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The Effects of Visual Metaphor in Advertising

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The Effects Of Visual Metaphors In Advertising

by Soojin Kim, Ph.D. • Louisiana State University and Jihye Kim Ph.D. • University of Kentucky

Introduction

A large number of studies have examined how consumers' attitudes are formed and changed by various elements of advertisements (Celsi & Olson, 1988; Petty, Cacioppo, & Schumann, 1983). However, an ad-cluttered media environment is becoming more competitive and complicated, so ads should be developed or differentiate the features from a number of similar ads and need to grab attention first. Visual elements in ads generate a positive impact on ad recall (Lutz & Lutz, 1977) and brand attitude (Rossiter & Percy, 1980). Rhetorical figures, such as encountered in metaphor, are frequently used in order to draw consumers' attention and to improve memory (Lutz & Lutz, 1977; Zaltman, 2003). Visual metaphor has been advertisers' favorite way to approach consumers and its usage has increased in ad images (Kaplan, 1992; Phillips & McQuarrie, 2003).

Previous research has established three main reasons why the use of visual metaphor is beneficial to advertisers: attention, elaboration, and pleasure (Phillips, 2003). Especially, visual metaphor ads are expected to foster a pleasurable experience (Forceville, 1998). However, there is also a risk involved because little is known about how consumer process the type of visual presentations, what kind of other variables could have an influence

on the effects of visual metaphor ads to communicate in different situations or what kind of interrelationship among the variables exhibits in the indirect claims of ads such as visual metaphors. In addition, even though there is considerable research on metaphorical ads in a wide range of academic disciplines, and an increasing interest in metaphor, the vast majority of it has been studied in mainly linguistic metaphors and has focused on verbal metaphors or at least on verbal manifestations of metaphor (Forceville, 1998). Therefore, the amount of research on visual metaphor is less common in comparison.

Given the claims of many researchers, inquiry regarding visual metaphor ads should not be limited to message-oriented research; it should be extended to consumer or product-oriented research, such as corporate credibility or product involvement. Despite the importance of and the increased attention to the effect of metaphor in advertising, only limited empirical research regarding visual metaphor in ads has been conducted to understand the effect of metaphor itself.

In the description of metaphor as an indirect claim of a message, the ads with visual metaphor have been discussed frequently as though they have one clear and

unambiguous meaning. However, do they always work with consumers? When does the ad with visual metaphor work more effectively? Visual metaphor ads may not always work under various conditions because consumers have to interpret visual metaphor by themselves. Consumers understand the message of the advertising metaphor through their own cognitive and interpretive process, and the created meaning of the ad may differ between individuals.

Visual metaphors should be interpreted and comprehended by consumers. Therefore, consumers have the key role to decode what the ad tries to communicate by the rhetorical figures. Consequently, the success of the ad with visual metaphors depends on an individual consumer accepting the ads. Accordingly, the purpose of the current study is to investigate the impact of visual metaphor in advertising and to show the effect of metaphor on consumers' responses considering with corporate credibility and product involvement. This study illustrates the unique effects of visual metaphor ads at different levels of involvement and credibility in cognitive elaboration (processing) and the relationships among them. The study argues that the visual metaphor in advertisements contributes to increase the effect of ads and its impact in changing consumers' attitudes and behavioral intention, particularly depending on different involvement and corporate credibility.

Metaphor

Metaphor is one type of rhetorical figure known as a trope, a category that also includes irony, puns, and other literary devices (Phillips, 2003). Metaphor is often made by comparing two dissimilar objects or concepts. It is of the linguistic comparison formula such as "A is B" (Sopory & Dillard, 2002). For example, the expression "Your eyes (A) are twinkling stars (B)" has two different objects or conceptual domains. When interpreting as different from the original, the feature of one object is transferred to the other through the comparison (Sopory & Dillard, 2002). Metaphors in visuals place two contrasting images together, by juxtaposition, synthesized figures or replacement, often without accompanying verbal explanations. Visual metaphors, therefore, tend to be more implicit and complex than verbal metaphors when interpreting, and can lead viewers to describing several possible interpretations depending on their cognitive processing (Jeong, 2008).

This cognitive processing in metaphors causes central thought and promotes emotion (Berlyne, 1974; Jeong, 2008; Mulken, Hooft, & Nederstigt, 2014). Metaphor is a powerful persuasive tool in persuading target for encountering the unexpected thoughts and feelings that influence consumers' decision-making and memory (Jeong, 2008; Zaltman, 2003). Researchers suggest that using metaphors is effective in terms of leading people to develop much more cognitive elaboration and then communicating those newfound experiences (Zaltman, 2003). Metaphors used to present advertising messages in unusual ways make it easier to attract the attention of, and persuade consumers (Phillips, 2003). A meta-analysis study by Sopory and Dillard (2002) found the effects of metaphor, metaphorical rhetoric increases attitude change because of cognitive, affective, and motivational processes in the interpretation. That is, cognitive, affective, and motivational processes are three categories of explanations for the effectiveness of metaphorical rhetoric compared to literal arguments (Jeong, 2008).

The cognitive process itself constitutes the superior organization of information, elaboration of thoughts, and mobilization of cognitive resources (Sopory & Dillard, 2002). Mitchell and Olson's (1981) study explained that visual metaphors would be more effective than literal verbal argument in terms of persuasive outcomes. Affective processes elicit positive attitudes toward the ads and motivational processes increase the effect of credibility in advertising (Sopory & Dillard, 2002).

Visual Metaphors and Advertising

The use of metaphors in ad images has increased even more rapidly than has their use in ad copies (Phillips & McQuarrie, 2003). When visual metaphors are used in an ad, usually there is no copy, just with the brand name and the product image or a slogan for the brand. Various kinds of visual elements, for example, images, layout, colors, or typefaces in ads are critical because they attract consumer's attention and positively affect ad recall and brand attitude (Rossiter & Persy, 1980). In this light, visual metaphors influence consumers' responses through their cognitive and affective processing (Bulmer & Buchanan-Oliver, 2014; DeRosia, 2008; Meyers-Levy & Peracchio, 1995; Philips & McQuarrie, 2009). The current study focuses on visual metaphor effects in ads.

Although metaphors in indirect persuasion attempts are common in advertisements and can heavily influence

the persuasive effect, the process by which persuasion occurs for metaphor has not been well enunciated. McQuarrie and Mick (1999) found that ads with visual metaphors produced deeper understanding (i.e., cognitive elaboration) and then increased a more positive attitude toward the ad than did similar ads without metaphorical images. Furthermore, if visual metaphors are perceived as appropriate and insightful, they are even pleasurable (Ward & Gaidis, 1990).

The important role of affective or motivational processes in persuasion can be further explained using the elaboration likelihood model (ELM) (Petty & Cacioppo, 1986). Although visual metaphors are central to the message argument and may cause central and systematic modes of processing, images or pictures are considered heuristic cues and cause peripheral modes of processing as well (Jeong, 2008; Petty, Unnava & Strathman, 1991). Therefore, one could assume that visual metaphors in ads will be more likely to have an impact on consumers' attitudes (i.e., attitude toward an ad, attitude toward a brand) with a low level of involvement.

As Sopory and Dillard (2002) found in their meta-analysis, when metaphors are used in ads, recipients are positively influenced and persuaded by affective processes such as pleasure and motivational processes such as source credibility. When looked at carefully the reason why using metaphors in messages may elicit positive affective responses, it is for tension and relief processes derived from interest in, and motivation for the interpretation of visual metaphors (Jeong, 2008); these positive perceptions may contribute to positive attitudes toward the ad.

Corporate Credibility

Despite these seemingly positive attributes, metaphor may not be the best way in all cases to persuade consumers considering the ad messages. The effect of visual metaphor is demonstrably inconsistent depending on different contexts, product involvement, novelty of metaphors, familiarity of target, or source (or corporate) credibility (Jeong, 2008; Sopory & Dillard, 2002). For example, perception of source credibility increases the acceptance of the message's claims in ads with visual metaphors (Jeong, 2008). Therefore, using metaphors can lead to greater persuasion through the message recipients' positive evaluations of the message source (Jeong, 2008), but other factors are also in play.

Credibility has been shown to influence persuasion in many studies (Goldsmith, Lafferty, & Newell, 2000; Lafferty & Goldsmith, 1999; Moore, Hausknecht, & Thamodaran, 1988) and to moderate the effect of stimuli on attitude changes (Goldberg & Hartwick, 1990; Lafferty & Goldsmith, 1999). According to Jeong (2008), metaphorical messages influence recipients by motivational processes such as increased source credibility. That is, the recipients' perception of source credibility can have an impact on the effects of metaphor. If communicators use metaphors in their messages, they are evaluated more credible than those who use literal expression because their creativity is highly valued and regarded as expertise or professionalism. (Jeong, 2008; Sopory & Dillard, 2002). Thus, the perception of source credibility positively impacts persuasion.

Source credibility has been investigated as one measurement of ad effectiveness by 'the perceived expertise, trustworthiness, or the attractiveness of the information source in the ad, usually a spokesperson, communicator or endorser (Belch & Belch, 1993, p. 226).' In terms of the role of source credibility in persuasion, research suggests that the perception of communicator credibility leads to greater acceptance of ad messages (Jeong, 2008). Considering the related construct, an area of credibility linked to the corporation sponsoring the ad has not been thoroughly studied, especially in the study for the effectiveness of ads with visual metaphor. The current study deals with corporate credibility, which is one of types of source credibility (Goldsmith, Lafferty, & Newell, 2000).

Corporate credibility refers to the reputation of a corporation that makes the product for trustworthiness and expertise, and the company is dealt with as a source of the communication (Newell & Goldsmith, 2001). Corporate credibility is another type of source credibility that can influence consumers' responses and shape brand attitudes and purchase intentions (Goldsmith, Lafferty, & Newell, 2000). However, corporate credibility is different from, but similar to, source credibility and some studies have distinguished it from source credibility (Ohanian, 1990), which attributed to a spokesperson such as attractiveness or likability that would not characterize corporate credibility (Newell & Goldsmith, 2001).

Hovland and colleagues (1953) suggested that perception of corporate credibility provokes greater acceptance of the message argument. Therefore, the recipients'

positive evaluations of the message in ads suggest that metaphors may lead to greater persuasion. Many researchers asserted that perceptions of a corporation have a huge impact on building consumer attitudes toward the ads (Mac-Kenzie & Lutz, 1989), the brand attitudes (Goldberg & Hartwick, 1990), and purchase intention. Perceptions of a corporate credibility is a central processing cue (Mac-Kenzie & Lutz, 1989) and it may have a significant effect on several important variables.

Therefore, metaphors in persuasive message arguments affect perceptions of source credibility as well as facilitate attitude changes (Sopory & Dillard, 2002). Metaphors create new meanings through unexpected similarities between the characteristics of objects. This newfound appreciation plays a key role in generating interest and pleasure for recipients. Thus, it can be concluded that metaphorical ad messages for entities with high corporate credibility would be more effective than those with low corporate credibility. The effectiveness of ads with visual metaphors may lead to greater persuasion moderated by consumers' positive evaluation of the corporation sponsoring the product in ads. Based on the preceding discussion, the following hypothesis is proposed:

H1: *Visual metaphors with higher corporate credibility in ads will have a greater (positive) impact on consumers' attitudes (i.e., (a) attitude toward ads, (b) attitude toward brands) and behavioral intention (i.e., (c) purchase intention) than those with lower corporate credibility.*

Theories of Involvement

The concept of involvement in persuasive communication has been operationalized in various ways and used for a significant amount of research with a multitude of definitions and measurements, and as a parameter variable (Zaichkowsky, 1985). Petty, Cacioppo, and Schumann (1983) proposed the effects of involvement on consumer response to ads. The view was explained by the Elaboration Likelihood Model (ELM) of attitude change (Petty & Cacioppo, 1981), which explains how attitudes are formed and changed. ELM describes two routes to persuasion. The central route can be explained by saying that a subject considers an idea logically with cognitive processing, while the peripheral route is used when a subject of persuasive tactics uses preexisting ideas and superficial qualities. The essential

characteristic of involvement is perceived personal relevance (Petty & Cacioppo, 1981; Zaichkowsky, 1985) in persuasive communication. It is said that high involvement messages have greater personal relevance and result in more personal connections than do low involvement messages (Petty, Cacioppo, & Schumann, 1983). In studying involvement, some researchers have employed personal differences to the extent that issues or products are important (Newman & Dolich, 1979) and other researchers have defined involvement in terms of aspects of the specific issue or product (Lastovicka & Gardner, 1979).

The basic framework for understanding attitude change must contain the fact that consumers actively seek and manipulate information. Consumers always seek to avoid any difficult intellectual activity and process product-relevant information (Petty, Cacioppo, & Schumann, 1983). According to the theory of information processing (Bettman, 1974; Haines, 1974; Park & Young, 1986), consumers seek to process as little data or expend as little cognitive effort as is necessary in order to make decisions (Petty, Cacioppo, & Schumann, 1983). The accumulated research on consumer behavior indicates that the concept of involvement is important as a moderator of information processing (Petty & Cacioppo, 1983; Petty, Cacioppo, & Schumann, 1983).

Even though the majority of the metaphor ads contain a visual image, the ads with visual metaphors work through a central route in the ELM because the ads need consumers' ability and the cognitive processing to interpret what the ads try to communicate. Such metaphors are likely to focus on a key message element which would be important for central processing. In order to understand what the meaning of the ads with a metaphorical visual is, consumers need more cognitive effort to understand the messages and make decisions. However, consumers generally seek to process less cognitive effort so that the ads under a low involvement condition allow them to reduce cognitive effort (Alba & Hutchinson, 1987). Therefore, the effects of visual metaphor ads would be likely to be more positive under a low involvement condition.

As previously mentioned, advertisements with visual metaphor as a persuasive communication tool may need more cognitive processes to create new meanings through unexpected similarities between the characteristics of objects and those may also convey spawn

interest and pleasure for recipients through newfound appreciation. Accordingly, the visual metaphor ads under low involvement with the product category will have a more positive influence on consumers' attitudes and behavioral intentions in response to metaphor-based advertisements. Thus, the following hypothesis is proposed:

H2: *Visual metaphor ads for a product with a low level of involvement will be more likely to have a positive impact on consumers' attitude (i.e., (a) attitude toward ads, (b) attitude toward brands) and behavioral intention (i.e., (c) purchase intention) than those for a product with a high level of involvement.*

Furthermore, another interesting research question arises such as whether there is a significant difference in the effect of visual metaphor by the level of involvement and corporate credibility: does corporate credibility have any influence on the effect of visual metaphor in ads? In addition, what kind of interrelationships among the visual metaphors, levels of involvement, and corporate credibility in ads with visual metaphors is? How could it lead to changes in consumer attitudes and behavioral intention?

According to Jeong (2008), "the route of processing that consumers will engage in may not be determined by the use of visual images itself (i.e., visual metaphors) but by the characteristics of the visual argument that is the extent to which it is central to the argument of the persuasive message (p. 69)." From this perspective, although visual metaphors may be considered heuristic cues that arouse peripheral modes of processing in another study (Petty et al., 1991), visual metaphors can lead to central modes of processing as well because visual metaphors could be delivered by arguments that are central to the message content.

The notion of corporate credibility in ads has the characteristics of argument when consumers make a judgment on the ad messages. Therefore, when consumers need to make a decision about the ad attitude, the brand attitude, and purchase intention, for those under high involvement with the products, corporate credibility would affect the ad effectiveness because consumers would consider more about the products in high involvement and less about the product in low involvement. Thus, corporate credibility would impact cognitive processing considering the expertise and trustworthiness of

the corporation in the ads for the products under high involvement. On the contrary, under low involvement condition, the degree of corporate credibility does not impact on the effect of visual metaphors in ads. That is, corporate credibility would moderate the effects of visual metaphor more for the ads under high product involvement than for those under low product involvement because the products with high involvement can elicit much higher motivation and the motivational processes increase the effect of credibility in advertising (Sopory & Dillard, 2002).

The previous discussion highlights that the importance of testing the impact of metaphorical rhetoric (i.e., metaphor vs. non-metaphor) in ads under various conditions, especially considering construction-motivated involvement for a product with corporate credibility. Based on the preceding discussion, it is expected that corporate credibility will change the effect of visual metaphors in ads more in high involvement conditions. The available literature suggests the following hypothesis:

H3: *Corporate credibility will have an impact on the effect of visual metaphor ads more under the high involvement rather than low involvement conditions.*

H3-1: *With a high level of involvement in ads, visual metaphor ads with high corporate credibility would be more likely to have a positive impact on consumers' attitudes change (i.e., (a) attitude toward ads, (b) attitude toward brands) and behavioral intention change (i.e., (c) purchase intention) than those with low corporate credibility.*

Method

An experimental design was used to explore the effect of visual metaphors in ads with involvement and corporate credibility on consumers' attitudes and behavioral intention. The current study examined how visual metaphors have more impact on consumers' attitude and behavioral intention changes, especially by the level of involvement and corporate credibility. The study conducted a pretest to verify whether each level of ad comprehension and creativity was similar. Each participant was presented with each advertisement. In the main test, each participant was randomly assigned to one of eight conditions with varying levels of involvement, corporate credibility, and metaphor or

non-metaphor use. Participants were fully exposed to a colored magazine ad, after which they were asked about their attitude toward the ad, their attitude toward the brand, and their purchase intention for each ad.

Participants and Design

A total of 309 male and female undergraduates at a large southeastern university participated in the experiment. Participants' ages ranged from 18 years to 30 years, $M = 19.83$, $SD = 1.61$; 69.3% ($n = 214$) were female and 30.7% ($n = 95$) were male. The largest ethnic segment (70.2%) was White, followed by Hispanic (16.2%), African American (4.9%), Asian (3.9%), and other (4.2%). All participants were given extra course credits as an incentive to volunteer. At least 38 subjects were randomly assigned to each of eight conditions in a 2 (involvement: high or low) \times 2 (corporate credibility: high or low) \times 2 (metaphor or non-metaphor) factorial design. The three independent variables were between-subject factors. The dependent variables were ad attitudes, brand attitudes, and purchase intention. For each condition, participants were shown an advertisement that used a visual metaphor or not in the ad and were asked to measure corporate credibility (e.g., unknown brand or well-known brand) for manipulation check and product involvement (e.g., high or low involvement) to rate the perceived involvement.

Stimuli Development

The current study measured changes in consumers' attitudes when viewing a print ad with a visual metaphor. For this purpose, the ad was presented in magazine format. Product categories were determined as automobile or detergent products to induce and clarify the difference on the basis of product involvement. For the pretest, twenty advertisements that use visual metaphors and non-metaphors were chosen among actual ads in those product categories to ensure the creative quality of metaphor and execution of ads. The advertisements included real companies or brands with high or low awareness to manipulate corporate credibility. The ads featuring a unknown company or brand in the automobile product category were drawn from a joint venture that combined two automobile companies in France and Korea. In the detergent product category, ads from a detergent company in Brazil were selected for the unknown

with low-awareness company or brand. Furthermore, only advertisements with imagery metaphors were used.

To measure high/low corporate credibility in ads, using the same visual metaphor-based advertisements that were verified through the pretest, only the part of the brand (or company) logo in the advertisements was changed by naming unknown brands with low corporate credibility in each advertisement. Therefore, the stimuli of the eight advertisements used in the study are depicted in Table 1. The examples of the stimuli advertisements used in the current study are provided in the Appendix.

Procedure

Before the main study, the ads were pretested to ensure that the directions, metaphor-based ads, and questions were clear and qualified. The entire experiment was administered online using a personal computer. The participants were randomly assigned to one of eight ads for existing products. Participants were exposed to a colored magazine ad, after which their level of involvement for each product in the ads was accessed.

Measures

The measures employed here were adapted from relevant research and have been commonly used in relevant literature.

Corporate credibility. Corporate credibility is another type of source credibility that can influence consumers' attitude changes when viewing ads and shape brand attitudes and purchase intentions (Newell & Goldsmith, 2001). Corporate credibility is measured as two levels consisting of high and low credibility conditions. One brand is a well-known, heavily-advertised national. Another is an unknown brand, which comes from another region of the country to generate the low credibility conditions. More importantly, in a pretest, participants were asked to choose the credibility level based on their knowledge of the advertised corporation. A pretest demonstrated high recognition for one of the brands and the corporations in the experiment. After the manipulation, corporate credibility was also measured with the eight items given on the seven-point semantic differential scale and anchored by statements on the expertise and trustworthiness of the corporation (Newell & Goldsmith, 2001). The scales of corporate credibility were found to be reliable ($\alpha = .92$).

Involvement. Involvement was measured as individual difference and assessed on a twenty-item, seven-point semantic differential bipolar scale. This experiment used Zaichkowsky's (1985) Personal Involvement Inventory (PII) to measure consumer involvement. The level of involvement for each product in an ad was checked by asking participants to report their level of involvement with bipolar adjective scales toward the advertisements to which they are exposed. The scales of involvement were found to be reliable ($\alpha = .95$).

Metaphor. To check the manipulation, participants rated each visual metaphor on a seven-point scale as to whether it was "artful, clever" or "plain, matter-of-fact" (McQuarrie & Mick, 1996) and "creative, imaginative" or "silly, stupid" (McQuarrie & Phillips, 2005). The scales of metaphor were found to be reliable ($\alpha = .82$).

Attitudes toward the ad. Participants' attitudes toward each ad were measured on a three-item, seven-point semantic differential scale (the extent to which they liked the advertisement). The items were anchored by "good/bad," "pleasant/unpleasant," and "favorable/unfavorable" (MacKenzie & Lutz, 1989).

Attitudes toward the brand. Participants' attitudes toward the brand in the advertisement were assessed on a three-item, seven-point semantic differential scale by asking how "favorable/unfavorable," "good/bad," and "satisfactory/unsatisfactory" participants thought the brand was (Bruner & Hensel, 1992).

Purchase intention. The purchase intention was measured on a three item, seven-point, semantic differential scale anchored by "very unlikely/very likely," "probable/improbable," and "impossible /possible" (Kim & Lennon, 2000; Yi, 1990).

Scale Reliability Analyses

A reliability analysis was performed to check the dependent variables. Cronbach's alphas were .87 for attitude toward advertisement, .92 for attitude toward brand, and .87 for purchase intention. Inter-item correlations ranged between $r = .60$ and $r = .87$ for attitude toward the ad (AAd), between $r = .73$ and $r = .90$ for attitude toward the brand (AB), and between $r = .69$ and $r = .71$ for purchase intention (PI).

Table 1. Stimulus lists of advertisements and brands

Visual Metaphor	Product Category	Expected Involvement	Corporate Credibility	
			High	Low
Yes	Automobile	High	Jeep	Reno
	Laundry Detergent	Low	Tide	Ariel
No (for control group)	Automobile	High	Jeep	Reno
	Laundry Detergent	Low	Tide	Ariel

Results

Manipulation Check

To examine the internal validity of the independent variables, a manipulation check was completed. The mean scores of participants' perceptions of metaphors showed a significant difference. The visual metaphor ads were rated as more artful and creative ($M = 5.23$, $SD = 1.17$) than non-metaphor ads ($M = 3.76$, $SD = 1.10$), $F(1, 307) = 128.70$, $p < .01$ (Cronbach's Alpha = .82), which suggests that subjects who were exposed to a metaphor recognized that the ad has a visual metaphor compared to ads without a visual metaphor. Participants who viewed the highly credible brands' advertisements reported higher levels of corporate credibility ($M = 5.37$, $SD = .73$) than participants who viewed the low credible brands' advertisements ($M = 3.43$, $SD = .70$), $F(1, 307) = 564.50$, $p < .01$ (Cronbach's Alpha = .92).

A median split (medians = 5.10) of the involvement variable was performed to categorize participants as high involvement ($M = 5.94$, $SD = .49$) and low involvement ($M = 4.31$, $SD = .68$), $F(1, 311) = 576.87$, $p < .01$ (Cronbach's Alpha = .95). The measures employed here were the same in Measures section.

Testing of Hypotheses

Series of analysis of variance (ANOVA) was employed to examine the two-way interaction effects of metaphor x corporate credibility and metaphor x involvement and the three-way interaction effect on attitude toward the ad and attitude toward the brand and purchase intention.

Interaction Effects of Metaphor x Corporate Credibility

Hypothesis 1 predicted visual metaphors under higher corporate credibility in ads would have a greater impact on consumers' attitudes toward the ad/the brand and purchase intention than those under lower corporate credibility. Only the interaction effect on attitude toward the ad was significant. Under high credibility conditions, participants who viewed metaphor ad ($M = 5.47$, $SD = 1.21$) had more favorable attitude toward the ad than participants who viewed non-metaphor ad ($M = 3.45$, $SD = 1.34$), while, under low credibility conditions, there was marginal difference in attitude toward the ad between participants who viewed the ad with metaphor ($M = 4.25$, $SD = 1.45$) and those who viewed the ad without metaphor ($M = 3.87$, $SD = 1.37$), $F(1, 305) = 4.17$, $p < .05$. Statistical test results and means are shown in Table 2 and 3, and graphical representations of the interaction effects are illustrated in Figure 1. No interaction effect between metaphor and corporate credibility on attitude toward the brand ($F(1, 309) = .15$, $p > .05$) and purchase intention ($F(1, 309) = .98$, $p > .05$) was found. Therefore, Hypothesis 1 (a) was supported but Hypothesis 1 (b) and (c) were not supported.

Interaction Effects of Metaphor x Involvement

Hypothesis 2 predicted the interaction between visual metaphor and level of involvement, stating that under the low level of involvement condition, visual metaphors in ads would be more likely to have an impact on consumers' attitudes toward (a) the ad/ (b) the brand and (c) purchase intention than the ads without metaphors. The finding indicated significant interaction effects on (a) attitude toward the ad, (b) attitude toward the brand, and (c) purchase intention. Under the low involvement condition, the metaphor ad yielded a more favorable attitudes than the non-metaphor ad ($M_{\text{Metaphor}} = 4.85$, $SD = 1.29$ vs. $M_{\text{No metaphor}} = 3.81$, $SD = 1.50$). However, under the high involvement condition, there was no significant difference in (a) attitudes toward the metaphor ad ($M = 4.71$, $SD = 1.67$) and the non-metaphor ad ($M = 4.44$, $SD = 1.21$), $F(1, 305) = 5.45$, $p < .05$.

A significant interaction effect was found in (b) attitude toward brand. For participants who reported a low level of involvement, the metaphor ad led to a more favorable attitude toward the brand ($M = 5.00$, $SD = 1.20$) than the non-metaphor ad ($M = 4.36$, $SD = 1.47$). On the

other hand, for participants who reported a high level of involvement, the metaphor ad led to a less favorable attitude toward the brand ($M = 4.78$, $SD = 1.62$) than the non-metaphor ad ($M = 5.07$, $SD = 1.38$), $F(1, 305) = 8.39$, $p < .01$.

In addition, a two-way interaction was significant for (c) purchase intention. For participants with a low level of involvement, the metaphor ad led to greater purchase intention ($M = 3.58$, $SD = 1.54$) than the non-metaphor ad ($M = 2.75$, $SD = 1.27$). However, for participants with a high level of involvement, no significant difference occurred in purchase intention between participants who were exposed to an ad with a metaphor ($M = 3.41$, $SD = 1.53$) and those exposed to an ad without a metaphor ($M = 3.55$, $SD = 1.59$), $F(1, 305) = 8.19$, $p < .01$. Therefore, Hypothesis 2 (a), (b), and (c) were fully supported. Statistical test results are depicted in Table 3, and the graphical representations of these interaction effects are depicted in Figure 2, Figure 3, and Figure 4.

Three Way Interaction

Hypothesis 3 predicted a three way interaction effect among metaphor, corporate credibility, and level of involvement such that corporate credibility would increase the impact of a visual metaphor more under a high level of involvement than under a low level of involvement. The ANOVA showed that the three-way interaction is significant. For participants who reported high involvement, the interaction existed between metaphor and credibility such that in conditions of a metaphor ad, high corporate credibility ($M = 5.67$, $SD = 1.05$) led to a significantly higher attitude toward the ad than low corporate credibility ($M = 3.82$, $SD = 1.68$), but in conditions of a non-metaphor ad, attitude toward the ad was very similar for high and low credible corporation ads ($M_{\text{High credibility}} = 4.51$, $SD = 1.22$ vs. $M_{\text{Low credibility}}$

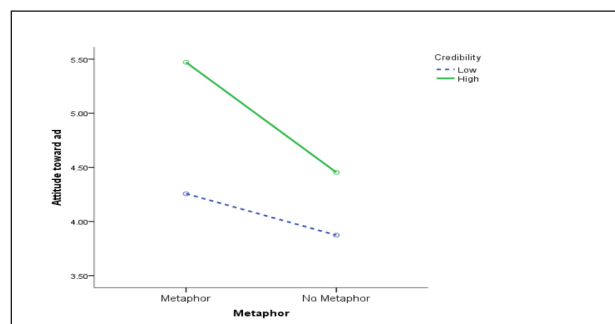


Figure 1. Interaction effect on attitude toward the ad between metaphor and corporate credibility

= 4.33, SD = 1.22). However, for participants who reported a low level of involvement, there was no interaction between metaphor and corporate credibility. When exposed to an ad with high corporate credibility, participants reported a higher attitude toward the metaphor ad (M = 5.26, SD = 1.35) than the non-metaphor ad (M = 4.33, SD = 1.60), likewise, low credibility produced a similar result (M_{Metaphor} = 4.58, SD = 1.18 vs. M_{Non-metaphor} = 3.56 SD = 1.39), F (1, 301) = 7.88, p < .01. That is, when exposed to a metaphorical ad with a low corporate credibility, participants rated more positive attitude toward the ad. Also, the three way interaction effect on attitude toward the brand (F (1, 301) = 6.09, p < .05) was found, but there was no three-way interaction on purchase intention (F (1, 301) = .03, p > .05). Therefore, Hypothesis 3 (a) and (b) were supported but Hypothesis 3 (c) was not supported. Graphical representations of the three-way interaction effects are illustrated in Figure 4.

Discussion

The purpose of this experimental study was to test the persuasive effects of visual metaphors in advertising by levels of the corporate credibility and involvement in ads and to gain a greater understanding of the effects of visual metaphors under additional conditions in persuasive communication. Previous research has examined the effects of visual metaphors in ads but, when considering that one of the popular techniques is visual metaphors in persuasive communication, related studies are needed to investigate more. By exploring the effects of visual metaphors in ads under additional conditions such as each level of perceived involvement and corporate credibility, the current study yields a better understanding of employing visual metaphors in ads.

The results of this experimental study show how level of involvement and corporate credibility affect the effect of visual metaphor in advertisements. The results for Hypothesis 1 indicate that corporate credibility for a new company or not-well-known company (i.e., low corporate credibility) may not be an effective use for visual metaphors for consumers' attitudes because consumers may not trust the company's expertise and reputation.

Table 2. Descriptive Statistics Attitude toward the Ad

Metaphor	Credibility	Involvement	Mean	Std. Deviation	N
Metaphor	Low	Low Involvement	4.58	1.18	50
		High Involvement	3.82	1.68	37
		Total	4.26	1.46	87
	High	Low Involvement	5.26	1.35	33
		High Involvement	5.67	1.05	35
		Total	5.47	1.22	68
	Total	Low Involvement	4.85	1.29	83
		High Involvement	4.72	1.68	72
		Total	4.79	1.48	155
No Metaphor	Low	Low Involvement	3.56	1.39	49
		High Involvement	4.33	1.22	33
		Total	3.87	1.37	82
	High	Low Involvement	4.33	1.60	24
		High Involvement	4.51	1.22	48
		Total	4.45	1.35	72
	Total	Low Involvement	3.82	1.50	73
		High Involvement	4.44	1.22	81
		Total	4.15	1.39	154
Total	Low	Low Involvement	4.08	1.38	99
		High Involvement	4.06	1.49	70
		Total	4.07	1.42	169
	High	Low Involvement	4.87	1.52	57
		High Involvement	5.00	1.28	83
		Total	4.95	1.38	140
	Total	Low Involvement	4.37	1.48	156
		High Involvement	4.57	1.45	153
		Total	4.47	1.47	309

Therefore, the effects of visual metaphors in ads are not as influential as visual metaphors usually have depending on the level of corporate credibility. The results to test Hypothesis 1 revealed that high corporate credibility in a visual metaphor ad produced a positive attitude toward the ad. For high credible corporations, a visual metaphor in an ad led to more favorable attitudes than no metaphor in an ad, while, for low high credible corporate, there was a marginal difference in attitudes toward the ads with and without a metaphor (Jeong, 2008; Lafferty & Goldsmith, 1999).

Table 3. ANOVA Table for Interaction among metaphor, Corporate Credibility, and Involvement on Attitude toward the Ad

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	128.420a	7	18.346	10.314	.000
Intercept	5939.203	1	5939.203	3338.965	.000
Metaphor	30.472	1	30.472	17.131	.000
Credibility	55.230	1	55.230	31.050	.000
Involvement	1.606	1	1.606	.903	.343
Metaphor X Credibility	11.396	1	11.396	6.407	.012*
Metaphor X Involvement	7.777	1	7.777	4.372	.037*
Credibility X Involvement	1.515	1	1.515	.851	.357
Metaphor X Credibility X Involvement	14.015	1	14.015	7.879	.005**
Error	535.405	301	1.779		
Total	6832.889	309			
Corrected Total	663.826	308			

a. R Squared = .193 (Adjusted R Squared = .175)
 **p < .01, * p < .05

In addition, the results of the study for Hypothesis 2 supported the idea that visual metaphor ads had a larger impact on the consumers' attitudes and purchase intention for those under a low level of involvement with the product than under a high level of involvement. For products with a low level of involvement, the visual metaphor ad generated more favorable ad attitude and brand attitude and it provoked a greater purchase intention than the non-metaphor ad did. However, for products with a high level of involvement, there was no difference in the ad/ the brand attitudes and purchase intention between the metaphor ads and the non-metaphor ads.

Furthermore, the results of this study for Hypothesis 3 indicated significant three-way interactions, which exhibited interesting relationships. The findings showed that the visual metaphor ads with high corporate credibility under a high level of involvement produced more positive attitudes toward the ad and the brand than the non-metaphor ads. Among the individuals who reported a high level of involvement, the visual metaphor ad for highly credible corporation generated a favorable attitude toward the ad and the brand. As a result, under a high level of involvement, high corporate credibility leads to more effects of visual metaphor ads than low

corporate credibility. Overall, the findings confirm that corporate credibility plays a key role as a moderator in influencing consumers' attitude changes toward the ads and the brands using visual metaphors only under a high level of involvement. Such is not the case when the product of the ad is in a low level of involvement.

The findings show important implications for advertising practitioners and researchers. The theoretical implications of the current study are that the visual metaphor ads have more influence on consumers' attitudes and purchase intention when the ads have high corporate credibility rather than low corporate credibility. Ads employed by visual metaphors are more effective in changing positively consumers' attitudes toward the ads, attitudes toward the brands and purchase intention for the ads under low involvement with the product rather than high involvement. These findings reveal that visual metaphors work through a central route by the ELM (Petty & Cacioppo, 1986) to illustrate the effectiveness in ads, even though visual metaphors are easily considered as a peripheral route in information processing. Particularly, visual metaphors have the attributes of an argument when consumers need to make a decision about the ad message and the metaphorical visual images lead to central route of information processing in

Table 4. ANOVA Table for Interaction among metaphor, Corporate Credibility, and Involvement on Attitude toward the Brand

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	254.181a	7	36.312	28.623	.000
Intercept	6982.742	1	6982.742	5504.306	.000
Metaphor	2.083	1	2.083	1.642	.201
Credibility	225.083	1	225.083	177.427	.000
Involvement	.162	1	.162	.128	.721
Metaphor X Credibility	.025	1	.025	.019	.889
Metaphor X Involvement	5.854	1	5.854	4.615	.032*
Credibility X Involvement	1.250	1	1.250	.985	.322
Metaphor X Credibility X Involvement	7.724	1	7.724	6.088	.014*
Error	381.848	301	1.269		
Total	7798.333	309			
Corrected Total	636.029	308			

a. R Squared = .400 (Adjusted R Squared = .386)

** $p < .01$, * $p < .05$

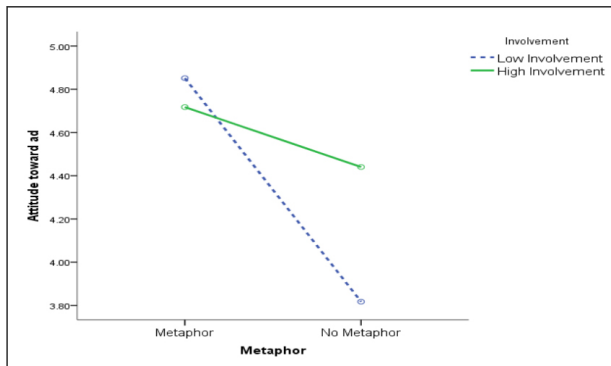


Figure 2. Interaction effect on attitude toward the ad between metaphor and involvement

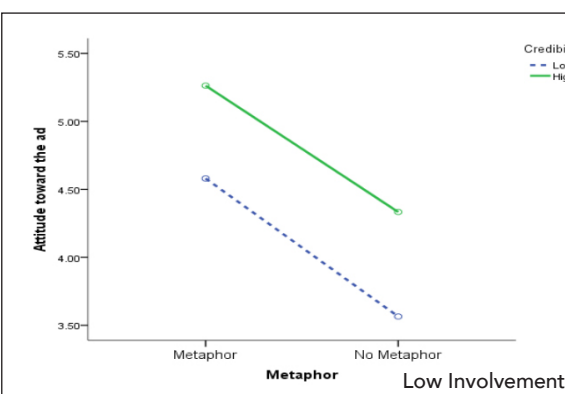
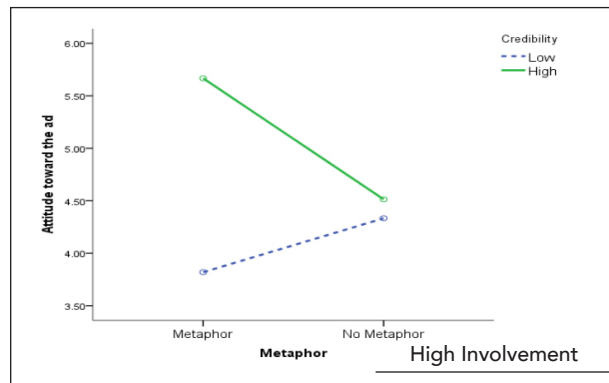


Figure 4. Three-way interaction effect on attitude toward the ad between metaphor, corporate credibility, and involvement

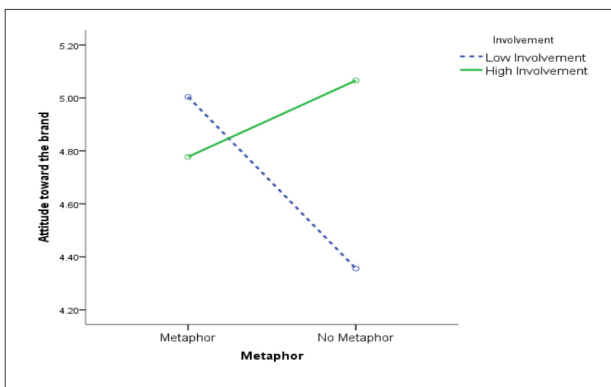


Figure 3. Interaction effect on attitude toward the brand between metaphor and involvement

order to interpret. Furthermore, when using visual metaphors in ads, corporate credibility has a critical influence as a moderator on consumers' attitude changes toward the ads and the brands, especially under a high level of involvement condition.

The practical implications of this study are that it may not be effective to use visual metaphors in ads for a new company or one with low corporate credibility to affect consumers' attitudes. Companies that produce ads featuring a brand-new product should consider corporate credibility when using visual metaphors in ads (Goldsmith, Lafferty, & Newell, 2000). In addition, when visual metaphors are employed in ads, practitioners and advertisers should consider the level of the product involvement in the ads as well because when the ads with visual metaphors would be more effective for the ads under low involvement with the product than for those under high involvement condition.

Limitations and Future Research

Despite the implications of the current study, some limitations of the study should be acknowledged. One limitation of the current study is that this experiment did not involve an ad frequency condition. Different results may occur when gauging product categories or emotional products. For example, more professional products could have a greater impact on changes in consumers' attitude by using visual metaphor expression in ads. The quality or degree of verbal or visual message in metaphors, such as a strong or weak argument, could have an influence on the results, even though the pre-test was conducted for the control. Another limitation of the current study is that the average age of the participants was on 19 and they were 70% female. Finally, the results cannot exclude the possibility that the previous brand attitude is included in response to the real brand.

As mentioned earlier, visual metaphors in ads are decoded by central routes of processing first. However, it is important to be aware of that under certain situations such as right after decoding the meaning of metaphorical visual images, visual metaphors are considered heuristic cues (Jeong, 2008) that arouse peripheral routes of processing (Petty, Unnava, & Strathman, 1991). Therefore, future research could examine the effectiveness of visual metaphors in affective responses such as humorous emotion. Consumers may feel the pleasure

of interpreting the metaphorical images and it elicits peripheral routes of processing (Petty et al., 1991). The pleasurable experience may make it easier to persuade consumers (Hooft & Nederstigt, 2014). Moreover, future research could be conducted in comparing the effects between visual metaphors and verbal metaphors in different product categories. Further research also needs to investigate the effect of visual metaphors with more and/or other types of involvement such as message involvement (Laczniak & Muehling, 1993) or felt involvement (Celsi & Olson, 1988).

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Appendix 1. Experimental stimuli

Metaphor Advertisements – low product involvement category, detergent products

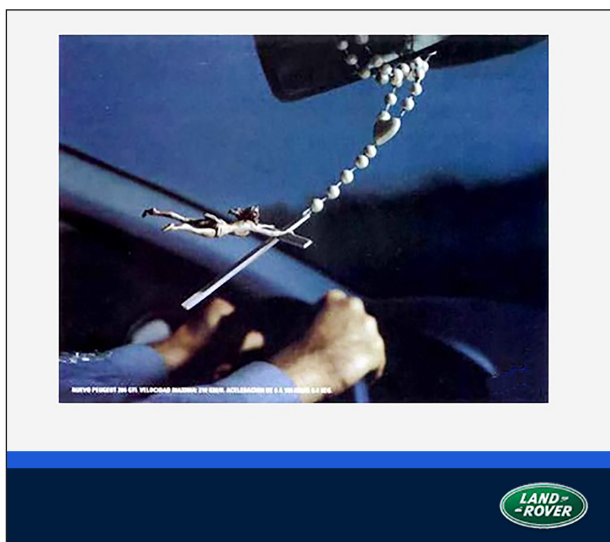


High corporate credibility

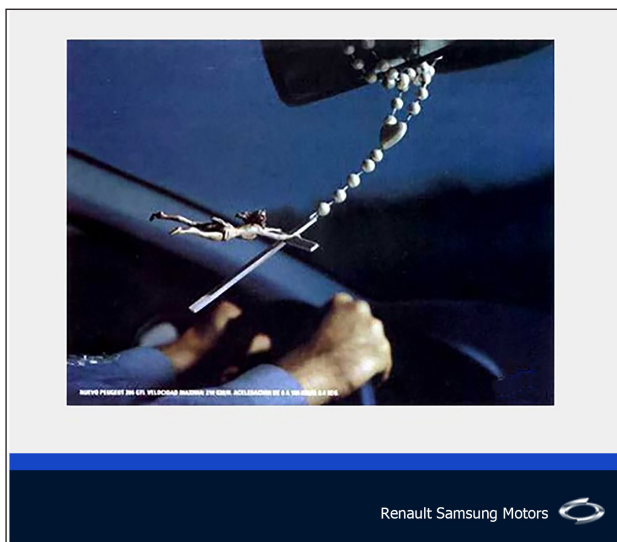


Low corporate credibility

Metaphor Advertisements – high product involvement category; automobile products



High corporate credibility



Low corporate credibility

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- » List your name, highest degree, affiliation, and title on the first page only. Article text should begin on the second page.
- » Please proofread carefully before submitting.

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- » Number and write a caption for each figure. Include captions in a list at the end of your Word document.
- » Screen captures should be as large as possible.
- » Photos should be about 300 ppi to span one column (3-inches) or 2 columns (6.5-inches).
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