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The impact of two-sided messaging on brand attitude: An attribution theory approach

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**The impact of two-sided messaging on brand attitude:
An attribution theory approach**

by

Dianyu Zang

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Major: Journalism and Mass Communication

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ABSTRACT

YouTube has played an increasingly important role in people's lives, especially the younger generation. Furthermore, beauty communities in YouTube have been rapidly expanding due to their popularity. This study investigated the impact of message-sidedness on female college students' attitude toward beauty products promoted on YouTube. Specifically, it examined whether two-sided messages have a more positive impact on source credibility, attitude toward the product, attitude toward the brand, attitude toward the video and purchase intention. The study also explored whether there are differences between drugstore and high-end beauty products regarding source credibility, attitude toward the product, attitude toward the brand, attitude toward the video and purchase intention.

An online experiment was conducted to collect data. The results indicated that two-sided messages have a more positive impact on source credibility, attitude toward the product, attitude toward the brand, attitude toward the video than one-sided messages do. However, there was no significant difference between one-sided and two-sided messages regarding purchase intention.

The results also suggested that in this study high-end products performed better on source credibility, attitude toward the product, and attitude toward the brand than low-priced drugstore products do. However, attitude toward the video and purchase intention did not differ significantly between high-end and drugstore products.

CHAPTER 1. INTRODUCTION

Background of the Study

In the majority of the advertising to which people are currently exposed, advertisers traditionally present the products in a favorable way. Consequently, most advertisements focus primarily on favorable and positive features of the promoted products. However, is this the best way to promote products? Are there any situations whereby two-sided messaging could be used as an important technique? Several researcher have argued why two-sided messages may be more effective and persuasive than one-sided messages.

Aristotle (as cited by Allen, 1991) assumed that any good public communicator would want to handle opposing arguments. Moving to current times and communication, several researcher have discussed messaging. Crowley and Hoyer (1994) stated, "Although the two-sided communication is not among the most frequently employed message strategies, it is still a topic of considerable importance to both practitioners and theoretical researchers" (p.561).

According to Hoyer, 1994, p. 184):

...one-sided presentations are "belaboring and obvious" (McGuire, 1961), giving the receiver of the message little motivation to use the information seriously. In essence, McGuire seems to be saying that two-sided messages are more involving and "attention getting" than one-sided messages. McGuire (1985, p. 249) states that "preexposure works by making the subsequent strong attacks seem less believable and by stimulating the person to generate more belief-supporting cognitive responses."

Statement of the Problem

In the current time of advanced technology, YouTube, launched in 2005, has played an increasing important role in people's life, especially the younger generation. The following data illustrate the prevalence of YouTube. YouTube alone comprises approximately 20% of all HTTP traffic, or nearly 10% of all traffic on the Internet (Cheng et al., 2007). Established in 2005, it is now one of fast-growing websites, and has become the 4th most accessed site on the Internet. In addition, over 65,000 new videos are uploaded daily, and the number keeps rising (Cheng et al.).

Thus, it may be assumed that, as the growth of YouTube and YouTube communities accelerates, many people are considering themselves to be YouTubers. In this study, YouTuber refers to the people who upload videos. These YouTubers have considerable fans and take YouTube as a career—part-time and full time.

Merits of YouTube

The merits of YouTube are listed as follows, which can explain the popularity of this young and fast-growing website. The advantages of YouTube can be studied from two aspects—the viewers' and YouTubers.

From the point of viewers, first, YouTube is a combination of the content-rich videos and, equally or even more significantly, it is a form of social media. As internet communities are built, each person has an opportunity to be a star in his or her field. The social network existing in YouTube also enables communities and groups of people with the same interests to come together. Videos are neither isolated, or independent from others, nor the YouTubers.

Additionally, related videos are linked to other videos that have the similar titles, descriptions or tags, each of which is chosen by the video maker. Thus, a video could potentially have hundreds of related videos or even more, although the webpage may only reveal up to 20 at one time for the sake of convenience and as a recommendation to viewers. Accordingly, the viewers' engagement is increased due to the video's content as well as the viewers' ability to make comments. These comments disperse information such as dislike for the video that can be shared on other social media, such as Facebook, Twitter, Google plus, Tumblr, Pinterest, etc.

It should be noted that YouTube is basically comprised of comparatively short clips. Therefore, it can be seen as timesaving feature by viewers. In a study conducted by Cheng et al. (2007), data from 2,676,388 videos were collected, revealing that 97.8% were approximately 600 seconds, and 99.1% at 700 seconds in length.

In addition, YouTube has no regulations on removing videos after a certain period of time or when a video's popularity declines. The lifespan of a YouTube video is basically infinite, which means that viewers can access a particular video anywhere and anytime as long as the device and internet are available.

From the YouTubers' viewpoint, YouTube videos are a channel to promote and cannot be easily neglected. First, the viewers of these videos are more as active participants rather than passive, such as TV viewers and other traditional media users. Because they have thousands of videos to choose from, if viewers are not involved in a video or do not enjoy it they will not spend their time and effort continuing watching the video they chose. In other words, viewers choose a specific video because they are involved for some reason.

Finally, regarding its technology, YouTube is very user-friendly. It allows YouTubers to upload videos effortlessly. YouTube videos can also be automatically converted from/to a variety of formats, such as WMV, AVI, MOV and MPEG. In addition, users can tag videos with keywords for purposes such as attracting others.

Prevalence of beauty-related YouTube videos

YouTube has become a prominent form of social media, with a large number of communities and groups using it (Cheng et al., 2007). As such, beauty communities have been rapidly expanding due to their popularity. When conducting research on beauty-related products or brands in which they're interested, several women refer to YouTube videos as a reliable source of information. This is partially because a significant number beauty-related videos are now being produced. For example, makeup collections and tutorials, and product reviews have become monthly favorites due to the explosion of new products that are made, uploaded, and viewed. The following are some of the popular beauty-related YouTubers who are also referred to as beauty gurus: Michelle Phan, gossmakeupartist ,missglamorazzi , pixiwoo, Lisa Eldridge, Tanya Burr, EssieButton, FleurDeForce, among many others.

Due to the enormous viewership and subscribers, one can readily assess the popularity of selected beauty videos and gurus. These beauty gurus share an abundance of beauty-related information with their subscribers, such as skincare, makeup and workout routines as well as makeup collections, what's in their bag/purse, monthly favorites, beauty haul, as well as other information sought by viewers. Viewers are given the opportunity to make comments in the comment section generally located

below the item, as well as ask the beauty gurus questions of interest or request videos they would like to watch. The interaction between the beauty gurus and their viewers results in the production of a rapidly increasing volume of beauty-related videos.

Purpose of the Study

This study was designed based on previous studies on two-sided messaging and one-sided messaging to determine whether two-sided messages are more influential than one-sided messages regarding beauty-related messages and the reasoning behind them. The study also sought to determine if two-sided messages and one-sided messages differ significantly in source credibility, attitude toward the brand and product, attitude toward the video and attitude toward the products mentioned in the video.

The following questions guided this study: Do one-sided and two-sided messages differ regarding source of credibility, attitude toward brand and product, and attitude toward the video as well as the products mentioned in the video? To answer the question, an online experiment was conducted to collect data from 120 female students who were randomly assigned into two groups comprised of 61 and 59 samples, respectively.

Significance of the Study

The findings of this study may help the research build a theoretical frame for two-sided and one-sided theory, thus contributing to the rationale that two-sided messages are preferred to one-sided messages. Given the extremely competitive communication environment of today, it is possible that, a clearer theory based on research can address how and under what conditions two-sided messages are effective,

enabling the technique to be employed more frequently and efficiently (Crowley & Hoyer, 1994). The findings of this study may also benefit beauty YouTubers to improve their videos. They may also be beneficial to advertising and marketing practitioners to improve advertising and promotional campaigns that appeal to targeted audiences, resulting in increased profits. In addition, the audiences of YouTube videos and TV commercials may enjoy more videos and commercials that are more appealing and of higher quality. Furthermore, for a very long period of time, traditional advertising has focused on the desired features of a promoted product while ignoring the downsides. Thus, the effects of some products have tended towards exaggeration or downright dishonesty. Insight gained from this study may result in a change in the trend of advertising to provide informative that is reliable and honest. It is also hoped that the audiences or potential consumers will benefit from the findings of this research.

CHAPTER 2. LITERATURE REVIEW

This study was conducted to understand more about messaging and how it is received by internet users. More specifically, it was designed based on previous studies on two-sided messaging and one-sided messaging to determine whether two-sided messages are more influential than one-sided messages regarding beauty-related messages and the reasoning behind them. From the aforementioned data provided in Chapter 1, it may be concluded that YouTube is an integral part of the young generation's life. Furthermore, a rapidly increasing number of females use the YouTube beauty community to share and make decisions about their beauty-related life.

YouTube videos are frequently used by women to learn about beauty-related products as well as share information. High-end and drugstore products are discussed frequently in these beauty related videos. Both types of products have their merits. People buy drugstore products due to their affordability. On one hand, drugstore products generally cost less than high-end products, and they are available in many supermarkets, pharmacies as well as small convenience grocery stores. In addition, some stores offer beauty-related products at real bargains (e.g., beauty-related discount stores such as Sally and Ulta). On the other hand, some people like to buy high-end products because of their prestige, as well as their unique and delicate packaging as well as perceived better quality, in general. Beauty-related videos provide information related to nearly every feature of the products that can be discussed, including the packaging, formula, smell, price, and a myriad of additional aspects.

The current study explored the impact of message-sidedness on high-end as well as drug store beauty products appearing in YouTube beauty related videos. The research questions and the methodology for data analysis applied in this study were guided by attribution theory which can be used to explain the mechanism of message-sidedness, which will be elaborated further in this chapter.

Theoretical Framework

Attribution theory

Attribution theory is most commonly associated with social psychology. It dominates research reported in social psychology journals, and has also replaced cognitive dissonance theory as a major conceptual framework in this area (Fincham, 1983). In its broadest conception, attribution theory has been characterized as an examination of how people arrive at an answer to the question “why?” (Kelley, 1972a).

Attribution theory is most aptly identified as the study of perceived causality. (Fincham, 1983). It deals with the ways in which a person arrives at an explanation of observed/reported behavior (Ajzen & Fishbein, 1983), and describes the processes an individual goes through in assigning events (Crowley & Hoyer, 1994). The nature of attributions and explanations, in common sense, addresses “why the event happened?” and explains the event by stating what caused the event (Jaspars & Fincham, 1983). As noted by Jaspars and Fincham (1983), “Attribution theory specifies the nature of the expectancy component and in addition attribution theory can show how the concomitant explanations are related indirectly to the behavior in a particular situation” (p.36).

When tracing the history of attribution theory, Heider (1958a, as cited by Shultz & Schleifer, p. 38) has been widely acknowledged to be the founder of attribution theory as well as the earliest writer about the theory. Work by Jones and Davis (1965) on the attribution of intentions and dispositions, has been generally considered to be the second major influence regarding the emergence of attribution theory. The typical process-oriented attribution theory was developed by Kelley (1972), who dealt with explicitly with the problem of attributing events and behaviors to the causes.

These three aforementioned mentioned classical attribution theorists specified the underlying processes for a variety of attributional contents, yet each has ignored the distinctions between causation and responsibility (Shultz & Schleifer, 1983). Attribution theory is most commonly associated with social psychology. As previously mentioned, it has not only dominated the research reported in psychological journals, but it has also replaced cognitive dissonance theory as the major conceptual framework in this field. Nevertheless, attribution theory has already begun to impact areas of psychology, which have not traditionally been associated with this approach, such as developmental psychology (Fincham, 1983). According to Jaspars and Fincham (1983), attribution theory has become the dominant research in social psychology.

The theory has guided the majority of previous two-sided advertising studies (Crowley & Hoyer, 1994). In the field of advertising and marketing, the theory presumes that consumers can attribute claims either to the advertiser's intention to sell the product (one sided advertising) or honestly communicate with the consumers

about the characteristics of the product or service (two sided advertising) (Crowley & Hoyer,1994). The inclusion of negative information, especially the importance of the negative message, is not normative and, thus, leads the receivers of the information to consider the advertiser or speaker to be honest and are telling the truth (Crowley & Hoyer). The inclusion of negative information leads a consumer to believe that the advertiser is telling the truth rather than just intending to sell the product (Eisend, 2007).

Limitations of Attribution Theory

According to Crowley and Hoyer (1994), although attribution theory provides an explanation for the increase of credibility by two-sided messages, it is very limited regarding ascertaining the effectiveness of two-sided message regarding attitude toward the advertisement as well as attitude toward the brand. In addition, attribution theory does not provide guidance regarding the structure of the message structure except that negative attributes should be included (Crowley & Hoyer), but the number of negative messages that should be mentioned in the advertisement are not specified in this theory.

In a broader sense, attribution theory appears limited and narrow in its emphasis and has seemed to have been outgrown by the research it has generated. Therefore, the current research was carried out to reconsider the basic fundamental tenets of attribution theory and how they apply to a study of messaging via the internet.

Hypothesis

Based on the abovementioned literature, a hypothesis was formulated for this

study: The source's credibility increases if two-sided messages are included in the argument.

When audiences are watching beauty-related videos on YouTube, if they come across a video that includes both the merits and the downside of the products mentioned in the video. They may consider the YouTuber to be more honest or more likely to telling the truth.

Variables and Their Measure

One-sided Messages and Two-sided Messages

There are two types of messages—one-sided and two-sided. According to Allen (1991): “One-sided message is defined as a message that presents only those arguments in favor of a particular proposition. A two-sided message presents the arguments in favor of a proposition but also considers the opposing arguments” (p. 390). According to Crowley and Hoyer (1994), two-sided messages can be stated as the message that provides both the positive and negative information of the product or service. In addition, there are two types of two-sided messages—refutational and non-refutational. Refutational two-sided messages are those that mention counter arguments and then refute them. The intent of refutational two-sided messages is to introduce a contrary argument and explain why the argument is inferior to the argument held by the communicator. The intent of non-refutational messages is to mention only the counter arguments, without offering contradictions.

H1: Perceived source credibility of an audience is higher if using two-sided messages than using one-sided messages.

Attitude Toward Brand

According to Spears and Singh (2004), attitude toward brand can be used to predict behavior. Attitude toward the ad is the person's favorable or unfavorable evaluation of the ad. Measuring "...attitude toward the brand is a relatively enduring, unidimensional summary evaluation of the brand that presumably energizes behavior" (p. 55).

Mitchell and Olson (1981; as cited by Spears & Singh, 2004, p. 318) defined attitude toward the brand as an "individual's internal evaluation of the brand." This definition incorporates two characteristics of attitude that, according to Giner-Sorolla (1999), have remained fairly constant across 20th-century definitions: (1) Attitude is centered or directed at an object, in this case a brand, and (2) attitude is evaluative in nature, i.e., there is "imputation of some degree of goodness or badness" to the attitudinal object (Eagley & Chaiken 1993, p. 3). The third component of Mitchell and Olson's definition-internal evaluation too, is noteworthy. It suggests that an attitude is an internal state. In addition, according to Eagley and Chaiken (1973, p.7), an attitude is an enduring state "...that endures for at least a short period of time and presumably energizes and directs behavior."

H2a: Perceived attitude toward the product is more positive if using two-sided messages rather than one-sided messages.

H2b: Perceived attitude toward the brand is more positive if using two-sided messages rather than one-sided messages.

H2c: Perceived attitude toward the video is more positive if using two-sided messages rather than one-sided messages.

Purchase Intention

Purchase intentions are personal action tendencies relating to the brand (Bagozzi et al., 1979; Ostrom, 1969; as cited by Spears & Singh (2004)). According to Spears and Singh, Intentions are distinct from attitudes, it is the individual's motivation to exert effort to some specific behavior. "Purchase intentions are an individual's conscious plan to make an effort to purchase a brand" (Spears & Singh, p. 56).

H3: Purchase intention is higher if using two-sided messages rather than one-sided messages.

Source Credibility

Eagley, Wood, and Chaiken (1978) categorized two types of bias that have impact on message recipients casual attributions. The first type is knowledge bias, in which recipients may perceive the communicators' knowledge relating to the message is biased or their knowledge about the message is not veracious. The second type is reporting bias, in which communicators may be unwilling to communicate with complete reality what they actually know about the topic; instead, they choose what they prefer to communicate with the recipients.

According to Dholakia and Sternthal (1977), and Pornpitakpan (2004), source credibility is a comprise between two dimensions: perceived expertise and trustworthiness. Expertise refers to the extent to which a speaker is perceived to be

capable of making correct assertions and having adequate knowledge about the topic, i.e., whether the recipients perceive the source as a knowledgeable person.

Trustworthiness refers to the degree to which an audience perceives the assertions made by a communicator to be ones that the speaker considers valid and honest (Hovland, Janis, & Kelley, 1953). Trustworthiness refers to the recipients' belief that the source's opinions are unbiased (Dholakia & Sternthal ,1977)

CHAPTER 3. METHODOLOGY

An online experiment was conducted among female college students in a Midwestern university in the United States to evaluate the hypotheses for this study. Watching videos online and then completing the survey afforded the respondents a comparatively relaxing surrounding to provide information as compared to a lab experiment. Online experiments also allow for flexibility for respondents to complete a questionnaire within a specific period of time.

Prior to conducting this research, it was submitted and approved by the Institutional Review Board at Iowa State University (IRB ID 14-153). This experiment was conducted within a week period, from April 7th to April 13th, 2014. The participants were told that the current study aimed to assess their attitude toward source credibility.

Product selection

The purpose of a portion of the study was to test whether people perceive a difference in source credibility of the same person talking about the drugstore and high-end products. Therefore, both drugstore and high-end products were included in both groups of video clips. Each group contained two drugstore and two high-end products.

Stimulus material

The stimulus for the current study was eight video clips cut from the same YouTube video, accordingly the setting, speaker's hairstyle, makeup, and outfits that were exactly the same. The videos in one-sided group were cut from the videos from two-sided group, so they were slightly shorter than those in two-sided group. The only difference between one-sided stimuli and two-sided stimuli was that the negative messages about the products were eliminated from one-sided stimuli.

The videos featured Lisa, a makeup artist, who talked about the foundations, using either one-sided or two-sided messages. The source was also provided before the actual video clips started (Lisa Eldridge, a British makeup artist working in the industry for over 20 years). Then brief information was provided about the brands:

- Revlon Colorstay Foundation: \$9.99, 1 oz
- Chanel Vitalumiere Foundation: \$55, 1oz

Procedure

To recruit respondents, a Qualtrics survey was sent to an undergraduate class that consists of 245 students. Data were collected from April 6 – April 11, 2014. A total of 155 surveys were gathered. Of these, 120 (77.4%) were females' responses, 35(22.6%) were males' responses. 120 (48.9%) responses were valid to this study. Only the female responses were analyzed in this study. These respondents were randomly assigned into two groups: one-sided group saw one-sided messages while two-sided group saw two-sided messages.

The participants were instructed that they would be participating in a study on how people perceive the source credibility of beauty products being featured in YouTube videos. After reading the instructions and brief information about the brand, product and the source, participants were directed to complete the questionnaire. Participants were asked to watch the embedded video clips about the beauty products. Participants in one-sided group watched only videos using one-sided messages whereas participants in two-sided group watched only video clips using two-sided messages. Immediately after watching the video clips, participants were asked to answer a series of questions about source credibility, attitude toward the video, attitude toward the products, and attitude toward the brand.

Variables and measurement

H1: Perceived source credibility is higher if using two-sided messages than using one-sided messages.

Credibility of the source

Credibility is ascertained by considering expertise and trustworthiness (Pornpitakpan, 2004). Expertise refers to the extent to which a speaker is perceived to be capable of making correct assertions and having adequate knowledge about the topic. Regarding beauty-related YouTubers, expertise means whether they are considered to be knowledgeable enough about the topic discussed in the video. Trustworthiness refers to the degree to which an audience perceives the assertions made by a communicator to be ones that the speaker considers valid and honest

(Hovland, Janis, & Kelley, 1953). The trustworthiness of the YouTuber is dependent on whether the audiences consider the YouTuber is sharing honest and true thoughts and experiences about the products or brands mentioned in the video. Generally, the YouTuber provides a disclaimer in the information box below the video to increase trustworthiness, by stating the “video is not sponsored” or “all the products mentioned were purchased by myself”. Some YouTubers may mention in the video that “I am not paid by the brand to say this.” The purpose of these disclaimers is to improve the trustworthiness; hence, source credibility.

The current study used questions to measure source credibility that were based on the previous research of Ohanian (1990). In order to measure source credibility, trustworthiness and expertise were examined. Trustworthiness toward the speaker was measured via asking: “Thinking back to the above video clip, would you say the speaker is?” Then it was followed by seven-point semantic differential scales of five objects: dependable/undependable, honest/dishonest, reliable/unreliable, sincere/insincere and trustworthy/untrustworthy. Expertise was measured via a seven-point semantic differential scale of five objects: not expert/ expert, inexperienced/ experienced, knowledgeable/ unknowledgeable, unqualified/qualified, unskilled/skilled.

Attitude is a set of beliefs about a specific object or idea that directs behavior toward the object or idea (Ajzen & Fishbein, 1980). Attitudes are sometimes defined as “a predisposition to behave,” emphasizing the connection between attitudes and behavior (Ajzen & Fishbein, 1980). People may behave sometimes in ways inconsistent with their attitudes but, in general, act in accordance with their attitudes.

Attitude toward brand/products is the audiences' favorable or unfavorable evaluation of the brand/ products.

Sub-hypothesis 2 is comprised of three parts: attitude toward product, attitude toward brand, and attitude toward video.

H2a: Perceived attitude toward the product is more positive if using two-sided messages rather than one-sided messages.

Attitude toward product was based on the study of Holbrook and Batra (1987).

Attitude toward the product was measured by asking: "Thinking back to the above video clip would you say your attitudes toward the product?" This question was followed by seven-point semantic differential scales of five objects: dislike it /like it, unfavorable /favorable, positive /negative, bad/good, not usable /usable.

H2b: Perceived attitude toward the brand is more positive if using two-sided messages rather than using one-sided messages.

Likewise, attitude toward the brand was measured by asking: "Thinking back to the above video clip would you say your attitudes toward the brand?" This question was followed by seven-point semantic differential scales of five objects: dislike it /like it, unfavorable /favorable, negative / positive, bad/good, usable /not usable.

H2c: Perceived attitude toward the video is more positive if using two-sided messages rather than using one-sided messages.

Attitude toward the video was measured by asking: "What best describes the content of the YouTube video clip?" This question was followed by seven-point semantic differential scales of five objects: not valuable /valuable, not informative

/informative, not helpful /helpful, dishonest / truthful, low production quality/high production quality. It is based on Bailey and Pearson's study (1983).

H3: Purchase intention is higher if using two-sided messages rather than using one-sided messages.

According to Spears and Singh (2004), "Purchase intentions are an individual's conscious plan to make an effort to purchase a brand" (p. 56). Purchase intention was measured by asking: "Thinking back to the above video, would you say the likelihood that you purchase the product is?" This question was followed by seven-point semantic differential scales of three objects: likely/unlikely, probable/improbable, possible/impossible. The procedure used was based on a study by Bearden et al. (1984).

CHAPTER 4. RESULTS

The purpose of this study was to determine the impact of message-sidedness on female college students' attitude toward the beauty related YouTube videos. An online experiment was conducted to gather data. Two groups of participants watched one video clip and answered questions and then watched another video followed by another set of questions.

The current study assessed only female students' attitudes; therefore, the male students' responses were eliminated from the data. Only females' responses were valid in this study. The final number of responses for each group was: one-sided group = 61; and two-sided group = 59.

Demographic Characteristics

Age

Respondents were asked to provide their age at their last birthday. The respondents reported an average age of 19.9 (SD=1.26), which ranged from 18 to 23. The frequency by age is shown as Table 1.

Table 1. Age of the participants

age	frequency	percent	cumulative percent
18	13	10.8	10.8
19	43	35.8	46.7
20	25	20.8	67.5
21	25	20.8	88.3
22	11	9.2	97.5
23	3	2.5	100
Total	120	100	

Education

The number of female respondents who participated in this study was 120 ($n=120$). Of this total, 42 participants were freshmen, 39 participants were sophomores, 26 participants were juniors, and 13 participants were seniors.

Manipulation Check

A manipulation check was conducted to ensure the respondents in one-sided group clearly understood that they were receiving one-sided messages and respondents in two-sided group clearly understood that they were receiving two-sided messages. Both one-sided group and two-sided group were asked two questions immediately after they watched the video clip. The first question asked whether they saw positive opinions about the product mentioned in the video, and the second question asked if they saw negative opinions about the product. A seven-point scale was used to

measure this verification, which ranged from strongly disagree to strongly agree, with 1=strongly disagree and 7= strongly agree.

As planned, participants in both groups saw positive messages in the video clips. The score of positive message in one-sided group ($M=5.92$, $SD=1.07$, $N=61$) was slightly higher than two-sided group ($M=5.39$, $SD = 1.40$, $N = 59$), $t(108)=2.32$, $p < .05$, two-tailed. The score of negative messages in one-sided group ($M=2.51$, $SD=1.58$, $N=61$) was drastically lower than two-sided group ($M=4.80$, $SD=1.86$, $N=59$), $t(114)= -7.268$, $p < .001$, two-tailed.

The statistics revealed that participants in one-sided group had a high score in positive messages and low score in negative messages, while participants in two-sided group had both high scores in positive and negative messages. Manipulation checks indicated that the survey questions were valid. Table 2 provides the results using Cronbach's alpha (α) for all the variables.

Table 2. Results for all variables using Cronbach's α

Variable	Cronbach's α	Number of items
trustworthiness	.93	5
expertise	.93	5
attitude toward product	.92	5
attitude toward brand	.92	5
attitude toward video	.91	5
purchase intention	.84	3

Results of Hypothesis Testing

H1: Perceived source credibility is higher if using two-sided messages than using one-sided messages

According to Pornpitakpan (2004), the dimensions of source credibility have been commonly identified as trustworthiness and expertise. In order to test this hypothesis, trustworthiness and expertise were tested separately.

Trustworthiness was measured by seven-point semantic differential scales (Dou et al, 2012). Respondents were asked to which extent do they consider the speaker to be dependable/undependable, honest/dishonest, reliable/unreliable, sincere/insincere, and trustworthy/untrustworthy.

Cronbach's α for the index for trustworthiness regarding drug store product was 0.92, indicating the items were internally consistent, Cronbach's α for the index for trustworthiness regarding drug store product was 0.95, indicating the items were internally consistent, and Cronbach's α for the index for trustworthiness regarding both groups was 0.93, indicating the items were internally consistent. An independent samples t -test was performed comparing the mean consistency scores of trustworthiness. As predicted, one-sided group ($M=5.27$, $SD= .919$, $N=61$) had a lower score than two-sided group ($M=5.76$, $SD = .873$, $N=59$), $t(118)=-2.976$, $p<.005$, two-tailed.

Expertise was measured by five seven-point semantic differential scales in which respondents were asked to extent to which they considered the speaker to be not expert/expert, inexperienced/experienced, unknowledgeable/knowledgeable, unqualified/qualified, and unskilled/skilled, with 1 = not expert, inexperienced, unknowledgeable, unqualified, and unskilled and 7 = expert, experienced, knowledgeable, qualified, and skilled.

An independent samples *t*-test was performed comparing the mean scores of expertise. As predicted, one-sided group (M=5.06, SD= .955, N=61) had a lower score than two-sided group (M=5.62, SD= .978, N=59), $t(118)=-3.18, p<.005$, two-tailed. Table 3 provides the results for credibility by one-sided group and two-sided group. Hypothesis 1 is supported by the data revealed in Table 3.

Table 3. Independent samples t-test results for credibility for one-sided group and two-sided group

	One-sided message N= 61	Two-sided message N= 59	<i>t</i> -test	Sig.(2- tailed)
	Mean(SD)	Mean(SD)		
<i>trustworthy</i>	5.27 (.919)	5.76 (.874)	-2.98**	.004
<i>expertise</i>	5.06 (.955)	5.62 (.977)	-3.18**	.002

Level of significance: ** $p < .01$

H2a: Perceived attitude toward the product is more positive if using two-sided messages rather than using one-sided messages.

Attitude toward the product was measured by five seven-point semantic differential scales. Respondents were asked to extent to which they dislike/like the product mentioned in the video clip and consider it to be unfavorable/favorable, negative/positive, bad/good, not usable/usable. Cronbach's α for the index for attitude toward the product regarding drug store product was 0.94, indicating the items were internally consistent. Cronbach's α for the index for attitude toward the product regarding high-end product was 0.96, indicating the items were internally consistent. Cronbach's α for the index for attitude toward the product regarding both groups was 0.92, indicating the items were internally consistent. Table 6 provides

the descriptive statistics for the 10 items that comprised the score of attitude toward the product, with 1 = dislike it, unfavorable, negative, bad, not usable, and 7= like it, favorable, positive, good, usable.

An independent samples *t*-test was performed comparing the mean consistency scores of attitude toward product. As predicted, one-sided group (M=5.01, SD= .891, N=61) had lower score than two-sided group (M=5.38, SD= .980, N=59), $t(116)=-2.13$, $p< .05$, two-tailed. Table 4 provides the results for attitude for the product by one-sided group and two-sided group. Hypothesis 2a is supported by the data revealed in Table 4.

Table 4. Independent samples *t*-test results for attitude toward product for one-sided group and two-sided groups

	One-sided message N= 61	Two-sided message N=59		Sig.(2 - tailed)
	Mean(SD)	Mean(SD)	<i>t</i> -test	
Attitude toward product	5.01(.89)	5.37(.98)	-2.13*	.035

Level of significance: * $p<.05$.

H2b: Perceived attitude toward the brand is more positive if using two-sided messages rather than using one-sided messages.

Attitude toward the brand was measured by five seven-point semantic differential scales. Respondents were asked to extent to which they dislike/like the brand mentioned in the video clip and consider it to be unfavorable/favorable, negative/positive, bad/good, or not usable/usable.

Cronbach's α for the index for attitude toward the brand regarding drug store product was 0.97, indicating the items were internally consistent, and the Cronbach's α for the index for attitude toward the brand regarding high-end product was 0.96, indicating the items were internally consistent. Cronbach's α for the index for attitude toward the brand regarding both groups was 0.92, indicating the items were internally consistent.

An independent samples *t*-test was performed comparing the mean consistency scores of attitude toward brand. As predicted, one-sided group ($M=5.07$, $SD= .925$, $N=61$) had a lower score than two-sided group ($M=5.48$, $SD= .935$, $N=59$), $t(118)=-2.42$, $p< .05$, two-tailed. Table 8 provides the results for attitude for brand score by one-sided group and two-sided group. Hypothesis 2b is supported by the data revealed in Table 5.

H2c: Perceived attitude toward the video is more positive if using two-sided messages rather than using one-sided messages.

Attitude toward the video was measured by five seven-point semantic differential scales. Respondents were asked to extent to which they consider the video to be not valuable/valuable, not informative/informative, not helpful/helpful, dishonest/truthful, and low production quality/high production quality, with 1=not valuable, not informative, not helpful, dishonest, low production quality while 7=valuable, informative, helpful, truthful, high production quality.

Table 5. Independent samples *t*-test for attitude toward brand for one-sided group and two-sided group

	One-sided message N= 61	Two-sided message N= 59		
	Mean(SD)	Mean(SD)	<i>t</i> -test	Sig.(2 - tailed)
Attitude toward brand	5.07(.926)	5.47(.935)	-2.42*	.017

Level of significance: * $p < .05$.

Cronbach's α for the index for attitude toward the video regarding drug store product was 0.88, indicating the items were internally consistent, the Cronbach's α for the index for attitude toward the video regarding high-end product was 0.94, indicating the items were internally consistent. Cronbach's α for the index for attitude toward the video regarding both groups was 0.91, indicating the items were internally consistent.

An independent samples *t* test was performed comparing the mean consistency scores of attitude toward video. As predicted, one-sided group ($M=4.98$, $SD= .932$, $N=61$) had lower score than two-sided group ($M=5.57$, $SD= .932$, $N=59$). $t(118)=-3.44$, $p < .005$, two-tailed. Hypothesis 2c is supported by the data revealed in Table 6.

Table 6. Independent samples *t*-test for attitude toward video for one-sided group and two-sided group

	One-sided message N= 61	Two- sided message N= 59		
	Mean(SD)	Mean(SD)	<i>t</i> -test	Sig.(2- tailed)
Attitude toward video	4.98(.932)	5.57(.932)	-3.44**	.001

Level of significance: ** $p < .01$.

H3: Purchase intention is higher if using two-sided messages rather than using one-sided messages.

Purchase intention was measured by three seven-point semantic differential scales. Respondents were asked to extent to which they intend to purchase the product, respondents were asked to extent to which they intend to purchase: unlikely/likely, improbable/probable, impossible/possible, with 1=unlikely, improbable, impossible and 7=likely, probable, possible. The mean of the six items were added and then divided by six.

Cronbach's α for the index for purchase intention regarding drug store product was 0.94, indicating the items were internally consistent. Cronbach's α for the index for purchase intention regarding high-end product was 0.95, indicating the items were internally consistent. Cronbach's α for the index for purchase intention regarding both groups was 0.84, indicating the items were internally consistent.

An independent samples *t*-test was performed comparing the mean consistency scores of purchase intention. one-sided group ($M=4.34$, $SD= 1.220$, $N=61$) had a

lower score than two-sided group ($M=4.41$, $SD= 1.299$, $N=59$), $t(117)=-.307$, $p= .759$, two-tailed. Hypothesis 2c failed to be supported by the data revealed in Table 7.

Table 7. Independent samples *t*-test for purchase intention for one-sided group and two-sided group

	One-sided message $N= 61$	Two-sided message $N= 59$		
	Mean(SD)	Mean(SD)	<i>t</i> -test	Sig.(2- tailed)
Purchase intention	4.34(1.220)	4.41(1.299)	-.307	NS

Additional Findings

To determine if there was a difference between the drugstore and high-end product, a paired sample *t*-test was performed. A paired sample test was performed to compare the mean consistency scores of credibility of drugstore and high-end products. As predicted, the drugstore product ($M=5.30$, $SD= .915$, $N=61$) had a lower score than the high-end product ($M=5.53$, $SD= 1.155$, $N=59$), $t(119)=-2.487$, $p< .05$, two-tailed.

These statistics revealed there was large difference between the drug store product and high-end product regarding source credibility. High-end products had a higher source credibility than drug store products.

A paired sample test was performed comparing the mean consistency scores of attitude toward products of drugstore and high-end products. As predicted, the

drugstore product ($M=4.98$, $SD= 1.101$, $N=61$) had a lower score than the high-end product ($M=5.41$, $SD= 1.176$, $N=59$), $t(119)=-3.822$ $p<.005$, two-tailed. These statistics revealed there was a large difference between the drugstore product and the high-end product regarding attitude toward product. High-end products have a higher score in attitude toward product than drugstore products, indicating that participants have a more positive attitude toward high-end products than drugstore products.

A paired sample test was performed comparing the mean consistency scores of attitude toward brands of drugstore and high-end products. As predicted, the drugstore product ($M=5.11$, $SD= 1.181$, $N=61$) had a lower score than the high-end product ($M=5.43$, $SD= 1.158$, $N=59$), $t(119)=-2.602$, $p< .05$, two-tailed. These statistics revealed there was large difference between the drugstore product and the high-end product regarding attitude toward brand. High-end brands have a higher score than drugstore brands, indicating that participants have a more positive attitude toward high-end brands than drug store brands.

A paired sample test was performed comparing the mean consistency scores of attitude toward videos of drugstore and high-end products. The drugstore product ($M=5.30$, $SD= .975$, $N=61$) had a higher score than the high-end product ($M=5.24$, $SD= 1.276$, $N=59$), $t(119)=.545$, NS, two-tailed, indicating there was no significance in attitude toward the video between drugstore and high-end groups. These statistics revealed there was no significant

difference between the drug store product and high-end product regarding attitude toward video.

A paired sample test was performed comparing the mean consistency scores of purchase intention of drugstore and high-end products. The drugstore product ($M=4.29$, $SD= 1.576$, $N=61$) had a lower score than the high-end product ($M=4.46$, $SD= 1.637$, $N=59$), $t(119)=-.924$, NS, two-tailed, indicating there was no significance in the attitude toward the video between drugstore and high-end groups. These statistics revealed there was no significant difference between the drug store product and high-end product regarding purchase intention.

Table 8 reveals the difference in scores between drugstore and high-end products. In summary, the statistics revealed that high-end products have higher score in credibility, attitude toward product as well as attitude toward the brand, indicating high-end products performed better in this case. However, there was no significant difference between drugstore and high-end products regarding attitude toward video and purchase intention.

Table 8. Comparison between drugstore and high-end products (paired sample *t*-test)

	drugstore	high-end		
	Mean (SD)	Mean (SD)	<i>t</i> -test	sig. (2-tailed)
Credibility	5.30 (.915)	5.53(1.155)	-2.487*	.014
Attitude toward product	4.98(1.101)	5.41(1.176)	-3.822***	.000
Attitude toward brand	5.11(1.181)	5.43(1.158)	-2.602*	.010
Attitude toward video	5.30(.957)	5.24(1.276)	.545	NS
Purchase intention	4.29(1.576)	4.46(1.637)	-.924	NS

Level of significance: * $p < .05$; ** $p < .01$; *** $p < .001$

CHAPTER 5. DISCUSSION

This chapter summarizes the results of the study, outlines the conclusions discusses the implication of the findings to mass communication theory as well as practice, points out the limitations of the study and offers suggestions for the future study. This study explored the message sidedness' impact on the female college students' attitude toward YouTube videos regarding beauty products. It hypothesized that two-sided messages have more positive impact on source credibility, attitude toward the product, attitude toward the brand, attitude toward the video and purchase intention. This study also investigated in whether there are differences in drugstore and high-end beauty products regarding source credibility, attitude toward the product, attitude toward the brand, attitude toward the video and purchase intention.

Summary of the Findings

An online experiment was conducted involving 120 female college students in a Midwest university to collect data. The 120 female students were randomly assigned into two groups: one-sided group for one-sided messages and two-sided group for two-sided messages.

The data aforementioned showed that two-sided message group had better results than one-sided message group in terms of source credibility, attitude toward the product, attitude toward the brand, attitude toward the video.

According to Crowley and Hoyer (1994), two- sided messages are more credible than one-sided messages. As predicted, Hypothesis 1 and 2a, 2b, 2c were

supported by the statistics. These findings indicate that source credibility of audience is higher when using two-sided messages than using one-sided messages, attitude toward the product, the brand and the video is more positive when using two-sided messages rather than using one-sided messages.

According to Crowley and Hoyer, the attribution theory presumes that consumers can attribute claims either to the advertiser's intention to sell the product/service (one sided advertising) or honestly communicate with the consumers about the characteristics of the product or service (two sided advertising) (Crowley & Hoyer,1994). Consumers believe that no product can be perfect, even if one product works perfectly, there must be something can be improved, like it is not organic, it tests in animals, or it is expensive, the list can go on.

By providing both the merits along with the downside of a particular product, the communicators appear to be more honest, neutral in attitude and more knowledgeable. Instead of persuading them into buying some product, it is more likely that they are communicating the characteristics of the product with the audiences sincerely.

However, the statistics failed to support Hypothesis 3, indicating that there was no significant difference between the purchase intention of two-sided and one-sided message groups.

There are several factors influencing purchase intention. First, regarding purchase intention, there are several economic factors involved. Whether the participants have a sufficient budget to purchase the product plays a huge role in purchase intention. However, in the current study, the economic factors were not tested.

Whether or not the products suit the participants also affects the purchase intention largely. Because the video clips talked about beauty products, foundations in specific, whether the participants consider the products mentioned in the video to be suitable for their skin type is a key factor to purchase intention.

Furthermore, purchase intention is generally a complicated factor to measure because most people react when they are asked about their intention to purchase something. They may also change their mind at a moment's notice if they see questions that measure their purchase intention.

By comparing the drugstore and high-end products, data showed that high-end product have higher scores in source credibility, attitude toward the product and attitude toward brand. The reason why can be summarized as follow: First of all, those famous brand certainly have more reputation than drugstore brands, also, products from those brands generally have high price, indicating higher quality in general. Furthermore, the high-end products tend to have more delicate and luxury packaging than drugstore products, which leads to people to consider them to be prior to drugstore products.

Limitations and Suggestions for Future Study

The results of this study are not generalizable to different contexts because the samples were from one particular class in a Midwest university. Generalizability was further limited by recruiting participants at ages 18 to 23 only, which may not representative of women in general.

Using more systematic sampling techniques may provide much more valid and

generalizable insights regarding how young females perceive message sidedness regarding beauty products.

Because the one-sided video clips were cut from two-sided videos, the lengths of videos were not exactly the same. In the one-sided group, the length of two videos was 36 seconds and 57 seconds, respectively. In two-sided group, the length of two videos was 60 seconds and 64 seconds, respectively. The length of message may be one of the factors affecting attitude toward the product, attitude toward the brand, attitude toward the video and purchase intention, especially the source credibility. Source characteristics can influence argument processing or cognitive responses based on idea presented in the message. There are two important aspects in cognitive responses: their valence (favorable or unfavorable) and their number: Credibility can affect argument processing in two different ways (Benoit& Benoit, 2008, p. 35). A future study may consider controlling the length of the message to improve the accuracy of the current study's outcomes.

In addition, drugstore and high-end products were not clearly defined for the participants. Even though the prices of branded products were provided before the actual videos, participants may not regard Revlon as a “drugstore” brand or/and Chanel as a “high-end” brand. A future study may clearly definite the products and doe a manipulation check within the survey.

In terms of methodology, the survey questions were chose based on citations from previous studies (Bailey & Pearson, 1983, Bearden et al., 1984, Holbrook & Batra, 1987; Ohanian, 1990) which may be consider somewhat behind the times for a current study, especially with the rapid changes that have recently taken place regarding media and technology.

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APPENDIX A. SURVEY QUESTIONNAIRE

This survey is about the attitude toward the source credibility after watching YouTube video clips. It was approved by Institutional Review Board at Iowa State University. The IRB ID is 14-153.

There are two short video clips included in the questionnaire, each of them is within two minutes. It will take less than 10 minutes in total to complete this questionnaire.

Thank you for your participation!

In the next two pages you will see one video clip on each page. The first video is going to talk about Revlon Colorstay Foundation and the second one is about Chanel Vitalumiere Foundation. Here is the brief information about the products mentioned in the video clips:

Revlon Colorstay Foundation: \$9.99, 1 oz.

Chanel Vitalumiere Foundation: \$55, 1oz.

The presenter is a British makeup artist Lisa Eldridge, who has been working in the industry for over twenty years.

1. Thinking back to the Revlon video, I saw the positive opinion about the Revlon Colorstay foundation.

Strongly disagree ___ ___ ___ ___ ___ ___ ___ Strongly agree

2. Thinking back to the Revlon video, I saw the negative opinion about the Revlon Colorstay foundation.

Strongly disagree ___ ___ ___ ___ ___ ___ ___ Strongly agree

3. Thinking back to the Revlon video clip, would you say the speaker is:

Undependable ___ ___ ___ ___ ___ ___ ___ Dependable

Dishonest ___ ___ ___ ___ ___ ___ ___ Honest

Unreliable ___ ___ ___ ___ ___ ___ ___ Reliable

Insincere ___ ___ ___ ___ ___ ___ ___ Sincere

Untrustworthy _____ Trustworthy

4. Thinking back to the Revlon video clip, would you say the speaker is:

Not expert _____ Expert

In experienced _____ Experienced

Unknowledgeable _____ Knowledgeable

Unqualified _____ Qualified

Unskilled _____ Skilled

5. Thinking back to the Revlon video clip would you say your attitudes toward the Revlon Colorstay Foundation.

Dislike it _____ Like it

Unfavorable _____ Favorable

Negative _____ Positive

Bad _____ Good

Not usable _____ Usable

6. Thinking back to the Revlon video clip would you say your attitudes toward the brand Revlon.

Dislike it _____ Like it

Unfavorable _____ Favorable

Negative _____ Positive

Bad _____ Good

Not usable _____ Usable

7. What best describes the content of the Revlon video clip?

Not valuable _____ Valuable

Not informative _____ Informative

Not Helpful _____ Helpful

Dishonest _____ Truthful

Low production quality _____ High production quality

8. Thinking back to the Revlon video clip, how do you describe the likelihood that you purchase the Revlon Colorstay Foundation?

Unlikely _ _ _ _ _ Likely
 Improbable _ _ _ _ _ Probable
 Impossible _ _ _ _ _ Possible

9. Thinking back to the Chanel video, I saw the positive opinion about the Chanel Vitalumiere Foundation.

Strongly disagree _ _ _ _ _ Strongly agree

10. Thinking back to the Chanel video, I saw the negative opinion about the Chanel Vitalumiere Foundation.

Strongly disagree _ _ _ _ _ Strongly agree

11. Thinking back to the Chanel video clip, would you say the speaker is:

Undependable _ _ _ _ _ Dependable
 Dishonest _ _ _ _ _ Honest
 Unreliable _ _ _ _ _ Reliable
 Insincere _ _ _ _ _ Sincere
 Untrustworthy _ _ _ _ _ Trustworthy

12. Thinking back to the Chanel video clip, would you say the speaker is:

Not expert _ _ _ _ _ Expert
 In experienced _ _ _ _ _ Experienced
 Unknowledgeable _ _ _ _ _ Knowledgeable
 Unqualified _ _ _ _ _ Qualified
 Unskilled _ _ _ _ _ Skilled

13. Thinking back to the Chanel video clip would you say your attitude toward the Chanel Vitalumiere Foundation.

Dislike it _____ Like it
 Unfavorable _____ Favorable
 Negative _____ Positive
 Bad _____ Good
 Not usable _____ Usable

14. Thinking back to the Chanel video clip would you say your attitudes toward the brand Chanel.

Dislike it _____ Like it
 Unfavorable _____ Favorable
 Negative _____ Positive
 Bad _____ Good
 Not usable _____ Usable

15. What best describes the content of the Chanel video clip?

Not valuable _____ Valuable
 Not informative _____ Informative
 Not Helpful _____ Helpful
 Dishonest _____ Truthful
 Low production quality _____ High production quality

16. Thinking back to the Chanel video clip, how do you describe the likelihood that you purchase the Chanel Vitalumiere Foundation?

Unlikely _____ Likely
 Improbable _____ Probable
 Impossible _____ Possible

APPENDIX B. IRB APPROVAL

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Research
Vice President for Research
1138 Pearson Hall
Ames, Iowa 50011-2207
515 294-4566
FAX 515 294-4267

Date: 3/28/2014

To: Diany Zang
300 Stanton Ave, Unit 104
Ames, IA 50014

CC: Dr. Jay Newell
122 Hamilton

From: Office for Responsible Research

Title: The Impact of Message Sidedness on Female Students' Attitude Toward the YouTuber, Take YouTube Videos as an Example

IRB ID: 14-153

Study Review Date: 3/28/2014

The project referenced above has been declared exempt from the requirements of the human subject protections regulations as described in 45 CFR 46.101(b) because it meets the following federal requirements for exemption:

- (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey or interview procedures with adults or observation of public behavior where
 - Information obtained is recorded in such a manner that human subjects cannot be identified directly or through identifiers linked to the subjects; or
 - Any disclosure of the human subjects' responses outside the research could not reasonably place the subject at risk of criminal or civil liability or be damaging to their financial standing, employability, or reputation.

The determination of exemption means that:

- **You do not need to submit an application for annual continuing review.**
- **You must carry out the research as described in the IRB application.** Review by IRB staff is required prior to implementing modifications that may change the exempt status of the research. In general, review is required for any modifications to the research procedures (e.g., method of data collection, nature or scope of information to be collected, changes in confidentiality measures, etc.), modifications that result in the inclusion of participants from vulnerable populations, and/or any change that may increase the risk or discomfort to participants. Changes to key personnel must also be approved. The purpose of review is to determine if the project still meets the federal criteria for exemption.

Non-exempt research is subject to many regulatory requirements that must be addressed prior to implementation of the study. Conducting non-exempt research without IRB review and approval may constitute non-compliance with federal regulations and/or academic misconduct according to ISU policy.

Detailed information about requirements for submission of modifications can be found on the Exempt Study Modification Form. A Personnel Change Form may be submitted when the only modification involves changes in study staff. If it is determined that exemption is no longer warranted, then an Application for Approval of Research Involving Humans Form will need to be submitted and approved before proceeding with data collection.

Please note that you must submit all research involving human participants for review. **Only the IRB or designees may make the determination of exemption, even if you conduct a study in the future that is exactly like this study.**

Please be aware that **approval from other entities may also be needed.** For example, access to data from private records (e.g. student, medical, or employment records, etc.) that are protected by FERPA, HIPAA, or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. **An IRB determination of exemption in no way implies or guarantees that**

permission from these other entities will be granted.

Please don't hesitate to contact us if you have questions or concerns at 515-294-4566 or IRB@iastate.edu.