

Humor and Animation in Banner Ads:  
Is it An Effective Means of Persuasion?

Literature Review Methodology Research Paper

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Since online banner advertising made its debut in 1994 Internet advertisement spending has increased significantly (Robinson, Wysocka, & Hand, 2007). According to the Interactive Advertising Bureau (IAB) and Price WaterHouse Coopers (PWC), 2013 third quarter Internet advertising revenues reached a landmark high of nearly \$10.7 Billion. This is a fifteen percent increase from the third quarter of 2012 ([www.iab.net](http://www.iab.net)). Ginger Rosenkrans (2010) states that in 2007 the amount of online advertiser spending on banner ads was second only to search engine advertisement format spending. The IAB “found that banner advertisements comprised 55 percent of total online spending” (Chandon, Chtourou, & Fortin, 2003, p. 218). Advertisers spend a tremendous amount of money trying to capture the attention of a person browsing the Internet to their banner ad (and consequently to the advertiser’s website) from different websites. Banner ads have primarily been used as Web traffic builders, but they have also “been shown to successfully raise brand awareness, preference, and purchase intentions ... banner ads serve functions of both image and direct response advertising” (Li & Bukovac, 1999, p. 341). Banner advertising plays an important role in generating exposure to brands and influencing Internet purchases. Online exposure for brands has a strong effect on offline sales as well (Laroche, Kiani, Economakis, & Richard, 2013).

To draw the greatest amount of attention among the entire advertisement clutter that is on the Internet, advertisers adopt strategies of communicating messages that they hope will elicit the greatest response (Sierra, Heiser, & Torres, 2012) from the person browsing the web, known herein out as the web viewer. Creative and unique message features are applied to ads to help make them stand out with the hope that the web viewer “will notice, consider, recall, and act on the ad’s message” (Sierra, Heiser, & Torres 2012, p. 119). Numerous studies have been conducted on the effectiveness and impact of content and design elements of a banner ad. The

generation of high quality ads include creativity and a feeling response to the ad that comprises of “*humor*, emotion, and annoyance” (Goldenberg, Mazursky, & Solomon, 1999, p. 334). Joel Sedelmaier, known for his expertise in humorous advertising, claims that the presence of humor in an ad increases the attention to the ad (Cline, Altsech, & Kellaris, 2009). Past research has been conducted on the effects of humor in print and television advertisements and it has been shown that “humorous print ads outperformed nonhumorous ads in terms of generating and holding attention” (Cline, Altsech, & Kellaris, 2009, p. 31). This has been particularly true for people who engage in effortless cognitive processing (Zhang, 1996). In the application of humor to Internet advertising, there has been no previous research on the persuasive effect of humor in a banner ad. The intention of this proposed research is to examine if adding humor to an ad is an effective means of adding attractiveness and increasing traffic to a banner ad.

### **Theoretical Background**

Past research has shown that humor can have a positive effect in advertising (Zhang, 1996). The proposed research on determining if a humorous banner ad has the needed effect of attracting more traffic or interest to a banner ad will show that there may be a cause and effect relationship between the following independent and dependent variables of this study. There are two ways in which a consumer processes advertising messages according to Petty and Cacioppo’s Elaboration Likelihood Model (ELM): the central route or peripheral route. Which route a consumer processes the ad has to do with the person’s need for cognition (NFC). NFC is an important predictor to ascertain the degree a web viewer “enjoys effortful thinking” (Zhang, 1996, p. 535), it determines if the web viewer is more susceptible to peripheral cues which banner ads tend to employ (Cho, 2003). NFC is an individual’s need or inclination to engage in or enjoy thinking through ideas; it is a craving for cognitive clarity (Griffin, 2012). A consumer

with high NFC is “willing and able to exert a lot of cognitive processing effort” (Cho, 1999, p. 34) and they utilize the central route when processing information; they engage in higher message scrutiny. Individuals unwilling to put in a lot of effort processing messages or information have a low NFC and they primarily use peripheral route processing; accepting or rejecting ideas based on irrelevant cues (Griffin, 2012). Considering that past research has shown that both humor in advertising and banner ads have a tendency to tap into a person’s peripheral cue (Cho, 2003 & Zhang, 1996), the constant in this study will be the consumer’s *need for cognition (NFC)*: low.

An ad is considered humorous when the ad presents a contrast between everyday lives and the unexpected (Goldenberg, Mazursky, Solomon, 1999). Since humor is proven to be effective in television and print advertising, humor in a banner ad on a website could have a persuasive effect on a web viewer’s attraction to the ad, which show that it can be a predictor of the liking or not liking of an ad. “The specific of image is a form of symbolic communication” (Petrovici & Ahmed, 2012, p. 4). Visual communication or images will be used in the banner ads. Pictures and typography will be a part of the image design limiting the amount of ad copy or content that is put in the ad. “[C]ommercial studies usually reveal that animated banners catch the eye a bit better and thus generate more attention” (Chandon, Chtourou, & Fortin, 2003, p. 221). Since animation in the banner ad could have persuasive influence or a manipulating effect and humor does, as well, the independent variable of this study is *ad type*: humorous animated image and nonhumorous still image.

The previously defined independent variables should have a persuasive effect on the following defined dependent variables. The dependent variables of this study are based on a similar format of researcher Zhang’s (1996) study on the effect of humor in print advertisements.

Humorous animated or still images in a banner ad can be a persuasive factor in the web viewer's negative or positive opinion of the ad and of the brand. The first two dependent variables are *attitude toward the ad* and *attitude toward the brand*. Determining how humorous the web viewer finds the ad can have an effect on the perception of the ad itself, so the third dependent variable is *perceived humor* of the ad. *Click-through rate* is the fourth and final dependent variable in the study. According to Lohtia, Donthu, & Hershberger (2003), Price WaterHouse Coopers identifies a click as the clicking action on the banner ad by the web viewer that redirects the user to another web site. "CTR is the ratio number of times an advertisement is clicked to the number of advertisements impression" (p. 411). Li & Bukovac (1999) claim that previous research in the Internet advertisement industry "suggest that certain ad characteristics increase click-through rates" (p. 341). Humor in the banner ad could be one of those characteristics.

As consumers and web viewers we are inundated with a tremendous amount of persuasive messages. Considering this, advertisers are faced with the task of finding the most effective means of persuasion to draw a consumer or web viewer's attention. The communication theory that best explains the persuasive effectiveness of a humorous banner ad on a website would be Petty and Cacioppo's Elaboration Likelihood Model. Griffin (2012) states that the Elaboration Likelihood Model (ELM) "has been a leading, if not *the* leading, theory of persuasion and attitude change" (p. 215). ELM continually adds insight into the "process and outcome of persuasive communication" (Karson & Korgaonkar, 2001, p. 55). There are two key contributions to persuasion research that ELM provides. First, there are *conditions* in which persuasion is relevant and most effective. This is the component that measures a person's need for cognition (NFC); this is the message elaboration component of ELM. This is "the extent to which a person carefully thinks about

issue-relevant arguments in a persuasive communication” (Griffin, 2012, p. 206). The second key contribution to persuasion research is the two routes of persuasion (Karson & Korgaonkar, 2001). “Petty and Cacioppo’s (1986) Elaboration Likelihood Model (ELM) elucidates that exposure to an ad can generate two routes to attitude change: central and peripheral” (Rosenkrans, 2010).

High NFC or high involvement situations are when consumers are willing to put in greater cognitive processing effort; known as high elaboration likelihood and this is where central route or cues of persuasion is effective. If a web viewer is more inclined to be involved, they have greater motivation to be involved in the message and the message or advertisement has a greater chance of influencing them. Petty and Cacioppo felt that motivation is not the only factor involved in persuasion, concentration is also important to message processing (Griffin, 2012). This is an important factor to consider in Internet web advertising since an advertiser has a limited amount of time to capture the consumer’s attention (Wang, Shih, & Peracchio, 2013), persuading a web viewer to stay involved in a high involvement message or situation can be a difficult task for a web advertiser.

Low NFC or low involvement situations in which a consumer is unwilling or unable to exert a lot of processing effort, peripheral cues of persuasion “such as attractive sources, music, humor, and visuals” (Cho, 1999) are successful means of persuasion. Peripheral cues (i.e. style and format of the message) often guide the consumer (Rosenkrans, 2010); this is particularly true of a banner advertisement. Pictures, colors, and animation of a banner ad tap into the peripheral cues of a web viewer (Cho, 2003). “Humor has often been employed as a peripheral cue in advertisements” (Zhang, 1996, p. 533). Individuals who prefer outcome over process and are less motivated to analyze ads are more likely to look for

likable cues in an ad and humor “may lead to the formation of [a] more positive attitude toward” an ad or brand (Zhang, 1996, p. 533). Invoking the peripheral route may have a more persuasive effect on a web viewer, especially considering they spend less than an average of 40 seconds viewing a web page and a banner ad receives less time and attention from web viewers (Wang, Shih, & Peracchio, 2013). This limited time has an effect on the success of a banner ad as it is related processing fluency (Wang, Shih, & Peracchio, 2013) and this is why central route processing cues may not be as successful in a banner ad. Wang, Shih, and Peracchio (2013) found through their investigation of other research that processing fluency consists of perceptual and conceptual fluency, whereas perceptual fluency is how we identify and recognize a stimulus and conceptual fluency is how we understand the stimulus. Through the understanding of the ELM processing fluency and tapping into a web viewer’s peripheral route with a humorous animated image, an advertiser can most likely increase the possibility of attracting a web viewer to a banner ad, which has the potential to increase the effectiveness of the ad for the advertiser.

### **Literature Review**

Artistic style and “aesthetic communication in web design” is a way in which an advertiser can attract the attention of a web viewer (Petrovici & Ahmed, 2012, p. 5). When creative templates are used in advertisement the ad is more likely to be recalled (Smith, Chen, & Yang, 2008). “Smith, Chen, & Yang (2004) suggest that creative advertising helps attract more attention from consumers because divergence creates a contrast with less-creative ads” (Smith, Chen, & Yang, 2008, p. 47). Some researchers deduce that ad creativity is determined by divergence, which is when an ad contains elements that are novel, different, or unusual – original. An ad is considered original if it moves away from the

obvious and commonplace, when it includes elements that are rare and surprising (Smith, Chen, & Yang, 2008). In their study of creativity templates of quality ads, Goldenberg, Mazursky, & Solomon (1999) found that humor was one of the appealing factors of a creative ad.

Prior to creating a humorous animated banner ad, defining what is perceived as humorous is an important aspect of this proposed study. Alden & Hoyer (1993) studied what made a television advertisement more or less humorous. Based on their previous research Alden & Hoyer (1993) found that many past theories “specify incongruity and incongruity resolution as central to generating the positive effect that often accompanies humor” (p. 30). They tested this theory in their own research, but narrowed their research down to comparing expected/unexpected contrasts rather than possible/impossible contrasts and their study “indicates that humorousness in advertising may be more easily achieved through the use of expected/unexpected contrasts rather than possible/impossible contrasts” (p. 35).

There have been a number of studies that have shown that humor is an effective advertising tool. According to Fred K. Beard (2008) “[r]esearchers have consistently found that perceived humor is positively associated with liking for both advertisements and brands” (p. 3). Rossiter and Percy claim that past research shows humor may affect desirable responses to advertisements because humor attracts more attention to the ads, which in turn makes them more likable and more memorable (as in Cline, Altsech, & Kellaris, 2003, p. 31). In reviewing the 1982 research of Madden and Weinberger, Cline, Altsech, & Kellaris (2003) saw evidence that the ads in magazines that had humor in their content attracted more attention than ads without humor. Increased attention “creates



opportunities for more extensive information processing” and an ad with humor “may lead to an increase in the extent of message processing” (Cline, Altsech, & Kellaris, 2003, p. 32). According to Yong Zhang (1996) humor is used as a “peripheral cue in advertisements” and “when the peripheral route is invoked under low-NFC conditions” cues that are considered likeable, like humor, can influence the persuasion of the advertisement (p. 533). Zhang (1996) found in his research that the use of humor as a peripheral cue in advertising can generate affective responses from consumers and has a greater possibility of drawing more attention to the ad. This is particularly true when there is a low need for cognition.

In Chang-Hoan Cho’s (2003) research on the effectiveness of banner advertisements he applied factors of the ELM to his study and focused on banner ads appealing to the peripheral cues of the web viewer. Cho (2003) found that humor and animated images in advertising could be considered peripheral cues instead of central cues because “they cannot be construed as issue or product-relevant arguments” (p. 625) or messages in the ad. Cho (2003) found in his study that there is a “positive relationship between peripheral cues and banner clicking” (p 633) and that this relationship was much more prominent among web viewers with a low need for cognition. Banner ads have an additional dimension to them in which there is the “potential for interactivity” that “differentiates it from traditional media” (Rosenkrans, 2010, p. 269). “Interactivity influences its synergistic effects with other complementary media, as it defines a proactive role for audiences, increasing their involvement in the communication process” (Laroche, Kiani, Economakis, Richard, 2013, p. 433). Additional experimental research has been done on the superiority of animated ads over static ads on the Internet. Animated ads, more than static ads, have received stronger responses in “faster click-throughs, higher arousal, better memory for ad

content, and more positive attitudes toward both the ads and the Web site” (Sundar & Kalyanaraman, 2004, p. 7).

### **Rationale**

The persuasiveness of an ad depends on how involved a web viewer is in processing an ad. There are low-involvement (low NFC) web surfers and high-involvement (high NFC) web searchers (Rosenkrans, 2010). Previous research has shown that humor, banner ads, and animation in advertising have a persuasive appeal to the low-involved consumer. Other research has shown that humor in print and television advertisement and the use of banner ads on the Internet attend to the peripheral route of cognition of consumers.

“The impact of humor in ads may depend on the type of humor employed, the type of product being advertised, and the relation of the humor to the product or message ... the impact of humor is likely to depend on the interaction of ad characteristics with characteristics of the individual processing the ad” (Cline, Altsech, & Kellaris, 2003, p. 31). The research of Yong Zhang (1996) has shown that humor is a creative and effective means of attracting a consumer’s attention to an ad when the web viewer has a low need for cognition. Zhang correctly predicted that humor in print advertisements worked much better under low-NFC conditions than under high-NFC conditions. “Such differential effects of humor can be due to the fact that viewers with a high need for cognition are likely to scrutinize the ads and to evaluated the arguments contained in the ads ... viewers with a low need for cognition ... are more susceptible to the influence of peripheral cues contained in the ads” (Zhang, 1996, p. 542). Zhang’s method of determining the participant’s need for cognition was employing the NFC scale as a pre-test to assess the “degree to which individuals enjoy effortful thinking” (Zhang, 1996, p. 535).

In their study on banner ad effectiveness, Robinson, Wysocka, & Hand (2007) found that previous research determined that Internet users avoid looking at ads while on the Web and that web viewers perceive banner ads in their peripheral vision, recognizing objects outside their focal point. In Cho's (2003) study on banner ads he found that there was a relationship between peripheral cues and a web viewer's low NFC and the clicking of a banner ad. Banner ad click-through is a common way that web viewers interact with advertising messages. "Hence, it has been imperative for advertisers and Web sites to measure banner click-through rates" (Cho, 2003, p. 624).

"Animation has proven to be a powerful tool for generating desirable advertising effects" (Sundar & Kalyanaraman, 2004, p. 7). Animated images induce greater physiological arousal than still images. Sundar & Kalyanaraman (2004) in their research on their study of animation on the Web found that people exposed to moving images focus more attention on the cause of motion and process "relevant information" (p. 8). Lohtia, Danthu, & Hershberger (2003) discovered during the investigation of their research on click-through rates that animated banner ads attract more attention to the ad and in turn increase the likelihood of the ad being clicked. Li & Bukovac (1999) conducted a laboratory experiment on the effect of animated banner ads and click-through rates and the results of their study found that "animated banner ads facilitate quicker reaction times and generate better recall than still banner ads" (p. 350).

Prior research has determined separately that banner ads, animation, and humor in an ad can attend to the peripheral cue of a consumer. Together they can be an effective means of persuading a low-NFC consumer to an ad. What is not clear from past research is if a humorous animated image and NFC will have any effect on a web viewer's attitude

toward an ad or the brand. Since there has been no previous research done on the affect use of humor and animation in a banner ad and NFC, this leads us to the first hypotheses of this study.

*H<sub>1</sub>: An animated humorous image in a banner ad and low-NFC will have a greater influence on a web viewer's opinion of the ad than a still nonhumorous image in a banner ad.*

*H<sub>2</sub>: An animated humorous image in a banner ad and low-NFC will have a greater influence on a web viewer's opinion of the brand than a still nonhumorous image in a banner ad.*

Additionally, it is unknown if the click-through rate of an animated humorous ad will be greater than that of a still nonhumorous ad. This leads us to the last hypothesis of the study.

*H<sub>3</sub>: An animated humorous image in a banner and low-NFC will have a greater influence on a web viewer clicking the ad and in turn increasing the click-through rate of the ad than a still nonhumorous banner ad.*

## **Methodology**

### **Research Design**

This study will investigate the influence of the individual differences in need for cognition and the effect of humor and an animated image in a banner ad. It will be an investigation on the relationship between low NFC, humor, and animation and the liking of a banner ad. Due to the fact that the presented hypotheses are based on cause (humor, NFC, and animation) and effect (liking of ad, liking of brand, perceived humor, and click-through rate) a laboratory experiment would be the best way to test the hypotheses. It will not be necessary for a

control group because all of the participants will be exposed to a humorous banner ad and a nonhumorous banner ad and the experiment will be testing to see if humor and animation will be more attractive to the participant. Before the induction, there will be a pretest conducted to determine need for cognition (NFC) of the participant. After induction there will be a posttest of the participants to determine likability of ad, brand, and perceived humor of the ad. The experiment will be a two-phase experiment all occurring in the same experiment day. After the experiment we hope to show that there is a relationship between the independent variables and the dependent variables.

### **Participants**

In an ideal situation, the population for this study would include all web viewers in the United States, but this would be a difficult task, so the next best thing would be a convenience sample of university students and others in the local area. Since Santa Barbara has UCSB and SBCC, finding participants from the two colleges along with the general population of the area should, hopefully, not be too difficult. The ideal sample size would  $n=1000$  of equal number of males and females and anyone over the age of eighteen. This large sample size would increase the confidence level of the experiment results since the population of the study would be web viewers in the United States. To reach this large number in a sample size, an advertisement will be placed in the local newspapers and college papers as well as any social media sites requesting participants for the study. To entice participants there will be an offer of \$50 for their time. All of the participants will sign a consent form that notifies them of their rights. Anonymity will be guaranteed by having the participants assigned random numbers as their identifiers and their names will not be linked to these numbers.

## **Procedures**

Cho (1996) found in his banner ad study that “professionally developed ads are better than mock ads in deriving more natural responses from the subjects” (p. 626). Hence, this study will use professionally developed web sites and banner ads. There will be eight equally sized banner ads created for this experiment, four of the ads will incorporate a humorous image with two of them being animated and four of the ads will be nonhumorous with two of them being animated. All of the ads will be presented to a panel of humor judges consisting of communication professors and graduate students for humorous qualities. They will unanimously vote on humorous and nonhumorous ads. The ads will then be pretested for humor on a pilot group prior to the actual experiment (Zhang, & Zinkhan, 2006). The pilot group will be a small group of around fifty people that will vote on the ads as humorous or nonhumorous.

Each participant of the main experiment will be assigned a random number identifier so that the participant can maintain anonymity. After signing the consent form, one month prior to the experiment all of the participants of the experiment will be given the Need for Cognition Inventory (NCI) short form, this will “assess the degree to which individuals enjoy effortful thinking” (Zhang, 1996, p. 535). The participants will be assigned to a high NFC group if their scores are above the median of this sample or to a low NFC group if their scores are below the median of the sample. The median will be used to eliminate any influence from outliers.

The experiment will take place in a computer lab on the campus of SBCC. When the participants check in for a session, they will be randomly assigned a seat in the lab. Using the participant’s random number identifier, they will be given a random login id and a password. Upon logging in, the participant will see a brief instruction page that will instruct them to read

through each of the web sites that they will be presented. The participants will view four web pages, each of them with four of the banner ads: one animated and humorous, one animated and nonhumorous, one still and humorous, and one still and nonhumorous. Two of the banner ads will be located at the top of the web page and two of them will be located at the lower portion of the web page. The content of each of the web pages will be a different news article from an actual news site, but the actual content of this article will be designed within the experimental web page.

All four web pages will be designed uniformly, using the same colors and layout. The four web pages will have four different categories of news content: sports (S), entertainment (E), technology (T), and financial (F). There will be four different ways in which the banner ads will be placed on a web page and four different ways in which each participant will view the web page order. In other words, the sports web page will have four ways in which the banner ads are placed, each technology page will have the same four ways in which the banner ads are placed. This is to ensure that the viewing of the web pages and banner ads is as random as possible. There will be four groups in this combination. Each participant will be randomly assigned a group (A, B, C, D) to determine the order in which they will view the web pages. If the participant clicks on a banner ad during the induction, a new web page window will open. There will be four web pages created for the ad clicking. These web pages will advertise the same product to maintain consistency. The participants will be given ten minutes to view the four web pages, after which they will automatically be logged off. This first part of the experiment is to measure clicking of the banner ads so that click-through rates can be determined.

After being logged off, the participant will be brought to another computer lab where they will be randomly assigned to a computer station. The second phase of the experiment will

be used to measure humor's persuasive effect on the ad attitude and brand attitude. The participant will be shown each of the banner ads that were in the previous experiment for 40 seconds each (based on the banner ad research conducted by Wang, Shih, & Peracchio, (2013)). After they have completed this part of the experiment a questionnaire will be administered to the participant. This questionnaire will be the posttest to assess if humor and animation along with their NFC will have any bearing on their liking or not liking of the banner ads on the web pages.

### **Measurement**

The pretest for the participants' need for cognition will be measured using Cacioppo, J. T., Petty, R. E., & Kao, C. F. (1984), *Short Form of the Need for Cognition Scale*. This self-report Likert scale is in Appendix A of this research document. All of the participants in the experiment will take the pretest and their scores will be calculated. The median or the middle score of the participant scores will be found. The median will be used to eliminate any outliers. All participants with scores above the median will be grouped in the high-NFC category and all participants with scores below the median will be grouped in the low-NFC category.

For the first part of the experiment in which the participants are in the lab looking at the four web pages, the click-through rate, which is the fourth dependent variable, will be measured. If an ad is clicked the computer will keep a tally of the number of clicks on a particular area of a web page. It is important to keep the records of what group a participant was part of in this part of the study. The number of clicks on a banner will be tallied using a computer program that records the number of clicks on an ad based on the location of the clicking area of the banner ad. The click-through rate is found by taking the number of clicks per banner ad and dividing it by the number of impressions, or times exposed. If we have 1000 participants in our study and the



number of impressions per participant is four, because each participant is exposed to the ads four times through each of the web pages, then the number of impressions would be 4000.

The second part of the experiment will involve the questionnaire that will be given to the participant after they view the four individual banner ads for 40 seconds (posttest). See Appendix B for an example of this questionnaire. The first question will measure *ad attitude*, the first dependent variable of the study, of each of the banner ads that the participant is shown. It will be a “four-item, 9-point semantic-differential scale” (Zhang, 1996, p. 536) that the participant will use to rate their attitude or feelings of each of the ads [*pleasant-unpleasant, unlikeable-likable, nonirritating-irritating, and interesting-uninteresting* – with the second item reverse scaled]. The scores from the bipolar scale of attitude toward each of the banner ads will be tabulated among all the respondents’ answers and the overall mean (average) of attitude toward the ad will be found.

The second question and second dependent variable will measure the *attitude toward the brand* using a three-item, 9-point semantic-differential scale [*good-bad, not nice-nice, unlikeable-likable* – with the first item reverse scaled] that the participant will use to indicate their attitude to the brand being advertised in the banner ad. As with the first dependent variable, the scores from the bipolar scale of attitude toward the brand in each of the banner ads will be tabulated among all the respondents’ answers and the overall mean (average) of attitude toward the brand in the ad will be found.

The third question and dependent variable will measure *perceived humor* using a five-item, 9-point semantic-scale, this will “assess humor manipulation and the mediation effect by ad attitude” (Zhang, 1996, p. 536) [*humorous-nonhumorous, not funny-funny, not playful-playful, amusing-not amusing, and dull-not dull* – with the first and third item reverse scaled to the other

items]. This variable will evaluate the participant's idea of what is humorous to them. As with the previous two dependent variables, the scores from the bipolar scale of the perceived humor of the ad will be tabulated among all the respondents' answers and the overall mean (average) of the perceived humor of the ad will be found.

### **Result**

A statistical analysis of the data from the questionnaires and the click-through rates will be done to determine if it can be inferred from the data characteristics of the sample that the hypotheses of this research is correct; that the use of a humor and animation in a banner ad will have a persuasive effect on a web viewer. The three hypotheses of the study have one independent variable, which is ad type: humorous animated image/nonhumorous still image. Ad type is a nominal independent variable. The four dependent variables will be measured as continuous data, the first three are interval-measured data and the ad clicking is ratio-measured data. Because the independent variable is nominal and the dependent variables are continuous, a t-test statistical analysis will be run on the data. More specifically, because we will be comparing two sets of measurements to assess differences in the sample population, we will be conducting a paired difference t-test. Determining the difference is important to show that there is a difference between low-NFC and high-NFC and the attitude of the humorous banner ads for that information will support or not support the hypotheses.

### **Discussion**

There are billions of dollars spent on Internet advertising for banner ads. Web viewers are bombarded with various forms of advertising content on the Internet. Finding an effective and efficient way to generate positive responses from web viewers is valuable to the advertiser; money well spent. Creative and unique ads are known to be useful in print advertisements. There

are strong ties between humor and the positive attention that is generated toward an advertisement using humor. According to Cho (2003) there is a “relationship between peripheral cues and banner clicking” (p. 632). It is also known that humor engages the peripheral route, animated images are known to achieve this as well. Considering there is a limited amount of time for a banner ad to draw the attention of a web viewer to a banner ad, it is extremely important to the advertising field to research more effective ways to capture the attention of a web viewer in that small amount of time and tapping into the peripheral route of a web viewer with humorous, animated images may have that effect.

According to Robinson, Wysocka, & Hand (2007) they found the “traditional attention-capturing characteristics of banner ads (such as action phrases and company brand/logo)” (p. 537) are not effective any longer and “the importance of fresh and innovative message tactics...stimulate user interest” (p. 538). The use of a humorous image in a banner ad, animated or not, may be a fresh and innovative advertising tactic for banner ads on the Web and this proposed research sets out to find out if this can be demonstrated.

There are three proposed hypotheses to this study and they are reiterated below.

*H<sub>1</sub>: An animated humorous image in a banner ad and low-NFC will have a greater influence on a web viewer's opinion of the ad than a still nonhumorous image in a banner ad.*

*H<sub>2</sub>: An animated humorous image in a banner ad and low-NFC will have a greater influence on a web viewer's opinion on the brand than a still nonhumorous image in a banner ad.*

*H<sub>3</sub>: An animated humorous image in a banner and low-NFC will have a greater influence on a web viewer clicking the ad and in turn increasing the click-through rate of the ad than a still nonhumorous banner ad.*

The first step to proving if a hypothesis is true is to reject the null hypothesis as false. If one can reject the null hypothesis, then one can proceed with trying to prove that the hypothesis is true.

For the first hypothesis of this proposed research, the null hypothesis would be the following:

*There is no difference between a humorous animated image in a banner ad and a nonhumorous image in a banner ad with respect to the attitude of a low-NFC web viewer's attitude toward the ad.* This statement would be difficult to prove as true because it is not clear that there is no difference in the attitude of the low-NFC web viewer to the banner ad, this means that the null hypothesis is rejected. Once the null hypothesis is rejected, the researcher can then move forward in trying to prove the hypothesis as true through their research. This would be true for all of the hypotheses of the proposed study.

Based on the research background that went into creating the hypotheses for this study, it appears that the proposed research will confirm that humor and/or animation used in banner advertisements will be an effective means of persuasion to the web viewer. Zhang (1996) has shown in his research on humor in print advertisements that humor is effective when a viewer's NFC is low and if a viewer's NFC is high it has minimal effect. Other research has found that humor (Zhang, 1996, Cline, Altsech, & Kellaris, 2003, Beard 2008) and animation (Sundar & Kalyanaraman, 2004) in advertisements and banner ads (Cho, 1999 & 2003, Li & Bukovac, 1999, Rosenkrans, 2010, Wang, Shih, & Peracchio, 2013) attends to the requirements of consumer's with a low NFC. This previous background research is an important factor in

presenting a strong position of the proposed hypotheses. This does not mean that there are no limitations to this proposed study.

Web advertising is a bit like the Wild West, it “is emerging as a new territory for research on advertising effectiveness” (Chandon, Chtourou, & Fortin, 2003, p. 225). Social media has added a new dimension to this but is not addressed in this proposed research. Due to this, there is a limitation to this research on whether the proposed study is applicable to banner ads on the “new” Web? Along with that, it is not entirely clear if the Elaboration Likelihood Model directly fits into the realm of Internet persuasion as it may apply to past traditional advertisement. This is why Chang-Hoan Cho (1999) created a modified ELM to address this and he found weaknesses in this research.

The experiment of this proposed study may be too complex due to the nature of Internet advertising. To have the same participants participate in the two phases of the experiment without a lag time between the experiments may cause complications, but to maintain consistency on the evaluations of the ads it seems that it is a necessary for this study. Exposure to the banner ads in a more subliminal manner (first phase) and then a direct manner (second phase) may have an effect on the results, but this appears to be the best way to make sure that they do look at all of the advertisements. The second phase of the experiment similarly replicates what Zhang (1996) did in his study on NFC and humor in advertising experiment, which garnered positive results for him.

Recent studies have found that click-through rates are not evidence that an ad has had an impact on a consumer. The research of Fulgoni & Mörn (2009) has found that “even when click rates are minimal, display advertisements can generate meaningful increases in site visitation, trademark search, and both online and offline sale” (p. 134). This information shows that, in this

proposed experiment, measuring the click-through rate of the banner ads alone is not necessarily a good indication that the ad has had a persuasive effect. This could mean that the first phase of the proposed experiment may not be necessary, but it should not be eliminated because the second phase of the experiment measures the effectiveness of the banner ads using the semantic-differential scale. The click-through rate may help support the findings from the second phase of the experiment.

It may be unrealistic to believe that the study will be able to get 1000 participants. The cost of this study based on the proposed experiments and the large number of participants seems like it will be quite high. Funding this research in this form may be difficult, but perhaps, our research will be able to receive a few research grants from outside sources in the advertisement field that would find this research helpful to their cause.

Despite these weaknesses and limitations, there is enough evidence from past research to indicate there may be a persuasive effect of animated humorous images in banner ads. This proposed study will fulfill a research gap that could make a positive contribution to the world of Internet advertising.

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## APPENDIX A

**Short Form of the Need for Cognition Scale**

Instructions: For each of the statements below, please indicate to what extent the statement is characteristic of you. If the statement is extremely uncharacteristic of you (not at all like you) please write a "1" to the left of the question; if the statement is extremely characteristic of you (very much like you) please write a "5" next to the question. Of course, a statement may be neither extremely uncharacteristic nor extremely characteristic of you; if so, please use the number in the middle of the scale that describes the best fit. Please keep the following scale in mind as you rate each of the statements below: 1 = extremely uncharacteristic; 2 = somewhat uncharacteristic; 3 = uncertain; 4 = somewhat characteristic; 5 = extremely characteristic.

1. \_\_\_ I would prefer complex to simple problems.
2. \_\_\_ I like to have the responsibility of handling a situation that requires a lot of thinking.
3. \_\_\_ Thinking is not my idea of fun. a
4. \_\_\_ I would rather do something that requires little thought than something that is sure to challenge my thinking abilities?
5. \_\_\_ I try to anticipate and avoid situations where there is a likely chance I will have to think indepth about something."
6. \_\_\_ I find satisfaction in deliberating hard and for long hours.
7. \_\_\_ I only think as hard as I have to. a
8. \_\_\_ I prefer to think about small, daily projects to long-term ones?
9. \_\_\_ I like tasks that require little thought once I've learned them?
10. \_\_\_ The idea of relying on thought to make my way to the top appeals to me.
11. \_\_\_ I really enjoy a task that involves coming up with new solutions to problems.
12. \_\_\_ Learning new ways to think doesn't excite me very much?
13. \_\_\_ I prefer my life to be filled with puzzles that I must solve.
14. \_\_\_ The notion of thinking abstractly is appealing to me.
15. \_\_\_ I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.
16. \_\_\_ I feel relief rather than satisfaction after completing a task that required a lot of mental effort?
17. \_\_\_ It's enough for me that something gets the job done; I don't care how or why it works?
18. \_\_\_ I usually end up deliberating about issues even when they do not affect me personally.

*Note.* From "The Efficient Assessment of Need for Cognition," by J. T. Cacioppo, R. E. Petty, and C. F. Kao, 1984, *Journal of Personality Assessment*, 48, pp. 306-307. Copyright 1984 by Lawrence Erlbaum. The number of response options on the scales used across studies has typically ranged from five to nine, and the labels for these response options have varied from agreement—disagreement to extremely uncharacteristic-extremely characteristic. Although these variations across studies may influence the total scores obtained, they have not had dramatic effects on the relationships between interindividual variations in need for cognition and other variables in a given study.

a Reverse scored.

**APPENDIX B**

**Question 1:** After viewing the four banner ads, please check the box that most accurately represents the attitude that you have toward each ad.

**Banner Ad #1**

Pleasant 1	2	3	4	5	6	7	8	Unpleasant 9
Unlikeable 1	2	3	4	5	6	7	8	Likeable 9
Nonirritating 1	2	3	4	5	6	7	8	Irritating 9
Interesting 1	2	3	4	5	6	7	8	Uninteresting 9

**Banner Ad #2**

Pleasant 1	2	3	4	5	6	7	8	Unpleasant 9
Unlikeable 1	2	3	4	5	6	7	8	Likeable 9
Nonirritating 1	2	3	4	5	6	7	8	Irritating 9
Interesting 1	2	3	4	5	6	7	8	Uninteresting 9

**Banner Ad #3**

Pleasant 1	2	3	4	5	6	7	8	Unpleasant 9
Unlikeable 1	2	3	4	5	6	7	8	Likeable 9
Nonirritating 1	2	3	4	5	6	7	8	Irritating 9
Interesting 1	2	3	4	5	6	7	8	Uninteresting 9

**Banner Ad #4**

Pleasant 1	2	3	4	5	6	7	8	Unpleasant 9
Unlikeable 1	2	3	4	5	6	7	8	Likeable 9
Nonirritating 1	2	3	4	5	6	7	8	Irritating 9
Interesting 1	2	3	4	5	6	7	8	Uninteresting 9

**APPENDIX B (cont)**

**Question 2:** After viewing the four banner ads, please check the box that most accurately represents the attitude that you have toward the brand in each ad.

**Banner Ad #1**

Good 1	2	3	4	5	6	7	8	Bad 9
Not Nice 1	2	3	4	5	6	7	8	Nice 9
Unlikeable 1	2	3	4	5	6	7	8	Likeable 9

**Banner Ad #2**

Good 1	2	3	4	5	6	7	8	Bad 9
Not Nice 1	2	3	4	5	6	7	8	Nice 9
Unlikeable 1	2	3	4	5	6	7	8	Likeable 9

**Banner Ad #3**

Good 1	2	3	4	5	6	7	8	Bad 9
Not Nice 1	2	3	4	5	6	7	8	Nice 9
Unlikeable 1	2	3	4	5	6	7	8	Likeable 9

**Banner Ad #4**

Good 1	2	3	4	5	6	7	8	Bad 9
Not Nice 1	2	3	4	5	6	7	8	Nice 9
Unlikeable 1	2	3	4	5	6	7	8	Likeable 9

**APPENDIX B (cont)**

**Question 3:** After viewing the four banner ads, please check the box that best accurately reflects your impression of the ad in terms of your amusement of the individual ad.

**Banner Ad #1**

Humorous 1	2	3	4	5	6	7	8	Nonhumorous 9
Nor Funny 1	2	3	4	5	6	7	8	Funny 9
Not Playful 1	2	3	4	5	6	7	8	Playful 9
Amusing 1	2	3	4	5	6	7	8	Not Amusing 9
Dull 1	2	3	4	5	6	7	8	Not Dull 9

**Banner Ad #2**

Humorous 1	2	3	4	5	6	7	8	Nonhumorous 9
Nor Funny 1	2	3	4	5	6	7	8	Funny 9
Not Playful 1	2	3	4	5	6	7	8	Playful 9
Amusing 1	2	3	4	5	6	7	8	Not Amusing 9
Dull 1	2	3	4	5	6	7	8	Not Dull 9

**Banner Ad #3**

Humorous 1	2	3	4	5	6	7	8	Nonhumorous 9
Nor Funny 1	2	3	4	5	6	7	8	Funny 9
Not Playful 1	2	3	4	5	6	7	8	Playful 9
Amusing 1	2	3	4	5	6	7	8	Not Amusing 9
Dull 1	2	3	4	5	6	7	8	Not Dull 9

**Banner Ad #4**

Humorous 1	2	3	4	5	6	7	8	Nonhumorous 9
Nor Funny 1	2	3	4	5	6	7	8	Funny 9
Not Playful 1	2	3	4	5	6	7	8	Playful 9
Amusing 1	2	3	4	5	6	7	8	Not Amusing 9
Dull 1	2	3	4	5	6	7	8	Not Dull 9