

FROM NEGATIVE TO POSITIVE:  
TWO-SIDED MESSAGES AND THE EFFECT OF INVOLVEMENT

by

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## **Abstract**

Two-sided message research has often led to ambiguous findings due to several factors. The present study examines if the level of general involvement with the product category presented in the persuasive message influences whether or not the inclusion of unfavorable information can generate positive effects on source credibility, brand attitude, and behavioral intent. Past studies on the effects of involvement on sidedness failed to deliver clear results, due to vague operationalizations, irrelevant claims and message statements.

A 3 (sidedness: one-sided, two-sided unrelated attributes, or two-sided related attributes) x 2 (involvement: low or high) factorial design was used for this study. Contrary to past research, this study indicates that two-sided messages have many facets. Although a main effect for two-sided messages over one-sided ones was present, findings indicate nearly all of the benefits associated with two-sided messages were due the relatedness of the negative information claim. Two-sided messages without relatedness of information performed no differently than the one-sided format.

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## **Dedication**

I dedicate this work to my parents. Thank you for your continuous support, for letting me talk to you about things you probably don't understand, and for listening to my Americanized German. Danke.



## Chapter 1 - Introduction

Companies and organizations strategically utilize advertising, marketing and public relations messages to change audiences' attitudes and behavior in favor of their advocated position. A commonly used, and heavily researched, message strategy is two-sided communication. This type of communication features attributes which are actually unfavorable to the advocated position, especially in comparison to market competitors' claims on the same attribute. Yet, research has shown this strategy *can* result in higher attitudes and desired behavior in certain situations, while falling short of the intended goal in others.

Choosing and placing the message strategy depends on several factors. The level of involvement the message recipient expends toward the message could be one of the key factors message creators can use when deciding on a message strategy. According to dual process theories of persuasion, such as the Elaboration Likelihood Model (ELM), the amount of motivation individuals utilize when processing a message can directly, and indirectly, influence processes involved in persuasion (Petty, Cacioppo, & Goldman, 1981; Petty, Cacioppo & Schumann, 1983). Multiple factors can alter motivation, which is often referred to as "involvement" with a message. A low involvement effort toward the message often leads to a recipient's quick decision based on simple cues such as characteristics of the amount of information presented (Petty & Cacioppo, 1979; Petty et al., 1981). By comparison, a high involvement effort usually results in a more elaborate consideration of available arguments. According to the Elaboration Likelihood Model (ELM), argument quality is typically more important than peripheral cues under high involvement conditions (Petty et al., 1981). However, elaboration, or the amount of effort a message recipient devotes to a message, can also be thought of as existing on a continuum. Thus, factors that typically promote one route of

processing involvement can also slip over and exert an indirect effect in the opposite direction (Petty et al., 1983).

Therefore, peripheral cues such as source credibility can intensify the strength of an argument, which is generally seen as a more deeply elaborated aspect of the message. A persuasion strategy incorporating both, a favorable perception of argument quality as well as peripheral cues to further support the argument, should be superior to other strategies for highly involved message recipients. Thus, investigating a two-sided persuasive approach through the ELM paradigm could significantly contribute to the body of literature, and could also have implications in advertising, public relations, and marketing contexts.

There is still insufficient data to show whether or not involvement affects the effectiveness of two-sided communication (Eisend, 2007), mostly because involvement has rarely been included as an independent variable in past studies. Also, stimuli in two-sided message research usually include only low involvement products, e.g. pens, ice cream and beer. An examination of product categories that elicit high involvement, e.g. consumer electronics, could explain some of the ambiguous findings of past studies a boundary for the practical application of two-sided messages. Predictions made by the ELM should hold up for general product involvement (Petty & Cacioppo, 1979).

The present study is designed to include low and high involvement product categories. Basic guidelines from integrated frameworks of two-sided communication (Crowley & Hoyer, 1994; Eisend, 2006) are considered when creating the stimulus for the study. An argument characteristic of particular interest is the relatedness of favorable and unfavorable claims. Two-sided messages can be more effective if message recipients recognize the relationship between claims of opposite valence (Bohner, Einwiller, Erb, & Siebler, 2003). Furthermore, involvement

could be a crucial factor whether or not the relatedness or other argument qualities are detected in order for the two-sided message to be more effective than its one-sided counterpart.

## Chapter 2 - Literature Review

Message sidedness is the format type in which a persuasive message is presented.

Whether a persuasive message is one-sided or two-sided depends on the inclusion of information unfavorable to the communicator's standpoint.

One-sided persuasive messages include only favorable arguments about an issue or product, which is the traditional format of persuasive messages. The one-sidedness could be either positive, e.g. an advertisement, or negative, e.g. an anti-smoking campaign, depending on the context of the persuasive attempt.

Two-sided messages on the other hand may include unfavorable information about the product or issue, which are against the communicator's standpoint (Allen, 1991). An unfavorable claim could be one that does not support the issue or the product as being the best on the market in a specific category, points out alternative reasons to consider the purchase, or one that points out a poor performance of the brand in the past.

Two types of two-sided messages have been identified: non-refutational and refutational messages (Allen, 1991, O'Keefe, 1999). In a non-refutational two-sided message, unfavorable information is simply included in the persuasive message without any refutation by the communicator. The conclusion is up to the message recipient and, therefore, this message type is the most objective out of the three sidedness types described. In contrast, refutational two-sided messages counter argue any unfavorable information, which clearly indicates the communicator's standpoint. Refuting the unfavorable information within a two-sided message results in less counter argumentation (Kamins & Assael, 1987). An integrated framework of two-sided communication research suggests that refuting unfavorable information is only necessary if the unfavorable claims are relatively important (Crowley & Hoyer, 1994). According to meta-

analyses, two-sided refutational messages are more effective than two-sided non-refutational or one-sided messages in increasing attitude and source credibility, but they do not always result in a desired change in behavioral intent (Allen, 1991; Crowley & Hoyer, 1994; Eisend, 2006). Several studies have found no difference in effectiveness between refutational and non-refutational two-sided messages (Golden & Alpert, 1987; Kamins & Assael, 1987; Smith & Hunt, 1978). Cornelis et al. (2014) suggested that involvement might moderate the need for a refutation. A refutation might not be necessary because highly involved message recipients might have already elaborated arguments and counter arguments.

### **Prior Attitude**

Prior attitude towards the product had been an important moderator of the effectiveness of message sidedness. If the recipient's attitude was congruent with the communicator's standpoint, one-sided messages are more effective (O'Keefe, 1999). In contrast, two-sided messages were more effective if recipients held an attitude opposing the intent of the message (Chu, 1967). However, O'Keefe (1999) argued that one-sided messages are more persuasive if a relatively strong attitude prior to the exposure of the persuasive message exists regardless of its valence. The majority of studies have used fictitious brand names in order to avoid moderation through prior attitudes (Crowley & Hoyer, 1994).

### **Involvement**

A more important moderator of the effectiveness of two-sided messages could be the level of involvement of message recipients. Several researchers have suggested to approach two-sided communication through a dual-processing model of persuasion (Bohner et al., 2003; Crowley & Hoyer, 1994; Eisend, 2007; Golden & Alpert, 1987; Kamins & Assael, 1987). Because involvement indicates motivation to process information (Petty & Cacioppo, 1986), a

two-sided message must elicit a high level of involvement in order for recipients to produce the source credibility effects, i.e. perceive the message as less biased and more honest, but moreover judge the message by its argument quality rather than peripheral cues.

Two-sided messages enhance perceived novelty (Crowley & Hoyer, 1994; Eisend, 2006) because of the unexpected message format. If cognitive arousal is at an optimal level, it can elevate motivation to process the information and lead to more cognitive responses – an accepted measure of involvement (Petty & Cacioppo, 1979).

### **Elaboration Likelihood Model (ELM)**

Involvement has been mentioned to potentially have a moderating effect (Eisend, 2007), but available research data is still insufficient for involvement to be included into an integrative framework of two-sided communications (Eisend, 2006). Two-sided communication features several elements, which are suitable for a closer examination through a dual-processing paradigm, e.g. the Elaboration Likelihood Model (ELM) or the Heuristic Systematic Model (HSM).

The Elaboration Likelihood Model of persuasion is a dual processing model, which explains how attitudes form and change depending on whether message recipients are involved with a message or not. Information is processed either through the central (high elaboration) or the peripheral (low elaboration) route of persuasion, based on involvement with the issue or product. Although the level of involvement moves along a continuum, with either route being more or less activated (Petty et al., 1983), researchers often operationalize involvement as a categorical independent variable.

A high level of involvement with the message or issue tends to prompt the reader to follow the central route of processing, which is guided by an elaborate consideration of message-

relevant information. However, the outcome of central processing has to be seen as justifiable by the reader. If the outcome is congruent with one's personal belief, attitudes are likely to be re-affirmed and strengthened. If they are incongruent, one's attitudes are more likely to be changed than when lower levels of processing occur. Attitude changes through central route processing have been shown to be enduring and predictive (Petty et al., 1983). Therefore, counterarguments might only be effective in changing one's attitude if they trigger the central processing route, i.e. the involvement of a message recipient must be high in order for counter arguments to be considered.

Attitude changes via the peripheral route are induced by positive or negative cues rather than a diligent elaboration of information (Petty et al., 1983). These cues could be as simple as elements of source credibility, e.g. attractiveness or labeled expertise (layperson vs. doctor) of the communicator, or the number of claims made in the persuasion context (Eisend, 2013; Petty et al., 1983).

Argument quality has been found to be closely associated with central route processing while source credibility, a peripheral cue, is more likely to have an impact under low involvement, according to the ELM (Petty & Cacioppo, 1979; Petty et al., 1981).

### **Source Credibility**

Source credibility has been a focal dependent variable in two-sided communication research based on the thought that higher source credibility could overcome the negative effects of including unfavorable information. The general finding is that two-sided messages enhance source credibility (Crowley & Hoyer, 1994; Eisend, 2006; Kamins & Assael, 1987; Lang et al., 1999; Smith & Hunt, 1978).

The two main components of source credibility are perceived expertise and trustworthiness (Dholakia and Sternthal, 1977). Expertise consists of expertness, competence, qualification, intelligence and authoritativeness (McCroskey, 1999), whereas trustworthiness splits into perceived honesty, sincerity and objectivity (McCracken, 1989). Additional elements such as attractiveness (McCracken, 1989), dynamism (Johnston & Warkentin, 2010) and goodwill (McCroskey, 1999) have also been identified, but are not a focus of the present study.

Source credibility can have an intensifier effect on argument strength, for both favorable and unfavorable claims (Bohner et al., 2003), by enhancing the veracity of communicated claims. The predicament is that increasing the impact of unfavorable claims could outweigh the positive effects of source credibility on favorable ones (Eisend, 2010). According to Eisend (2007), “negative cognitive responses do not affect attitude towards the brand significantly.” Therefore, the tradeoff between the source credibility effects on either positive or negative valence claims might actually be less accentuated than suspected. Under high involvement, the impact of argument quality on attitude and purchase intention should be greater than that of source credibility (Petty et al., 1981). However, since elaboration is a continuum, source credibility effects should still occur under high involvement to further strengthen the outcome of central processing, especially since message recipients should make inferences about honesty and/or objectivity.

### ***Perceived Honesty***

Two-sided communication has often been investigated through an attribution theory approach to examine source credibility, especially perceived honesty and objectivity. Attributions about communicator characteristics will hereby be made based on observable behavior displayed by the communicator (Jones & Davis, 1965). If the disclosure of unfavorable



information is perceived as honest and objective, then these attributions should be made about the communicator as well.

Perceived communicator honesty is an important element when making a judgment about the credibility of a source. As predicted by attribution theory, recipients were more likely to believe the information of two-sided messages than that of one-sided messages (Kamins & Marks, 1988). The disclosure of unfavorable information in two-sided messages should enhance communicator honesty because the communicator does something that is against his persuasive intent, which leads to a greater attribution of honesty based on the communicator's behavior (Etgar and Goodwin, 1982; Jones & Davis, 1965; Kamins & Marks, 1987; Smith and Hunt, 1978). Based on this behavior, source credibility should, in turn, enhance the effectiveness of the message itself (Bohner et al., 2003), i.e. enhance attitudes towards the product, issue, advertisement, and brand.

Communicator honesty can also be critically enhanced when revealing "hidden" negative attributes that are either experience or credence attributes (Pechmann, 1992), i.e. attributes which are not easily measureable before actually using the product.

### ***Objectivity***

The inclusion of unfavorable information is a cue for the message recipient to attribute objectivity to the communicator. In two-sided communication, objectivity – an element of source credibility – has usually been labeled as communicator bias. Detection of bias can moderate the effectiveness of messages (Hovland, Janis, & Kelley, 1953). Two-sided communication decreases the perceived communicator bias by demonstrating willingness to show unfavorable attributes about the product or issue and by acting against self-interest (Bohner et al., 2003; Kelley, 1973).

Admitting inferior performance of the product on certain attributes inhibits message recipients from generating counterarguments (Smith & Hunt, 1978) and reduces the suspicion of omission of unfavorable information. This helps to decrease perceived bias of the communicator. One-sided messages cannot produce this effect, which makes them susceptible of being perceived as more biased. Negative attributions would be made about the communicator because of the perceived manipulative intent (Chu, 1967; Hovland et al., 1953). However, if subjects were in favor of the communicator's position, the interaction effect of message sidedness and communicator bias was often not detected (Chu, 1967). The subjects' own bias, i.e. their favorable attitude, prevents subjects from detecting a communicator bias of omitting unfavorable information (or counterarguments) while two-sided messages might not arouse negative attributions. It is questionable if perceived bias matters in an advertising context because recipients might be well aware that they are being manipulated.

### **Prior Knowledge & Counterarguments**

Early studies found that prior familiarity with the product has an impact on the effectiveness of two-sided communication (Hovland, Lumsdaine, & Sheffield, 1949). Two-sided messages were more effective with subjects who were familiar with the product or issue whereas one-sided communication has been found to be more convincing for subjects without prior information (Insko, 1962). Logically, one-sided arguments are more effective for uninformed message recipients because of the absence of counterarguments. If counterarguments are available, a one-sided message is inferior because the communicator is attributed with a strong communicator bias based on the knowledge and detection of omission of important information.

## **Other moderators of message sidedness**

### ***Product type***

Etgar and Goodwin (1982) suggested that two-sided messages might be more effective for functional products because of the measurability of attributes, which makes the comparison that takes place within two-sided messages more tangible. Furthermore, the risk of buying a new functional utilitarian product (e.g. a cold remedy) was rated as significantly higher than buying a social utility product (e.g. beer) (Etgar & Goodwin, 1982). This suggestion gained further support in a study which compared the effects of two-sided messages on a functional product (deodorant) and a service product (mass transit) (Golden & Alpert, 1987).

### ***Price***

Lang, Lee and Zwick (1999) found that price has a main effect on purchase intention – a higher price reduces the intent to buy a product. An interaction between price and sidedness has been observed (Lang et al., 1999). Two-sided messages, in which the negative attribute is about the product and not the brand, were more effective for a low-price product on brand attitude and purchase intention. The one-sided appeal showed higher effectiveness for the high-price product on the same measures (Lang et al., 1999).

Another study found directional support for the opposite application of two-sided messages (Chebat & Picard, 1985). Price interacted with two-sided messages at a medium price level to increase consumers' confidence in the product. This effect was not observed at either low or high price levels.

Interestingly, in Lang et al.'s study (1999), the low price condition interacted with one-sidedness to yield higher product involvement. Complementary, the interaction between high

price and two-sided, product-focused message resulted in higher involvement. An explanation of why this interaction happened was not provided.

### ***Spokesperson***

Kamins (1989) observed an interaction effect between sidedness and spokesperson used in an advertisement. In this study, two-sided messages outperformed one-sided messages in terms of purchase intention when delivered by a celebrity endorser. Utilization of a well-respected and liked celebrities could reinforce already existing positive outcomes of two-sided messages, but could also attenuate potential attribution effects of important negative arguments, thus, eliminating a curvilinear effect of argument strength of the secondary (unfavorable) attribute on purchase intention. The celebrity's credibility could have actually been the basis of judgment to attribute characteristics of the celebrity to the message and the product. According to Kamins and Marks (1988), including a celebrity in a two-sided advertisement will lead to a higher attitude towards the brand, but a lower attitude towards the advertisement itself. However, attractiveness of the celebrity could open another sub-variable of source credibility in the context of two-sided communication research.

### **Structural Factors of Two-Sided Messages**

A two-sided persuasive communication format is not expected by message recipients and therefore leads to higher perceived novelty (Crowley & Hoyer, 1994; Eisend, 2007). The degree of novelty depends on several structural factors of the message itself: importance of the claims, strength of the claims, position, as well as order of the claims. Moderately perceived novelty elevates recipients into an optimal state of attention in which more cognitive resources are available to process a message. Perceived novelty that is either too low or too high could lead to a negative evaluation of the message and its source (Berlyne, 1971; Crowley & Hoyer, 1994).

### *Order of Attributes*

The three theories most often used in two-sided communication research, attribution theory, inoculation theory and optimal arousal theory, propose different approaches in regards to the order of favorable and unfavorable attributes. Taking all three theories into consideration, the best approach is to include negative information early in a persuasive message, but not first (Crowley & Hoyer, 1994).

Placing unfavorable information early in an advertisement has shown to increase perceived novelty and therefore result in a higher motivation to process the message (Crowley & Hoyer, 1994; Eisend, 2007). An early position of unfavorable information was also shown to be more effective when subjects were familiar with the product (Chu, 1967). When negative information is placed early in a message, communicator bias is less likely to be detected and the communicator is judged to be more honest, which also strengthens the veracity of subsequent claims (Bohner et al., 2003). This strategy is useful when designing a refutational two-sided message with the goal to inoculate recipients against future counter argumentation (McCroskey, Young, & Scott, 1972).

In contrast, Hunt and Smith (1978) found a recency effect and argued that “subjects exposed to disconfirming information placed at the end of the message were more likely to attribute the message to represent real facts.”

Negative or unfavorable information in a two-sided message should therefore be embedded between positive information in order to avoid primacy or recency effects (Eisend, 2006). For example, in an advertisement that uses five claims, the unfavorable attributes could be the second, third or fourth ones, but should still be placed early rather than late (Crowley & Hoyer, 1994).

### *Proportion and Importance of Attributes*

The optimal number of attributes for two-sided messages has been reported to be five overall attributes with a ratio of no more than 40%, or two out of five claims, being unfavorable (Crowley & Hoyer, 1994; Golden & Alpert, 1987). The same ratio has been utilized in numerous studies (Hastak & Park, 1990; Kamins & Marks, 1987; Kamins & Assael, 1987; Smith & Hunt, 1978). However, combining the results of several independent studies gives a rather unclear idea how much unfavorable information should be included in a two-sided message (Etgar & Goodwin, 1982).

Furthermore, Golden and Alpert (1987) suggested that a curvilinear effect for the number of attributes with both, perceived quantity of information and attitude, exists. If the negative claims exceed the threshold of 40%, a trade-off between the positive effects of source credibility and the negative effects of opposing information will take place (Crowley & Hoyer, 1994; Eisend, 2007, 2010). This tradeoff is explained through the joint effect of source credibility and negative information on brand attitude (Eisend, 2010). As both source credibility and negative information increase, the negative claims are more prominently attributed to the brand while the positive effects of source credibility cannot outweigh this negative trend.

Consumers usually try to get information about a product prior to purchase. The most obvious attributes of a product are search attributes, which are clearly measurable, e.g. price, container sizes, or color of the product. Experience attributes can only be evaluated after consumption and credence attributes can never be accurately evaluated (Crowley & Hoyer, 1994). In Pechmann's (1992) study, discounting search attributes did not enhance source credibility, while discounting experience or credence attributes did.

### ***Disclosure Uniqueness***

Eisend (2010) found that disclosure uniqueness could increase the source credibility of a message. A two-sided message format is very suitable by its nature to achieve high disclosure uniqueness and, thus, to increase source credibility. However, two-sided messages could only benefit from the disclosure of negative information if it happened voluntarily (Eisend, 2010). This effect only occurred under low cognitive load and was not observable under high cognitive load.

### ***Relatedness of Primary and Secondary Attributes***

Researchers have examined if the relatedness of product attributes can impact the effectiveness of the message under different sidedness conditions. If relatedness of attributes is part of the persuasive strategy, then several structural guidelines should be considered.

The primary favorable attribute of the persuasive message should be of high importance (Bohner et al., 2003; Pechmann, 1992).

The secondary (unfavorable) attribute should be of moderate importance (Crowley & Hoyer, 1994; Golden & Alpert, 1987) and must be less important than the primary attribute. If unfavorable attributes are evaluated as too important, the attribution effect of the negative claim towards the product or the brand will overturn the positive effects of including unfavorable information (Eisend, 2010). Bohner et al. (2003) suggest that the effect of two-sided messages on source credibility enhances the strengths of all claims, favorable and unfavorable alike.

If the secondary claim of the message is unfavorable but trivial, negative inferences about the communicator might be attributed (Jones & Davis, 1965), although seemingly irrelevant attributes on the secondary claim did not always lead to repercussions (Kamins & Assael, 1987), but even enhanced perceived honesty.

Two-sided messages, which have related primary (favorable) and secondary (unfavorable) attributes, were more effective than two-sided messages with unrelated attributes (Bohner et al., 2003; Pechmann, 1992). If a relationship between a favorable and an unfavorable attribute was detected, the communicators were judged as more honest and attitudes towards the brand were higher than ads with unrelated attributes. The relationship between the highly important favorable and less important unfavorable attributes made the secondary attribute acceptable, basically excusing the negative with the positive, e.g. the taste of ice cream excuses its calorie content (Pechmann, 1992). This relationship was only detected if the exposure to the message was long enough (Bohner et al., 2003). In case of a short exposure time, the relationship between attributes of two-sided messages was less likely to be recognized and therefore less likely to result in a significant difference in effectiveness compared to two-sided messages with unrelated claims or even compared to one-sided messages. Furthermore, for related claims, the brand was evaluated more positively on the primary claim than it was compared to unrelated claims (Pechmann, 1992).

If the primary and secondary attributes are unrelated, the two-sided message was still more effective in terms of source credibility than the one-sided, but less effective than the related two-sided message (Bohner et al., 2003).

### **Behavioral Intent**

A desirable change in behavioral intent is the bottom line for many persuasive messages besides changes in attitude towards the brand and its products. Message sidedness research has only occasionally been shown to transform the positive effects of two-sided message appeals into a desirable change in behavioral intent (Demirdjian, 1983; Kamins, 1989; Cornelis et al., 2014). However, many studies have resulted in no difference (Kamins & Marks, 1988; Golden &



Alpert, 1987), or even disadvantages of two-sided messages compared to one-sided messages (Etgar & Goodwin, 1982; Lang et al., 1999). These conflicting results may be due to variations of moderating variables, including the proportion of negative information (Crowley & Hoyer, 1994; Eisend, 2010) and other structural differences.

### **Hypotheses & Research Questions**

This proposed study will attempt to clarify inconsistent findings from past research in the realm of two-sided messages, as well as integrating components of source credibility.

H1: One-sided messages will be more effective than either two-sided message formats on attitudes and purchase intentions with low involvement product categories.

H2: An interaction between situational involvement and sidedness will occur where higher levels of involvement combined with the related two-sided messages will enhance brand attitude and behavioral intent over the unrelated two-sided messages.

RQ1: Will measures of brand attitude and behavioral intent differ between sidedness conditions and either product involvement category?

H3: Two-sided messages will result in higher perceived source credibility than one-sided message under high involvement conditions.

RQ2: Will source credibility be significantly different for any sidedness condition with high involvement product categories?

RQ3: Will source credibility be significantly different for any sidedness condition with low involvement product categories?

## Chapter 3 - Methods

The present study used a 3 (sidedness: one-sided vs. two-sided unrelated vs. two-sided related) x 2 (product involvement: low vs. high) mixed-subjects factorial design. Sidedness was manipulated between subjects, whereas involvement was used as within-subjects comparison.

Involvement as a variable of interest has yielded inconsistent findings in past research (Wojdyski & Dillman Carpentier, 2014). In this proposed study it was examined in two ways. Product categories with different levels of *enduring* involvement were assessed in a pretest. Furthermore, comparing self-reported engagement with the messages assessed the impact of *situational* involvement. Two repetitions for each involvement manipulation were created. This served to increase validity of the findings by ensuring comparisons were not solely unique to a specific message and/or product category.

### Participants

Millennials (individuals ranging from ages 18 to 35) are consistently associated with using higher levels of digital and social media (Millennials in Adulthood, 2014; Zickuhr, 2010), and therefore served as the most ideal age group for this study's examination of message sidedness.

A minimum of 180 participants was needed to generate sufficient data for a meaningful statistical analysis. With an anticipated participation rate of about 10%, 2,075 students at a large Midwestern university were invited via email to voluntarily participate in the study. Reminder emails were used to bolster the response rate. Although demographic variables such as gender, ethnicity and year in school were not a focus of this study, the sample obtained through the university's office of information was stratified by gender and year in school to increase the generalizability of findings.

Responses were collected from 229 undergraduate students from a large Midwestern university. Seven participants were deleted from the study due to incomplete responses. Therefore, responses from 222 participants were used for analysis., of which 145 (65.3%) were female and 77 (34.7%) were male. Further demographic questions asked participants to identify their race (1.8% *American Indian*, 2.7% *Asian*, 6.3% *black or African American*, 1.4% *Hawaiian or Pacific islander*, 3.6% *Hispanic or Latino*, 82.4% *white or Caucasian*, and 1.8% *other*), year in school (17.6% *freshman*, 23.0% *sophomore*, 21.6% *junior*, 15.8% *senior*, and 22.1% *5<sup>th</sup> year senior or beyond*), and if they were domestic or international students (98.2% *domestic*, 1.8% *international*). None of the demographic factors yielded any significant differences on the dependent measures and, therefore, will not be discussed any further.

### **Pretests**

A series of pretests was utilized in this research project to ensure the most reliable and valid use of manipulations, as past research has yielded inconclusive results due to multiple interpretations of operationalizations and rather arbitrary selection of product attributes. All pretests were conducted using separate sample populations in introductory journalism and mass communications courses which are open to all majors in Arts & Sciences.

#### ***Pretest 1***

The first pretest was collected via an online survey through Qualtrics to determine products/product categories of different levels of involvement for the *enduring* product involvement variable. All 14 product categories used in this pretest were taken from previous two-sided communication research with slight modifications due to technological advances as well as sample-specific relevance. Product type involvement can be considered to be general or enduring involvement according to Wojdyski and Dillman Carpentier (2014). Predictions based

on argument quality and peripheral cues should stand for different levels of product involvement (Petty & Cacioppo, 1979). Two low- and two high-involvement products/product categories were selected for the study to represent each of the two conditions of product involvement. Participants in Pretest 1 (N=94) were asked to rank the product categories in terms of which items they spent the *most* time thinking about before making purchase decisions. Responses were weighted so that the highest responses were multiplied by five, the second-highest were multiplied by three, and the third-highest selections were multiplied by one. Responses were also collected and weighted similarly for product categories that required the *least* amount of involvement to determine subsequent evaluations/purchase decisions.

### ***Pretest 2***

A second pretest was administered online through Qualtrics to a different undergraduate sample to determine the importance of several product attributes of the four product categories. Subjects (N=50) rated the importance of 9 to 13 product attributes for each product category on a scale from 1 (not important at all) to 10 (highly important).

### ***Pretest 3***

A third pretest was conducted to determine the relatedness of product attributes in accordance with Bohner et al. (2003). Attributes were pitted against each other in two statements, each of which included one highly and one moderately important attribute. For example: *A smartphone has a relatively large display: Does the battery last relatively long?* Subjects (N=72) from yet another undergraduate course then rated the relatedness of the two statements on a scale from -4 (probably not) to +4 (probably yes) with a midpoint of 0 resembling no connection (similar to Bohner et al., 2003). Statement pairs indicating the highest relationship (either high or low) and pairs indicating no connection between the statements

(closest to 0) were used to design the stimuli for the 2-sided related and 2-sided unrelated messages respectively.

### **Stimulus**

The stimulus for each experimental condition was branded content, which was displayed on-screen. Branded editorial content is a prevalent message format used by brands targeting Millennials (Castillo, 2014), as they exhibit a penchant for ignoring many traditional forms of persuasive messages, such as advertising. Professionals in both the advertising and public relations disciplines readily use this form of persuasive messaging. The different branded content messages ranged from 159 to 193 words between product categories, excluding headlines. The largest range in word length within sidedness conditions was seven words.

The present study used five product attributes, which is the number of attributes most often used in two-sided communication research (Crowley & Hoyer, 1994; Eisend, 2006). It provides two possible ratios of unfavorable information without exceeding the threshold of 40% to avoid the effects of negative information outweighing positive gains in source credibility. Moreover, Eisend (2013) re-examined an earlier meta-analysis (Eisend, 2006) and found that 20% unfavorable information is sufficient in order to achieve the positive credibility and attitude effects of including unfavorable information. More negative information would plateau and eventually weaken the entire message because of the joint effect of negativity of information and source credibility on attitudes (Eisend, 2011). Thus, only one unfavorable attribute was included in the two-sided message, which also eliminated potential unforeseen effects of another negative attribute. Therefore, differences between the three message conditions can be attributed to the difference of one specific product attribute.

The selection of product attributes occurred in line with the pretests. The first attribute was the most important one as found in the second pretest.

Pretest 3 determined the second and third product attributes. According to integrative frameworks of two-sided communication (Crowley & Hoyer, 1994; Eisend, 2006), unfavorable information should appear early, but not at the beginning of the two-sided message. The degree of unfavorable attributes in most studies has been reported to fall between 20% to 40% (i.e., one or two out of five attributes should be unfavorable).

In the present study, the unfavorable product attribute in either two-sided message format was therefore placed as the second attribute. For the two-sided *related* condition, the attribute pair with the highest relatedness was used, while, for the two-sided *unrelated* condition, the attribute pair indicating the smallest connection was used. As operationalized in pretest 3, the second (unfavorable) attribute is of moderate importance and the following third (favorable) attribute is of high importance.

The remaining two product attributes used for the stimulus in each condition were moderately to highly important, but less important than the first or third attributes within the same stimulus.

## **Independent Variables**

### ***Sidedness***

The sidedness condition is composed of three levels: one-sided, two-sided unrelated and two-sided related messages.

### ***Product involvement***

The two conditions for product involvement are high or low involvement. The general product involvement was operationalized by the product categories, selected from Pretest 1. This

manipulation has been used frequently in past research (Petty & Cacioppo, 1981; Wojdyski & Dillman Carpentier, 2014). Situational involvement was assessed by analyzing self-reported responses to a series of questions asking how involved the participants were with the presented messages. Manipulation checks of low- and high-involvement are incorporated in the questionnaire based on responses to the attitude dependent variable.

### **Dependent Variables**

The stimulus featured two products for each experimental condition and respective sets of questions to collect data for source credibility, involvement, brand attitude and behavioral intent. The two data sets were combined to give an average for each dependent measure of the experimental condition. Therefore, the data is more generalizable and less dependent on the product categories themselves, or on specific message claims unique to each.

### ***Situational Involvement***

As noted above, involvement can be a tricky beast when included in a study, as it often manifests itself as a situational variable. In a content analysis spanning 10 years of involvement studies, Wojdyski and Dillman Carpentier (2014) identified 41 different combinations of this variable.

To ascertain participants' involvement level with the manipulated messages in the current study, they responded to three 7-point Likert-type scales (interesting/not interesting, appealing/not appealing, relevant/not relevant) on the questionnaire, which asks them to indicate their involvement level with the message from *Brand X* (Cronbach's  $\alpha = 0.81$ ).

### ***Source Credibility***

Source credibility was measured by a combination of scales from past two-sided communication studies, which resulted in eight 7-point Likert-type scales (Cronbach's  $\alpha = 0.90$ ).



Participants rated the source's trustworthiness on five 7-point Likert-type scales, which were a combination of Eisend's (2010) and Hastak and Park's (1990) source credibility scales (trustworthy/not trustworthy, dishonest/honest, not credible/credible, unbelievable/believable, unconvincing/convincing). Three additional 7-point Likert-type scales about expertise (expert/not an expert, knowledgeable/not knowledgeable, sincere/not sincere), modified from Hunt & Smith (1987) completed the source credibility measure.

### ***Brand Attitude***

Participants indicated their brand attitude on five 7-point semantic differential scales (good/bad, worthless/valuable, pleasant/unpleasant, superior/inferior, negative/positive) similar to Eisend (2010, 2013) (Cronbach's  $\alpha = 0.88$ ).

### ***Behavioral Intent***

Behavioral intent was measured using four 7-point Likert-type scales (very likely/very unlikely to purchase, very likely/very unlikely to share, like or comment on social media posts, very likely/very unlikely to find out more about the product online, very likely/very unlikely to follow any of the brand's social media accounts). The scale was collapsed into a single measure for behavioral intent (Cronbach's  $\alpha = 0.92$ ), which extends the findings of Eisend's (2013) single item measure for *purchase intention*.

Measurements of the four constructs were averaged for the value of the respective dependent variable. Answer options were reversed for several scale items and then reverse coded before data analysis so that high values represent desirable outcomes for the dependent measures.

## Procedure

The experiment was administered through Qualtrics ([www.qualtrics.com](http://www.qualtrics.com)), an online questionnaire platform, and was sent via an email invitation to a list of 2,075 students at a large Midwestern university.

Upon opening the hyperlink to the study, a welcome page appeared, which also provided the IRB approval number along with contact information of the researcher and the courtesy notice that participation in the study is voluntary. Participants had the choice to either decline or accept and continue with the experiment.

Qualtrics randomly assigned participants to the three experimental conditions for sidedness. Each condition contained four messages (two low-involvement, and two high-involvement) based on product categories selected from Pretest 1. Filler messages, comprised of news updates, were displayed after each experimental message. All stimuli within each condition were randomized to lessen the impact of order effects. All messages, experimental manipulations and filler items, were presented with a 25-second delay imposed before the “next” button became available onscreen. This wait period was selected as 50% of the mean time that it took pretest subjects to read the longest and the shortest stimuli. This delay was not intended to impact involvement with messages by forcing extra processing time, it was merely included to prevent participants from clicking through without expending *any* time to consider the messages.

Instructions directed participants to view the series of branded editorial content and filler stories under the guise of testing a new online news magazine designed for college students. Instructions also indicated that a short series of questions would follow the messages to evaluate content topics.

Participants viewed each of the four experimental branded editorial content stories, separated by a filler story. Following the presentation of a story, participants undertook a brief

questionnaire comprised of blocks containing scale for each of the dependent measures (see Appendix A). After completing all dependent measures, participants were debriefed as to the purpose of the study and thanked for their participation.

This procedure was deemed an optimal compromise to alleviate procedural confounds present in past research studies. A questionnaire, which follows the presentation of all stimuli, may have induced primacy and/or recency effects, placing an emphasis on the first or last exposure. From a practical standpoint, all manipulations in an experimental design relying on the usage of undergraduate students may encounter low levels of processing. In addition, persuasion appeals used in a single stimulus exposure may be relatively weak. However, the usage of the filler stories, and the inclusion of a questionnaire following their presentation, may have alleviated some testing effects of participants understanding the intent of the research project. These procedures were created to lessen the impact of, conscious or unconscious, biases toward the source and message.

## Chapter 4 - Results

Responses captured in Qualtrics were exported to SPSS 22.0 for analysis. Prior to statistical analysis, data was transformed using Microsoft Excel where needed. All responses were reverse coded as necessary so that higher scores are represented by higher means for ease of explanation. Scales were collapsed to create summary scores, but prior to this transformation, all scale items were analyzed using Cronbach's Alpha, as noted above, to determine goodness of fit of the measures.

As there were three sidedness manipulations, this study relied primarily on a series of ANOVAs for data analysis. To supplement the omnibus F-test for main effects used by ANOVA, Tukey's post hoc tests were used to reveal differences between manipulations and to examine interaction effects.

Although main effects were not hypothesized, an examination of main effects was conducted in preliminary analysis to better understand subsequent findings. Separate ANOVAs were conducted to compare the effects of sidedness (one-sided and two-sided messages) on the dependent measures (See Table 1). Surprisingly, and in contrast to previous findings (Cornelis et al., 2014; Golden & Alpert, 1987; Kamins, 1989; Lang et al., 1999), sidedness had a main effect on all four dependent measures: two-sided messages outperformed the one-sided message format in situational involvement [ $F(1, 220) = 9.86, p < 0.05$ ], source credibility [ $F(1, 220) = 42.44, p < 0.05$ ], brand attitude [ $F(1, 220) = 6.03, p < 0.05$ ], and behavioral intent [ $F(1, 220) = 6.49, p < 0.05$ ].

**Table 4.1 Main effects of sidedness on dependent measures**

	<b>One-Sided</b>	<b>Two-Sided</b>	
	M (SD)	M (SD)	<i>F</i>
Situational Involvement	3.83 (0.86)	4.21 (0.88)	9.86**
Source Credibility	3.78 (0.60)	4.32 (0.58)	42.44***
Brand Attitude	4.08 (0.70)	4.30 (0.59)	6.03*
Behavioral Intent	2.60 (0.93)	3.00 (1.16)	6.49*

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

According to Hypothesis 1, one-sided messages would be more effective than either two-sided message formats on attitudes and behavioral intent with low involvement product categories. An ANOVA revealed a significant difference between sidedness conditions on attitudes [ $F(2, 219) = 3.92, p < 0.05$ ]. However, post hoc comparisons using Tukey HSD test indicated that the difference was contrary to the outcome expected in Hypothesis 1. Two-sided related messages ( $M = 4.28, SD = 0.69$ ) resulted in significantly higher attitudes than the one-sided message ( $M = 3.95, SD = 0.84$ ), whereas the two-sided unrelated message ( $M = 4.03, SD = 0.71$ ) was not significantly different from the other two conditions for low involvement products. A second ANOVA was conducted to test the interaction of sidedness and behavioral intent. There was a significant difference indicating an interaction [ $F(2, 219) = 3.22, p < 0.05$ ]. Again, Tukey HSD post hoc tests revealed superiority of the two-sided related ( $M = 2.84, SD = 1.20$ ) over the one-sided message ( $M = 2.36, SD = 0.99$ ) while the two-sided unrelated message ( $M = 2.64, SD = 1.30$ ) was not significantly different from the other two message conditions.

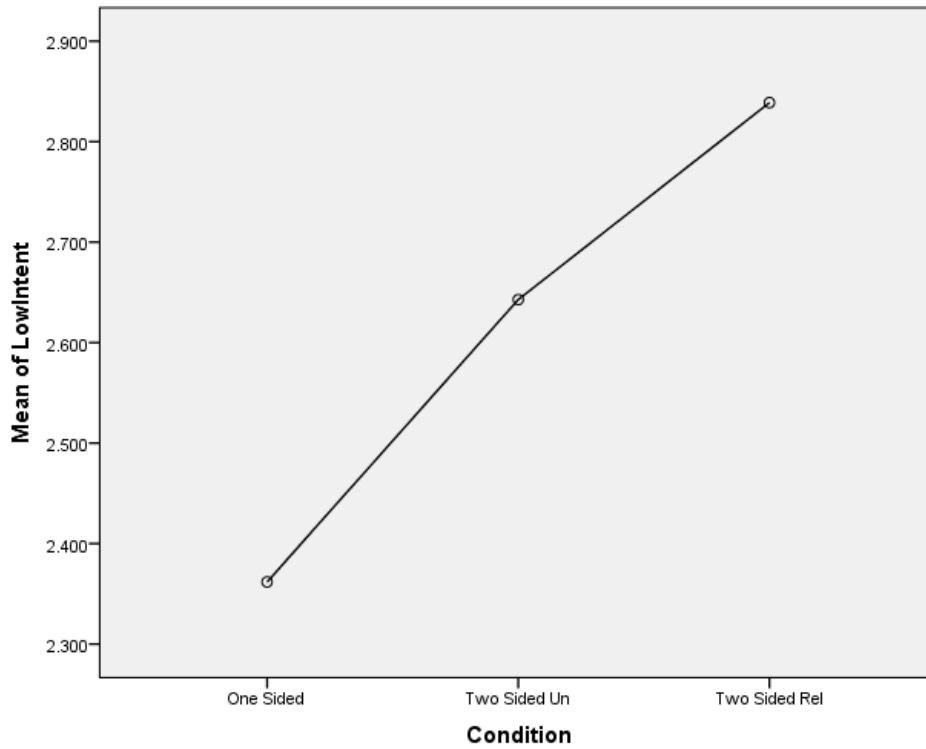
Hypothesis 2 stated that there would be an interaction between situational involvement and sidedness whereas higher levels of involvement combined with the related two-sided messages would enhance brand attitude and behavioral intent over the unrelated two-sided messages. For this hypothesis, a median split of the situational involvement measure was performed (median = 4.16) to create a categorical variable with the attributes *low* and *high* situational involvement.

An ANOVA was conducted to examine the interaction effect between situational involvement and message condition on brand attitude. There was no significant difference [ $F(2, 115) = 1.84, p > 0.05$ ]. The ANOVA for the interaction between situational involvement and behavioral intent was also not significant [ $F(2, 101) = 1.50, p > 0.05$ ]. Therefore, Hypothesis 2 was rejected.

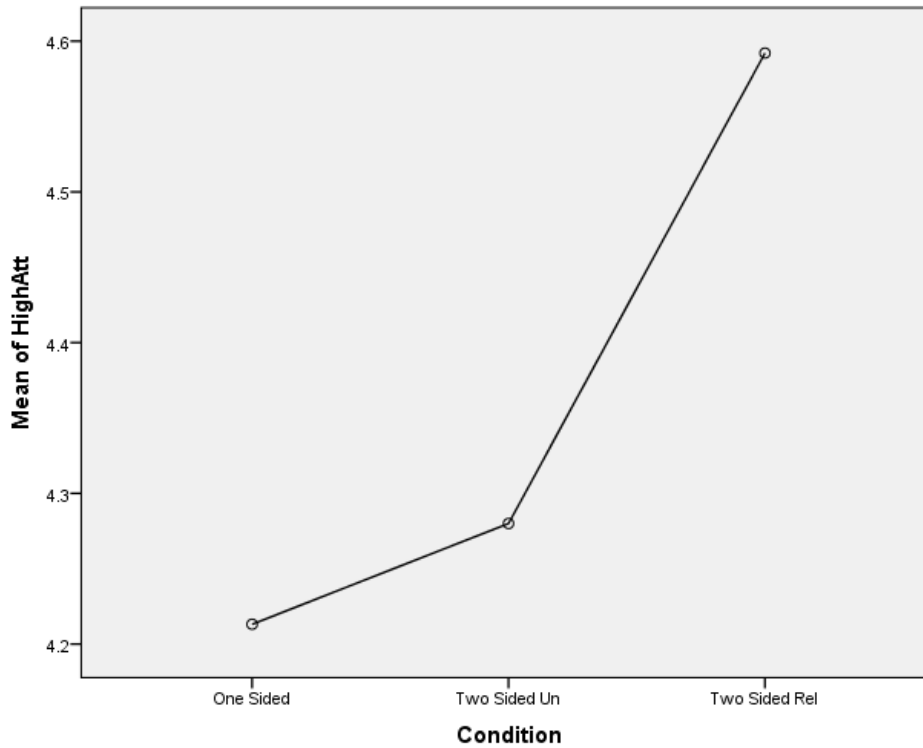
Research Question 1 asked if measures of brand attitude and behavioral intent differed between sidedness conditions and either product involvement categories. A recurring pattern (see example in Figure 1) emerged during a series of ANOVAs including a Tukey post hoc examination, which was conducted to investigate the interaction of low and high involvement product categories with sidedness conditions. All of these analyses confirmed the superiority of the two-sided related messages over the one-sided messages in each case. Two-sided unrelated messages were not significantly different from the one-sided messages in any ANOVA, and they were also not significantly different from the two-sided related messages in 3 out of 4 cases. The only exception was the interaction of high product involvement and sidedness condition on brand attitude [ $F(2, 219) = 5.50, p < 0.05$ ], further cementing the dominance of the two-sided related messages, which were more effective than the one-sided *and* two-sided unrelated messages (Figure 2). The pattern also suggests a firm hierarchy with the two-sided unrelated message

format floating between the most effective two-sided related and least effective one-sided formats. Table 2 further illustrates these findings.

**Figure 4.1 Interaction of low general involvement and sidedness on behavioral intent**



**Figure 4.2 Interaction of high general involvement and sidedness on brand attitude**



**Table 4.2 Interaction of general involvement and sidedness**

		<b>One-Sided</b>	<b>Two-Sided Unrelated</b>	<b>Two-Sided Related</b>	
		M (SD)	M (SD)	M (SD)	<i>F</i>
<b>Low General Involvement</b>	Brand Attitude	3.95 (0.84)	4.03 (0.71)	4.28 (0.70)	3.92*
	Behavioral Intent	2.36 (0.99)	2.64 (1.20)	2.84 (1.18)	3.21*
<b>High General Involvement</b>	Brand Attitude	4.21 (0.83)	4.28 (0.72)	4.59 (0.69)	5.50**
	Behavioral Intent	2.85 (1.12)	3.06 (1.28)	3.41 (1.23)	4.28*

\* $p < .05$ . \*\* $p < .01$ .



Hypothesis 3 stated that two-sided messages would result in higher perceived source credibility than one-sided messages under high involvement product category conditions. As already described in the preliminary analysis of main effects, this hypothesis is accepted because of the main effect of sidedness on source credibility. The ANOVA confirmed this finding [ $F(1, 220) = 21.27, p < 0.05$ ] showing that one-sided messages ( $M = 4.06, SD = 0.73$ ) appear to be less effective than two-sided messages ( $M = 4.55, SD = 0.76$ ) under high involvement. However, upon conducting a further ANOVA of not only one-sided versus two-sided, but also two-sided related and unrelated messages [ $F(2, 219) = 24.67, p < 0.05$ ], it became clear that the two-sided related messages ( $M = 4.84, SD = 0.66$ ) elevated the combined two-sided message format to be significantly different from the one-sided format ( $M = 4.06, SD = 0.73$ ). Two-sided related messages were more effective than two-sided unrelated messages ( $M = 4.24, SD = 0.74$ ), while the latter was not significantly different from the one-sided format when it comes to source credibility. The two-sided unrelated format could not achieve this effect on its own.

Research Question 2 asked if source credibility would be significantly different for any sidedness condition with *high* involvement product categories. As already reported in the further investigation of H3, an ANOVA revealed a significant difference for the effect of sidedness conditions on source credibility [ $F(2, 219) = 24.67, p < 0.05$ ]. Two-sided related messages ( $M = 4.84, SD = 0.66$ ) were more effective on source credibility than both one-sided ( $M = 4.06, SD = 0.73$ ) and two-sided unrelated messages ( $M = 4.24, SD = 0.66$ ) for high involvement product conditions. There was no significant difference between the one-sided and two-sided unrelated conditions.

Research Question 3 asked if source credibility would be significantly different for any sidedness condition with *low* involvement product categories. An ANOVA similar to the

previous one was conducted, but this time exchanging the high involvement product categories with low involvement categories. Again, there was a significant interaction effect [ $F(2, 219) = 24.14, p < 0.05$ ], which demonstrated that two-sided related messages ( $M = 4.28, SD = 0.67$ ) had more effect on source credibility than one-sided ( $M = 3.49, SD = 0.73$ ) and two-sided unrelated messages ( $M = 3.88, SD = 0.70$ ) under low involvement product conditions. However, deviating from the previous analysis for high involvement product categories, two-sided unrelated messages were more effective than one-sided ones, but less effective than the two-sided related format, thus, suggesting a hierarchy of message formats.

## Chapter 5 - Discussion

This study aimed at closing important gaps in the literature and expanding knowledge of the field of two-sided communication research and related areas such as reputation or crisis management. Factors, which have been found to be best practices for two-sided messages, such as the importance of negative information or the placement thereof, were taken into consideration when designing the stimulus for the experiment. However, several previous studies on two-sided messages produced ambiguous, unexpected or insignificant findings often due to the neglect of two important aspects: relatedness of negative information and general product involvement.

The present study demonstrates that two-sided persuasive messages are consistently more effective if unfavorable information is strongly related to at least one favorable product attribute. The important favorable attribute appears to immediately excuse the lesser important blemish and makes a logical connection between the two, justifying their co-existence in the same message. Moreover, the entire message becomes more effective on various benchmarks; e.g. source credibility, brand attitude, and behavioral intent; compared to messages featuring the exact same product claims, but none of which were unfavorable (i.e., one-sided messages).

Unrelated two-sided messages, which on the other hand employed an unfavorable attribute disconnected from any other product claims, are not more effective than one-sided messages, except they increase source credibility for low involvement products. The credibility boost for both two-sided message formats replicates previous findings that disclosing unfavorable information increases credibility (Crowley & Hoyer, 1994; Eisend, 2006). However, the results of the present study show, as the Elaboration Likelihood Model (Petty & Cacioppo, 1979; Petty et al., 1983) suggests, that high involvement products are under higher scrutiny for

constructs such source credibility and brand attitude. Therefore, the lack of linking unfavorable information to other product claims does not improve source credibility and falls short compared to two-sided messages with related claims when general involvement is considerably high. Thus, using a two-sided unrelated message is merely a “wild card” for academic research. More importantly, communication professionals should stay away from implementing unrelated product attributes in two-sided messages after customers surpassed the “attention” stage in the marketing funnel, thus showing in increased level of interest – a reliable indicator of involvement.

Besides painting a picture of the nuances of sidedness conditions, the study also showed that general involvement could overpower situational involvement. Hypothesis 2 was not supported, suggesting that the influence of situational involvement could be smaller than suspected by a great number of studies, which used a classical involvement approach of a “it’s available in your hometown soon” vs. “it will never be available to you” manipulation, when compared to the effects of general involvement. An explanation for this phenomenon could be that artificially manipulated (situational) involvement can drop off as quickly as a statement about a product’s availability produced it. General product involvement is enduring and its level is based on necessity. However, explaining nuances of different types of involvement is far beyond the scope of the present study, which used general involvement mainly to categorize product types unlike many previous studies in two-sided message research.

In addition, the present study differs from previous ones, especially in how the stimulus was created. Three pretests were logically sequenced to make the branded content most effective and relevant for the target audience – Millennial college students. Every product category in pretests stems from previous studies; however, the target audience, and not the researcher,

determined the importance of attributes and their relatedness to each other (or lack thereof) in subsequent pretests. These findings were then translated into the design of the experiment. Therefore, many possible sources that could have caused an ineffective manipulation were eliminated. If sufficient knowledge about a target audience is available, effective two-sided messages can be designed with the audience-specific beliefs and attitudes in mind.

My target audience, Millennials, likes to read “snackable” formats of persuasive messages online. Branded content on websites tailored towards Millennials, e.g. on BuzzFeed.com or Mashable.com, is usually lengthier in body copy than a standard advertisement or TV commercial, but shorter than an entire feature story. The branded content format is growing in importance across all marketing and communication disciplines as a valuable and effective tactic. It provides a brand with the strategic opportunity to expose a wide customer range to the brand name and logo without being as intrusive as other tactics. Most viewers click on a link and choose to be exposed to the content, which, again, means that they are past the initial attention stage and show more interest to learn more about a product or brand.

The perfect opportunity to communicate information at a deeper level to differentiate one’s product from those of competitors is when the audience becomes active in seeking out information. Questions addressing *why* to buy a certain product or *why* to be loyal to a brand beg to be answered. These questions are easily answered in a favorable manner if source credibility, brand attitude, and the behavior, e.g. interest in social media accounts/websites, in favor of a brand are high. While the shallow one-sided advertisement does its job to grab the customers’ attention and leads them to the landing page on company websites, two-sided information that is more informative can follow up at deeper levels of the website when viewers have already demonstrated more engagement. Higher engagement in turn leads to a high likelihood of

elaborating the quality of arguments (Petty & Cacioppo, 1979; Petty et al., 1983), e.g. in two-sided related messages. Furthermore, a well-informed audience, who is not necessarily a fan of a brand, is more susceptible to be persuaded by two-sided messages, according to previous finding (Insko, 1962). The logical argument that the level of prior knowledge indicates interest (and thus involvement) further favors the use of two-sided messages.

A few limitations of the study need to be addressed. First, the study was designed by following best practices of two-sided communication research, which can be found in meta-analyses (Allen, 1999; Crowley & Hoyer, 1994; Eisend, 2006). Experiments in this line of research most often used five product attributes for the stimulus. However, many real-world advertising or marketing formats often do not have the time and/or space to include more than two product attributes. Even highlighting only a single (strong) product attribute is a very common practice to optimize the utilization of time and space in the message design and also to avoid comparison with other brands on less outstanding attributes.

A useful application of two-sided messages therefore could be to eliminate the threat of a comparative advertisement, which was initiated by a market competitor to attack a product on a moderately important product attribute. Two-sided messages, unlike comparative messages, do not need to mention the competitor, but would still get the message across and diminish the comparative effect.

Another limitation was the sample population used in the experiment. Although the stimulus was designed to fit the sample, the use of late Millennials, born in the late 1990's to early 2000's, might have unnecessarily heightened the level of involvement (The Millennial Legacy, 2015) – an effect that could possibly be responsible for the rejection of the second hypothesis. On top of the sample consisting of late Millennials, all participants in the study were

university students. Thus, higher interest and involvement when participating in research projects could have skewed the results. Students can also be more likely to “detect” the unfavorable information to trigger positive attributions about source credibility and subsequent dependent measures through a trickle-down effect. Millennials are en route to becoming more educated than the previous generation, Generation X (The Millennial Legacy, 2015). Researchers already demonstrated in the infant years of two-sided communication research that two-sided messages were more effective with well-educated individuals.

The disparity of female participants in the sample actually corresponds with the trend of higher degree holders and seekers nowadays being females (The Millennial Legacy, 2015). The racial and ethnic background of the sample population is misrepresentative of the general U.S. population as well as the Millennial generation as a whole (United States Census Bureau, 2011).

Although the subjects in the present study were exposed to four different stimuli (two for each level of general involvement), a longitudinal experiment would be necessary to find out if two-sided messages differ from one-sided ones over multiple exposures from the same brand. Content marketing means to strategically publish branded content to customers on a regular basis in order to foster a behavior of returning to the website or other media outlets, e.g. social media accounts. However, the present study only examined the effectiveness of a single exposure taken out of the context of a marketing scheme. While it might be difficult for academic researchers to alleviate the “academic research” feel of experiments, market research companies could easily implement this research on branded content marketing in a more “natural” way.

Future research to extend the current study could decrease the number of attributes and examine if a single pair of attributes can still produce similar effects. While previous studies have already investigated the optimal number of claims and ratio of favorable to unfavorable

claims, these studies did not consider the relationship between claims, and were in an academic context. It is plausible that two-sided messages including only two product attributes could elicit favorable effects similar to messages with five product attributes.

Memorable taglines in persuasive communication could then use a two-sided approach. KFC, for example, ended a TV commercial with a child saying, “These don’t even come with a toy – and I don’t care.” The sentence sticks with an audience because it utilizes the recency effect of ending the commercial, but moreover because of the contrast between the (unfavorable) absence of the toy and the (favorable) flavor of the product, which was described before.

Most previous studies have avoided participants’ predisposition (i.e., prior attitude) toward a brand or knowledge thereof by using unknown or fictional brand names. Both variables have been found to have strong moderating effects on two-sided communication (Chu, 1967; Hovland et al., 1949; Insko, 1962). Subsequent studies were able to identify numerous other important variables without ever re-investigating the effects of prior attitude and prior knowledge. Many of these studies were conducted before the Internet drastically changed our communication habits and the studies’ findings were included into one of the most prominent integrative frameworks (Crowley & Hoyer, 1994). Even a later meta-analysis (Eisend, 2006) was done when social media just started to change the Internet, and therefore our communication, again. Hence, more research has to be done in a two-way interactive communication sphere in order to validate the findings of previous two-sided communication research in today’s interactive, real-time media environment.

The results of this study suggest that two-sided messages can out-perform one-sided ones even if no prior attitude exists, contrary to the common belief that one-sided messages should be used for audiences with no prior or a congruent attitude. However, this study’s greatest



contribution to the literature may be that two-sided messages only surpass one-sided ones if the unfavorable information is linked to a highly important claim.

## References

- Allen, M. (1991). Meta-analysis comparing the persuasiveness of one-sided and two-sided messages. *Western Journal of Speech Communication*, 55(4), 390-404.
- Berlyne, D. E. (1971). *Aesthetics and psychobiology*. New York: New York, Appleton-Century-Crofts.
- Bohner, G., Einwiller, S., Erb, H., & Siebler, F. (2003). When small means comfortable: Relations between product attributes in two-sided advertising. *Journal of Consumer Psychology*, 13(4), 454-463.
- Castillo, M. (2014, August 26). Mic Forgoes Banners for Native Advertising. Adweek. Retrieved from <http://www.adweek.com/news/press/mic-forgoes-banners-native-advertising-159726>.
- Chebat, J., & Picard, J. (1985). The effects of price and message-sidedness on confidence in product and advertisement with personal involvement as a mediator variable. *International Journal of Research in Marketing*, 2(2), 129-141.
- Chu, G. C. (1967). Prior familiarity, perceived bias, and one-sided versus two-sided communications. *Journal of Experimental Social Psychology*, 3(3), 243-254.
- Cornelis, E., Cauberghe, V., & De Pelsmacker, P. (2014). The inoculating effect of message sidedness on adolescents' binge drinking intentions: The moderating role of issue involvement. *Journal of Drug Issues*, 44(3), 254-268.
- Crowley, A. E., & Hoyer, W. D. (1994). An integrative framework for understanding two-sided persuasion. *Journal of Consumer Research*, 20(4), 561.

- Demirdjian, Z. S. (1983). Sales effectiveness of comparative advertising: An experimental field investigation. *Journal of Consumer Research*, 10(3), 362.
- Dholakia, R. R., & Sternthal, B. (1977). Highly credible sources: Persuasive facilitators or persuasive liabilities? *Journal of Consumer Research*, 3(4), 223-232.
- Eisend, M. (2006). Two-sided advertising: A meta-analysis. *International Journal of Research in Marketing*, 23(2), 187-198.
- Eisend, M. (2007). Understanding two-sided persuasion: An empirical assessment of theoretical approaches. *Psychology & Marketing*, 24(7), 615-640.
- Eisend, M. (2010). Explaining the joint effect of source credibility and negativity of information in two-sided messages. *Psychology and Marketing*, 27(11), 1032-1049.
- Eisend, M. (2013). The moderating influence of involvement on two-sided advertising effects. *Psychology & Marketing*, 30(7), 566-575.
- Etgar, M., & Goodwin, S. A. (1982). One-sided versus two-sided comparative message appeals for new brand introductions. *Journal of Consumer Research*, 8(4), 460.
- Golden, L. L., & Alpert, M. I. (1987). Comparative analysis of the relative effectiveness of one- and two- sided communication for contrasting products. *Journal of Advertising*, 16(1), 18-25, 68.
- Hastak, M., & Park, J. W. (1990). Mediators of message sidedness effects on cognitive structure for involved and uninvolved audiences. *Advances in Consumer Research*, 17, 329-336.
- Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). *Communication and persuasion*. New Haven, CT: Yale University Press.

- Hovland, C. I., Lumsdaine, A. A., & Sheffield, F. D. (1949). Experiments on mass communication. Princeton, New Jersey: Princeton University Press.
- Hunt, J., & Smith, M. (1987). The persuasive impact of two-sided selling appeals for an unknown brand name. *Journal of the Academy of Marketing Science*, 15(1), 11-18.
- Insko, C. A. (1962). One-sided versus two-sided communications and countercommunications. *Journal of Abnormal and Social Psychology*, 65(3), 203-206.
- Johnston, A. C., & Warkentin, M. (2010). The influence of perceived source credibility on end user attitudes and intentions to comply with recommended IT actions. *Journal of Organizational and End User Computing*, 22(3), 1.
- Jones, E. E., & Davis, K. E. (1965). From acts to dispositions the attribution process in person perception. In L. Berkowitz (Ed.), *Advances in experimental psychology* (pp. 219-266). New York: Academic Press.
- Kamins, M. A., & Marks, L. J. (1988). An examination into the effectiveness of two-sided comparative price appeals. *Journal of the Academy of Marketing Science*, 16(2), 64-71.
- Kamins, M. A. (1989). Celebrity and noncelebrity advertising in a two-sided context. *Journal of Advertising Research*, 29(3), 34.
- Kamins, M. A., & Assael, H. (1987). Two-sided versus one-sided appeals: A cognitive perspective on argumentation, source derogation, and the effect of disconfirming trial on belief change. *Journal of Marketing Research*, 24(1), 29-39.
- Kamins, M. A., & Marks, L. J. (1987). Advertising puffery: The impact of using two-sided claims on product attitude and purchase intention. *Journal of Advertising*, 16(4), 6-15.

- Kelley, H. H. (1973). The processes of causal attribution. *American Psychologist*, 28(2), 107-128.
- Lang, B., Lee, C., & Zwick, R. (1999). Message sidedness at the brand and product form levels: Overcoming the shortcomings of two-sided messages? *Advances in Consumer Research*, Vol 26, 485-490.
- McCracken, G. (1989). Who is the celebrity endorser? Cultural foundations of the endorsement process. *Journal of Consumer Research*, 16(3), 310-321.
- McCroskey, J. C., Young, T. J., & Scott, M. D. (1972). The effects of message sidedness and evidence on inoculation against counterpersuasion in small group communication. *Speech Monographs*, 39(3), 205-212.
- McCroskey, J. C., & Teven, J. J. (1999). Goodwill: A reexamination of the construct and its measurement. *Communication Monographs*, 66(1), 90-103.
- Millennials in adulthood. (March 7, 2014). Retrieved December 12, 2014, from <http://www.pewsocialtrends.org/2014/03/07/millennials-in-adulthood/>
- O'Keefe, D. J. (1999). How to handle opposing arguments in persuasive messages: A meta-analytic review of the effects of one-sided and two-sided messages. In M. Roloff (Ed.), *Communication yearbook* (pp. 209-249). Thousand Oaks, CA: Sage.
- Pechmann, C. (1992). Predicting when two-sided ads will be more effective than one-sided ads: The role of correlational and correspondent inferences. *Journal of Marketing Research*, 29(4), 441-453.
- Petty, R. E., Cacioppo, J. T., & Goldman, R. (1981). Personal involvement as a determinant of argument-based persuasion. *Journal of Personality and Social Psychology*, 41(5), 847-855.

- Petty, R. E., & Cacioppo, J. T. (1979). Issue involvement can increase or decrease persuasion by enhancing message-relevant cognitive responses. *Journal of Personality and Social Psychology*, 37(10), 1915-1926.
- Petty, R. E., & Cacioppo, J. T. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. New York: Springer-Verlag.
- Petty, R. E., Cacioppo, J. T., & Schumann, D. (1983). Central and peripheral routes to advertising effectiveness: The moderating role of involvement. *Journal of Consumer Research*, 10(2), 135-146.
- Smith, R., & Hunt, S. (1978). Attributional processes and effects in promotional situations. *Journal of Consumer Research (Pre-1986)*, 5(3), 149-158.
- The Millennial Legacy. (2015). Retrieved April 16, 2015, from <http://themillenniallegacy.com>.
- United States Census Bureau (2011). *Overview of race and Hispanic origin: 2010*. Retrieved on April 15, 2015, from <http://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf>.
- Wojdyski, B.W., & Dillman Carpentier, F. R. (2014). Manipulating and measuring involvement in mass communication research, 1990-2009. Paper presented at The International Communication Association (ICA) annual conference, May 24, 2014. Seattle: WA.
- Zickuhr, K. (December 16, 2010). Generations 2010. Retrieved December 12, 2014, from <http://www.pewinternet.org/2010/12/16/generations-2010/>

## Appendix A - Stimulus

### Low Involvement Stimulus 1 One-Sided



#### **The Power of Bubbles**

You smell that? Smells nice, doesn't it? Unlike many other standard soaps in a gas station or your student union, Boraxo Powdered Hand Soap smells pleasantly like a flowery garden on a beautiful summer day. Mmmh... don't you want your hands to smell good?

Boraxo isn't only good for your nose – it moisturizes your skin with every application. You might actually forget about buying hand lotion ever again. Amazing what our secret ingredients can.

Our soap is known for its impeccable refreshing effect. Clean your hands after some dirty work and you're ready to keep going, hopefully not as messy this time around. Feeling refreshed is important in your line of work: Reading books, typing away on your laptop and figuring stuff out in a cold, boring lab can be exhausting. Wash it all off, feel fresh.

Boraxo cleans deeply and gets rid of 99.9% of bacteria too. Don't worry – bacteria don't like bubbles. We like the power of bubbles and we know you do, too!

## Low Involvement Stimulus 1 Two-Sided Unrelated



### **The Power of Bubbles**

You smell that? Smells nice, doesn't it? Unlike many other standard soaps in a gas station or your student union, Boraxo Powdered Hand Soap smells pleasantly like a flowery garden on a beautiful summer day. Mmmh... don't you want your hands to smell good?

Despite our scientists working hard to make Boraxo Powdered Hand Soap available in smaller and larger sizes as well, it only comes in packages of twelve ounces at the moment. We thought to make shopping easier for you.

Our soap is known for its impeccable refreshing effect. Clean your hands after some dirty work and you're ready to keep going, hopefully not as messy this time around. Feeling refreshed is important in your line of work: Reading books, typing away on your laptop and figuring stuff out in a cold, boring lab can be exhausting. Wash it all off, feel fresh.

Boraxo cleans deeply and gets rid of 99.9% of bacteria too. Don't worry – bacteria don't like bubbles. We like the power of bubbles and we know you do, too!



## Low Involvement Stimulus 1 Two-Sided Related



### **The Power of Bubbles**

You smell that? Smells nice, doesn't it? Unlike many other standard soaps in a gas station or your student union, Boraxo Powdered Hand Soap smells pleasantly like a flowery garden on a beautiful summer day. Mmmh... don't you want your hands to smell good?

Sure, Boraxo is good for your nose, but one thing Boraxo can't do is moisturizing your hands. You still have to rely on your hand lotion for that. Sorry, but our scientists couldn't decrypt this secret yet.

Our soap is known for its impeccable refreshing effect. Clean your hands after some dirty work and you're ready to keep going, hopefully not as messy this time around. Feeling refreshed is important in your line of work: Reading books, typing away on your laptop and figuring stuff out in a cold, boring lab can be exhausting. Wash it all off, feel fresh.

Boraxo cleans deeply and gets rid of 99.9% of bacteria too. Don't worry – bacteria don't like bubbles. We like the power of bubbles and we know you do, too!

## Low Involvement Stimulus 2 One-Sided



### **Sign the Million-Dollar Deal**

Ever wanted to sign the million-dollar deal but your pen refused? You scratched it frantically over the edge of the document hoping that ink will start to appear. Yes, we've all been there – maybe except for the million dollars. The Schneider Memo solves this problem forever. It writes instantly, almost at the moment a word, a line, or a sentence run through your head.

It also writes at any angle, no matter how twisted your thoughts might be. Its comfortable grip with rubber padding on all the right places ensures that even writing a book won't trouble your hand or wrist.

The Schneider Memo doesn't skip a beat either while writing with lightning speed. Quick thinker? No problem. Just scribble down one continuous stream of creativity with a pen that never gasps for air.

The Schneider Memo weighs less than an average pen because, of course, it's not. You won't even feel it in your pocket. That's how light it is.

## Low Involvement Stimulus 2 Two-Sided Unrelated



### **Sign the Million-Dollar Deal**

Ever wanted to sign the million-dollar deal but your pen refused? You scratched it frantically over the edge of the document hoping that ink will start to appear. Yes, we've all been there – maybe except for the million dollars. The Schneider Memo solves this problem forever. It writes instantly, almost at the moment a word, a line, or a sentence run through your head.

As of right now the pen only comes with black ink. Nonetheless, its comfortable grip with rubber padding on all the right places ensures that even writing a book won't trouble your hand or wrist.

The Schneider Memo doesn't skip a beat either while writing with lightning speed. Quick thinker? No problem. Just scribble down one continuous stream of creativity with a pen that never gasps for air.

The Schneider Memo weighs less than an average pen because, of course, it's not. You won't even feel it in your pocket. That's how light it is.

## Low Involvement Stimulus 2 Two-Sided Related



### **Sign the Million-Dollar Deal**

Ever wanted to sign the million-dollar deal but your pen refused? You scratched it frantically over the edge of the document hoping that ink will start to appear. Yes, we've all been there – maybe except for the million dollars. The Schneider Memo solves this problem forever. It writes instantly, almost at the moment a word, a line, or a sentence run through your head.

However, it doesn't write at any angle if your thoughts are too twisted. Nonetheless, its comfortable grip with rubber padding on all the right places ensures that even writing a book won't trouble your hand or wrist.

The Schneider Memo doesn't skip a beat either while writing with lightning speed. Quick thinker? No problem. Just scribble down one continuous stream of creativity with a pen that never gasps for air.

The Schneider Memo weighs less than an average pen because, of course, it's not. You won't even feel it in your pocket. That's how light it is.

## High Involvement Stimulus 1 One-Sided



### Think Outside Your (Smartphone) Box

When you think of smartphones, you usually think of either Apple or Samsung. But have you ever heard about the high quality Xiaomi phones? The Xiaomi Mi4 sports 64GB data storage for its standard version, putting it at eye-level with the most popular brands. Smaller and improved flash data chips make taking thousands of pictures and hundreds of videos possible while keeping processing speeds up.

The Mi4 features a large 5" high-resolution display and its premium lithium ion battery outlasts any competitor on the market when it comes to battery life. A full charge can last up to 280 hours or about a week and a half in standby mode.

The top-notch 14 megapixels high-speed camera is capable of capturing millions of colors and can also take slow motion videos as slow as a tenth of the original speed.

The Xiaomi Mi4 was tested in terms of user-friendliness with all different age groups and the results were great: the new design scored above the Apple iPhone 6 or the Samsung Galaxy S6 across the board. Maybe it's time to think outside your smartphone box.

## High Involvement Stimulus 1 Two-Sided Unrelated



### Think Outside Your (Smartphone) Box

When you think of smartphones, you usually think of either Apple or Samsung. But have you ever heard about the high quality Xiaomi phones? The Xiaomi Mi4 sports 64GB data storage for its standard version, putting it at eye-level with the most popular brands. Smaller and improved flash data chips make taking thousands of pictures and hundreds of videos possible while keeping processing speeds up.

Many applications still have to be optimized for the specifics of the Mi4. Nonetheless, its premium lithium ion battery outlasts any competitor on the market when it comes to battery life. A full charge can last up to 280 hours or about a week and a half in standby mode.

The top-notch 14 megapixels high-speed camera is capable of capturing millions of colors and can also take slow motion videos as slow as a tenth of the original speed.

The Xiaomi Mi4 was tested in terms of user-friendliness with all different age groups and the results were great: the new design scored above the Apple iPhone 6 or the Samsung Galaxy S6 across the board. Maybe it's time to think outside your smartphone box.

## High Involvement Stimulus 1 Two-Sided Related



### Think Outside Your (Smartphone) Box

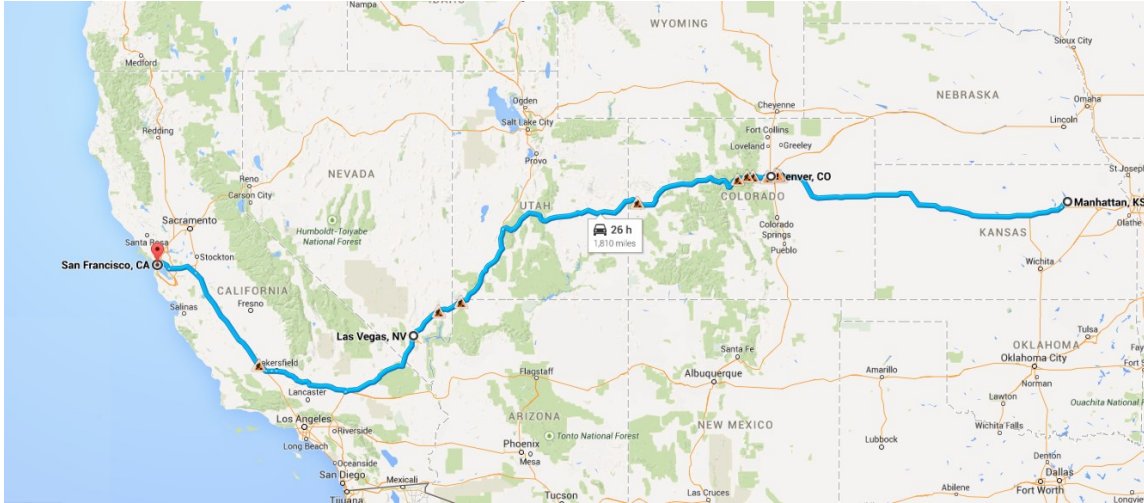
When you think of smartphones, you usually think of either Apple or Samsung. But have you ever heard about the high quality Xiaomi phones? The Xiaomi Mi4 sports 64GB data storage for its standard version, putting it at eye-level with the most popular brands. Smaller and improved flash data chips make taking thousands of pictures and hundreds of videos possible while keeping processing speeds up.

The Mi4 features a smaller display than the iPhone 6 Plus or the Galaxy S6, but its premium lithium ion battery outlasts any competitor on the market when it comes to battery life. A full charge can last up to 280 hours or about a week and a half in standby mode.

The top-notch 14 megapixels high-speed camera is capable of capturing millions of colors and can also take slow motion videos as slow as a tenth of the original speed.

The Xiaomi Mi4 was tested in terms of user-friendliness with all different age groups and the results were great: the new design scored above the Apple iPhone 6 or the Samsung Galaxy S6 across the board. Maybe it's time to think outside your smartphone box.

## High Involvement Stimulus 2 One-Sided



### Carmaker Changan Unveils New Middle Class Sedan

Changan, a successful emerging Chinese car company, announced that it would unveil the 2016 Changan EADO, a middle-class sedan, within the second quarter of this year. The carmaker advertises that the new model will live up to and even surpass American and European safety standards, according to the latest crash test results on crush-collapsible zones and airbag effectiveness.

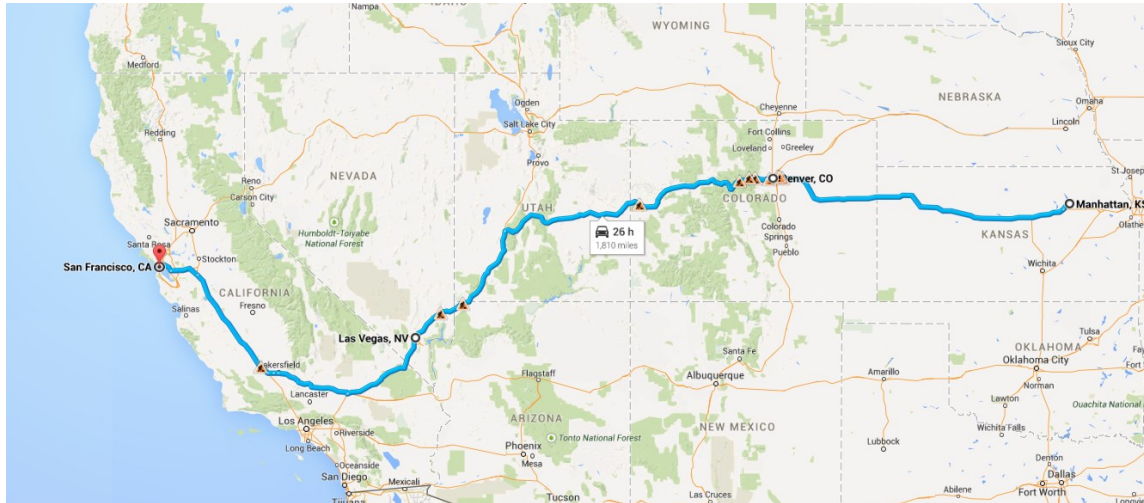
The 2016 EADO will come with plenty of cargo space, exceeding comparable competitor cars by at least ten percent. Changan says the new model will also be more fuel-efficient than its predecessor and market competitors. 36 mpg on the highway and 30 mpg combined will give your wallet a break.

New research and tons of miles on the test track helped to optimize the handling of the 2016 version. You won't feel a difference between driving in the city, on a country road, or on the highway.

Finally, 16 gallons teamed up with the highly fuel-efficient engine make sure you'll get farther than ever before on a single tank.



## High Involvement Stimulus 2 Two-Sided Unrelated



### Carmaker Changan Unveils New Middle Class Sedan

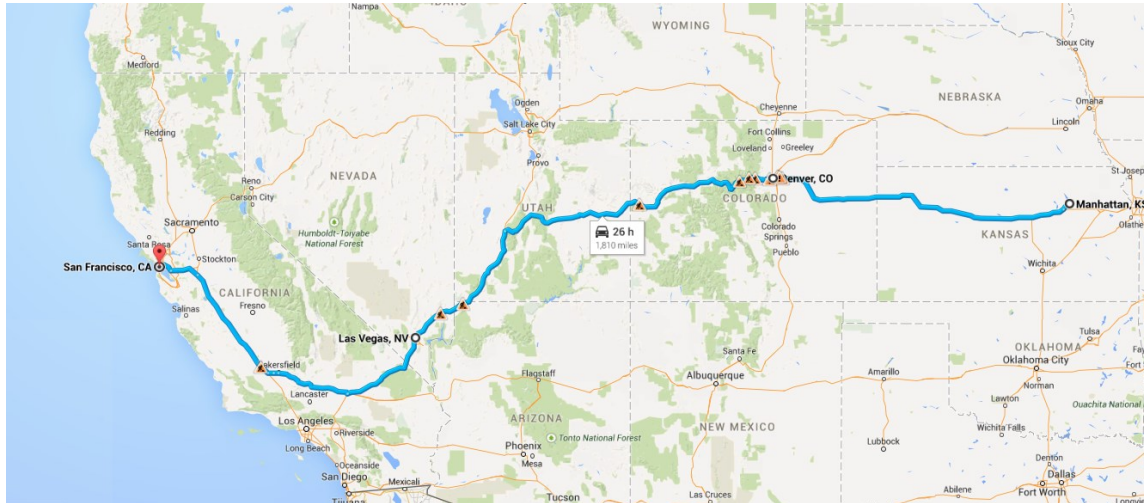
Changan, a successful emerging Chinese car company, announced that it would unveil the 2016 Changan EADO, a middle-class sedan, within the second quarter of this year. The carmaker advertises that the new model will live up to and even surpass American and European safety standards, according to the latest crash test results on crush-collapsible zones and airbag effectiveness.

The 2016 EADO will, however, only have a 2-year warranty on every drivetrain part. Changan says the new model will be more fuel-efficient than its predecessor and market competitors. 36 mpg on the highway and 30 mpg combined will give your wallet a break.

New research and tons of miles on the test track helped to optimize the handling of the 2016 version. You won't feel a difference between driving in the city, on a country road, or on the highway.

Finally, 16 gallons teamed up with the highly fuel-efficient engine make sure you'll get farther than ever before on a single tank.

## High Involvement Stimulus 2 Two-Sided Related



### Carmaker Changan Unveils New Middle Class Sedan

Changan, a successful emerging Chinese car company, announced that it would unveil the 2016 Changan EADO, a middle-class sedan, within the second quarter of this year. The carmaker advertises that the new model will live up to and even surpass American and European safety standards, according to the latest crash test results on crush-collapsible zones and airbag effectiveness.

Changan admits the 2016 EADO won't have the largest cargo space compared to other cars in the same class. However, lesser cargo space helps to make the new model more fuel-efficient than its predecessor and market competitors. 36 mpg on the highway and 30 mpg combined will give your wallet a break.

New research and tons of miles on the test track helped to optimize the handling of the 2016 version. You won't feel a difference between driving in the city, on a country road, or on the highway.

Finally, 16 gallons teamed up with the highly fuel-efficient engine make sure you'll get farther than ever before on a single tank.

## Appendix B - Questionnaire

Please rate the source of the content, which you have just read.

Trustworthy	1	2	3	4	5	6	7	Not trustworthy
Honest	1	2	3	4	5	6	7	Not honest
Not Credible	1	2	3	4	5	6	7	Credible
Believable	1	2	3	4	5	6	7	Not believable
Not Convincing	1	2	3	4	5	6	7	Convincing
Not an expert	1	2	3	4	5	6	7	Expert
Knowledgeable	1	2	3	4	5	6	7	Not knowledgeable
Not sincere	1	2	3	4	5	6	7	Sincere

The previous product is...

Relevant	1	2	3	4	5	6	7	Not relevant
Not interesting	1	2	3	4	5	6	7	Interesting
Appealing	1	2	3	4	5	6	7	Not appealing

The brand of the previous product is...

Bad	1	2	3	4	5	6	7	Good
Valuable	1	2	3	4	5	6	7	Worthless
Unpleasant	1	2	3	4	5	6	7	Pleasant
Superior	1	2	3	4	5	6	7	Inferior
Positive	1	2	3	4	5	6	7	Negative

How likely are you to...

	Very likely	Likely	Somewhat likely	Undecided	Somewhat unlikely	Unlikely	Very unlikely
... share, like or comment on posts about the previous product on social media?	1	2	3	4	5	6	7

... find out more about the previous product online?      1      2      3      4      5      6      7

... follow any of the brand's social media accounts (for example on Facebook, Instagram, Twitter, etc.)?      1      2      3      4      5      6      7

... purchase the previous product when considering a purchase within its product category?      1      2      3      4      5      6      7

What is your gender?

- 1      Male
- 2      Female

How would you best describe your race/ethnicity?

- 1      American Indian
- 2      Arabic or Middle Eastern
- 3      Asian or Asian American
- 4      Black or African American
- 5      Hawaiian or other Pacific Islander
- 6      Hispanic or Latino
- 7      Non-Hispanic White
- 8      Other

Which year in school are you currently in?

- 1      Freshman
- 2      Sophomore
- 3      Junior
- 4      Senior
- 5      5<sup>th</sup> year senior or beyond

Are you a U.S. citizen or an international student?

1 U.S. citizen

2 International student

## Appendix C - IRB Approval



University Research Compliance Office

TO: Curtis Matthews  
Journalism & Mass Communications  
203 Kedzie

Proposal Number: 7556

FROM: Rick Scheidt, Chair   
Committee on Research Involving Human Subjects

DATE: 02/11/2015

RE: Proposal Entitled, "From negative to Positive- Two-Sided Messages and the Effects of Involvement"

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is EXEMPT from further IRB review. This exemption applies only to the proposal - as written – and currently on file with the IRB. Any change potentially affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the Federal Policy for the Protection of Human Subjects, **45 CFR §46.101, paragraph b, category: 2, subsection: ii.**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that research is exempt does not imply that investigators have no ethical responsibilities to subjects in such research; it means only that the regulatory requirements related to IRB review, informed consent, and assurance of compliance do not apply to the research.

Any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.