

The Role of Animation in Consumers Attitude Formation: Based on the Tripartite Attitudinal Model

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Abstract

This study examines the effects of animation and its relationship to cognitive and affective processes and conation responses by conducting an experimental study. The results of a multi-group confirmatory factor analysis comparing a low-involvement product type and high-involvement product type and in high- and low-involvement contexts revealed a significant group difference on each path regarding values of modification indexes. The study confirmed that the tripartite attitudinal model (for example, cognition, affection and conation) would more effectively work under the low-involvement product type in a highly involved group. This study significantly contributes to our understanding of the relationship between animated commercials and cognitive and affective processing. Animated commercials stimulate viewers or affect their emotional responses and behavioral expectations.

Keywords : Animation, cognitive, affective, conation, tripartite attitudinal model

Introduction

Advertising practitioners have recognized animation as a potential or popular creative advertising design tool, and a form of visual art in the entertainment industry. As a character-based business (for example, nonhuman characters to promote a product, brand and company), animation can expand the design of advertisements by applying digital content to different media, such as the Internet, mobile phone technology and television. However, little research has been conducted on animated advertisements and animated characters as spokespersons that explore the cognitive and affective outcomes of this technique. Given the paucity of previous research on animation, this remains a relatively popular genre in advertising design. This study aims to examine the effects of animation and its relationship to conative responses and to cognitive and affective processes by conducting an experiment under two different experimental designs.

Involvement issues have been studied in consumer behavior fields. The term 'involvement' has been used to identify the process by which motivation

moderates the link between ad exposure, processing and the attitude-formation process.

Thus, combining these focuses would yield a tripartite study on the animated ad and its relationship to consumer attitudes. This study will begin with a closer look at each of these variables to better explain this article's research questions regarding the relationship between animated commercials and the effects of involvement to better explain the research questions presented and how animated commercials stimulate viewers or affect their cognition and affection responses and behavioral expectations.

Theoretical Background

Animations are created by recording a series of still images – drawings, objects or people – in various positions of incremental movement. When played back, the still images appear as one continuous image that gives the illusion of motion.⁸ Some researchers emphasize that animation is a highly effective design tool for capturing viewer interest and attention. Animation is usually classified into different categories, including computer graphic image animation, clay animation, cartoon animation, film animation,

drawn animation, pixilation, puppet animation and silhouette animation. The most common type of animation are two-dimensional drawings rendered in celluloid, or a traditional cartoon; but technological advances in digital media have allowed new techniques such as the animation of three-dimensional objects made of clay and computer-generated animation. New technologies not only present new creative capabilities, they also reduce production time and costs, making animation more common in television commercials and interactive advertising. Despite debates about the inadequacies of animation, studies specifically focused on advertising elements like sound, color and motion note that viewers respond well to such features. Furthermore, new technologies have expanded and reinvented the concept of advertising design and animation. Animation has become an important design tool in recent graphic interfaces because it motivates consumer action and draws viewer attention to specific product features. A shot of the product can include arrows or other animated images that attract viewer attention to a product feature.

Matthew *et al* found that children who saw a popular media character on a cereal box reported liking the cereal more than those who viewed a box with no character on it. This result provides evidence that the use of popular characters on food products affects children's assessment of taste. A licensed spokes character on cereal packaging is closely related to children's taste assessments of cereals. Heiser, found that, when compared with the use of a human spokesperson in the same advertisement, the creative use of cartoon spokespeople in print ads leads to more positive consumer advertising outcomes, influencing attitudes toward ads, attitudes toward brands and purchase intentions regarding the advertised brand. Furniss noted that clay animation performs better at reproducing authentic human-like incremental movement and the illusion of unbroken motion. Animation can create a complete representation of reality because it can reproduce the true nature of what we are seeing on screen. Therefore, a well-designed animation commercial can decrease perceived gaps when reality simply does not look real enough.

Simon stressed that 'animation offers advertising clients a powerful tool: The opportunity to

showcase a product or service via a detailed virtual tour on the Internet. For instance, FCB and the production company Perceptual Engineering recently merged live action and animation in a mental health awareness campaign highlighting the issues surrounding depression. This blended approach was seen as an effective way of getting inside people's heads.

Despite debates about the inadequacies of animation, studies specifically related to advertising elements like sound, color and motion note that viewers respond well to such features. Furthermore, new technologies have expanded and reinvented the concept of advertising design and animation. While previous studies concentrated on children's attitudes toward animated commercials and products or the effectiveness of animated spokespersons, animated ads warrant further study because they have become an increasingly popular design genre that appeals to consumers of all ages.

Many researchers assert that animation can motivate consumers to action and increase brand recognition and recall. Animated commercials are also closely related to advertising recall and a high arousal levels. Empirical studies on motion in advertisements have explored its psychological effects, stressing that motion could influence human cognitive processing and increase viewer attention to ads.

The tripartite attitudinal dimensions in advertising

The goal of this article is to examine the role of animation in tripartite attitudinal dimensions (for example, cognition, affection and conation). Many scholars have summarized previous hierarchical models and the tripartite attitudinal dimensions common to each: (a) a cognitive component (attention, awareness, comprehension, beliefs and opinions and learning); (b) an affective component (evaluation, attitude, feeling, conviction and yielding); and (c) a conative component (intention, behavior and action). The cognitive component is defined as consumer knowledge and beliefs. Many consumer behavior models were developed following the introduction of Lavidge and Steiner's hierarchy of effects model. The several alternatives to the original Lavidge and Steiner model suggest different hierarchical models for various consumer decision-making situations, but agree on the importance of the three basic tenets of the

hierarchy of effects model (for example, cognition, affection and conation).

As summarized in his historical tripartite classification, Krugman's model (for example, cognition–affection–conation) could be used in low-involvement situations. Vaughn was trying to explain the tripartite classification (Feeling–Learn–Do) in dividing economic, responsive, psychological and social responses in the FCB model. The tripartite attitudinal dimensions model posited a sequential hierarchy of events in which consumer purchase behaviors occurred, including awareness, knowledge, liking, preference and conviction. In addition, Lavidge and Steiner asserted that cognition includes awareness and knowledge that affect includes liking and preferences, and that conation includes conviction and purchase. The Zajonc and Markus model (for example, affect–conation–cognition sequence suggested that preferences do not require a cognitive basis, but instead are mainly based on affect. In addition to the sequence, Ray *et al* explained that consumer purchase behaviors are followed by attitude formation to reinforce consumer choices, and finally selective learning to further support purchase decisions.

Hoyer and MacInnis noted that people tend to view commercials passively, as the information provided requires less motivation to process. Thus, given their emphasis on attractive or likable characters and motion, humor and pleasant music, it is critical to analyze how animated commercials affect consumer attitudes via peripheral processing routes.

The purpose of this study is to show how animation's cognitive, affective, and conative effects are created through psychology experimental design procedures. Animation as a stimulus is a logical extension to previous advertising studies because animation can be regarded as an affective stimulus that can generate positive responses in the consumer. Thus, the tripartite attitudinal dimensions can be applied to two different situations. Furthermore, this model would provide a better understanding of consumer purchase behaviors when consumers are exposed to commercial stimuli in two different experiment conditions. Therefore, this study will first seek an answer to the following research question:

RQ1:

Will different values for the tripartite attitudinal dimensions model be found in the different groups?

Product involvement issues

Involvement is recognized as a form of interaction between a product and an individual. Although involvement tends to be defined in terms of the relevance of a product rather than in terms of an individual's interest in a product, involvement can be interpreted as more relevant to the stimulus than to the viewer. If involvement can be defined according to the stimulus, than products can be organized into various product involvement categories and, ideally, markets can be segmented on the basis of product involvement. The possibility of using product involvement as a segmentation variable has been mentioned several times in the literature. Radder and Huang compared consumer awareness of a high-involvement product (sportswear clothing) and a low-involvement product (coffee). The results showed that consumers had a higher degree of recall of sportswear clothing brands (high-involvement products) than of coffee brands (low-involvement products) and that low-/high-involvement products are closely related to consumer response. Speek's study found that people paid more positive attention to a low-involvement product (pepper) than to a high-involvement product (mobile phones).

Studies of product involvement's influence on dependent measures of advertising effectiveness (for example, attitudes, recall and so on) have generally found that high-involvement products score higher than low-involvement products. Some scholars note that the higher a person's involvement and familiarity with a product and the higher his or her ability to cognitively differentiate between the product's features, the higher the recall of the contents/characteristics in the product's advertisement. Therefore, high-involvement conditions due to comprehension and elaboration should also lead to a better recall of message characteristics.

The term 'involvement' has been used to identify the process by which motivation moderates the link between ad exposure, processing and the attitude-formation process. Krugman proposed that television is a low-involvement medium, producing its effects by repetition, as opposed to a high-involvement medium like print, which

produces relatively enduring changes in beliefs. Petty and Cacioppo termed these effects as peripheral and central routes to persuasion, respectively. In contrast to Krugman's characterization of television as a low-involvement medium, McLuhan argued that due to its barrage of visual and auditory images television is a higher involvement medium than print media.

Thorson and Page found that a consumer who is highly involved with the product in a commercial showed higher scores of brand name recall, positive attitudes toward the ad, brand and purchase intentions. Individuals who are highly involved with a stimulus have a greater tendency to pay attention to the stimulus, so the higher levels of attention to the stimuli in this experiment may result in ad recall. In addition, Gorn suggests that individuals who are highly involved with objects are less likely to respond to music as affective stimuli than to the information provided about the product. Such executional cues create, affect or stimulate inferences that generate the basis for low-involvement consumer brand attitudes, whereas high-involvement consumers are thought to ignore such peripheral cues in forming brand attitudes, focusing instead on the advertised message and their reaction to it. Macinnis & Park found that certain executional cues (for example, pictures, source characteristics, music and message sidedness) may influence central-route (message based) and peripheral (non-message based) processing of both high- and low-involvement consumers.

According to the ELM, individuals with modest levels of product involvement are less motivated to process the advertising component due to low personal relevance and a low need for cognition. Also, affective stimuli (for example, background music, pleasant visual scenes, characters and images) in an advertisement follow a peripheral processing route, as these elements require less cognitive effort on the viewer's part. According to the extant literature on involvement, one's degree of involvement could affect his or her perception of animated commercials, as expressed in RQ2:

RQ2:

The tripartite attitudinal model would provide a better understanding of consumer cognitive, affective and purchase behavior when consumers are exposed to animated commercial stimuli. Will

different values of the tripartite attitudinal model exist two different product involvement groups?

Research Methodology

Overview of experimental design

A 2 (different product types: low/high product types)×2 (low/high involvement) experimental design was used to determine the relationships between subject cognition, affection, and conation. The product alone becomes increasingly capable of eliciting a favorable emotional reaction and a favorable product attitude. Stimuli (for example, visual imagery) with favorable emotional consequences can be paired with a product to increase the consumer's overall evaluation of the product and brand attitude. Given that visual content is closely related to the evaluation of a product, animated commercials, as stimuli, would be an effective marketing or persuasion tool as an affect producing.

Selection of stimulus

Ratchford and Vaughn classified products into either high-involvement or low-involvement categories for the sake of convenience, though involvement standards are not so clearly divided. This article assumes that different responses will be elicited under different product categories, like cognitive and affective product categories, as suggested by the FCB (Foote, Cone and Belding) Grid. The products used in this study suggested by Ratchford and Vaughn, product requiring thought and economic consideration like notebook was included and also product requiring affective consideration like soft drinks was also included.

Procedure

The experiment examined the role of animated stimuli on consumer-attitude formation. The experiment procedure and questionnaire were developed based on the respondent feedback regarding treatment stimuli and the clarity of the questions. The experiment was conducted in groups of approximately 331 subjects that met after regular class time. Subjects were divided into equal groups by randomly assigning a classroom to either the experimental group or the control group. Upon arrival at the scheduled time, subjects were given a packet entitled 'TV Commercials Study'. After all the subjects received the packet, the investigator asked them to write down their name and their student

identification numbers on the first page of the questionnaire. They entered a room that had been set up for a slide presentation where they received a booklet with instructions and questions. Investigators explained the instructions and the participants were instructed on when to begin, when to stop, and when to turn the page. Once they read the instructions, the investigator turned off the lights and showed the slides. After the presentation, the subjects were instructed to read each question carefully and then respond to the questions in the booklet.

Experimental manipulation

In experimental procedures, after filling consent form on the first page, subjects were asked to read the following statement carefully and assume that it was their current situation: 'To successfully launch a new product named juice and notebook the company will conduct a promotion at a grocery store and shopping mall. This company is trying to penetrate the juice and electronic market. When buying this product, you would receive a book of coupons good for a year from a grocery store and shopping mall'. Subjects were asked how much relevance the product has to them before the actual experiment. If they chose the number below zero (-2, -1 and 0), then go to the second page. The second page described the blank page. However, if they chose the number over zero (1 and 2), then go to the third page. Investigator asked them to read the following statement: 'For participants highly involved with this product. Please pay careful attention to the video presentation. After watching the commercials related to the juice and notebook, please carefully answer each question. Investigators will choose someone who makes the best response to the questions after collecting data. Then the investigators will pick the name from the group pool to win a prize'.

For participants highly involved with the Juice and notebook brand, investigators encouraged them to pay careful attention to the video presentation. After watching the commercials related to juice and notebook, subjects were asked to carefully answer each question. They were also told that after collecting data the investigators would choose one among the subject to win a prize. Participants were exposed to the experimental procedure in which the test brand

was paired with favorable stimuli on the second repetition.

Measures:

Fishbein and Ajzen noted that the cognitive component refers to beliefs about the nature of the object and its relation to other objects, while the action component refers to beliefs about what should be done with respect to the object. Fishbein and Ajzen demonstrated that valid and reliable measures of belief could be obtained by having the subject judge the concept on a series of bipolar probabilistic scales (for example, probable-improbable, likely-unlikely, possible-impossible and so on). It is this definition of belief – the position of the object or concept on the probability dimension – that will be used throughout this article. Buck defines cognition simply as knowledge: 'a more or less complex and organized internal representation of reality, acquired by means of the individual's cognitive skills and through experience with reality'.

To measure the cognitive response a 7-point Likert-type scale was used. Measurement tools used in the copy-testing firm and consumer research area were used to gauge belief and knowledge; participants estimated the likelihood that a product possessed various attributes on four 7-point Likert scales. Thus, the following extended measurements were included: (a) sounds and tastes good, (b) is of good quality, (c) provides many different additional devices and ingredients, and (d) is reliable. Furthermore, beliefs about one of the filler brands was included to distract participants' attention from the focal brand and decrease their hypothesis guessing.

Affective response: To measure emotional response, ADSAM was used in this study. The Self-Assessment Manikin (SAM) and the Attitudinal Self-Assessment ADSAM consist of a graphic character used to represent the three dimensions of PAD. ADSAM is a version of SAM used in marketing consumer studies. ADSAM depicts each PAD dimension with a graphic character arrayed along a continuous 9-point scale (see Appendix B). Initially, SAM was compared with PAD by using the catalog of situations used by Mehrabian and Russell to standardize the PAD dimensions. The results indicated that SAM 'generated a similar pattern of scale values for these situations as was obtained for the semantic differential (pleasure +0.937, Arousal +0.938 and Dominance +0.660)' SAM

presents a promising solution to the problems associated with measuring emotional responses to advertising (p. 177). Many traditional methodologies focused on measuring the rational component of consumer response. In contrast, ADSAM[®] is usually used to measure emotional responses to a variety of stimuli, including product concepts, advertising (concept and/or finished ad), product attributes, product benefits, brands, logos, tag lines, packaging, music and so on.

The measure consists of a graphic character displayed along three different scales that include pleasure, arousal and dominance. The measure consists of three different scales: (a) pleasure (measures the positive/negative aspect of the feeling), (b) arousal (measures the level of intensity or involvement in the feeling) and (c) dominance (measures the degree of empowerment the respondent feels). The first row of figures is the pleasure scale, ranging from pleasant to unpleasant. The second row is the arousal scale ranging from controlled to controlling. SAM visually represents Mehrabian and Russell's three PAD dimensions and was designed as an alternative to cumbersome verbal self-report measures.

Conation response: To measure conation as the purchase intention, subjects were asked the question: 'All things considered, if you are planning to purchase the brand on one of your next trips to a store, what are the chances that you will purchase the brand if it is available?' Conation responses such as purchase intentions were measured using a model designed by MacInnis & Stayman,⁵⁵ meaning that purchase intents were assessed with a 3-item, 7-point semantic differential scale (unlikely/likely, impossible/possible and improbable/probable).

Involvement manipulation check

The product involvement manipulation check measure consisted of six items adapted from Zaichkowsky and was used to determine the extent to which the participants paid attention to stimuli. The items used in this study consisted of: useless/useful, uninterested/interested, worthless/valuable, unwanted/wanted and irrelevant/relevant. Excellent reliability of the scale was obtained (Cronbach $\alpha=0.93$). A *t*-test indicated that the intended manipulation could be successful. The high-product involvement

participants reported a mean of 5.1 compared with a mean of 2.8 for the low-product-involvement participants. This difference was found to be significant ($t=23.4$, $DF=1329$, $P<0.001$).

Experimental Result

Multi-group confirmatory factor analysis

Multi-group analyses were used to answer the research questions presented in the literature review. The multi-group exploratory procedure, EQS 5.7b for Windows, was performed for a simultaneous estimation of the measurement and structural model, and because it allowed for analyzing several relationships concurrently. Multi-group analyses followed the steps suggested by Kline before comparing the measurement model and structural model in each group. Then, covariance matrices for each group were submitted to a model-fitting program for a multi-group CFA.

A multiple group analysis can be conducted with either recursive or non-recursive path models. The multi-sample path analysis is used to estimate the model separately for each group and compare the unstandardized solutions. Tests of the significance for each constrained parameter indicated whether the fit of the constrained model was worse than the fit of the model without that constraint. By imposing cross-group equality constraints, the significance of group differences on any model parameter or set of parameters was tested. The χ^2 of the model with its path coefficients constrained to equality was contrasted against that of the unconstrained model, and then a significant group difference on that parameter was indicated. The statistical significance of a modification index thus indicated a group difference on that parameter.

Values of modification indexes for this analysis are reported in each table and they indicate a significant group difference on the cognition→conation path and another that falls just short of significance ($P=0.05$) on the affection→conation path. The values of selected fit indexes for the multi-sample analysis of the path model with equality-constrained direct effects are reported. The values of the comparative fit index (CFI), Bentler–Bonett Normed (NFI) and Bentler–Bonett Nonormed (NNFI) are over 0.96; standardized RMR (SRMR) and root-mean-square

error of approximation (RMSEA) were satisfied by this criteria (that is, below 0.05 and 0.08, respectively). Model fit is acceptable given the satisfied criteria.

Assumption check

Before constructing the measurement and structural models, several underlying assumptions for SEM were checked. Skewness and Kurtosis values ± 2.58 , variance inflation of factors of four predictor variables < 10.0 , tolerance scores of the variables > 0.10 , Eigenvalues > 0.01 , and condition indexes < 100 were verified. Thus, the assumptions were within acceptable boundaries.

For both groups, the psychometric properties (for example, discriminant validity and reliability) of the measures were examined before comparing the coefficients of each path. Anderson and Gerbing suggested that all measurement models should be examined by applying discriminant validity and convergent validity before the construct measurement and structural model. The average variance extracted ranged from 0.73 to 0.92 and the squared correlation ranged from 0.11 to 0.50. As an indication of discriminant validity, the average variance extracted for each construct was found to be higher than the squared correlation between that construct and any other construct. Thus, the discriminant validity was established. An average variance extracted above 0.50 was appropriate to suggest convergent validity. Therefore, the convergent validity was established for the two groups in this study.

RQ1 asked if the tripartite attitudinal model could be explained in experimental groups (exposed a low product types) when using animated commercial stimuli, and if there were different values of the tripartite attitudinal model between two different groups.

Within the two samples, all paths (for example, cognition on affection and conation, affection on conation) were statistically significant ($P < 0.05$). In addition, the unstandardized path coefficients of cognition on affection in the juice product exposed group ($\gamma = 0.548$) were lower than for the notebook product exposed group ($\gamma = 0.721$). The unstandardized path coefficients of cognition on conation in the juice product exposed group ($\gamma = 0.657$) were higher than in the notebook product exposed group ($\gamma = 0.173$). The unstandardized path coefficients of affection on conation in the juice product exposed group

($\beta = 0.364$) were also higher than in the notebook product exposed group ($\beta = 0.182$).

In the lower-product model, the standardized path coefficient for cognition to affection was $\gamma = 0.462$, for cognition to conation it was $\gamma = 0.417$, and for affection to conation it was $\beta = 0.274$. The standardized path coefficients for cognition to conation presented a high score compared with affection to conation ($\gamma = 0.417$ and $\beta = 0.274$). In the higher product model, the standardized path coefficient for cognition to affection was $\gamma = 0.620$, for cognition to conation it was $\gamma = 0.255$, and for affection to conation it was $\beta = 0.313$. The standardized path coefficients for affection to conation scored highly compared with cognition to conation ($\beta = 0.313$ and $\gamma = 0.255$).

RQ2 examined the role of involvement in the tripartite attitudinal model. As it shows the paths of affection on cognition and conation and affection on conation are statistically significant ($P < 0.05$). The statistical significance of a modification index thus indicates a group difference on that parameter. Values of modification indexes for this analysis are reported in and they indicate a significant group difference on cognition \rightarrow conation ($P < 0.05$) as well as on affection \rightarrow conation ($P < 0.05$). Consequently, the hierarchical effect of the communication model can be explained for high involvement when explaining consumer attitude formation. In addition, the unstandardized path coefficients of cognition on conation in the high-product-involvement group ($\gamma = 0.361$) was higher than for the low-involvement control group ($\gamma = -0.021$). The unstandardized path coefficients of affection on conation for high-product involvement ($\beta = 0.429$) was higher than for low-product involvement ($\beta = 0.141$).

In the high-involvement model, the standardized path coefficient for cognition to affection was $\gamma = 0.407$, for cognition to conation it was $\gamma = 0.319$, and for affection to conation it was $\beta = 0.319$. The standardized path coefficients for cognition to conation were identical to those for affection to conation ($\gamma = 0.319$ and $\beta = 0.319$). In the low-involvement model, the standardized path coefficient for cognition to affection was $\gamma = 0.602$, for cognition to conation it was $\gamma = -0.052$, and for affection to conation it was $\beta = 0.343$. The standardized path coefficients of affection to conation scored highly compared

with cognition to conation ($\beta=0.343$ and $\gamma=-0.052$)

Findings

The results of the multi-group CFA analysis imply that consumer cognitive effort processing is higher than affective effort processing on behavioral expectations in two different exposed groups. Higher cognitive processing is closely correlated to the consumer's subsequent behavior when exposed to the commercials in this study. On the other hand, affective processing is closely related with the perception of the commercial. The results comparing the low-involvement product (juice) and high-involvement product (notebook) exposed groups revealed that there was a significant group difference on each path regarding values of modification indexes. The implication from this analysis is that a consumer with intensified cognition and affection will be influenced on conation as purchase behavior when using animation as stimulus. The findings also confirm that animation plays an important role in a consumer attitude formation paradigm.

The results of multi-group CFA analysis in involvement and low-involvement product types exposed group also suggest that animation stimuli may have an important role in high-involvement situations. Consequently, the hierarchical effect communication model can be explained in the low-involvement product exposed group when describing consumer attitude formation. The result of the findings of the animated commercial hierarchy is a causal relationship from cognition to affect and affect to conation in the low-involvement exposed group and high-product-involvement groups.

Involvement influences attitude formation with affect and belief formation acting as mediators. This study suggests that animation in commercials can influence consumer perception of brand and purchase behavior. It is argued that the positive emotions consumers generate become associated with the advertised product through low-involvement product types. Animated commercials can help viewers stimulate or affect their emotional responses and behavioral expectations.

The findings in this study are comparable to previous research's findings that subsequent purchase behavior is driven by intensified cognition and affection when consumers develop

a strong and stable affection based on specific feature-based information from a reliable source, and by cognition generated from an evaluation process when consumers are highly involved with the product. In this study, the analysis of involvement groups, divided into high and low, implied that the model could effectively work within the high-product involvement group. Enhanced cognition and affection then leads to an increased likelihood of purchase behavior.

In summation, using animation in commercials is associated with the influence of consumer cognitive and affective processing on viewer persuasion because animated stimuli are based on incorporating visualization and appropriate motion in commercials. Consequently, well-designed animation could provide a better understating of how animation influences the relationship between consumer cognitive and affective processes and subsequent consumer behavior.

Conclusion

This study significantly contributes to our understanding of the relationship between animated commercials and cognitive and affective processing. Understanding the relationship between animated commercials and the viewers' cognitive and emotional responses as well as behavioral expectations provides valuable information to practitioners who design animated ads. From a practical perspective, the findings provide advertisers and animation designers with useful information when they are creating new animated characters in commercials. That is to say, image motion produced by animation plays an important role in human cognitive processing and, moreover, evokes specific types of positive emotions such as arousal. In addition, the use of well-designed animation in ads can augment the subject's attention level in low-involvement situations compared with high-involvement situations. Understanding the relationship between viewers' exposure to animated commercials and viewers' perception of animated ads, the connection of brand and behavioral action to cognitive and affect responses is a valuable asset to advertising practitioners and scholars.

The tripartite attitudinal model exhibits that a consumer's intensified cognition and affection could have an influence on purchase behavior when using animation as stimuli in a low-

involvement product types exposed group and low-involvement situations. This study suggests that the formed cognition from the advertised brand and the intensified affect from specific components of commercials could incline consumers to act in regards to the brand. This study also suggests that animation in advertising is an effective advertising tool that has implications in every dimension of attitude formation such as cognition, affection and conation.

Suggestions

There is concern about the subjects used in this study. The use of exclusively college students raises the possibility that they might respond to animated commercials and react differently than people in other consumer segments. Therefore, it would be valuable to replicate the current study with a larger and more representative sample.

Another concern is the selection of fictitious brand. Thus, a future research should be considered to examine and compare consumers, models, products, different media types, animation, brands, repetition and timing factors.

In this study, issues involving animated commercial types are limited. Several animation types appear everywhere in the current entertainment industry. Computer-generated animation in the animation industry has become a significant increase due to the growing importance of new technologies. Furniss argued that computer-animated special effects and techniques to enhance live-action images have become a dominant characteristic of contemporary motion pictures, especially in the action, sciences fiction and television commercials. Also the trend already is used in a production of animation in commercials.

Although this study tried to optimize experimental procedures by using basic principles of experimental design, classroom as well as video and audio issues were limited. Another concern is the novelty effect in this study. Generally, people are likely to process stimuli when they are surprised, which, in this case, would mean that consumers tend to pay more attention to novel advertising and other fresh stimuli.⁵⁵ Thus, this study suggests that the novelty effect should be considered in similar studies when using novel ads and stimuli.

The involvement manipulation used in this study asked participants about their interest in the target

product, which may have highlighted the importance of the task, therefore creating a stronger need to process the stimuli. Studies related to involvement issues in advertising research emphasize that involvement contributes to cognitive attitude formation. Given that individual involvement is highly related with perception of advertising effectiveness (for example, recall), advertisers also should consider the specific elements of a message and the components of the advertisement to capture viewers.

In consumer behavior, the degree of consumer's need and desire can influence attitude-change formation in a variety of ways, thus the study related with this topic should be needed on the individual difference measures related to the consumers' need or desire to know.

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