlin 2004), their similarities (Brown and Reingen 1987; De Bruyn and Lilien 2008), and perception about themselves in relation to others (Tajfel 1978). Not only can people in a social group influence each other, but individual differences in how consumers respond to social influences can also play a part in information processing and decision-making. One such difference in particular that the author is interested in exploring is self-construal. To the author's knowledge, there is no existing empirical evidence of how self-construal affects the way consumers process WOM. This study therefore will look at the moderating effect of self-construal on the relationship between mixed reviews and consumers' attitude and purchase intention.

Self-construal is defined as "the relationship between the self and others and, especially, the degree to which they see themselves as separate from others or as connected with others" (Markus and Kitayama1991, p. 226). It is divided into two prominent categories: independent self-construal and interdependent self-construal. *Independent self-construal* is defined as the view of the self as an autonomous and independent person whose behaviors are results of one's own internal attributes (such as thoughts, feelings, and actions) rather than references of others. In contrast,

interdependent self-construal is defined as a perception of oneself as a part of social relationship and one's behavior as determined by the thoughts, feelings, and actions of others in the social group (Markus and Kitayama1991). As individual difference variables, independent and interdependent self-construals emphasize the relationship between an individual and the collective (Singelis 1994).

Markus and Kitayama (1991) were the first to look at the prototypical view of self in North American and Asian consumers and found that they varied significantly. They proposed that Western individuals hold an independent view of self that focuses on uniqueness, internal attributes, and separateness of individuals (the independent self-construal). In contrast, non-Western individuals hold an interdependent view of self that focuses on connectedness, relationships, and social context (the interdependent self-construal). Triandis (1989) explained how this cultural difference in self-construal develops. He argued that collectivistic culture encourages a group or collective cognition, whereas individualistic culture encourages cognitions of uniqueness and separateness and authority.

Although culture can affect one's self-construal, people in one culture will not necessarily hold the same kind of self-construal. It is possible to find variations in self-construal within a culture (Triandis 1989; Singelis 1994). However, one may be more dominant over the other. For instance, independent self-construal may be more dominant in individualistic culture while interdependent self-construal may be more in collectivistic culture.

Many studies have looked at the effects of self-construal on decision-making, including attitude, perceived diagnosticity of information, and judgment (Gardner et al.

1999 ; Aaker and Lee 2001). Moreover, self-construal may influence how consumers perceive themselves as similar to others. According to Cross et al. (2000), consumers with an interdependent self-construal perceived themselves more similar to others than those with an independent self-construal. Stapel and Koomen (2001) found that, when given a social comparison, those with an independent self-construal exhibit contrastive comparisons by accentuating differences from others (i.e., emphasizing on self-distinctiveness), while those with interdependent self-construal exhibit assimilative comparisons by accentuating similarities to others.

Lee et al. (2000) found that individuals with an interdependent self-construal focus more on information related to losses while individuals with an independent self-construal focus more on information related to gains. Because self-construal determines what kind of message (either gain or loss) individuals will pay attention to (Lee et al. 2000), it may enhance how consumers diagnose positive and negative information. For instance, interdependent consumers may pay more attention to negative reviews because it prevents them from making the mistake of purchasing an inferior product, and independent consumers may focus more on positive reviews because it promotes potential benefits from purchasing a product.

Because consumers with an independent self-construal emphasize more on a positive message while those with an interdependent self-construal emphasize more on a negative message, the author expects the impact of mixed reviews on attitude and purchase intention will be enlarged when a positive review comes from a critic and a negative review comes from a consumer. Because consumers with an independent self-construal may identify more with other critics, added to the higher focus on positive

reviews, these consumers are likely to respond really positively when these positive reviews come from the source they identify with (i.e., critics). The opposite is true for consumers with an interdependent self-construal. Because they may identify more with other consumers, added to the higher focus on negative reviews, they are likely to respond really negatively when these negative reviews come from the source they identify with (i.e., consumers). This leads to the following hypothesis:

> H1: The effect of self-construal on consumer responses (in terms of attitude and purchase intention) will be stronger when the negative review comes from a consumer than when the negative review comes from a professional critic.

When consumers are exposed to mixed reviews, according to negativity bias (Kanouse and Hanson 1972), the negative review should prevail over the positive review because it is considered to be more diagnostic and thus carry more weight than a positive review (Feldman and Lynch 1988; Herr et al. 1991; Lee et al. 2009), regardless of whether it comes from a professional critic or another consumer. However, self-construal could moderate this relationship.

Based on how individuals perceive themselves in relation to others based on self-construal, they should react differently when they read online reviews from different sources. Consumers with an independent self-construal may want to be contrastive from the group and want to boost their self-esteem by siding with professional critics due to their expertise or knowledge and the uniqueness of the review (Aaker and Maheswaran 1997). Because of this uniqueness, they may also identify themselves as similar to those

critics, in line with the social identity theory (Tajfel 1978). Thus, they use professional critics as a reference group when it comes to evaluating the product.

In contrast, consumers with an interdependent self-construal may identify themselves better with another consumer because of similarity in demographics or expertise levels. Consequently, they may use other consumers as a reference group to evaluate the product. Besides identification with another consumer, consumers with an interdependent self-construal are willing to maintain harmony by accommodating what reflects the tastes and preferences of regular consumers, in this case a consumer review. As a result, one would expect consumers with an interdependent self-construal to be more interested in reading what other consumers say because they value group opinions.

In sum, when consumers are exposed to mixed reviews (positive reviews from critics and negative reviews from consumers, or vice versa), the author expects the way they process this information to be influenced by their self-construal. Consumers with an independent self-construal will have less favorable attitude and purchase intention when they read negative reviews from professional critics, because they favor the differentiation and uniqueness of critics' point of view, find critics' reviews more diagnostic, and identify more with critics. In contrast, consumers with an interdependent self-construal are expected to have less favorable attitude when they read negative reviews from other consumers because they find consumer reviews to be more diagnostic, perceive the reviewer as "one of us", and want to maintain consensus with the group. This leads to the following hypotheses.

H2: When faced with mixed reviews, consumer attitude and purchase intention will depend on the extent to which the consumer has an independent versus interdependent self-construal.

(a) Consumers with more independent self-construal will have less favorable attitude and will be less likely to purchase the product when the negative review comes from a professional critic than when the negative review comes from another consumer.

(b) Consumers with more interdependent self-construal will have less favorable attitude and will be less likely to purchase the product when the negative review comes from another consumer than when the negative review comes from a professional critic.

METHODOLOGY

Design and Experimental Stimulus

To test the hypotheses, the review version was manipulated and self-construal was measured in this study. Movie knowledge and star power were measured and served as control variables along with age, gender, pre-attitude, and pre-purchase intention. The experimental stimulus used in the study was a movie, an example of experience goods. E-WOM is very critical to the success of movies and has received a lot of attention in the marketing literature, which allows for in-depth comparison (Zheng and Dellarocas 2006; Duan et al. 2008).

To create the experimental stimulus, the author selected several blockbuster movies in the genre of Comedy from the Internet Movie Database or IMDB. The author chose a blockbuster movie in a comedy genre because it has general appeal to a broad population. The author also chose a movie that was not showing in the theater yet in order to avoid prior knowledge of the movie. A pretest was conducted to choose the movie that is the most appropriate for the study population (Mturk workers). Details of the pretest are given in the next section.

The reviews used in the experiment were in the forms of thumb-up/thumb-down with percentage of those who liked the movie. These forms of reviews were source-neutral and could be presented as from either a professional critic or a regular consumer. It also prevented confounding effects of review length because previous research found that it could affect perceived helpfulness (Mudambi and Schuff 2010), responsiveness and interest of readers (Tsang and Prendergrast 2009), and possibly sales (Chevalier and Mayzlin 2006). A pretest was conducted to identify the appropriate percentages to be associated with positive and negative reviews that do not possess valence extremity because extreme valence is considered as less helpful, especially for experience goods (Mudambi and Schuff 2010).

Two versions of the movie poster were created for the study. Both of them included the same contents (i.e., poster image, movie title, synopsis, genre, actors, director) except for the review portion. *Review Version* or mixed review was manipulated using percentage likings and thumb-up and down to represent a positive and negative review. The first version, Professional Critic Negative Review (+C-P), was manipulated by providing a thumb-down icon with "30% of Movie Critics liked it" and a thumb-up icon with "85% of Consumers liked it". The second version, Consumer Negative Review (-C+P), was manipulated by providing a thumb-up icon with "85% of Movie Critics liked it" and a thumb-down icon with "30% of Consumers liked it". Percentage choices were chosen to represent the valence without being too extreme one way or the other based on the pretest results (see Appendix 2).

Pretest

Ten anticipated blockbuster movies found in the IMDB went through a pretest. The purpose of the pretest was to find a blockbuster movie to be used in the final questionnaire. The author was trying to find a movie that received somewhat positive attitude and purchase likelihood. The reason behind this is that extremely high or low levels of intention and attitude could cause problems during the experiment because people are not likely to process review information carefully in either scenario.

The pretest questionnaire consisted of the movie poster image, movie title, synopsis, actors' and director's names, genre, and questions asking whether participants had seen the movie and if they would be willing to see the movie if it were to be available for them to watch. Using a rating system similarly used by popular movie review websites such as Rottentomatoes and Flixster, participants were asked to provide a percentage they considered a movie as being good or bad based on critics' and consumers' reviews. The purpose was to find two percentages that represent positive and negative valence without being too extreme one way or the other (See Appendix 1).

Mechanical Turk (MTurk) interface was used for subject recruitment in this study. MTurk is an online platform to recruit and pay participants to perform a certain task called "Hit". Past studies have used MTurk for data collection, some even studied the internal and external validity of using MTurk and found that MTurk is a valuable recruitment tool (Berinsky et al. 2001). Berinsky et al. (2001) found that the demographic of domestic MTurk users was more diverse and representative than the traditional samples used in the experiment studies. They also found that the average treatment

effects were similar between MTurk and traditional samples. Therefore, MTurk was used in this study for subject recruiting.

Thirty-seven MTurk workers participated in this pretest for compensation. The results showed that one particular movie (*This is the End*) had the most potential based on the means of attitude and purchase intention ratings ($M = 4.58$ $SD = 1.96$ and $M = 4.16$ $SD = 2.17$ respectively) because it did not receive the extreme high or low level of attitude and intention. Moreover, two percentages that represented positive and negative reviews without being too extreme one way or the other were identified by averaging consumers' responses (30% for bad reviews and 85% for good reviews). Based on the pretest, two versions of the final questionnaire were developed using the movie *This is the End* and 85% liking as positive reviews and 30% liking as negative reviews.

Procedure

Upon accepting the "Hit" on MTurk, participants responded to questions measuring their self-construal (Singelis 1994), movie-going behavior, and movie knowledge (Mitchell and Dacin 1996). Then they saw the movie information page, including movie poster image, title, actors and director's names, genre, and synopsis. At this time, the poster did not contain reviews. The participants were asked to answer questions measuring their attitude and purchase intention towards this movie. The purpose of not showing reviews at the time was to measure the attitude and purchase intention for the movie without being influenced by reviews. These pre-review attitude and purchase intention were used as control variables later. After rating the movie, the participants answered questions regarding their demographic information.

Before moving on to the second part of the survey, the participants answered questions asking them to evaluate four random pictures. These filler questions were used to avoid potential bias from the participants remembering previous answers for attitude and purchase intention. After the filler questions, participants saw one of the two versions of movie information page. Both versions included the same information about the movie they saw earlier plus two percentage likings, either positive reviews from consumers (85% of consumers liked it and thumb-up) and negative reviews from professional critics (30% of movie critics liked it and thumb-down) or vice versa.

After seeing the poster with reviews, participants responded to manipulation questions related to the movie intended to ensure that subjects could correctly memorize the movie and its actors. This was followed by questions measuring their attitude toward the movie and their purchase intention. Finally in the following pages, participants responded to questions related to identification with review sources (Bergami and Bagozzi 2000) and star power (Maltby et al., 2006) (See Appendix 2).

A set of questions related to identification with review soures was used in this study to measure which source consumers more identify with. According to Social Identity theory (Tajfel 1978), consumers may perceive themselves as a part of a particular group and show in-group favortism; in this case, comforming with a review source they better relate to and potentially change their attitudes and purchase intentions accordingly. As a result, the author expects consumers' attitudes and purchase intentions to be the same as the source they identify with and identification with review sources may act as a mediator, responsible for the moderation effects in this study. The mediated moderation

was conducted to ensure that the moderation effects are caused by identification with review sources. Details of the mediated moderation are given at the end of this study.

Measurements

Self-construal was measured using the 24-item self-construal scale developed by Singelis (1994). The first 12 items measure an interdependent self-construal (e.g. I have respect for the authority figures with whom I interact) and the other 12 items measure an independent self-construal (e.g. I enjoy being unique and different from others in many respects). Participants were asked to rate the extent to which they agree or disagree with each of these 24 statements on a 7-point Likert scale, with 1 being "Strongly Disagree" and 7 being "Strongly Agree". Responses were averaged across 12 independent self-construal items (Cronbach's alpha = .76) and the same for the 12 interdependent self-construal items (Cronbach's alpha = .8). Then the interdependent score was deducted from the independent score for each participant, to represent the extent to which the participant has an independent self-construal. This measurement followed a method used by Lee et al. (2000).

Identification with review sources was measured using a scale developed by Bergami and Bagozzi (2000). The measure has two parts, a visual scale and a verbal scale. In the visual part, the scale consists of two sets of circles, one representing one's own identity and the other one representing the target's identity. Participants chose the intersecting circles that best reflect the degree of perceived overlap between their identity and the identity of the target. The verbal scale asks participants to indicate to what degree their self-image overlaps with the image of the target (i.e., a professional movie critic or regular moviegoer). It was measured on a 7-point scale anchored "at not at all" and "very

much". The bivariate correlation showed a strong positive relationship between the two items ($r = .73$, $p< .01$). Because the two questions were measured on different scales, 8 points and 7 points, adjustment was made. If the 1 to 7 scaled question was X, it was recalculated as X-1. If the 1 to 8 scaled question was Y, it was recalculated as 6(Y-1)/7. The extremes of both questions would have the same values after the transformation. Then a composite score was derived from averaging responses to the two questions. This variable was used later for mediated moderation analysis to verify that the effects were indeed caused by identification with the sources.

Movie knowledge was measured by four items (e.g., how could you rate your knowledge about movies relative to the rest of the population?) on 7-point likert scales asking participants to rate their knowledge in relation to other consumers and how familiar they are with movies in general (Mitchell and Dacin 1996). Internal consistency of this scale was assessed (Cronbach alpha = .87), and responses were averaged across the four items to yield a participant's movie knowledge score, which served as a control variable.

Star Power was measured using a scale adapted from Celebrity Attitude Scale (Maltby et al. 2006). There are seven items (e.g. I love to talk with others who admire James Franco and Jonah Hill) measured on a 7-point scale anchored at strongly disagree and strongly agree. Because consumers may choose to see a movie based solely on the actors, Star Power served as a control variable in this study.

Consumers' attitude and purchase intention. Four items were used to measure consumers' attitude (Holbrook and Batra 1987). The question was framed as follows: "According to the information provided, how do you feel about the movie? Please select

the number that best represents your opinion" with responses on a 7-point semantic differential scale anchored at dislike/like, negative/positive, bad/good, and unfavorable/favorable. Three items were used to measure purchase intention (Mackenzie et al. 1986). The question was framed as "Based on the information provided about the movie, if this movie were to be available for you to watch (in theater, cable, pay-per-view, DVD), will you watch this movie? Please select the answer that best represents your opinion" with responses also on 7-point semantic differential scale anchored at unlikely/likely, impossible/possible, and improbable/probable. Internal consistency was assessed for both scales, which yielded Cronbach's alpha of .98 and .97 respectively. Composite scores were averaged from the four questions for attitude and the three questions for purchase intention.

Tests of Hypotheses and Results

To test the hypotheses, multiple regressions were used to analyze the data, with review version (RV, Positive Professional Review/Negative Consumer Review and Negative Professional Review/Positive Consumer Review), self-construal (SC) and their interaction (RV*SC) as independent variables, attitude (ATT) and purchase intention (PI) as the dependent variables, and age (Age), gender (Gen), pre-review attitude (Pre-ATT) and pre-review purchase intention (Pre-PI), movie knowledge (MK), and star power (Star) as control variables. The models are shown below.

(1) $\text{ATT} = \beta_0 + \beta_1 \text{RV} + \beta_2 \text{SC} + \beta_3 \text{RV*SC} + \beta_4 \text{Age} + \beta_5 \text{Gen} + \beta_6 \text{MK} + \beta_7 \text{Star} + \beta_8 \text{Pre-ATT} + e$

(2) $\text{PI} = \gamma_0 + \gamma_1 \text{RV} + \gamma_2 \text{SC} + \gamma_3 \text{RV*SC} + \gamma_4 \text{Age} + \gamma_5 \text{Gen} + \gamma_6 \text{MK} + \gamma_7 \text{Star} + \gamma_8 \text{Pre-PI} + e$

Sample Characteristics

A total of 210 surveys were collected via MTurk service. In each survey, there were a verification question and manipulation questions to assure that participants really paid attention to the questions and could correctly memorize the movie and its actors. An example of these questions was: "Please choose "once a week only" for this one". Nine participants who failed to answer a verification question and/or manipulation questions correctly were removed from the final data, which left the final sample size to be 201.

The demographic characteristics of the sample were analyzed using SPSS descriptive statistics and frequencies features. The sample consists of 101 Male (50.2%) and 100 Female (49.8%) participants. Their ages ranged from 19 to 71 years old with a mean of 33 years old and a standard deviation of 11.4 (See Table 2).

Manipulation Check

A manipulation check was done in order to assure that partipants correctly remembered the movie and its actors. Participations were asked "What is the name of the movie" and "Do you recognize the actor(s) of this movie?" All participants recognized either or both main actors. However, two participants incorrectly identified the name of the movie and were removed from the sample. Combining participants who incorrectly answer a verification and/or manipulation questions, nine of them were removed from the final analysis

Results

Hypothesis 1 predicted that self-construal would have a stronger impact when the negative review came from a consumer than when the negative review came from a professional critic. To test this hypothesis, two separate regressions were conducted, one

Table 2. Study 1: Sample Demographics

		Percentage
Gender	Male	50.2%
	Female	49.8%
Age	Ranged from 19-71	
	M = 33, SD = 11.4	
Ethnicity	Caucasian	80%
	African American	6%
	Hispanic	3.5%
	Asian	7.5%
	Others	2%
	Prefer not to say	1%
Education	Some High School	2%
	High School Graduate	13%
	Some College	35%
	College Graduate	38%
	Graduate School	12%
Income	<$10,000	15%
	$10,000 to $19,999	14%
	$20,000 to $29,999	13%
	$30,000 to $49,999	28%
	$50,000 to $74,999	16%
	$75,000 to $99,999	7.5%
	$100,000 to $149,999	2.5%
	$150,000 or more	0.5%
	Prefer not to say	3.5%

for participants in the professional critic negative review condition (C+P-) and one for participants in the consumer negative review condition (C-P+). The author compared the coefficients for self-construal between the two regressions. For this hypothesis to hold, the absolute value of the coefficient should be significantly higher under C-P+ than under C+P-.

For Attitude as the dependent variable, the coefficient of self-construal under professional critic negative review was -.767 and the coefficient under consumer negative review was .887. A confidence interval was formed around coefficients under

critic negative review and consumer negative review respectively at the confidence level of 90% as a conservative test of the hypothesis. The confidence interval for professional critic negative review was (-.986, -.547), and that for consumer negative review was (.699, 1.074). The absolute values of the two confidence intervals overlap, suggesting that the effect of self-construal was not significantly different between the two conditions. **Therefore, H1 is not supported for consumer attitude.**

For purchase intention as a dependent variable, the coefficient of self-construal under professional critic negative review was -.809 and the coefficient of self-construal under consumer negative review was .897. Similar to Attitude, a confidence interval was formed for the confidence level of 90%. The confidence interval for professional critic negative review was (-.584, -1.034) and for consumer negative review was (.711, 1.084). Because the absolute values of the two confidence intervals also overlap, suggesting that the effect of self-construal was not significantly different between the two conditions. **Therefore, H1 is also not supported for consumer purchase intention.**

Hypothesis 2 proposed that, when faced with mixed reviews, consumers' attitude will depend on whether consumers have independent or interdependent self-construal. Consumers with more independent self-construal will have less favorable attitude when the negative review comes from a professional critic than when the negative review comes from another consumer because independent self-construal consumers favored the unique point of view, found critic's review to be more diagnostic, and identified themselves more with critics. In order to test these hypotheses, a multiple regression analysis was conducted as shown in equation (1) earlier. In order to create the interaction

term, self-construal variable was mean-centered to reduce possible collinearity due to the interaction term.

Ideally, researchers want to have independent variables highly correlated with a dependent variable but with small correlations among them. The presence of higher correlations between independent variables is the first sign of serious collinearity. In order to detect potential multicolinearity, a correlation analysis was conducted. Correlations for all independent and control variables were presented in the following table. Multicolinearity does not appear to be a problem as all correlations are under .9 (except between two dependent variables) and all variables have variance inflation factor (VIF) below suggested value of 5.0 (Hair et al. 2010) with the highest value of 2.4 (See Table 3).

Supporting H2, the author found a significant positive interaction between review versions and self-construal ($\beta_3 = 1.528, p < .01$). To interpret the interaction, the author followed the procedure recommended by Aiken and West (1991) to derive the simple slopes for review versions under different self-construal levels. An independent self-construal was defined as one standard deviation above the mean and interdependent self-construal as one standard deviation below the mean ($M = -.05, SD = 1.089$).

Consistent with the H2a, participants with more independent self-construal exhibited significantly less favorable attitude when they saw the negative review from a professional critic than from a consumer (simple slope = 1.27, t (197) = 10.58, $p<.01$). **Therefore H2a was supported**. The opposite pattern was expected for consumers with more interdependent self-construal because they found reviews from other consumers to be more diagnostic and wanted to maintain consensus with the group. The results showed

Table 3. Study 1 Descriptive Statistics and Bivariate Correlations (N=201)

	Min	Max	Mean	STD	1	2	3	4	5	6	7	8	9	10	11
1. RV	0	1	.5	.5											
2. SC	-3	3	-.05	1.089	0.13										
3. RV*SC	-3	3	.05	.77	0.06	0.72**									
4. STAR	1	7	3.56	1.43	-0.05	-0.04	0.07								
5. KNOW	2	7	5.25	1.025	-0.03	0.195**	0.06	0.31**							
6. GEN	0	1	.5	.5	-0.03	-0.16*	-0.11	-0.1	0.23**						
7. AGE	19	71	33.45	11.4	-0.78	0.26**	0.21**	-0.14*	-0.13	0.17*					
8. Pre_ATT	1	7	4.9	1.6	0.05	0.02	0.11	0.66**	0.25	-0.14*	-0.12				
9. Pre_PI	1	7	5	1.85	0.04	0.02	0.1	0.66**	0.25**	0.20**	-0.13	0.89			
10. Post_ATT	1	7	4.42	1.53	-0.12	0.08	0.47**	0.22**	-0.04	-0.1	0.09	0.31	0.29**		
11. Post_PI	1	7	4.27	1.58	-0.14*	0.06	0.46**	0.22**	-0.03	-0.13	0.03	0.28	0.32**	0.93**	

*Correlation is significant at the 0.05 level   **Correlation is significant at the 0.001 level

that consumers with more interdependent self-construal exhibited significantly more favorable attitude when they saw a negative review from a professional critic than from a consumer (simple slope = -2.05, t (197) = -7.59, $p<.01$), **consistent with H2b**.

The same analysis was repeated for Purchase intention as the dependent variable. Again, a positive significant interaction was found ($\gamma_3 = 1.616$, $p < .01$) between review versions and self-construal. The same procedure recommended by Aiken and West (1991) was conducted to derive simple slopes in order to interpret the interaction.

Consistent with H2a, consumers with more independent self-construal exhibited lower purchase intention when they saw the negative review from a professional critic than from a consumer (simple slope – 1.3, t (197) =10.83, p <.01). As for consumers with more interdependent self-construal, consisting with H2b, they exhibited lower purchase intention when they saw the negative review from a consumer than from a professional critic (simple slope = -2.22, t (197) – -8.22, p=<.01). Therefore **both hypotheses 2a and 2b were supported for purchase intention**. Results are shown in Figure 1.

For the control variables, consumer movie knowledge, star power, gender, and age were not significant, but pre-attitude ($\beta_{8Att} = .25$, $p < .01$) and pre-purchase attention ($\gamma_{8Pi} = .24$, $p < .01$) both had a significant positive impact.

Mediated Moderation

As mentioned earlier, identification with review sources was measured for mediation analysis to verify that the effects are indeed caused by identification with the sources. Because the literature suggests potential mediation by identification with review sources and the moderation has occurred, one would question if the mediating process

was responsible for the moderation. This process is called mediated moderation (Muller et al. 2005).

To answer this question, the procedure recommend by Muller et al. (2005) was followed to test for the mediated moderation. There are three underlying models. First is to assess moderation of the over all treatment effect. Second is to test for the treatment effect on the mediator. Finally, the third model assesses whether the mediator's effect and the effect of the treatment on the outcome variable are allowed to be moderated while controlling for mediator. Three models are shown below:

$$Y = \beta_{10} + \beta_{11}SC + \beta_{12}RV + \beta_{13}SC*RV + \beta_{14}Age + \beta_{15}Gen + \beta_{16}MK + \beta_{17}Star + \beta_{18}Pre\text{-}ATT + e \qquad (1)$$

$$ID = \beta_{20} + \beta_{21}SC + \beta_{22}RV + \beta_{23}SC*RV + \beta_{24}Age + \beta_{25}Gen + \beta_{26}MK + \beta_{27}Star + \beta_{28}Pre\text{-}ATT + e \qquad (2)$$

$$Y = \beta_{30} + \beta_{31}SC + \beta_{32}RV + \beta_{33}SC*RV + \beta_{34}ID + \beta_{35}ID*RV + \beta_{36}Age + \beta_{37}Gen + \beta_{38}MK + \beta_{39}Star + \beta_{40}Pre\text{-}ATT + e \qquad (3)$$

In order for mediated moderation to occur, first the effect of the RV and SC interaction (β_{13}) needs to be significant indicating overall moderation effect. If the mediating process is actually responsible for the moderation, the moderation of the residual effect of the treatment should be reduced compared to the moderation of the overall treatment effect (the moderation of residual effect (β_{33}) should be smaller than the moderation of the overall treatment (β_{13})). For this to be the case 1) both the effect of self-construal on identification with review sources depends on review version (β_{23}) and the effect of identification with review sources on a dependent variable are significant (β_{34}) and/or 2) both the effect of identification with review sources on a dependent

variable depends on review version (β_{35}) and the effect of self-construal on identification with review sources (β_{21}) are significant.

To assess the mediated moderation, first the treatment variable (SC) and mediator (Identification with review sources) were mean-centered. Then three separate regressions as mentioned above were run with consumer attitude as a dependent variable and identification with a professional critic as a mediator. For the first regression with a treatment variable (SC) and moderator (RV), the author found a significant moderation effect ($\beta_{13} = 1.53$, $p<.01$), satisfying the first condition.

As for the second regression, a significant effect was not found for either self-construal or the interaction effect of self-construal and review version on identification with a professional critic ($\beta_{21}=.18$, $p >.1$ and $\beta_{23}=-.14$, $p>.1$). In the third regression, a significant effect was not found for either identification with a professional critic or the interaction effect of identification with professional critics and review version on consumer attitude ($\beta_{34}=.03$, $p>.1$ and β_{35} .05, $p>.1$). The author also found that the moderation of the residual effect of the treatment was not smaller than the moderation of the over all treatment effect (β_{33} 1.5 and $\beta_{13}=1.5$) (See Table 4).

The same procedure was done using identification with a consumer. The author found a significant effect for self-construal but not for an interaction effect of self-construal and review version on identification with a consumer ($\beta_{21}=-.3$, $p<.05$ and $\beta_{23}=-.14$, $p>.1$). As for the third regression, the author also did not find a significant effect for either identification with a consumer or the interaction effect of identification with a consumer and review version on consumer attitude ($\beta_{34}=.09$ and $\beta_{35}=-.08$, $p>.1$). The

moderation of the residual effect of the treatment was also not smaller than the moderation effect of the over all treatment (β_{33}=1.5)(See Table 4).

Another mediated moderation analysis was conducted using consumer purchase intention as a dependent variable and identification with a professional critic and a consumer as a mediator, respectively. The results showed the same pattern as previous analysis.

Table 4. Model Coefficients with Attitude as a Dependent Variable

ATT as Dependent Variable				
Model 1				
Variable(s)	B	p-value		
SC	-.67	.000**		
RV	-.39	.02*		
SC*RV	1.5	.000**		
IDP as Mediator			**IDC as Mediator**	
Model 2			**Model 2**	
SC	.18	.18	SC	-.3	.02**
RV	-.08	.67	RV	-.2	.32
SC*RV	-.14	.46	SC*RV	.14	.4
Model 3			**Model 3**	
SC	-.7	.000**	SC	-.66	.000**
IDP	.03	.74	IDC	.09	.34
RV	-.39	.03*	RV	-.38	.03*
SC*RV	1.5	.000**	SC*RV	1.5	.000**
IDP*RV	.05	.7	IDC*RV	-.08	.53

*Significant at .05 level **Significant at .01 level

The author found a significant interaction effect (β_{13}=1.6, $p<.01$) but no other significant effects on identification with a professional critic and consumer attitude (β_{21}=-.18, β_{23}=-.13, β_{34}=.004, β_{35}=.02, p>.1). The moderation of the residual effect of the

treatment was not smaller than the moderation effect of the over all treatment (β_{33}=1.6)(See Table 5).

As for identification with a consumer, the author found a significant effect of self-construal on identification with a consumer (β_{21}=-.3, p<.05) but not the others (β_{23}=.14, β_{34}=.1, β_{35}=-.13, p>.1). Moreover, the moderation of the residual effect of the treatment was not smaller than the moderation of the over all treatment (β_{33}=1.6)(See Table 5).

Table 5. Model Coefficients with Purchase Intention as a Dependent Variable

PI as Dependent Variable					
Model 1					
Variable(s)	B	p-value			
SC	-.74	.000**			
RV	-.46	.008**			
SC*RV	1.6	.000**			
Model 2			**Model 2**		
SC	.18	.19	SC	-.3	.02*
RV	-.07	.72	RV	.18	.33
SC*RV	-.13	.48	SC*RV	.14	.4
Model 3			**Model 3**		
SC	-.74	.000*	SC	-.71	.000**
IDP	.004	.96	IDC	.1	.34
RV	-.46	.01**	RV	-.46	.01**
SC*RV	1.6	.000**	SC*RV	1.6	.000**
IDP*RV	.02	.86	IDC*RV	-.13	.35

*Significant at .05 level **Significant at .01 level

According to thes results, even though interdependent individuals identified more with other consumers, their greater intention to other consumer reviews was not driven by the identification with sources. Instead, they may have favored consumer reviews because they represent the "majority" opinions and may have considered such majority opinions as a safe decision. For independent individuals, they did not neccessarily

identify themselves more with professional reviews. However, they may have believed

professional opinions to be more unique and more diagnostic, which explained the higher

weight given to professional reviews.

Figure 1. Study 1: Mean Attitude and Purchase Intention
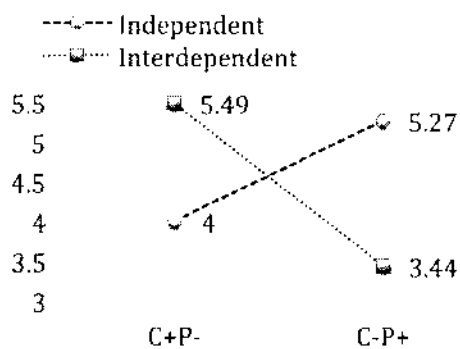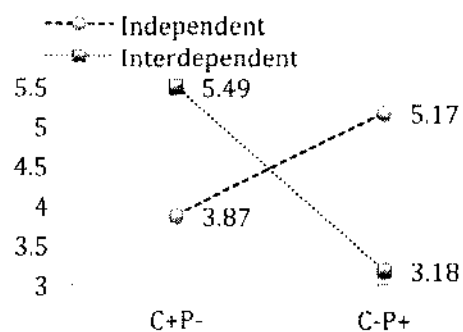
a. Attitude　　　　　　　　　　　　**b. Purchase Intention**

Note: C+P-: positive consumer review and negative professional review; C-P+: negative consumer review and positive professional review

CHAPTER IV

STUDY 2: PRIVATE VS PUBLIC CONSUMPTION

HYPOTHESES FORMULATION

The previous study looks at how consumer responses to mixed reviews may be subject to social influences. Specifically, study 1 suggests that consumers' attitude and decision-making can be influenced to a different extent by opinions from different sources. Consumers are not influenced equally by professional critics and other consumers. Instead, the degree of influence from each source is determined by the consumer's self-construal.

Focusing on the same underlying foundation of social influence and its impact on consumer behavior as in Study 1, Study 2 will look at another social variable, consumption social context, that can moderate how consumers respond to mixed reviews. While self-construal defines a consumer's chronic view of him or herself in relation to others, consumption social context reflects situational influences that can change consumer responses from one consumption episode to another. To the author's knowledge, there is little empirical evidence of how consumers respond to online reviews under different consumption contexts. Instead, existing studies tend to either ignore the consumption context or focus on a single consumption context (e.g., Mizerski 1982; Godes an Mayzlin 2004; Mudambi and Schuff 2010; Zhu and Zhang 2010). This is useful for isolating the influence of the main variables of interest, but it does not reflect the rich reality that consumers usually operate in. Filling this gap, this study will look into how consumption context determines the way consumers respond to mixed reviews and how

consumer knowledge may moderate this process. In doing so, it will contribute to a more nuanced understanding of the impact of online reviews in a realistic social context.

Consumption Social Context

Theories of social influence posit that other people can influence one's behavior. The influence can stem from the relationship between individuals and others (Granovetter 1973; Godes and Mayzlin 2004), similarity shared with other individuals (Roger 1983; De Bruyn and Lilien 2008), identification with members of the group (Tajfel 1978; Ashforth and Mael 1989), or simply the presence of others (He et al. 2012). Past research has also found that the impact of social influence is even stronger when consumption behavior is conspicuous (Ratner and Kahn 2002; Herman et al. 2003).

According to Bourne (1957), products can be differentiated based on whether they are being consumed in public or in private. Privately consumed products are ones that are not publicly seen during the consumption process except the consumer him or herself, whereas publicly consumed products are consumed in the presence of others. However, it is not always clear-cut which products are privately or publicly consumed products since they can be categorized either way based on how individuals consume them. For instance, a movie can be considered as a privately consumed product if an individual sees it alone, or it can be considered as a publicly consumed products when an individual and his or her friends see it together.

The main focus of this study is on the consumption social context (either private or public consumption) related to a single product. It uses the aforementioned differentiation among products to categorize consumption contexts. For the purpose of this study, private consumption is defined as consumption of a product by a consumer

privately without the presence of others. In contrast, public consumption is defined as the behavior of consuming a product with others.

Many consumers are sensitive to social norms or public opinions when they are visible in public as oppose to when they are in the privacy of their own time and place. This is especially true when they realize that their behaviors are being evaluated or observed by others (Herman et al. 2003). According to Miniard and Cohen's (1983) model of behavioral intentions, which focuses more on behavioral outcomes than the original reasons of behavior, individuals anticipate the personal and normative consequences of their behavior. These two types of consequences partition "the salient consequences that are considered at a particular point in time on the basis of their relevance to others' reactions" (Miniard and Cohen 1983, p. 171). Personal outcomes can be positive or negative based on what they are worth to the individual, regardless of approval or disapproval from others. In contrast, normative outcomes rely on beliefs about social consequences of such a behavior. This normative influence causes individuals to do what others want them to do in order to achieve a social objective (Fisher and Price 1992).

According to research on impression management, which refers to an attempt to control the impressions others form about oneself (Leary and Kowalski 1990), individuals are motivated to make themselves look good in public eyes. This can apply to consumption. Consumers may choose to consume certain products because they think that their decisions will be evaluated favorably by others. Supporting this idea, Ratner and Kahn (2002) found that consumers choose to consume a wider variety of products, instead of choosing only their favorite ones, during public consumption. The researchers

attribute this to consumers wanting other people to evaluate them as being interesting and creative, even though they may have to choose things that they do not actually want. Additionally, prior research found that consumers avoid certain consumption activities that could create a negative public image. For instance, the amount of food consumed varies based on whether consumers are being observed by others (Herman et al. 2003). Not only can public/private consumption influence choices, it can affect an evaluation process as well. He et al. (2012) found that when consumers encounter a positive (negative) service experience while in the presence of others (either friends or strangers), their satisfaction (dissatisfaction) with the service is higher (lower) than when no one else is present.

Based on the above discussion, one would expect a decision or choice to be different when a product is consumed in private versus in public. When a consumer is alone, whatever consumption choice he or she makes is based on personal preference. However, when others are present, stakes are higher because an individual could risk being embarrassed or shunned by a social group if the choice he or she makes is unacceptable. For instance, even though a woman is on a diet and has told her friends that she will no longer eat sweets until she reaches her weight goal, she may decide to satisfy her craving by eating chocolate when she is home alone, because there is little to no risk of being humiliated by her friends. When her friends are around, she will not even touch or look at any sweet.

Public Consumption and Online Reviews

To maintain a positive image under public consumption, individuals seek a way to guarantee that their decisions are consistent with the social group. Reading product

reviews may reduce the risk of making a wrong choice because it provides readers a virtual experience and increases the chance of making the right choice consistent with public opinions. The question is whether professional reviews or consumer reviews will play a bigger role in this process. The author argues that, in the context of public consumption, a consumer will pay more attention to reviews from other consumers and will make a decision accordingly because consumer reviews represent the opinion of a regular consumer like him or herself. They are more likely to align with what average others will think about a product. Therefore, when faced with mixed reviews from consumers and professional critics, the author expects consumers' attitude and purchase intention to be more in line with what consumer reviews say. Additionally, because professional opinions usually are unique and different from the mass due to their expertise and knowledge, a consumer may not consider it a smart choice to follow a professional review and risk being objected by his or her peers. This leads to the following hypothesis:

> H3: For public consumption, consumers will have less favorable attitude and will be less likely to purchase the product when a negative review comes from a consumer than when a negative review comes from a professional critic, regardless of their product knowledge level.

Private Consumption and Online Reviews

For private consumption, a choice is made based on the individual him or herself and not the mass. As a result, there is no need to monitor public image in order to achieve a publicly desirable outcome. The theory of self-concept explains how people react in a society in order to maintain or enhance their self-image, which refers to "a person's

perception of his own abilities, limitations, appearance, and characteristics, including his own personality" (Graeff 1996, p. 481). It could be inferred from this theory that whatever individuals perceive of themselves could lead to consumption behaviors that are consistent with their self-image. Thus, they will choose products that they believe are the most congruence with their self-perception. For instance, when an individual perceives herself as being smart, she may choose to read a more intellectual book over a soap opera- style novel. Along these lines, when faced with mixed product reviews, a consumer is likely to pay more attention to those that are more congruent with his or her self-concept.

While there are various factors that can influence this congruency judgment, I believe consumer knowledge can play a particularly important role. Theoretically, consumer knowledge consists of two components: familiarity, defined as accumulated product experiences, and expertise, defined as the ability to successfully performs product-related tasks (Alba and Hutchinson 1987). Operationally, it has been defined as either subjective knowledge or objective knowledge. Subjective knowledge refers to individuals' perception of how much they know (Brucks 1985), whereas objective knowledge refers to "what actually is stored in the memory" (Brucks 1985, p. 2). Past research has shown that objective and subjective knowledge are two distinct constructs with separate measures (Brucks 1985; Moorman et al. 2004) and subjective knowledge is a stronger influence on purchase-related behavior than objective knowledge (Selnes and Gronhaug 1986). Because the main dependent variables of this study are consumer attitude and purchase intention, which are purchase-related variables, this study will focus on subjective knowledge.

Consumer knowledge plays an important role in information search, choice behavior, and consumers' cognitive structure (Alba and Hutchinson 1987; Moorman et al. 2004). Additionally, the level of knowledge determines the cues used to assess product quality (Rao and Monroe 1988). There are two kinds of cues used to assess quality: extrinsic and intrinsic cues. Extrinsic cues refer to product-related attributes that are not part of the physical product, whereas intrinsic cues refer to product-related or functional attributes of a product (Richardson et al. 1994).

Low-knowledge consumers tend to use extrinsic cues such as price or brand names to assess the quality of a product because they have unstructured schemas and retain little intrinsic information (i.e., product attributes). This makes it more difficult to process intrinsic cues. As a result, novices are likely to simply take others' opinions or focus on extrinsic cues such as brand name or price (Alba and Hutchinson 1987). As consumers become more familiar with a product, the need to rely on extrinsic cues will decrease and they will be able to process more complicated information (Rao and Monroe 1988). In line with this, compared with novices, experts or consumers with high knowledge tend to "possess more highly developed conceptual structures, they are better equipped to understand the meaning of product information" (Alba and Hutchinson 1987, p. 418). As a result, high-knowledge consumers are more likely to search for relevant and extensive information while novices look for convenient and simple cues.

When it comes to product reviews, one major factor that distinguishes between professional critics and consumers is their expertise or knowledge in the particular subject. Professional critics possess certain knowledge about a product category that could have stemmed from education, training, or extensive experience, and they use this

knowledge to earn a living by evaluating the merit of products. Average consumers, in contrast, do not possess this high level of knowledge. Therefore, reviews from average moviegoers usually reflect the tastes and preferences of regular consumers (Holbrook 1999). Thus, one would expect professional reviews to have extensive intrinsic information regarding a product due to the their knowledge and expertise, while consumers' reviews will contain uncomplicated, emotion based, or simply extrinsic information due to the lack of expertise.

In the case of mixed reviews, because novice consumers lack the ability to process complicated intrinsic information about a product, they will look for extrinsic cues in reviews. As a result, they may prefer reviews from other consumers because they are simpler, easier to understand, and more layman-oriented. In contrast, if consumers perceive themselves as possessing high knowledge or being experts on a certain product, they may prefer to read professional reviews because they tend to look for something more extensive and relevant to the product, which professional reviews usually have. They may also perceive professional reviews as being more congruent with their opinions.

In sum, when consumers are exposed to mixed reviews under the context of private consumption, both the consumption context and consumer knowledge are expected to determine the consequential behavior. Because consumers purchase products that are congruent with their self-image (Graeff 1996), the same logic may apply to which review they will pay attention to. They may choose to read reviews that contain cues that they are looking for and/or from a source they believe to possess the same level of knowledge. Therefore, high-knowledge consumers will have less favorable attitude

and lower purchase intention when they read a negative review from a professional critic, while novice consumers will have less favorable attitude and lower purchase intention when they read a negative review from a consumer. This leads to the following hypotheses:

> H4: For private consumption, consumer attitude and purchase intention will depend on the extent of knowledge the consumer has about the product category.
> a) High-knowledge consumers will have less favorable attitude and will be less likely to purchase the product when a negative review comes from a professional critic than when a negative review comes from a consumer.
> b) Low-knowledge consumers will have less favorable attitude and will be less likely to purchase the product when a negative review comes from a consumer than when a negative review comes from a professional critic.

METHODOLOGY

Design and Experimental Stimuli

In this study, the author manipulated review version and consumption context. Consumer knowledge was measured. Star power was measured and served as a control variable along with Age and Gender.

The same movie posters from Study 1 were used in this study to manipulate the review version. For private consumption, participants were asked to picture a scenario where he/she will be renting a movie online to watch by him or herself. The scenario was described as follows:

> "It's evening time, and you are staying in by yourself. You want to rent a movie online. You have heard about this particular movie and are wondering if you should give it a try. You go online and find mixed reviews of the movie. On the

next screen, you will read some information about the movie and make a decision on whether you should rent this movie to watch by yourself".

For public consumption, participants were asked to picture a scenario where he/she will be renting a movie to watch with a group of friends. The scenario was described as follows:

"It's evening time, and you are staying in with several friends. You and your friends want to rent a movie online. You have heard about this particular movie and are wondering if you should give it a try. You and your friends go online and find mixed reviews of the movie. On the next screen, you will read some information about the movie and make a decision on whether you should rent this movie to watch with your friends".

Pretest

A pretest was conducted to assure that participants could correctly imagine themselves in described scenarios and whether the two scenarios successfully manipulated the public versus private consumption context. Ninety-two MTurk workers participated in this pretest. They were randomly given one of the two scenarios. After reading the scenario, they answered three manipulation questions. The first question asked "Based on the scenario, will you be watching the movie by yourself or with other people present?" and was measured on a 7-point scale anchored at "By myself" (1) and "With other people present" (7). There was a significant difference between the two scenarios ($M_{private}=2.12$ and $M_{public}=6.31$, t (90) = -13.04, p< .01). The second question asked how realistic the scenario was on a 7-point scale, with 1 being very unrealistic and 7 being very realistic. The difference between the two scenarios was not significant

($M_{private}$=5.72 and M_{public} 5.61, $t(90)$ = .428, p > .1), showing that participants believed both scenarios were highly realistic. Finally, a binary question was used to assess whether participants could correctly identify if they were by themselves or with others in their given scenario. 93% of participants in a private consumption scenario group correctly answered the question while 92% of participants in a public scenario consumption correctly answered the question. A Chi-square test was conducted to see if there was a difference between the percentage of correct answers between these two scenarios, and it was not significant (Chi-Square = .024, p > .1). Based on these results, the two scenarios were used in the main experiment (see Appendix 3).

Procedure

Mechanical Turk (MTurk) interface was also used for subject recruitment in this study. Participants were randomly assigned to one of the four conditions. Upon accepting the "Hit" on MTurk, participants were asked to picture themselves in one of the two consumption scenarios as described in the previous section. Then they saw one of the two versions of the movie information page. Both versions included the same information about the movie, including movie title, actors and director's names, genre, and synopsis plus two percentage likings, either positive reviews from consumers (85% of consumers liked it and thumb-up) and negative reviews from professional critics (30% of movie critics liked it and thumb-down) or vice versa. In the next screen participants found a set of manipulation questions asking how likely they think other people will be able to observe their movie choice and whether they are by themselves or with other people in the scenario. These questions were to ensure that the review versions and consumption scenarios worked as intended.

Next, participants responded to the same questions as in Study 1 measuring their attitude toward the movie and their purchase intention. To verify the underlying process, they answered questions about their perceived social risk of the scenario (Delvecchio and Smith 2005), their identification with each of the review sources (Bergami and Bagozzi 2000) and star power (Maltby et al., 2006). On the following pages, participants responded to questions related to their movie knowledge (Mitchell and Dacin 1996), movie-going behavior, and finally demographics (see Appendix 4).

Measurements

Consumers' attitude and purchase intention were also measured by the same scales as in Study 1. Consumer attitude was measured using the four-item semantic differential scale from Holbrook and Batra (1987), and purchase intention was measured by the three-item semantic differential scale from Mackenzie et al., (1986). Composite scores were averaged across the items for attitude (Cronbach's Alpha = .98) and purchase intention (Cronbach's Alpha = .96).

Movie knowledge was measured the same way as Study 1, with a four-item scale asking participants to rate their knowledge in relation to other consumers and how familiar they are with movies in general (Mitchell and Dacin 1996). Responses were averaged across the four items to yield a composite movie knowledge score (Cronbach's alpha = .86).

Star Power was measured using a seven-item scale adapted from Celebrity Attitude Scale (Maltby et al. 2006). The score was averaged across seven items with internal consistency of .94. This variable served as a control variable.

Identification with review source was measured by the same two-item scale developed by Bergami and Bagozzi (2000) as in Study 1. The two questions used different scales (7-point and 8-point), the adjustment was made so both questions would have the same extreme values. A composite score was averaged from the two questions and served as a control variable (Cronbach alpha of .87 for identification with critics and .86 for identification with consumers).

Test of Hypotheses and results

Multiple regression analyses were used to analyze the data with review versions (RV, 0 for C+P- and 1 for C-P+), movie knowledge (MK), Consumption scenario (Scene, 0 for private consumption and 1 for public consumption) and their interactions (RV*MK, RV*Scene, MK*Scene, RV*MK*Scene) as independent variables. Attitude (ATT) and purchase intention (PI) served as dependent variables, star power (Star), age (Age), and gender (Gen) served as control variables. The models are shown below.

(3) $ATT = \beta_0 + \beta_1 RV + \beta_2 MK + \beta_3 RV*MK + \beta_4 RV*Scene + \beta_5 MK*Scene + \beta_6 RV*MK*Scene + \beta_7 Star + \beta_8 Age + \beta_9 Gen + e$

(4) $PI = \gamma_0 + \gamma_1 RV + \gamma_2 MK + \gamma_3 RV*MK + \gamma_4 RV*Scene + \gamma_5 MK*Scene + \gamma_6 RV*MK*Scene + \gamma_7 Star + \gamma_8 Age + \gamma_9 Gen + e$

Sample Characteristics

Two hundred and fifty MTurk workers participated in this study. Twenty-six participants incorrectly answered the manipulation questions. As a result, they were removed from the sample pool, which left a total of 224 participants for final analysis.

The sample consists of 109 (48.7%) male and 115 (51.3%) female participants with the ages ranging from 19 to 65 with a mean of 35 and the standard deviation of 11.1 (See Table 6).

Table 6. Study 2: Sample Demographics

		Percentage
Gender	Male	48.7%
	Female	51.3%
Age	Ranged from 19-65	
	M = 35, SD = 11.1	
Ethnicity	Caucasian	79%
	African American	3%
	Hispanic	7%
	Asian	8%
	Others	1%
	Prefer not to say	2%
Education	Some High School	1%
	High School Graduate	11%
	Some College	36%
	College Graduate	40%
	Graduate School	12%
Income	<$10,000	18%
	$10,000 to $19,999	10%
	$20,000 to $29,999	17%
	$30,000 to $49,999	25%
	$50,000 to $74,999	16%
	$75,000 to $99,999	6%
	$100,000 to $149,999	3%
	$150,000 or more	0.5%
	Prefer Not to say	4.5%

Manipulation check

A manipulation check was done in order to assure that the consumption scenarios functioned as intended. To check the successful manipulation of consumption context, participants were asked how likely they think other people will be able to observe their

movie choice. There was a significant difference between the two scenarios ($M_{private}$=2.98 and M_{public}=5.36, t (222) = -10.95, p< .01). These results suggested that participants who saw the public consumption scenario were more likely to think that their decision would be observed by others than those who saw the private consumption scenario. They were also asked if they were alone or with others in each scenario. Twenty-six participants who failed to answer this question correctly were excluded from the final analysis.

Results

Multiple regression analyses were conducted as shown in equation (3) and (4). The correlation analysis was first conducted to assess the possibility of multicollinearity. Multicollinearity did not appear to be a problem as all correlations are under .9 and the variance inflation factor (VIF) for all variables are under suggested value of 5.0 (Hair et al. 2010) with the highest value of 2.1 (See Table 7).

Hypothesis 3 predicted participants in a public consumption scenario should exhibit less favorable attitude and lower purchase intention when they see the negative review from a consumer than when it comes from a professional critic, regardless of their knowledge. First the author ran the multiple regressions using consumer attitude as the dependent variable. The three-way interaction between review version, consumption scenario, and movie knowledge was marginally significant (β_6 – 3, p < .1).

The same procedure was done for purchase intention as the dependent variable. A significant three-way interaction was found (γ_6 = 4.31, p < .05). These results encouraged further investigation.

Table 7. Study 2 Descriptive Statistics and Bivariate Correlation (N = 224)

	Min	Max	Mean	STD	1	2	3	4	5	6	7	8	9	10
1. ATT	1	7	4.54	1.6										
2. PI	1	7	4.74	1.94	.84**									
3. RV	0	1	.5	.5	-0.11	-0.14*								
4. KNOW	-3	2	0	1.008	0.05	0.09	0.005							
5. RV*KNOW	-3	2	0	.69	0.12	0.13	0.003	.69**						
6. GEN	0	1	.5	.5	-0.05	-0.09	0.01	-0.1	-0.05					
7. AGE	19	65	35.1	11.1	0.02	-0.04	-0.04	-0.16*	-0.07	0.12				
8. STAR	1	6	3.21	1.34	.47**	.48**	-0.05	0.13*	0.13	0	-.22**			
9. IDP	0	5	2	1.43	0.1	0.09	0.14*	.18**	.2**	-0.05	-0.1	0.18**		
10. IDC	0	6	2.8	1.34	.27**	.27**	-0.04	-0.03	0.03	0.04	-0.05	.26**	0.16*	

*Significant at .05 level **Significant at .01 level

For easier interpretation, two regressions (see equations (5) and (6)) were conducted separately for the public consumption group versus private consumption group.

(5) ATT $= \beta_0 + \beta_1 RV + \beta_2 MK + \beta_3 RV*MK + \beta_4 Star + \beta_5 Age + \beta_6 Gen + e$

(6) PI $= \gamma_0 + \gamma_1 RV + \gamma_2 MK + \gamma_3 RV*MK + \gamma_4 Star + \gamma_5 Age + \gamma_6 Gen + e$

Using consumer attitude as the dependent variable, the interaction between review version and movie knowledge was not significant under public consumption ($\beta_3 = -.02$, p $> .1$). Moreover, neither of the main effects (review versions and movie knowledge) was significant ($\beta_1 = -.32$, p $> .1$ and $\beta_2 = .1$, p $> .1$, respectively). These results show that, in the public consumption situation, consumers' attitude was neither significantly affected by mixed reviews nor their knowledge about the movie.

The same analysis was repeated for Purchase intention as the dependent variable. Again, the interaction between ($\gamma_3 = -.31$, p $> .1$) and main effects of review versions and movie knowledge ($\gamma_1 = -.37$, p $> .1$ and $\gamma_2 = .16$, p $> .1$, respectively) were not significant. These results also showed that consumers' purchase intention was not affected by mixed reviews or their movie knowledge when they were in the public consumption situation. **Therefore, hypothesis 3 was not supported for both consumer attitude and purchase intention**

Interestingly, the results showed significant effect of Star power on both dependent variables ($\beta_4 = .62$, $p < .01$ and $\gamma_4 = .74$, $p < .01$). It may explain why neither attitude nor purchase intention was affected by mixed reviews and movie knowledge. In the situation where consumers have to choose the movie to watch with their friends, they may weigh their decision based upon other factors besides reviews and their own

knowledge. Moreover, consumers may perceive public consumption as being riskier, and they are likely to look for cues that could potentially guarantee collective satisfaction. In line with past literature, movie stars' characteristics drive audiences to evaluate the films (Addis and Holbrook 2010) and Stars serve as an insurance policy for audiences and may offset negative reviews (Basuroy et al. 2003). In this case, consumers' attitude and purchase intention were positively affected by Star power rather than reviews or movie knowledge.

Hypothesis 4 predicted that, in the private consumption context, the effect of review version on consumer attitude and purchase intention would be moderated by the extent of consumer knowledge. For attitude as a dependent variable, the results showed a significant positive interaction effect between review versions and movie knowledge (β_3 = .64, p < .05). To interpret the interaction, the procedure recommended by Aiken and West (1991) was followed to derive the simple slopes for review versions under different levels of movie knowledge. High knowledge was defined as one standard deviation above the mean and low knowledge as one standard deviation below the mean (M = 4.92, SD = 1.04).

Inconsistent with H4a, high knowledge consumers exhibited no significant difference in attitude when they saw a negative review from a professional critic than from a consumer (simple slope = .42, t (101) = 1, p > .1). **Therefore, H4a was not supported for consumer attitude.** However, consistent with H4b, the results showed that low knowledge consumers exhibited significant less favorable attitude when a negative review came from a consumer than when it came from a professional critic

(simple slope = -.84, t (101) = 2.05, $p < .05$). **Therefore, H4b was supported for consumer attitude.** In summary, hypothesis 4 was partially supported.

The same analysis was conducted using purchase intention as the dependent variable. A positive interaction effect was found ($\gamma_3 = .75$, $p < .05$) between review versions and movie knowledge. The same procedure recommended by Aiken and West (1991) was performed to derived simple slopes to interpret the interaction. Similar to attitude as the dependent variable, high knowledge consumers did not exhibit significantly lower purchase intention when they saw a negative review from a professional critic (simple slope = .32, t (101) = .63, p > .1). **H4a was not supported for purchase intention.** In contrast to H4a, low knowledge consumers exhibited significantly lower purchase intention when they saw a negative review from a consumer than from a professional critic (simple slope = -1.17, t (101) = 2.34, $p < .05$), consistent with H4b. In short, Hypothesis 4 is partially supported for purchase intention as a dependent variable (See Figure 2).

The underlying reason explaining the lack of support for hypothesis 4a could be that consumers with greater knowledge process information differently. According to Rao and Monroe (1988), the level of knowledge determines the cues consumers used to assess the quality of products. High knowledge consumers may prefer to process intrinsic cues such as mixed reviews regardless of where they come from. As a result, review sources did not affect their attitude or purchase intention and there was no significant different between the means of two review versions. Low knowledge consumers may not be capable of processing more complicated cues involving mixed

reviews (Alba and Hutchinson 1987) and simply take other consumers' opinions to determine their decisions, which explained the support for Hypothesis 4b.

Figure 2. Study 2: Mean Attitude and Purchase Intention
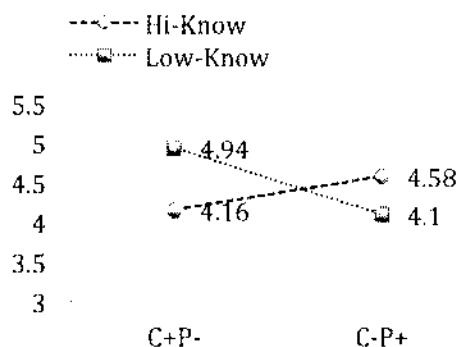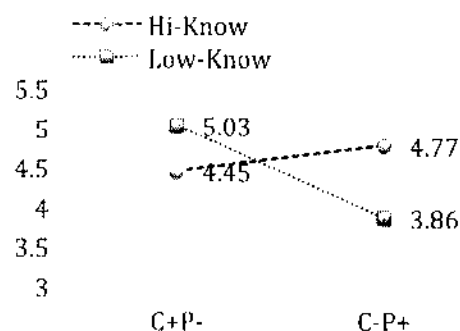
a. Attitude

---×--- Hi-Know
····■···· Low-Know

5.5
5   ■··4.94
4.5   ◁ 4.58
4   ◡··4.16   ■ 4.1
3.5
3
      C+P-   C-P+

b. Purchase Intention

---×--- Hi-Know
····■···· Low-Know

5.5
5   ■·5.03
4.5   ◡ 4.77
4   ◡··4.45
3.5   ■ 3.86
3
      C+P-   C-P+

Note: C+P-: positive consumer review and negative professional review; C-P+: negative consumer review and positive professional review

Study 2.1 Additional Study

The results for public consumption in Study 2 may be confounded by the ambiguity of who was responsible for choosing the movie. According to the theory of social loafing, individuals put in less effort when they work collectively compared to when they work individually (Karau and Williams 1993). In the previous study, the scenario described a situation where the consumer has to make a decision to rent a movie to watch with his/her friends. Participants may have misunderstood that the decision was made collectively among them and their friends, that is, a group effort. This may have driven some of the results. This additional study intended to evaluate this possibility. In

the study, the scenario was revised so that a participant would know he/she was the sole decision maker, not his/her friends. The new scenario was as follows:

> "It's evening time, and you are staying in with several friends. You and your friends want to rent a movie online. This time it is *your turn to* select which movie to watch. You have heard about this particular movie and are wondering if you should give it a try. You go online and find mixed reviews of the movie. On the next few screens, you will read some information about the movie and will make a decision on whether you should rent this movie to watch with your friends."

Pretest and Procedure

The pretest was conducted to assure that participants could correctly imagine themselves in the intended scenario and recognize that they were the decision maker and had high control over the decision making process. Sixty MTurk workers participated in this pretest and were randomly given either the original scenario or the new scenario with three questions: (1) who makes the decision; (2) to what extent do you feel that you are making the decision; and (3) to what extent do you have control over the movie selection (see Appendix 5).

All but one participants in the new scenario chose "myself" as an answer for question 1 while all participants in the old scenario chose "My friends and I" as an answer. A t-test showed that the means for questions 2 and 3 between the new scenario and the old scenario were significantly different (New scenario M_{Q2new}= 6.23 versus M_{Q2old}=3.9, t (58) = 13, p < .01) and M_{Q3new}=6.2 versus M_{Q3old}=3.93, t (58) = 12.55, *p*<.01).

According to the pretest, participants who read the original public scenario thought the decision was a group decision and they had low control of the decision-making. In line with social loafing, participants in the original public scenario may have considered it as a collective decision and thus put in less effort to process more complicated information such as mixed reviews. In turn, they relied on the simpler cues of the actors of the movie and made a decision based on how much they liked the actors.

The author proceeded to use the new scenario as the experimental stimulus. The same procedure and model testing the public scenario as in study 2 with the new manipulated scenario was conducted for this follow up study.

Sample Characteristics

One hundred and eighty MTurk workers participated in this follow up study. Nineteen of them answered at least one manipulation question incorrectly and were removed, which left the total of 161 participants for the final analysis. The summery of demographics is shown in Table 8.

Hypothesis testing results

Two multiple regressions were used to analyze the data, with review version (RV), Movie Knowledge(MK) and their interaction (RV*MK) as independent variables. Star Power (Star), Age (Age), and Gender (Gen) served as control variables. Finally attitude served as a dependent variable for one regression and purchase intention did for another.

Table 8. Study 2.1: Sample Demographics

		Percentage
Gender	Male	65.8%
	Female	34.2%
Age	Ranged from 18-62	
	M = 30, SD = 9.47	
Ethnicity	Caucasian	78.3%
	African American	8.7%
	Hispanic	6.8%
	Asian	5.6%
	Others	0%
	Prefer not to say	.6%
Education	Some High School	2%
	High School Graduate	14%
	Some College	37%
	College Graduate	40%
	Graduate School	7%
Income	<$10,000	15%
	$10,000 to $19,999	15%
	$20,000 to $29,999	19%
	$30,000 to $49,999	23%
	$50,000 to $74,999	16%
	$75,000 to $99,999	6%
	$100,000 to $149,999	2%
	$150,000 or more	2%
	Prefer not to say	2%

For attitude as a dependent variable, the coefficient of the interaction term between review versions and movie knowledge was not significant ($\beta_3 = -.125$ p > .1). As for main effects (review versions and movie knowledge), neither one was significant either ($\beta_1 = -.06$, p > .1 and $\beta_2 = .23$, p > .1, respectively).

The same analysis was repeated for purchase intention as a dependent variable. Neither the interaction ($\gamma_3 = -.12$, p > .1) nor the main effects for review versions and movie knowledge ($\gamma_1 = -.08$, p > .1 and $\gamma_2 = .25$, p > .1, respectively) were significant.

Similar to study 2, hypothesis 3 was not supported in this follow up study for both dependent variables, despite the new scenario that does not encourage social loafing.

In line with the results found in study 2, the coefficient of Star Power was significant for both attitude and purchase intention ($\beta_5 = .34$, $p < .05$ and $\gamma_5 = .3$, $p < .05$, respectively). These similar results between the two studies showed that what happened in study 2 for public consumption was not due to the social loafing aspect of the public consumption scenario. The results from both studies suggested that, for public consumption, where the negative reviews came from did not appear to matter. What does matter appeared to be whether a movie has big stars. Even when eliminating the likelihood of social loafing, consumers weighted their decision on whether they liked the actors, not reviews of the movie.

The reason behind these results could be that, for public consumption, personal knowledge or where the negative reviews come from does not seem to matter. Because public consumption may be perceived as riskier, therefore, any negative review (whether from professional critics or consumers) may have deterred them. Consumers are likely to try to minimize the chance of losing face by choosing movies that have big stars in them, in line with the literature that stars serves as an insurance policy (Basuroy et al. 2003).

CHAPTER V

STUDY 3: TIE STRENGTH IN PUBLIC CONSUMPTION

HYPOTHESES FORMULATION

The first two studies looked at how consumer responds to mixed reviews under social influences. *Study 1* suggested that consumers' attitude and purchase intention can be influenced by opinions from others to a different extent based on their self-construal. *Study 2* suggested that attitude and purchase intention are not only influenced by self-construal, but are also influenced by the consumption context and consumer knowledge.

Extending Study 2, this study will examine the public consumption context more in-depth and investigate how tie strength with others involved in the consumption scenario can determine the way consumers utilize online reviews. In Study 2, the author argued that consumers will pay more attention to consumer reviews when consuming a product in public, because these reviews represent the opinions of average consumers and function as a preemptive tool against selecting a product that is evaluated negatively by others. But this may not always be the case. Could consumers pay more attention to professional critic reviews in the public consumption environment instead, and what can drive this behavior? These are the questions the author seeks to answer through the current study.

Past impression management research has focused mainly on impression management to strangers to achieve desired goals (e.g., Ratner and Kahn 2002; Bergsieker et al. 2010), but very little has been done to look at how tie strength between individuals and others could determine such behavior. It is illogical to assume that individuals will employ the same impression management strategies similarly toward

everybody. For instance, a woman would employ one strategy to impress her date and another strategy to impress her professor or employer. It is important to point out what are the factors that could alter these impression management behaviors toward one group versus another in order to accurately understand how individuals behave.

Combining the concept of tie strength and goal-relevant impression management, this study will look into how consumers employ different impression management strategies to achieve a certain goal (morality versus competence) while consuming products publicly with connections of different strength (close friends versus colleagues). The results will provide additional empirical evidence on how tie strength potentially influences the way consumers differently manage their impressions and how product reviews play a role in that process.

In doing so, the current study steps beyond the issues of valence and source that have been the focus of previous research on product reviews (e.g., Reddy et al. 1998; Dellarocas et al. 2007; Tsang and Prendergrast 2009). It considers product reviews as a social management tool in addition to the informational role they play in the decision-making process. This will shed new light on what product reviews can do to consumers besides helping them make decisions and will introduce realism into how consumers actually use online reviews in their daily life.

Goal-relevance of impressions

As discussed in Study 2, a desire to be evaluated positively by others can influence consumer behavior (Ratner and Kahn 2002). When making the right impression is very important and salient (i.e., being on a first date or trying to impress bosses or colleagues), consumers "deliberately search for cues regarding others' impressions of

them and attend selectively to information that is relevant to making the right impression" (Leary and Kowalski 1990, p. 36). There are several motives that drive people to engage in impression management. One of them is to achieve a goal that can maximize social and material outcomes. Social outcomes can be friendship, relationship, respect, liking and so on, while material outcomes can be pay raise/promotion and better working environment, for instance (Leary and Kowalski 1990).

Personal perception research suggests that individuals evaluate others along two universal dimensions: warmth or morality and competence. Warmth and morality usually are associated with liking, and competence is associated with respect (Fiske et al. 2007). Because individuals want to be evaluated positively by others, these dimensions are goals they want to achieve. Ideally, everybody wants to be evaluated highly on both dimensions, however, in reality it may not be possible. Research found that these two dimensions are generally negatively correlated (Yzerbyt et al. 2008), such that individual are perceived as either warm (moral) but incompetent, or cold (immoral) but competent. Since it is difficult to achieve both perceptions at the same time, it will be more practical for individuals to achieve one perception that is more important than the other in a certain situation. In the work environment, for instance, being competent may be a better perception to have since it could lead to a better work condition, promotion, pay raise, and respect from other colleagues or superiors. In contrast, being likeable may be better when an individual is with a group of friends or in a close relationship environment because it could lead to a stronger bond or relationship among them.

People use various strategies to impress others, both verbal and nonverbal behavior (DePaulo 1992). This study focuses on two specific strategies to achieve desired

perceptions: self-promotion and ingratiation. Jones and Pittman (1982) outlined distinct impression management behaviors associated with self-promotion and ingratiation. Ingratiation is characterized by other enhancement and conformity in order to elicit liking while self-promotion emphasizes performance and accomplishment claims in order to earn respect (Jones and Pittman 1982; Bergsieker et al. 2010).

People who seek to be liked engage in ingratiation behavior (Schlenker 1980). The examples of ingratiation behaviors are as follow: speak or behave in ways consistent with the target (opinion conformity), compliment or flatter the targets (other enhancement), and behave in ways intended for the target to perceived them as likeable (other focused) (Bolino et al. 2008). For instance, an individual may conform to anything the group says in order to be perceived as being easy and not picky. Another example will be during a social gathering, an individual may often compliment the others' outfits or jewelries to show them the admiration or offer to fetch them beverages in order to be perceived as a gentleman. These behaviors are commonly seen in social events when individuals want to elicit liking.

Those who seek to be respected engage in self-promotion behavior (Jones and Pittman 1982). Individuals communicate abilities and accomplishment to appear competent (Bolino et al. 2008). An example of self-promotion can be associating themselves by emphasizing their connection with other successful people. This behavior is called *basking in reflected glory* or *BIRG* (Cialdini and Richardson 1980). For instance, a consumer may select a new restaurant praised by a very well known critic to have dinner with her colleagues, because she hopes that they will love the food and will always think of her as a restaurant expert after that. In this case, she expects to receive

her social reward by associating herself with professional restaurant critics. In sum, different goals require different strategies, which eventually lead to different impression management behaviors.

Impression management behaviors and audiences

One may assume that, given the desire to create a positive impression, people will always try to impress everybody and even with the same strategies during public consumption. That may not always be the case. How an individual creates a positive impression may vary based on the people he or she is trying to impress (Tice et al. 1995). Tice et al. (1995) found that, when interacting with strangers, people emphasized on self-promotion strategy. However, when they were with close friends, they preferred modest self-presentation.

Since consumers may have a wide range of relationships with their network, consumers may experience public consumption with either someone they know very well or strong connections (i.e., close friends, family members, spouses) or with acquaintances or weak connections (i.e., colleagues). Even though both situations involve public consumption, I argue that individuals will engage in different impression management strategies based on the specific others present during public consumption.

With close friends, being competent may not be the main goal to achieve since an individual does not need to be competent to be friends with someone. Instead, liking or being likeable may be needed to maintain a strong relationship with friends. Thus, the goal of impression management will be morality during public consumption with strong social connections (e.g., close friends), and consumers are likely to engage in ingratiation behaviors.

In the case of mixed reviews, because consumer reviews represent opinions of regular consumers like themselves and friends, consumers may choose to conform to a consumer review because opinion conformity is one of ingratiation tactics, which could elicit liking. Therefore, the author expects their attitude and purchase intention to be more in line with what other consumers say.

In contrast, during public consumption with weak social connections (e.g., colleagues), being evaluated as competence may be preferable since it could lead to both social (i.e., better working condition) and material benefits (i.e., promotion). In other words, the goal of impression management is likely to be competence and as a result, consumers are likely to engage in self-promotion behaviors in order to elicit respect from their weak-tie counterparts. Under such situations, a consumer will pay more attention to reviews that come from a professional critic and will make a decision accordingly, because he/she wants to create a positive image by BIRGing him/herself with critics and trying to be more unique than other ordinary consumers. Therefore, when the individual is faced with mixed reviews from both sources (professional critics and consumers), his or her attitude and purchase intention is likely to be more in line with what professional critics say. Additionally, a consumer review comes from a source that doesn't possess high expertise and knowledge and represents only an ordinary opinion. Consequently, it may not be the right tool to self-promote oneself to targets an individual wants to impress. This leads to the following hypotheses:

H5: When faced with mixed reviews during public consumption, consumer attitude and purchase intention will depend on the extent of social connection with counterparts.

    (a) With strong social connections, consumers will have less favorable attitude and will be less likely to purchase the product when a negative review comes from a consumer than when a negative review comes from a professional critic.

    (b) With weak social connections, consumers will have less favorable attitude and will be less likely to purchase the product when a negative review comes from a professional critic than when a negative review comes from a consumer.

METHODOLOGY

Design and Experimental Stimuli

A 2 (Review Version: Positive Professional Review+Negative Consumer Review versus Negative Professional Review+ Positive Consumer Review) x 2(Strong Tie versus Weak Tie) between-subject experimental design was used to collect the data for this study. Review versions and tie strength were manipulated. Diner knowledge was measured and served as a control variable along with age, gender, and general interest in dining at the type of restaurant.

The experimental stimuli were adapted from Studies 1 and 2 with a different setting, a restaurant. A restaurant context is chosen because it fits public consumption criteria and consumers go to restaurants with people of both strong and weak connections. To create the experimental stimuli, restaurant information was randomly chosen from *Urbanspoon*, a popular restaurant information and review site. It consisted of the restaurant's name, phone number, cuisine type, certain features of the restaurant, and a total number of critic/diner reviews given (184 reviews). The mixed review portion of the stimulus was similar to the one used in studies 1 and 2 (with slight differences in percentage), with thumb-up and –down and percentage likings (40% for negative reviews

and 85% for positive reviews). The percentage of negative reviews was higher than the one used in studies 1 and 2, while the percentage of positive reviews remained the same. These were chosen based on a pretest, the details of which are given in the next section.

Tie strength was manipulated using two different scenarios. For a strong tie condition, participants were asked to imagine themselves choosing the restaurant for dinner with several of their close friends. The scenario was described as follows:

"It is Friday evening, and you are going out to dinner with several close friends whom you know very well. You are asked to choose the restaurant. You have heard about this particular restaurant and are wondering if you should give it a try. You go online and find mixed reviews of the restaurant. On the next few screens, you will read some information about the restaurant and will make a decision on whether you should have dinner at this restaurant with your close friends."

For a weak tie condition, participants were asked to imagine themselves choosing the restaurant for dinner with several of their work acquaintances. The scenario was described as follows:

"It is Friday evening, and you are going out to dinner with several work acquaintances whom you do not know very well. You are asked to choose the restaurant. You have heard about this particular restaurant and are wondering if you should give it a try. You go online and find mixed reviews of the restaurant. On the next few screens, you will read some information about the restaurant and will make a decision on whether you should have dinner at this restaurant with your work acquaintances"

A pretest was conducted to find the appropriate percentage likings for positive and negative reviews and to assure that participants could correctly identify the consumption context and that both scenarios successfully manipulated the strong and weak tie context.

Pretest

Sixty MTurk workers participated in this pretest. They were randomly given one of the two scenarios (see Appendix 6). After reading the scenario, they were first asked a question to check if they knew they were going to the restaurant with others, not by themselves (e.g., are you going out to dinner by yourself or with others). All participants answered "going out to dinner with others". The next question asked "to what extent do you feel that you are the one selecting the restaurant?" Responses were measured on a 7-point scale with 1 being not at all me and 7 being absolutely me. The difference between two tie strength versions was not significant ($M_{weak} = 5.5$ and $M_{strong} = 5.3$, $t (58) = .82$, p $> .1$), showing that participants in both review versions highly perceived that they were the one selecting the restaurant. Then a three-item scale adapted from Mittal et al. (2008) was used to measure the tie strength participants perceived they had with their counterparts in the scenario (e.g., how close would you say you are to your dining companions in the scenario). A t-test showed that the means between the weak tie and strong tie conditions were significantly different ($M_{weak} = 2.7$ and $M_{strong} = 6.5$, $t (58) = -13.91$, p$< .01$).

After answering the questions related to the scenario, they were given a sample of review information similar to that used in Urbanspoon website and were then asked to provide a percentage of liking votes they would equate with a restaurant being bad and

also a percentage of liking votes that they would equate with a restaurant being good. The responses were averaged to identify two percentages representing positive and negative reviews without being too extreme one way or the other (40% for negative and 85% for positive). There was no significant difference in the percentages given by participants in the two scenarios regarding positive and negative reviews. These percentages were used in the final experiment.

Procedure

Mechanical Turk (MTurk) was used for the main study. Participants were randomly assigned to one of the four conditions. Upon accepting the "hit" on MTurk, participants were asked to imagine themselves in one of the two social tie scenarios described earlier. After that, they saw one of the two versions of the restaurant information page. Both versions included the restaurant's name, telephone number, cuisine, restaurant's features, the total number of reviews, and two percentage likings, either positive reviews from diners (85% of diners liked it and thumb-up) and negative reviews from food critics (40% of food critics liked it and thumb-down) or vice versa (See Appendix 7). Next, they answered a set of manipulation questions asking (1) with whom they are going out to dinner, (2) who selects the restaurant, and (3) to what extent do they feel that they are the one selecting the restaurant. Then they responded to three questions measuring their perceived tie strength as in the pretest. These questions were to ensure that the manipulations worked as intended.

In the next screen participants answered the same questions as in studies 1 and 2 measuring their attitude toward the restaurant and their purchase intention. Finally,

participants answered questions related to their restaurant knowledge (adapted from Mitchell 1996), dining behavior, and demographics (See Appendix 7).

Measurements

Consumers' attitude and *purchase intention* were measured by the same scales as in studies 1 and 2. Consumers' attitude was measured using a four-item semantic scale from Holbrook and Batra (1987). Purchase intention was measured using a three-item semantic scale from Mackenzie et al. (1986). Scores for the individual items were averaged to create the corresponding attitude (Cronbach's Alpha = .96) and purchase intention scores (Cronbach's Alpha = .94).

Tie Strength was measured by a three-item scale adapted from Mittal et al. (2008). Responses were averaged across three items to yield a composite tie strength score (Cronbach's alpha = .96).

Restaurant knowledge was measured by adapting the consumer knowledge scale in studies 1 and 2 to the restaurant context. Responses were averaged across four items to yield a restaurant knowledge composite score (Cronbach's alpha = .86). *Age, Gender,* and *General interest in dining at the restaurant* were also measured and served as control variables.

Tests of Hypotheses and Results

Analysis of Covariance (ANCOVA) was used to test this two-part hypothesis with review versions (RV, 0 for +C-P and 1 for –C+P), Tie strength (TieST), and their interaction as independent variables. Attitude (ATT) and purchase intention (PI) served as dependent variables, while restaurant knowledge (RK), interest in eating at this type of restaurant (Inter), age (Age), and gender (Gen) served as controls.

Sample Characteristics

Two hundred and sixty MTurk workers participated in this study. Twenty-one participants incorrectly answered the manipulation questions and were removed from the sample pool. Two hundred and thirty-nine participants were retained for final analysis. The sample consists of 140 (58.6%) male and 99 (41.4%) female participants. The ages ranged from 18 to 62 with a mean of 30 and a standard deviation of 8.56. The summary demographics are shown in Table 9.

Manipulation Check

Manipulation check was done to reassure that the consumption scenario and tie strength manipulations worked as intended. To check the success of manipulations, participants were asked with whom they are going to dinner ("by myself", "with close friends" for a strong tie scenario, and "with work acquaintances" for a weak tie scenario). Tie strength measurement was also used to assure that participants who chose "with close friends" actually perceived a strong tie relationship while those who chose "with work acquaintances" perceived a weak tie relationship between them and their counterparts.

Twenty-one participants who missed the first manipulation question were excluded from the final analysis. Those who chose "with close friends" perceived a strong tie relationship while those who chose "with work acquaintances" perceived a weak tie relationship with their counterparts and their means were significantly different (M_{strong} = 6.13 and M_{weak} – 3.2, t (237) = -19.58, $p < .01$).

Table 9. Study 3: Sample Demographics

		Percentage
Gender	Male	58.6%
	Female	41.4%
Age	Ranged from 18-62	
	M = 30, SD = 8.56	
Ethnicity	Caucasian	76.6%
	African American	5.4%
	Hispanic	5.9%
	Asian	10.9%
	Others	1.2%
	Prefer not to say	0%
Education	Some High School	0.5%
	High School Graduate	12.5%
	Some College	40.6%
	College Graduate	37.7%
	Graduate School	8.7%
Income	<$10,000	19.2%
	$10,000 to $19,999	14.6%
	$20,000 to $29,999	15.1%
	$30,000 to $49,999	23.0%
	$50,000 to $74,999	15.1%
	$75,000 to $99,999	6.3%
	$100,000 to $149,999	2.5%
	$150,000 or more	0.8%
	Prefer not to say	3.4%

Results

Correlation analysis was conducted to assess the possibility of multicollinearity. It did not appear to be a problem because all correlations were under 0.9 and the variance inflation factor (VIF) for all variables were lower than suggested value of 5.0 (Hair et al. 2010) with the highest value of 1.07 (See Table 10).

Hypothesis 5 argues that, when faced with mixed reviews during public consumption, consumers' attitude and purchase intention will depend on the strength of social connection with counterparts. Specifically, it argues that, when consumers are going out to a restaurant with strong social connections, they will have less favorable attitude and will be less likely to dine at the restaurant when the negative review comes from consumers than when it comes from food critics. In contrast, when consumers are going out to a restaurant with weak social connections, they will have less favorable attitudes and less likely to dine there when the negative review comes from food critics than when it comes from consumers.

Results from ANCOVA with consumers' attitude as a dependent variable affirmed the hypothesized significance of the interaction between review versions and tie strength (F_{ATT} (1,231) = 10.03, $p < .01$)(See Table 11) indicating that consumer's attitude toward the restaurant after reading mixed reviews depended on the strength of social connection.

A planned comparison showed that RV had a significant impact under strong ties. Consumer attitudes were more negative when the negative review came from diners than when the negative review came from food critics (M_{-C-P} = 5.28 and M_{-C-P} = 4.11, $F(1,231) = 36.3, p < .01$). Thus, **Hypothesis 5(a) was supported.** As for weak ties, a planned comparison showed that consumer attitudes were not significantly different whether the negative review came from diners or food critics (M_{+C-P} = 4.85 and M_{-C-P} = 4.53, $F(1,231) = 2.82, p > .1$). Therefore, this hypothesis for attitude was not supported. Because only one sub-hypothesis was supported, **hypothesis 5 was partially supported.**

Table 10. Study 3: Descriptive Statistics and Bivariate Correlation (N = 239)

	Min	Max	Mean	STD	1	2	3	4	5	6	7	8
1. ATT	1	7	4.7	1.12								
2. PI	1	7	4.9	1.46	.87**							
3. RV	0	1	0.5	0.5	-0.31**	-0.37**						
4. TieST	0	1	0.5	0.5	0.00	0.004	0.02					
5. Gen	0	1	0.4	0.5	0.004	-0.01	0.02	-0.03				
6. Age	18	62	29.84	8.56	0.02	-0.04	-0.01	-0.04	0.15			
7. RK	2	7	5.4	0.94	0.12	0.12	-0.07	0.01	0.04	0.2**		
8. Inter	1	7	4.84	1.76	.34**	0.35**	0.17**	0.24	-0.05	-0.06	-0.01	

*Significant at the 0.05 level   **Significant at the 0.01 level

The same procedure was done for purchase intention as a dependent variable. Results showed significant interaction between review versions and tie strength (F_{Pi} (1,231)= 8.8, $p < .01$)(See Table 11). Under the strong tie condition, a planned comparison showed that consumers were less likely to go to the restaurant when the negative review came from diners than when it came from food critics (M_{+C-P} = 5.68 and M_{-C-P} = 4.1, F(1,231) – 45.2, $p < .01$). **Thus, hypothesis 5 (a) was supported**. Under the weak tie condition however, a planned comparison showed that consumers were also less likely to go to the restaurant when the negative review came from diners than when it came from food critics (M_{+C-P} = 5.17 and M_{-C-P} = 4.55, F(1,231) = 7.25, $p < .01$), contrary to hypothesis 5(b). Therefore, **hypothesis 5 was partially supported for** consumer purchase intention (see Figure 3).

Table 11. Study 3: Model Coefficients

ATT as DV			PI as DV		
	F	p-value		F	p-value
RV	19.37	.000**	RV	31.27	.000**
TieST	.01	.94	TieST	.00	.99
TieST*RV	10.03	.002**	TieST*RV	8.8	.003**
Age	.06	.81	Age	.6	.44
Gen	.15	.7	Gen	.17	.68
RK	2.38	.12	RK	2.99	.09
Inter	26.88	.000**	Inter	26.45	.000**

*Significant at the .05 level ** Significant at the .01 level

According to these results, during public consumption with close friends, the main goal consumers want to achieve may be to be likeable. Choosing the right restaurant that provides great satisfaction could elicit the liking. To accomplish that, consumers would perform ingratiation tactics by conforming to consumer reviews in order to choose the right restaurant so that their close friends will have the best dining experience. The ingratiation tactics are often used to elicit liking by conforming to the group (Jones and Pittman 1982). When they see negative (positive) reviews from other consumers, their attitude becomes more negative (positive) and they are less (more) likely to choose that restaurant for dinner, regardless of what food critics say.

As for dining with acquaintances, the results are more ambiguous since both review versions played an equal role for consumer attitudes, but consumer reviews carried more weight for purchase intention. For consumers in such conditions, being evaluated as competent may still be preferable. However, consumers do not seem to just use reviews from food critics. Instead, they also use diner reviews to create competency. The underlying reason could be that, competence motive and the high-involvement nature of the decision drives consumers to be more cautious by taking into consideration all available information. Although consumer reviews do not reflect the same level of uniqueness and expertise as professional reviews, they do suggest a wider range of experiences. According to Park et al. (2007), purchase intention of high-involvement consumers is affected by review quantity. As consumer reviews are typically higher in quantity and are perceived as representing the "majority opinion", consumers may have treated these reviews as an important cue to making a competent purchase decision.

An alternative explanation for the findings here is that consumers were less involved in the weak tie condition and as a result may not have paid close attention to the review source. An auxiliary study was conducted to rule out this possibility. The study used the same experimental stimuli as the main study, and 55 participants from MTurk were first exposed to the stimuli and then answered two questions about how the reviews of the restaurant were from 1) diners and 2) food critics. Two-way ANOVA was conducted and results showed a significant main effect of review version ($F(1, 51) = 143.8$, $p < .01$ for diners and $F(1, 51) = 138$, $p < .01$ for food critics). No other effect was significant. Participants were also asked to recall the source of the negative review. A Chi-square analysis was conducted to see if there was a difference between the percentage of correct answers between the strong vs. weak tie conditions, and it was not significant (Chi-Square $= .85$, $p > .1$). These results suggest that strong tie and weak tie scenarios elicited equal attention from participants, and that the findings in the main study are unlikely to be due to attentional difference between the two conditions.

It is worth noting that the results from this study are quite different from the public consumption scenario in study 2. In study 2, review version did not have a significant effect on either consumers' attitude or purchase intention when consumers made a decision to choose a movie to watch with their friends (Hypothesis 3 was not supported). There are several possible explanations for the difference in results. First, the contexts for these two studies are different, movie versus restaurant. Even though they are both experience goods, the information consumers use to evaluate them can be very different. For one thing, movies have multiple cues such as actors, directors, producers, screenwriters and so on that represent their quality. As for restaurants, there are few other

cues to signify the quality of a restaurant unless it has celebrity or award-winning chefs or belongs to a well-known chain. Since the experimental stimulus in study 3 does not contain information about the chefs or the brand, consumers may have to utilize other available cues such as diners' and food critics' reviews to separate good from bad restaurants. Furthermore, participants in study 2 may not perceive all their friends as being close friends but being just friends or acquaintances. If they think of their friends as one way or the other, they may have the same thought process and the same results as either hypothesis 5 (a) or (b). These reasons can partly explain why the results for hypothesis 3 and hypothesis 5(a) are different even though they share the same public consumption condition.

Figure 3. Mean Attitude and Purchase Intention
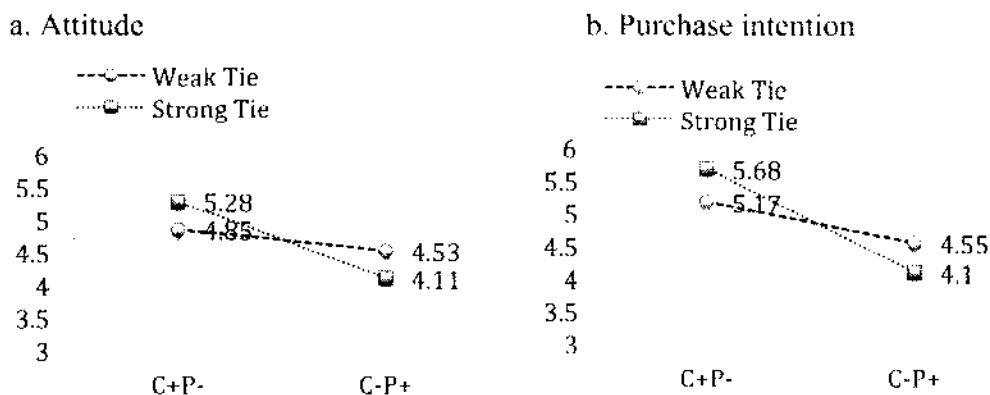
a. Attitude

b. Purchase intention

Note: C+P-: positive consumer review and negative professional review; C-P+: negative consumer review and positive professional review

CHAPTER VI

DISCUSSION AND RECOMMENDATIONS

SUMMARY OF FINDINGS

The dissertation described in preceding studies offers valuable insights for understanding not only how consumers utilize consumer reviews or how they are influenced by personal and social factors but also how consumers potentially use consumer reviews as a social tool to manage their public impressions. The findings from these studies offer important academic and managerial implications that are discussed in the following sections.

Study 1. This study examines the moderating effect of individual self-construal on attitude and purchase intention when consumers face mixed reviews. While researchers have identified the effects self-construal has on decision-making, including the perceived diagnosticity of information and judgment, this study contributes to these past findings by introducing self-construal as a moderating factor that could affect how consumers process product reviews.

The findings of this study indicate that consumers with more independent self-construal place greater weight in their decision on the negative review from professional critics, which in turn results in less favorable attitude and lower likelihood of purchasing the product. In contrary, consumers with more interdependent self-construal exhibit the opposite pattern, which in turn results in less favorable attitude and lower likelihood of purchasing the product when the negative review comes from fellow consumers. This study provides interesting findings on how consumers with different degrees of self-

construal utilize product reviews. To the knowledge of the author, self-construal has not been investigated as an intervening factor in WOM literature.

The overall conclusion that can be drawn from this study is that consumers weigh their decision on reviews from sources associated with their self-construal, regardless of the valence of review. Instead of assuming that consumer decisions will be predominantly affected by negative information, researchers should look at other potential moderating factors that could enhance or hinder the way consumers utilize product reviews.

Additionally, the findings of this study support the notion that consumers are influenced by WOM unequally based on their individual characteristics (Gilly et al. 1999). The results suggest that how an individual processes conflicting information depends on the individual's self-construal. Moreover, the findings provide evidence to clarify the argument about which source is perceived as more credible. Whether consumers find critics or other consumers more credible depends on their own self-construal. Thus, the notion that one source is more superior than the other may not be valid or generalizable. Further investigation for other potential factors that determine the superiority of information sources is encouraged.

Study 2. The second study and its follow-up study explore how consumers utilize product reviews under different consumption contexts. Past research found that the impact of social influences is more powerful when the consumption behavior is publicly observable (Ratner and Kahn 2002; Herman et al. 2003). Since many consumers are more sensitive to public opinions when they are visible in public, one may expect that consumers rely more on product reviews from other consumers in order to avoid the

embarrassment of making the wrong consumption choice. In contrast, when consuming in private, since there is no need to monitor public image as in public consumption, the choice is based on the individual and not the mass. Thus, the way consumers use product reviews may depend on individual knowledge of the product. This study contributes to the literature by introducing consumption context and consumer knowledge as moderating factors to the causal relationship between processing mixed reviews and consumer attitude and purchase intention.

The findings of this study indicate that consumption context and consumer knowledge are indeed moderating factors. For public consumption, the results suggest that the origin of negative reviews does not matter. In fact, both versions of negative reviews have equally damaging effects. What also matters is the star power of the actors in the movie. Since both review versions are equally influential, consumers base their decision on whether the movie has actors they like instead. Considering that public consumption is perceived as riskier, consumers are likely to try to minimize the risk by choosing the movies that feature big and admired stars. For private consumption, the study results suggest that consumers utilize reviews differently than for public consumption. Highly knowledgeable consumers focus more on mixed reviews, regardless of sources, because they prefer to process intrinsic (mixed reviews) over extrinsic cues (information sources). In line with Alba and Hutchinson (1987), novice consumers may not be capable of processing complicated information and prefer to side themselves with other consumers' reviews.

Study 3. In the final study, the main proposition is that consumers utilize reviews to create the desired impressions to different partners based on the tie strength. The

results show that consumers have a less favorable attitude and are less likely to go to the restaurant with strong tie connections when they see negative reviews from other diners as opposed to those from restaurant critics. In contrast, when dining with weak tie connections, consumers' attitudes toward the restaurant are affected equally by negative reviews from both diners and restaurant critics. However, consumers are less likely to go to the restaurant when they see negative reviews from diners than from critics. This study provides new findings on how consumers utilize online reviews to manage their social impressions. To the knowledge of the author, this study is the first to go beyond the informational role of consumer reviews and introduce them as an impression management tool.

Based on the results, during public consumption (such as dining at a restaurant) with close friends, consumers want to achieve the goal of being likable. They conform to public opinions in order to choose the right restaurant so their close friends will have the best dining experience. Thus, their evaluation relies on what other diners have to say. In order to achieve a competent impression with their acquaintances during public consumption, consumers utilize reviews from both sources at the same time. The underlying reason could be that, competence motive and the high involvement nature of decision-making drives consumers to be more cautious and consider all the information available to them. Moreover, unlike other experience products that have multiple quality cues (such as a movie), a restaurant does not, which left only reviews from diners and critics that consumers can use in order to make a decision.

In summary, this dissertation introduces and empirically tests new factors that moderate how consumers process conflicting information. It is overly simplistic to

assume that when consumers see mixed reviews, they will automatically evaluate products negatively based solely on the concept of negativity bias, or that they will weigh their decisions based exclusively on one source or another. It is inferred from the current research that individuals process this conflicting information differently due to their individual influences such as self-construal. Besides individual influences, there are situational influences that moderate this relationship as well. Consumers do not utilize reviews in the same way across all situations. This dissertation suggests that consumers may utilize other cues beyond reviews that can guarantee the success of the decision-making when they are in public, regardless of how much they know about the product. Privately however, they pay closer attention to what other consumers say or strictly to the reviews themselves based on the knowledge they possess. Finally, not only consumer knowledge, but also the strength of the relationship individuals have with their counterparts during public consumption could determine how they utilize reviews. It is interesting to learn that consumers pay closer attention to consumer reviews when they are with their close friends while utilizing both sources (consumers and critics) when they are with mere acquaintances. Key findings from this dissertation contribute to the marketing literature and provide businesses and practitioners a better understanding of how consumers utilize online reviews.

LIMITATIONS

Besides a number of contributions, this dissertation also has multiple limitations. First, this dissertation uses two kinds of setups to represent a product or service for which reviews play a significant role in consumer decision-making. Further studies using other

products/services are recommended to generalize the results. Since consumers can acquire firsthand information about physical products prior to purchase, consumers may rely less on online reviews and/or this prior information could multiply the effects of review valence. For instance, if a person gets to try the product at the store and is very satisfied, she may not care at all about what other people have to say since she really likes the product and decides to purchase. She may even ignore any negative reviews to simplify the decision-making process. Moreover, if she knows that a product has certain features that she prefers, rave reviews on those features may trump negative reviews on other features she does not care for. In contrast, if she does not like the product, negative reviews may justify her prior perception or attitude, which makes it more difficult for businesses to try to change. These more subtle differences need to be explored in future research. Moreover, the decision to purchase certain products or services such as a haircut and healthcare services comes with longer lasting consequences. Consumers may pay closer attention to negative reviews since the risk of making the wrong decision is high. Similarly, consumers may pay closer attention to negative reviews when it comes to buying high-price items such as a car due to the high risks involved and to the grave consequences from choosing a wrong product.

Second, this dissertation looks at only individual difference in self-construal. Other individual factors such as cultural background may influence how consumers handle conflicting reviews differently. For instance, collectivistic consumers may focus solely on what other consumers say because they want to maintain the harmony with mass opinions while individualistic consumers may completely ignore what other people say and make the decision based on what they like or dislike. As another example, higher

uncertainty avoidance consumers may pay much closer attention to negative reviews and decide not to purchase the product at all due to the risk factors, regardless of where those negative reviews come from. These cultural factors provide interesting insight into how consumers from various countries may handle mixed reviews differently. Relatedly, the sample used in this dissertation is solely based on a pool of participants in the United States. Because the melting pot nature of the country, consumers in the United States may show higher variances in their responses compared to consumers in other more homogenous countries. Further research using an international sample will help uncover cross-cultural differences in how consumers utilize online reviews.

Third, this dissertation focuses on the conflicting opinions between two information sources – consumers and critics. It is possible to have disagreements among consumers or among professional critics. If there are disagreements among consumers, tie strength may play a significant part in determining which consumers' opinions the individual would believe. For instance, if close friends think that the product is good while work acquaintances think it is not, an individual may side with her friends because she is closer to and trusts them more. If individuals do not know the peer reviewers, other cues that could be used to build credibility (e.g., a number of reviews that a consumer has posted on the website or how long he or she has been a member of or contributor to the website) may determine which consumers' opinions are more believable. If there are disagreements among professional critics, the credibility factor may play a big part in choosing which critics consumers would like to listen to. One would expect that reviews from more credible critics will carry more weight than reviews from less credible ones.

Further research needs to examine how consumers handle conflicting information in such circumstances.

Finally, Study 3 used only one type of relationship for each tie strength level (friends for strong ties and work acquaintances for weak ties). There may be subtle differences in impression management in the context of other relationships (e.g., family members for strong ties and non-work acquaintances for weak ties). For instance, younger consumers may try to impress their schoolmates (weak ties) more than their parents (strong ties). Consequently, they may pay significantly more attention to what other consumers have to say and make their decisions based on that information. Future research should go beyond the social relationships explored in this dissertation to include a wider variety of social contexts.

MANAGERIAL IMPLICATIONS

As online sentiments have become more and more popular and a go-to source consumers use when making decisions, this dissertation provides multiple implications for businesses and practitioners. This dissertation enhances the understanding of word of mouth and how it could be used more efficiently by identifying multiple variables that could determine how consumers utilize consumer reviews in the highly engaged social media environment. Traditionally, businesses focus heavily on what positive things professional sources such as *Consumer Report* and *Zagat* have to say about them. This dissertation suggests that it should not always be the case in all situations. There is no clear-cut superiority between professional critics and consumers, and in fact it depends on the exact consumers reading the reviews. Businesses and marketers should start with a

clear understanding of the type of consumers they are dealing with before investing their resources into managing consumer or professional critics.

Furthermore, the knowledge consumers have about products or services could affect how they utilize online reviews in certain consumption situations. When consuming products in private, in line with Rao and Monroe (1998), highly knowledgeable consumers process more complicated information such as actual reviews and overlook simple cues such as review sources. On the other hand, lack of knowledge drives less knowledgeable consumers to utilize less complicated cues and simply take other consumers' opinions to make their own decisions. This dissertation suggests that businesses should identify how much information their consumers know about their products or services, especially if their products are likely to be consumed in private. If products and services are something sophisticated or complicated and consumers do not know or understand them very well, harvesting positive reviews from other consumers should result in better outcomes. As for products that consumers know quite well, review source may not be important as long as they receive abundant positive reviews. Additionally, since this dissertation uses a specific stimulus, a movie, it gives a directly applicable suggestion to movie studios to focus more on hiring well-known and highly admired actors in their movies. Unless studios have very high quality scripts or stories to produce, well-known actors could serve as an insurance policy for the success of the movie, especially if these are movies that consumers generally see with other people. Moreover, using survey to learn the social context of product consumption, such as the types of relationships that people consume the products with, should help businesses understand how the product or service may be relevant to consumers' impression

management needs and identify which review source they should use to promote their products.

Furthermore, this dissertation introduces a new use of consumer reviews as an impression management tool that businesses may have not considered before. Many products and services are consumed in a social setting in which consumer reviews could have an important role in consumer decision-making. For products and services that are typically consumed with close friends and family (e.g., holiday-themed or special occasion products and services), consumers are intent on creating a likable impression. Consequently, businesses should focus their attention on the power of consumer-to-consumer word of mouth. Trying hard to satisfy consumers and encouraging them to leave positive reviews are recommended more than wooing professional critics. When eliciting consumer testimonies, framing the questions around whether the product could promote likeability (i.e. not only did I enjoy it myself, but my friends could not stop raving about this restaurant and thanking me for recommending this place) will be constructive towards generating more effective reviews in such settings.

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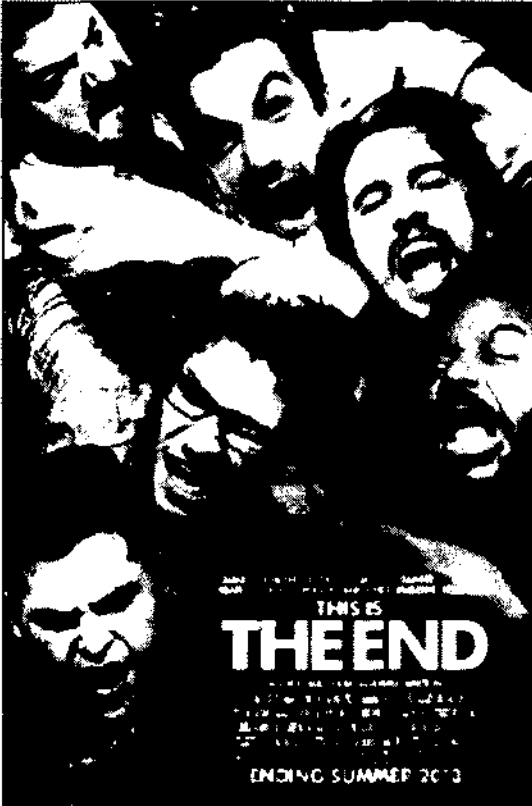
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APPENDICES

Appendix 1: Study 1 Pretest Questionnaire

THIS IS THE END

Summary: While attending a party at James Franco's house, Seth Rogen, Jay Baruchel and many other celebrities are faced with the apocalypse

Starring: James Franco, Seth Rogen

Director: Evan Goldberg

Genre: Comedy

Run Time: 97 mins

According to the information provided, how do you feel about the movie? Please rate your opinion on this movie.

Dislike	Like
Negative	Positive
Bad	Good
Unfavorable	Favorable

Based on the information provided about the movie, if this movie were to be available at a theater near you, will you go see this movie? Please rate the likelihood of you seeing this movie.

Unlikely	Likely
Impossible	Possible
Improbable	Probable

Based on this rating system similarly used by poppular movie review websites Rottentomatoes and Flixster,

% of critics liked it

% of critics liked it

In your opinion, What percentage would you consider a movie as being Very Good/Very Bad based on critics' reviews? Pleas fill numbers in the boxes.

	Very Bad	Bad	Neither good nor bad	Good	Very Good
Percentage (0-100)					

Based on this rating system similarly used by poppular movie review websites Rottentomatoes and Flixster,

% of movie-goers liked it

% of movie-goers liked it

In your opinion, What percentage would you consider a movie as being Very Good/Very Bad based on movie-goers' reviews? Pleas fill numbers in the boxes.

	Very Bad	Bad	Neither good nor bad	Good	Very Good
Percentage (0-100)					

Appendix 2: Study 1 Questionnaire
Page 1

The purpose of this survey is to understand consumers' movie-going behavior. Please read each question carefully before answering it. We are interested in what you would think or do as a consumer. Your answer will be completely anonymous and will be used for academic research purposes only.

On a scale from 1 to 7, with 1 being "Strongly Disagree" and 7 being "Strongly Agree", please indicate how much you agree or disagree with each of the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I have respect for the authority figures with whom I interact							
It is important for me to maintain harmony within my group							
My happiness depends on the happiness of those around me							
I would offer my seat in a bus to my professor							
I respect people who are modest about themselves							
I will sacrifice my self-interest for the benefit of the group I am in							
I often have a feeling that my relationships with others are more important than my own accomplishments							
I should take into consideration my parents' advice when making education/career plans							
It is important to me to respect decision made by the group							
I will stay in a group if they need me, even when I am not happy with the group							
If my brother or sister fails, I fee responsible							
Even when I strongly disagree with group members, I avoid an argument							
I'd rather say "No" directly, than risk being misunderstood							
Speaking up during a class is not a problem for me							
Having a lively imagination is important for me							

I am comfortable with being
singled out for praise or
rewards

I am the same person at
home that I am at school

Being able to take care of
myself is a primary concern
for me

I act the same way no matter
who I am with

I feel comfortable using
someone's first name soon
after I meet them, even when
they are much older than me

I prefer to be direct and
forthright when dealing with
people I've just met

I enjoy being unique and
different from others in many
respects

My personal identity
independent of others, is
very important to me

I value being in good health
above everything

Please choose Strongly
Agree Only for this one.

Page 2

Now we would like to ask you a few questions about your movie going behavior. Please select the answer that best represents what you typically do.

How often do you go see a movie at a movie theater?

Several Times a Week

Once a Week

Once Every Two Weeks

Once a Month

Every Few Months

Once or Twice a Year

Never

How often do you watch movies outside of movie theaters?

Several Times a Week

Once a Week

Once Every Two Weeks

Once a Month

Every Few Months

Once or Twice a Year

Never

How many different movies have you watched (both inside and outside of movie theaters) in the past 30 days? (Please provide the **number**)

What is your favorite movie genre?

Drama	Horror	Animation
Romance	Adventure	Sci-fi
Suspense/Thriller	Action	Other (Please specify)
Comedy	Family	

Page 3

Now we would like to ask you a few questions about your movie knowledge. Please select the answer that best represents your knowledge about movies.

How familiar are you with movies?

Not Familiar At All | | Extremely Familiar

How clear an idea do you have about which characteristics of movies are important in providing you maximum satisfaction?

Not Very Clear | | Very Clear

I know a lot about movies.

Disagree | |Agree

How could you rate your knowledge about movies relative to the rest of the population?

One of the Least Knowledgeable People | |One of the Most Knowledgeable People

Page 4

We would like to know your opinion about this movie. Please read the movie information below carefully. After this, please answer questions based on the information presented here.

This is The End
Starring: James Franco Jonah Hill
Summary: While attending a party at James Franco's house, Jonah Hill and many other celebrities are faced with apocalypse
Director: Evan Goldberg
Genre: Comedy
Rated: R
Run Time: 97 min

According to the information provided, how do you feel about the movie? Please rate your opinion on this movie.

Dislike | | Like
Negative | | Positive
Bad | | Good
Unfavorable | | Favorable

Based on the information provided about the movie, if this movie were to be available at a theater near you, will you go see this movie? Please rate the likelihood of you seeing this movie.

Unlikely | | Likely
Impossible | | Possible
Improbable | | Probable

Page 5

Finally, we would like to ask you some general demographic questions. These are for classification purposes only and will be kept strictly confidential. Please provide the answers that best describe yourself.

Please provide your Mturk Worker ID

What is your gender?

Male

Female

In what year were you born (YYYY)?

Please specify your ethnicity

Caucasian

African American

Hispanic

Asian

Prefer not to say

Other (Please Specify)

What is the highest grade or year of school you completed?

Never attended school

Elementary school

Some high school

High school graduate

Some college or technical school

College graduate

Graduate school

What is your total annual income before tax?

Less than $10 000

$10,000 to $19,999

$20,000 to $29,999

$30,000 to $49,999

$50,000 to $74,999

$75,000 to $99,999

$100,000 to $149 999

$150,000 or more

Prefer not to say

Page 6

	Dislike Extremely	Dislike Very Much	Dislike Slightly	Neither Like nor Dislike	Like Slightly	Like Very Much	Like Extremely
How much do you like this picture?							

Page 7

	Dislike Extremely	Dislike Very Much	Dislike Slightly	Neither Like nor Dislike	Like Slightly	Like Very Much	Like Extremely
How much do you like this picture?							

Page 8

	Dislike Extremely	Dislike Very Much	Dislike Slightly	Neither Like nor Dislike	Like Slightly	Like Very Much	Like Extremely
How much do you like this picture?							

Page 9
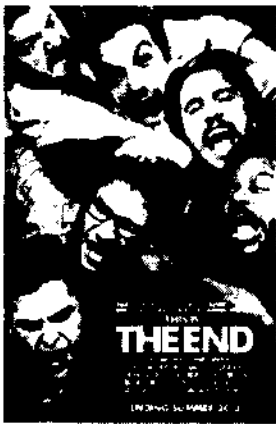
	Dislike Extremely	Dislike Very Much	Dislike Slightly	Neither Like nor Dislike	Like Slightly	Like Very Much	Like Extremely
How much do you like this picture?							

Page 10

Version 1: Positive reviews from consumers/Negative reviews from critics

After looking up reviews of this movie, 30% of movie critics liked it while 85% of consumers liked it. Now we would like to know your opinion about this movie. Please answer following questions.

This is The End
Starring: James Franco, Jonah H...
Summary: While attending a party at James Franco's house, Jonah Hill and many other celebrities are faced with apocalypse
Director: Evan Goldberg
Genre: Comedy
Rated: R
Run Time: 97 min

30 % of Movie Critics liked it

85 % of Consumers liked it

Version 2: Positive reviews from critics/Negative reviews from consumers

After looking up reviews of this movie, 85% of movie critics liked it while 30% of consumers liked it. Now we would like to know your opinion about this movie. Please answer following questions.

This is The End
Starring: James Franco, Jonah Hill
Summary: While attending a party at James Franco's house, Jonah Hill and many other celebrities are faced with apocalypse
Director: Evan Goldberg
Genre: Comedy
Rated: R
Run Time: 97 min

85 % of Movie Critics liked it

30 % of Consumers liked it

Page 11

What is the name of this movie?

This is the end

It is the beginning

Do you recognize the actor(s) of this movie?

James Franco   Jonah Hill   Both of them   Neither of them

Do you recognize the director (Evan Goldberg) of the movie?

Yes

No

Page 12

According to the information provided, how do you feel about the movie? Please rate your opinion on this movie.

Dislike		Like
Negative		Positive
Bad		Good
Unfavorable		Favorable

Based on the information provided about the movie, if this movie were to be available at a theater near you, will you go see this movie? Please rate the likelihood of you seeing this movie.

Unlikely		Likely
Impossible		Possible
Improbable		Probable

Page 13

Imagine that one of the circles at the left in each row represents your own personal identity and the other circle at the right represents **Professional Movie Critics'** identity. Please indicate which one case (A,B, C, D, E, F, G, or H) best describes the level of overlap between your and **Professional Movie Critics'** identity when it comes to evaluating movies. Please choose only one letter on the following scale:

	Me	Professional Movie Critics	
A	◯ ◯		**Far Apart**
B	◯◯		**Close Together but Separate**
C	◯◯		**Very Small Overlap**
D	◯◯		**Small Overlap**
E	◯◯		**Moderate Overlap**
F	◯		**Large Overlap**
G	◯		**Very Large Overlap**
H	◯		**Complete Overlap**

A   B   C   D   E   F   G   H

Please indicate to what degree your self-image overlaps with Professional Movie Critics' image when it comes to evaluating movies.

Not at all | | Very much

Page 14

Imagine that one of the circles at the left in each row represents your own personal identity and the other circle at the right represents **other consumers'** identity. Please indicate which one case (A, B, C, D, E, F, G, or H) best describes the level of overlap between your and **other consumers'** identity when it comes to evaluating movies. Please choose only one letter on the following scale:

	Me	**Other Consumers**	
A	○ ○	Far Apart
B	○○	Close Together but Separate
C	◯◯	Very Small Overlap
D	◯◯	Small Overlap
E	◯◯	Moderate Overlap
F	◯	Large Overlap
G	◯	Very Large Overlap
H	○	Complete Overlap

A B C D E F G H
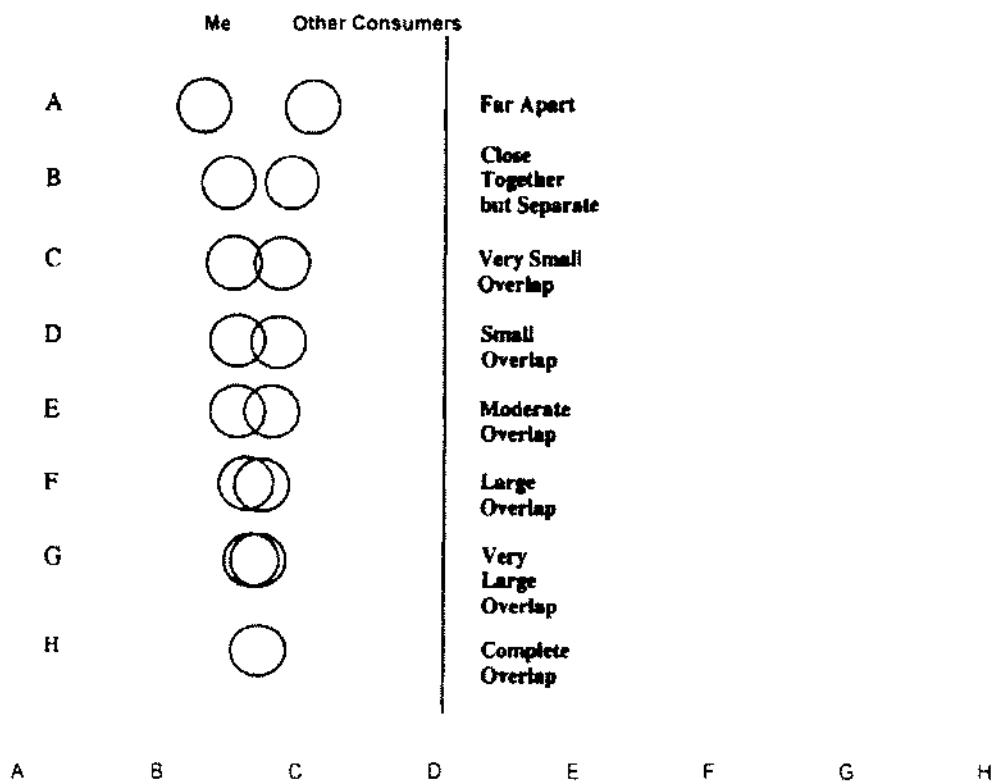
Please indicate to what degree your self-image overlaps with **Other consumers'** image when it comes to evaluating movies.

Not at all | | Very much

Page 15

How do you feel about the actors of this movie? Please select the answer that best represents your opinion

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I love to talk with others who admire James Franco or Jonah Hill							
Keeping up with news about James Franco or Jonah Hill is an entertaining pastime							
It is enjoyable watching, reading, or listening to James Franco or Jonah Hill because it means a good time							
It is enjoyable just to be with others who like James Franco or Jonah Hill							
Learning a life story of James Franco or Jonah Hill is a lot of fun							
I like watching and hearing about James Franco or Jonah Hill when I am in a large group of people							
My friends and I like to discuss what James Franco or Jonah Hill has done							

Appendix 3: Study 2 Pretest Questionnaire

Scenario 1: Private Consumption

Please read carefully and imagine yourself in this described scenario.

"It's evening time, and you are staying in by yourself. You want to rent a movie online. You have heard about this particular movie and are wondering if you should give it a try. You went online and found mixed reviews of the movie. On the next screen, you will read some information about the movie and make a decision on whether you should rent this movie to watch by yourself".

Scenario 2: Public Consumption

Please read carefully and imagine yourself in this described scenario.

"It's evening time, and you are staying in with several friends. You and your friends want to rent a movie online. You have heard about this particular movie and are wondering if you should give it a try. You and your friends went online and found mixed reviews of the movie. On the next screen, you will read some information about the movie and make a decision on whether you should rent this movie to watch with your friends".

Based on the scenario, will you be watching the movie by yourself or with other people present?

By Myself | With Others People Present

How realistic is the scenario?

Very Unrealistic | Very Realistic

In the scenario, are you by yourself or with other people?

By Myself   With Other People

Appendix 4: Study 2 Questionnaire

Version 1: Private Consumption/Positive reviews from consumers/Negative reviews from critics.

Page 1
Version 1: Private Consumption Scenario
   Please read carefully and imagine yourself in this described scenario.

   "It's evening time, and you are staying in by yourself. You want to rent a movie online. You have heard about this particular movie and are wondering if you should give it a try. You went online and found mixed reviews of the movie. On the next screen, you will read some information about the movie and make a decision on whether you should rent this movie to watch by yourself".

Version 2: Public Consumption Scenario
   Please read carefully and imagine yourself in this described scenario.

   "It's evening time, and you are staying in with several friends. You and your friends want to rent a movie online. You have heard about this particular movie and are wondering if you should give it a try. You and your friends went online and found mixed reviews of the movie. On the next screen, you will read some information about the movie and make a decision on whether you should rent this movie to watch with your friends".

Page 2

Version 1: Positive reviews from consumers/Negative reviews from critics

Information about the movie appears below. Review of the movie suggests that 30% of movie critics liked it while 85% of consumers liked it. Please think about the scenario that you read on the last page and answer the questions based on what you would think or do in that situation.

This is The End

Starring: James Franco, Jonah Hill
Summary: While attending a party at James Franco's house, Jonah Hill and many other celebrities are faced with apocalypse
Director: Evan Goldberg
Genre: Comedy
Rated: R
Run Time: 97 min

30 % of Movie Critics liked it

85 % of Consumers liked it

Version 2: Positive reviews from critics/Negative reviews from consumers

After looking up reviews of this movie, 85% of movie critics liked it while 30% of consumers liked it. Now we would like to know your opinion about this movie. Please answer following questions.

This is The End

Starring: James Franco, Jonah Hill
Summary: While attending a party at James Franco's house, Jonah Hill and many other celebrities are faced with apocalypse
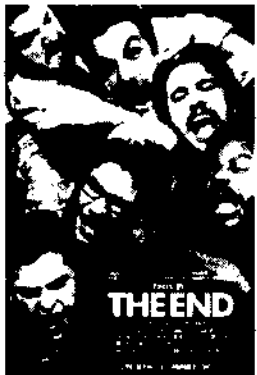Director: Evan Goldberg
Genre: Comedy
Rated: R
Run Time: 97 min

85 % of Movie Critics liked it

30 % of Consumers liked it

Page3

How likely do you think other people will be able to observe your choice of watching the movie or not?

Very Unlikely	Unlikely	Somewhat Unlikely	Undecided	Somewhat Likely	Likely	Very Likely

In the scenario, are you by yourself or with other people?

By Myself   With Other People

Page 4

According to the information provided, how do you feel about the movie? Please select the answer that best represents your opinion

Dislike		Like
Negative		Positive
Bad		Good
Unfavorable		Favorable

Based on the information provided about the movie, if this movie were to be available for you to rent online, will you watch this movie? Please select the answer that best represents your opinion

Unlikely		Likely
Impossible		Possible
Improbable		Probable

Page 5

Please select the answer that best represents your opinion

	Very Unlikely	Unlikely	Somewhat Unlikely	Undecided	Somewhat Likely	Likely	Very Likely
If I choose to watch this movie, other people are likely to know that I watch it							
If I choose to watch this movie, other people are likely to evaluate my movie choice							
If I choose to watch this movie, people will see me watching it							
If I choose to watch this movie, people will ask me questions about it							
If I choose to watch this movie, I will probably have to explain to some people how I chose it							

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Page 6

Imagine that one of the circles at the left in each row represents your own personal identity and the other circle at the right represents **Professional Movie Critics'** identity. Please indicate which one case (A, B, C, D, E, F, G, or H) best describes the level of overlap between your and **Professional Movie Critics'** identity when it comes to evaluating movies. Please choose only one letter on the following scale.

	Me	Professional Movie Critics	
A	◯ ◯		Far Apart
B	◯◯		Close Together but Separate
C	◯◯		Very Small Overlap
D	◯◯		Small Overlap
E	◯◯		Moderate Overlap
F	◯◯		Large Overlap
G	◯		Very Large Overlap
H	◯		Complete Overlap

A   B   C   D   E   F   G   H
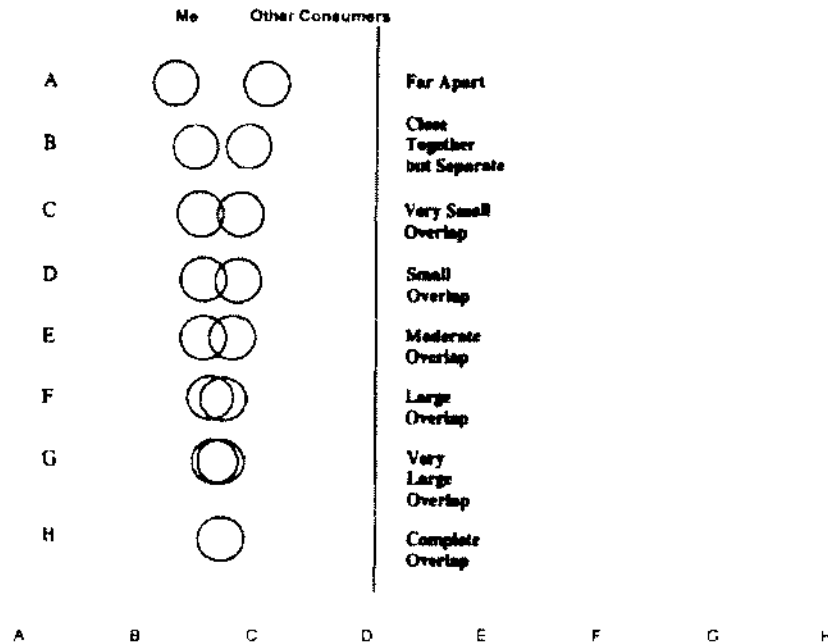
Please indicate to what degree your self-image overlaps with Professional Movie Critics' image when it comes to evaluating movies.

Not at all | | Very much

Page 7

Imagine that one of the circles at the left in each row represents your own personal identity and the other circle at the right represents **other consumers'** identity. Please indicate which one case (A,B, C, D, E, F, G, or H) best describes the level of overlap between your and **other consumers'** identity when it comes to evaluating movies. Please choose only one letter on the following scale.

	Me	**Other Consumers**	
A	◯	◯	**Far Apart**
B	◯◯		**Close Together but Separate**
C	◯◯		**Very Small Overlap**
D	◯◯		**Small Overlap**
E	◯◯		**Moderate Overlap**
F	◯◯		**Large Overlap**
G	◯◯		**Very Large Overlap**
H	◯		**Complete Overlap**

A   B   C   D   E   F   G   H

Please indicate to what degree your self-image overlaps with **Other consumers'** image when it comes to evaluating movies

Not at all | | Very much

Page 8

How do you feel about the actors of this movie? Please select the answer that best represents your opinion

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I love to talk with others who admire James Franco or Jonah Hill							
Keeping up with news about James Franco or Jonah Hill is an entertaining pastime							
It is enjoyable watching, reading, or listening to James Franco or Jonah Hill because it means a good time							
It is enjoyable just to be with others who like James Franco or Jonah Hill							
Learning a life story of James Franco or Jonah Hill is a lot of fun							
I like watching and hearing about James Franco or Jonah Hill when I am in a large group of people							
My friends and I like to discuss what James Franco or Jonah Hill has done							

Page 9

Now we would like to ask you a few questions about your movie knowledge. Please select the answer that best represents your knowledge about movies.

How familiar are you with movies?

Not Familiar At All | | Extremely Familiar

How clear an idea do you have about which characteristics of movies are important in providing you maximum satisfaction?

Not Very Clear | | Very Clear

I know a lot about movies

Disagree | | Agree

How could you rate your knowledge about movies relative to the rest of the population?

One of the Least Knowledgeable People | | One of the Most Knowledgeable People

Page 10

Now we would like to ask you a few questions about your movie going behavior. Please select the answer that best represents what you typically do.

How often do you go see a movie at a movie theater?

Several Times a Week

Once a Week

Once Every Two Weeks

Once a Month

Every Few Months

Once or Twice a Year

Never

How often do you watch movies outside of movie theaters?

Several Times a Week

Once a Week

Once Every Two Weeks

Once a Month

Every Few Months

Once or Twice a Year

Never

Please choose "Once a Week" for this one

Several Times a Week

Once a Week

Once Every Two Weeks

Once a Month

Every Few Months

Once or Twice a Year

Never

How many different movies have you watched (both inside and outside of movie theaters) in the past 30 days? (Please provide the **number**)

What's your favorite movie genre?

Drama	Horror	Animation
Romance	Adventure	Sci-fi
Suspense/Thriller	Action	Other (Please specify)
Comedy	Family	

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Finally, we would like to ask you some general demographic questions. These are for classification purposes only and will be kept strictly confidential. Please provide the answers that best describe yourself

Please provide your Mturk Worker ID

What's your gender?

Male

Female

In what year were you born (YYYY)?

Please specify your ethnicity

Caucasian   Asian

African American   Prefer not to say

Hispanic   Other (Please Specify)

What is the highest grade or year of school you completed?

Never attended school

Elementary school

Some high school

High school graduate

Some college or technical school

College graduate

Graduate school

What is your total annual income before tax?

Less than $10,000 $75,000 to $99,999

$10,000 to $19,999 $100,000 to $149,999

$20,000 to $29,999 $150,000 or more

$30,000 to $49,999   Prefer not to say

$50,000 to $74,999

Appendix 5: Study 2 Additional Study

Pretest
Old Scenario

"It's evening time, and you are staying in with several friends. You and your friends want to rent a movie online. You have heard about this particular movie and are wondering if you should give it a try. You and your friends went online and found mixed reviews of the movie. On the next screen, you will read some information about the movie and make a decision on whether you should rent this movie to watch with your friends".

In the scenario, who selects the movie?

Myself   My Friends   Both my friends and I

In this scenario, to what extent you feel that you are making a movie selection?

Not at all Me | | Absolutely Me

In this scenario, to what extent do you have control over the movie selection?

No Control | | Complete Control

New Scenario

It's evening time, and you are staying in with several friends. You and your friends want to rent a movie online. This time it is *your turn to* select which movie to watch. You have heard about this particular movie and are wondering if you should give it a try. You go online and find mixed reviews of the movie. On the next few screens, you will read some information about the movie and will make a decision on whether you should rent this movie to watch with your friends.

In the scenario, who selects the movie?

Myself   My Friends   Both my friends and I

In this scenario, to what extent you feel that you are making a movie selection?

Not at all Me | | Absolutely Me

In this scenario, to what extent do you have control over the movie selection?

No Control | | Complete Control

Appendix 6: Study 3

Pretest

Scenario 1: Strong Tie

"It is Friday evening, and you are going out to dinner with several close friends whom you know very well. You are asked to choose the restaurant. You have heard about this particular restaurant and are wondering if you should give it a try. You go online and find mixed reviews of the restaurant. On the next few screens, you will read some information about the restaurant and will make a decision on whether you should have dinner at this restaurant with your close friends."

Scenario 2: Weak Tie

"It is Friday evening, and you are going out to dinner with several work acquaintances whom you do not know very well. You are asked to choose the restaurant. You have heard about this particular restaurant and are wondering if you should give it a try. You go online and find mixed reviews of the restaurant. On the next few screens, you will read some information about the restaurant and will make a decision on whether you should have dinner at this restaurant with your work acquaintances"

Pretest questions

In the scenario, are you going out to dinner by yourself or with others?

By Myself

With Others

In this scenario, to what extent do you feel that you are the one selecting the restaurant to go to?

Not at all me | |Absolutely me

How close, would you say, you are to your dining companions in the scenario?

Not close at all | |Very close

How strong, would you say, is your tie to your dining companions in the scenario?

Very weak | |Very strong

How familiar do you feel with your dining companions in the scenario?

Not familiar at all | |Very familiar

Based on the rating system similarly used by the restaurant review website Urbanspoon.

Hi-Life Bar & Grill

(212) 889-6600

American. Burgers. Sushi
$$ Happy Hour, Delivery, Late Night. Live Music, Free Wi-Fi.
Outdoor Dining
● 184 critic, blogger and diner reviews

In your opinion, what percentage of liking votes would you consider a restaurant as being very bad, bad, neither bad nor good, good, and very good? Please fill numbers (1-100) in ALL THE BOXES.

	Very Bad	Bad	Neither Good nor Bad	Good	Very Good
Percentage (1-100)			...		.

Appendix 7: Study 3 Questionnaire
Page 1
Version 1: Strong Tie Scenario

"It is Friday evening, and you are going out to dinner with several close friends whom you know very well. You are asked to choose the restaurant. You have heard about this particular restaurant and are wondering if you should give it a try. You go online and find mixed reviews of the restaurant. On the next few screens, you will read some information about the restaurant and will make a decision on whether you should have dinner at this restaurant with your close friends."

Version 2: Weak Tie Scenario

"It is Friday evening, and you are going out to dinner with several work acquaintances whom you do not know very well. You are asked to choose the restaurant. You have heard about this particular restaurant and are wondering if you should give it a try. You go online and find mixed reviews of the restaurant. On the next few screens, you will read some information about the restaurant and will make a decision on whether you should have dinner at this restaurant with your work acquaintances"

Page 2
Version 1: Positive reviews from consumers/Negative reviews from critics.

Information about the restaurant appears below. Reviews of the restaurant suggests that 40% of food critics liked it while 85% of diners liked it. Please think about the scenario that you read at the beginning of the survey and answer the questions based on what you would think or do in the situation.

Hi-Life Bar & Grill

(212) 889-6600

American, Burgers, Sushi
$$ Happy Hour, Delivery, Late Night, Live Music, Free Wi-Fi,
Outdoor Dining
● 184 critic, blogger and diner reviews

40% of Food Critics liked it

85 % of Diners liked it

Version 2: Positive reviews from critics/Negative reviews from consumers.

Information about the restaurant appears below. Reviews of the restaurant suggests that 85% of food critics liked it while 40% of diners liked it. Please think about the scenario that you read at the beginning of the survey and answer the questions based on what you would think or do in the situation.

Hi-Life Bar & Grill

(212) 889-6600

American, Burgers. Sushi
$$ Happy Hour. Delivery, Late Night, Live Music, Free Wi-Fi,
Outdoor Dining

● 184 critic, blogger and diner reviews

85% of Food Critics liked it

40% of Diners liked it

Page 3

What is the name of the restaurant?

Hi-Life Bar & Grill

Sunrise Cafe

In the scenario, who are you going out to dinner with?

By Myself   With Close Friends   With Work Acquaintances

In the scenario, who selects the restaurant?

Myself

My Friends

Both My Friends and I

In this scenario, to what extent do you feel that you are the one selecting the restaurant to go to?

Not at all Me | | Absolutely Me

How close, would you say, you are to your dining companions in this scenario?

Not Close at all | | Very Close

How strong, would you say, is your tie to your dining companions in this scenario?

Very Weak | | Very Strong

How familiar do you feel with your dining companions in this scenario?

Not Familiar at all | | Very Familiar

Page 4

According to the information provided, how do you feel about this restaurant? Please select the answer that best represents your opinion

Dislike	Like
Negative	Positive
Bad	Good
Unfavorable	Favorable

Based on the information provided about the restaurant, will you dine at this restaurant? Please select the answer that best represents your opinion

Unlikely	Likely
Impossible	Possible
Improbable	Probable

Page 5

How often do you eat out at restaurants?

Several Times a Week

Once a Week

Once Every Two Weeks

Once a Month

Every Few Months

Once or Twice a Year

Never

Are you interested in dining at a restaurant listing their cuisine as American/Burgers/Sushi?

Not interested | | Very interested

Please rate how important each of the following features is to you when selecting a restaurant.

	Not at all important	Very Unimportant	Somewhat Unimportant	Neither important nor Unimportant	Somewhat important	Very important	Extremely important
Happy Hour							
Delivery							
Live Music							
Late Night							
Free Wi-Fi							
Outdoor Dining							
Valet Parking							

How familiar are you with restaurants?

Not Familiar At All | | Extremely Familiar

How clear an idea do you have about which characteristics of restaurants are important in providing you maximum satisfaction?

Not Very Clear | | Very Clear

I know a lot about restaurants.

Disagree | | Agree

How would you rate your knowledge about restaurants relative to the rest of the population?

One of the Least Knowledgeable People | | One of the Most Knowledgeable People

Page 6

Finally, we would like to ask you some general demographic questions. These are for classification purposes only and will be kept strictly confidential. Please provide the answers that best describe yourself.

What is your gender?

Male

Female

In what year were you born (YYYY)?

Please specify your ethnicity

Caucasian   Asian

African American   Prefer not to say

Hispanic   Other (Please Specify)

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EDUCATION

Doctor of Philosophy in International Business with a major in Marketing, Old Dominion University: May 2014

Dissertation Title: The Effect of Online Reviews on Attitude and Purchase Intention: How Consumers Respond to Mixed Reviews.

M.B.A., IT and International Business, Old Dominion University, Norfolk, Virginia: May 2006

B.A., Accounting, Thammasat University, Thailand: 2002

ACADEMIC POSITION

Assistant Professor of Marketing at Simpson College, 2013 – Present

RESEARCH AND TEACHING INTEREST

Internet Marketing, Consumer Behavior, Cross-Cultural Marketing, Advertising, Marketing Research

TEACHING EXPERIENCE

2013 – present	Assistant Professor, Simpson College, Iowa Currently Teaching: Marketing, Consumer Behavior, Marketing Research, Marketing Seminar (Capstone)
2008 – 2012	Adjunct Instructor, Old Dominion University, Virginia Course Taught: Principles of Marketing, Internet Marketing, Consumer Behavior, International Marketing, Internet Marketing (MBA)

PUBLICATIONS

Judge, William Q., Yuping Liu-Thompkins, J. Lee Brown, and Chatdanai Pongpatipat (Forthcoming), "Technological Entrepreneurship in Multinational Firms: Stateless or Institutionally-Embedded Enterprises?" accepted for publication at *Entrepreneurship Theory and Practice*.

Arndt, Aaron D., Kenneth Evans, Timothy D. Landry, Sarah Mady, and Chatdanai Pongpatipat (2014), "The Impact of Salesperson Credibility-Building Statement on Later Stages of the Sales Encounter," *Journal of Personal Selling & Sales Management*, 34 (1), 19-32.

CONFERENCE PAPER, PROCEEDINGS, AND PRESENTATIONS

Pongpatipat, Chatdanai and Yuping Liu-Thompkins (2014), "Beyond Information: How Consumers Use Online Reviews to Manage Social Impressions," The Academy of Marketing Science Annual Conference, Indianapolis, IN.

Pongpatipat, Chatdanai and Yuping Liu-Thompkins (2014), "How Consumers Use Online Review: The Effect of Self-Construal," The AMA 2014 Summer Marketing Educators Conference, San Francisco, CA.

Judge, William Q., Yuping Liu-Thompkins, J. Lee Brown, and Chatdanai Pongpatipat (2011), "The National Antecedents of Corporate Entrepreneurship: An Empirical Study of Fortune's Global 500 Firms," the Academy of International Business 2011 Annual Meeting, Nagoya, Japan.

Pongpatipat, Chatdanai and Mahesh Gopinath (2009) "Interaction of Banner Ad and Sponsorship in Online Advertising: The Impact on Attitudes and Purchase Intention." Association for Consumer Research-Asia Pacific, Hyderabad, India.

Pongpatipat, Chatdanai (2009) "Expatriate or Local supervisor? The Effect of Training and National Culture Distance on a Relationship Quality Between Supervisors and Employees and Organization Performance." the Academy of International Business (AIB) Northeast Annual Conference, New York, USA.

REVIEWING and PROFESSIONAL ASSOCIATION MEMBERSHIP

American Marketing Association
Academy of Marketing Science

AWARDS AND HONORS

47th AMA-Sheth Doctoral Consortium Fellow, 2012
Outstanding Doctoral Student Award in Marketing, 2010 - 2011
Adjunct Faculty Award Nominee, 2011

LANGUAGE ABILITY

Fluent in Thai and English