

The Types of Visual Metaphors in Advertisements of High-tech Products and the Persuasion Effect that Social-face Sensitivity has on the Participation Behavior and Citizenship Behavior of Consumers

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Abstract

This study has the purpose of analyzing through experimentation, the assumption that the social-face level of consumers has a direct effect on following behavior based on the type of visual metaphor, a method often used as a persuasion cue in high-tech product advertisements. This study can suggest a message strategy framework to morphologically expand the advertising creativity, and therefore be able offer practical utility. A total of 163 responses (response rate 96.4%), excluding non-responders and incomplete responses, were used in the final analysis. The results of the study were that the interaction effect based on visual metaphor type and consumer social-face sensitivity levels appeared in sympathy effort, compliance effort, verbal behavior, and feedback. The level of social-face sensitivity was classified by calculating the cumulative of the total average, with 50% as the standard, 40% and below was set as low, 60% and above was set as high, with the result of 59 people

(48.4%) who were classified as low, and 63 people (51.6%) who were classified as high. The results of the study were that the interaction effect based on visual metaphor type and consumer social-face sensitivity levels appeared in sympathy effort, compliance effort, verbal behavior, and feedback. We evaluate communication effort to be higher in cases of concrete metaphor over abstract metaphor, and in cases where social-face sensitivity levels are lower. Research utilizing the concept of social-face in the field of marketing communication is ongoing. Especially as social-face in Korean society is very closely related to the consumption patterns of consumers, it can be considered a core factor in marketing strategy.

Key Words : Visual metaphor, High-tech product, Persuasion effect, Social-face sensitivity, Participation behavior, Citizenship behavior.

1 INTRODUCTION

Visual metaphor is a method of persuasion that is often employed as a cue in advertising design. People accept both scientific experience and emotional experience at the same time, but we cannot deny that the rather personal emotional experience has a greater influence in governing behavior.

The direction of design as a cue to being creative becomes an important part of stimulating the emotional experience of a person. The cues of advertising design include verbal cues and visual cues. Especially visual metaphor is a type of figure of expression which is structured as 'A is B' (Azantides, 2016; Mohanty and Ratneshwar, 2015; Mulken and Hooft, 2014). The reason for using metaphor as a advertising design cue is because not only can it stimulate the positive imagination that lies dormant in the audiences mind to decrease negative evaluations to the advertisement, it can also arouse a favorable evaluation to the brand and company.

Visual design elements that utilize metaphor correspond to the psychological attribute of consumers to feel curious regarding new phenomenon, and especially as it is arbitrary exposure, it stimulates the decoding of advertisement information. As a visual metaphor design cue, it forms an emotional common-ground with the con-

sumer and even further becomes an important cue for persuasion by being able to remain within the memory of the consumer (An, 2015; Park and Lee, 2014). The resulting usefulness of visual metaphor as an advertising creative cue is not something that can be clearly defined. However, through continued research as part of advertising strategy by systematically organizing results, we can provide aid to follow up uses of visual metaphor.

Social-face sensitivity research of consumers is limited to research regarding specific consumption tendencies or behaviors such as conspicuous consumption tendencies, preference for highly priced and luxury brands etc. In addition, most of the research is partially composed in fields related to fashion and clothing consumption, and golf. Social-face sensitivity research on smartphones, which are consumed by most people, nearly has not been conducted at all. There is sufficient research on cheomyon (social-face) focused on external factors such as conspicuousness, prestige, consciousness of others, ostentation etc., but there is almost no research on high-tech products or social-face sensitivity as a personal psychological tendency (Forgeot et al., 2016).

The social-face of a consumer is a meaningful factor in market segmentation in the dimension that it allows classification by cultural differences and social class. That is, a more strategic marketing communication plan can be established by analyzing the consumption of consumers through social-face. Research utilizing the concept of social-face in the field of marketing communication is ongoing. Especially as social-face in Korean society is very closely related to the consumption patterns of consumers, it can be considered a core factor in marketing strategy. Therefore, this study has the purpose of analyzing through experimentation, the assumption that the social-face level of consumers has a direct effect on following behavior based on the type of visual metaphor, a method often used as a persuasion cue in high-tech product advertisements. This study can suggest a message strategy framework to morphologically expand the advertising creativity, and therefore be able to offer practical utility.

2 THEORETICAL BACKGROUND

A. Visual Metaphor and Scenario

Utilizing metaphorical advertising design elements is a form of communication that aims to combine the emotional relationship of people, which cannot be expressed verbally, with the advertised product, and therefore can be considered a type of design that is relatively abstract or ambiguous. However, when viewed from a different perspective, it can be said to be an effective means of persuasion as it draws on the imagination of people to follow the scenario which is hidden within the metaphorical stimulus of the advertising design.

As visual metaphor by itself cannot help but have an ambiguous meaning, no matter how easily or simply it is constructed, from the perspective of the consumer it is a difficult decoding process. Visual cues utilizing metaphor in advertising information stimulates novelty in the consumer (Myer et al., 2011). The novelty to the consumer makes them experience something new, leading to voluntary advertising commitment. The exposure time to advertising stimulus is very limited. If attention is not achieved during the short exposure time of the advertisement, then the content of the advertisement becomes meaningless. Visual metaphor design elements from certain standpoints may seem to lack a direct connection with the advertised product and therefore have the negative aspect of stopping decoding of the advertisement. However, in the aspect that it stimulates the curiosity and novelty factor of consumers, its effectiveness cannot be denied.

The types of metaphors can be divided into the two classifications of concrete metaphors and abstract metaphors. Concrete metaphors are visual stimulus that is directly connected to the characteristics of the product that can be clearly and objectively identified by consumers. For example, the size of the screen, thickness, and weight of a smartphone are characteristics that can be clearly identified by consumers, and therefore is included in concrete metaphors.

Scientific presentation can be an effective method to obtain the temporary information acceptance of consumers, but it is difficult to remain within the mind of consumers for a long period of time. The

voluntary and active affection of consumers must fit in with scenarios that the consumers have previously experienced (Indurkha and Ojha, 2013; Lee and Kim, 2015). A moving scenario to consumers can be easily induced through similar visual design cues. The design elements in concrete metaphor advertisements are advertising cues that stimulate direct and simple associations and therefore can be important factors to transform the emotions of the consumers into behavior.

Abstract metaphors express the characteristics of the product through characteristics that the consumer cannot objectively identify or characteristics that reflect preferences. For example, if a consumer considers that color of a running shoe to be an important characteristic, as there is a subjective difference in the colors that consumers have, it can be considered to be an abstract characteristic. In addition, the refinement of a suit, the safety of a car, the information processing speed of a smartphone can change based on the psychological characteristics of the individual, and therefore is included in the realm of abstract metaphor expression (Weelden et al., 2011). The novelty factor of visual metaphor cues in advertisements come from abstract metaphoric expressions, and the process of eliciting meaning also does not have one answer, however on the contrary this type of vague and complex visual design element can create positive emotions in the consumer.

B. Social-face Sensitivity of the Consumer

Social-face sensitivity which is related to chemyon, is a concept which represents how importantly one thinks of social-face in everyday life; and is the amount of importance one places on c, which is related to social face and pride (Lackner et al., 2014). In addition, it is the amount of consciousness and insecurity related to the fact that one's actions may be evaluated or observed by others, and the reacting more sensitively one's own appearance as it appears to the eyes of others. Early research focused on the three types of social-face which were consciousness of embarrassment, consciousness of shame, and consciousness of social formality. Later research classified social-face sensitivity into consciousness of embarrassment, consciousness of others, and consciousness of social formality. It was a summary of the existing definition of social-face sensitivity and its subordinate concepts. Consciousness of others and consciousness

of embarrassment of the subordinate concepts of social-face sensitivity are related to 'shame related embarrassment', and especially consciousness of embarrassment includes a negative aspect in interpersonal relationships. On the other hand, consciousness of social formality has little relation to the shame related to relationships to others, and has a close relationship with patterns of behavior have emphasize etiquette and formality.

C. Research Hypothesis

Hypothesis 1. There will be a difference in the communication effort of consumers based on the type visual metaphor (concrete/abstract) and social-face sensitivity levels (high/low) in high-tech product advertisements.

Hypothesis 2. There will be a difference in the sympathy effort of consumers based on the type visual metaphor (concrete/abstract) and social-face sensitivity levels (high/low) in high-tech product advertisements.

Hypothesis 3. There will be a difference in the compliance effort of consumers based on the type visual metaphor (concrete/abstract) and social-face sensitivity levels (high/low) in high-tech product advertisements.

Hypothesis 4. There will be a difference in the verbal behavior of consumers based on the type visual metaphor (concrete/abstract) and social-face sensitivity levels (high/low) in high-tech product advertisements.

Hypothesis 5. There will be a difference in the feedback of consumers based on the type visual metaphor (concrete/abstract) and social-face sensitivity levels (high/low) in high-tech product advertisements.

Hypothesis 6. There will be a difference in the helping others of consumers based on the type visual metaphor (concrete/abstract) and social-face sensitivity levels (high/low) in high-tech product advertisements.

3 METHODOLOGY

A. Sample Characteristics and Experiment Design

This study was conducted through surveys on experimental stimulus in college classrooms. Total respondents were 169 people with 83 male students (49.1%) and 78 female students (46.1%), with 8 people who did not respond on the question regarding sex. A total of 163 responses (response rate 96.4%), excluding non-responders and incomplete responses, were used in the final analysis. The number of respondents who actually used the high-tech smart phone selected in the experiment was 100% of respondents. The sample selection method used was the convenience sampling method which is a non-probabilistic sampling method. The experiment design was a 2 (visual metaphor type) x2 (social-face sensitivity) factor design.

B. The Validity and Reliability Analysis of the Measurement Apparatus

In this study, social-face sensitivity is seen as the sensitive consciousness that one's actions may be evaluated or observed by other people, and the amount the one is conscious of the views of others. It is classified into 3 subordinate elements of consciousness of embarrassment, consciousness of others, and consciousness of social formality. These were measured with 6 questions for consciousness of embarrassment, 4 questions for consciousness of others, and 3 questions for consciousness of social formality. Consciousness of embarrassment consisted of 6 questions including "I tend to be disappointed if my opinion is not accepted", "there are cases when I hesitate to make requests due to prestige" etc. Consciousness of others was measured using 4 questions including "I tend to be conscious of the evaluation of others", "I tend to be sensitive to what other feel about me". Consciousness of social formality consisted of 3 questions including "I tend to place emphasis on etiquette by myself", "I tend to be cautious to not make mistakes when talking". The total 13 questions were on a 7 point Likert scale.

Consumer participation can be defined as the amount of participation that the consumer has in the production and delivery of the service; or the mental or physical effort, or amount of participation required for the consumer to participate in the production and delivery of the service (Chan, Yim and Lam, 2010; Griffith and Lee, 2016; Yi, Nataraajan and Gong, 2011). Consumer participation refers the amount the consumer participates in the process of production and delivery of the service; and it can be considered

concepts that are consumer behavior related to the concrete characteristic and delivery, the behavior provided by the consumer for the production and delivery of the service, or behavior related to resources (Chang and Taylor, 2016).

Consumer participation behavior is the role or behavior of the consumer that has been exposed to advertisement stimulus. That is, it includes the concept of how actively the role of the consumer is conducted (Ho and Ganesan, 2013; Kujur and Singh, 2017). To measure consumer participation behavior, 3 subordinate classes (communication effort, sympathy effort, compliance effort) were created. The 3 subordinate classes were measured using 3 questions using a 7 point Likert scale each. A total of 9 questions were created such as "I clearly demand the product that I want", "I show my thanks when I receive the product", "When the product is provided, I follow procedure" (Straus Robbert and Roth, 2016; Wu, 2011).

Consumer citizenship behavior is defined as the free discretionary behavior by the consumer to aid the service quality provided by the company to be delivered through customer voluntary performance (Groth, 2005; Verganti, 2011). Consumer citizenship behavior is not rewarded with prescribed benefits, but it can effectively kick-start the function of the organization by improving service quality as a whole (Balaji, 2014; Huang, 2017; Shamim et al., 2017). Especially as consumer citizenship behavior affects repurchase intention or the long-term direction of the consumer toward to company, we can say it is the foundation to continued growth (Gilde et al., 2011; Kumar, 2014). That is, consumer citizenship behavior can be defined as the voluntary and discretionary behavior which is non-explicit behavior outside of the role of the consumer (Anaza, 2014; Kang and Bartlett, 2013). Consumer citizenship behavior was measured with 3 verbal behavior questions, 3 feedback questions, and 3 helping others questions. The measurement of consumer citizenship behavior consisted of a total of 9 questions using a 7 point Likert scale. Specific questions consisted of 9 questions including "I speak positively about the product", "I present my opinion on problems in case there is a problem when provided with the product", "I help the employee that provides me with the product" (Kwak, 2015; Yi and Gong, 2013).

C. Statistical Processing Methodology

The data gathered to analyze the results of this study were analyzed using the SPSS 22.0 program and exploratory factor analysis and reliability analysis was conducted to verify the validity and reliability of the measured factors. In addition, correlation analysis to examine the direction between variables and the amount of correlation; and univariate analysis to verify the hypothesis were conducted.

4 RESEARCH MODEL

A. Verification of Validity and Reliability

In this study, to verify the validity of the measurement apparatus, exploratory factor analysis was conducted on social-face sensitivity. The exploratory factor analysis utilized the varimax rotation method from principal component analysis, and only questions where the eigenvalue was above 1, factor loading was above .60, and other factors were below .40 were selected. As shown in table 1, in this study, social-face sensitivity was a single factor, with an eigenvalue of 10.250, and % of variance of 78.847%. In order to evaluate the validity of the exploratory factor analysis, the results of an evaluation of Kaiser-Meyer-Olkin (KMO) and X^2 , significance(p) showed KMO=.930, $X^2=2809.804$, $p<.001$ which verified its validity.

TABLE I
EXPLORATORY FACTOR ANALYSIS (SOCIAL-FACE SENSITIVITY)

	Eigenvalue	Variance%	Cronbach's α
SFS12	.907		
SFS13	.901		
SFS11	.900		
SFS08	.897		

SFS01	.895			
SFS09	.894			
SFS06	.886	10250	78.847	978
SFS05	.885			
SFS10	.884			
SFS07	.881			
SFS03	.878			
SFS04	.868			
SFS02	.865			

Based on the results above, a confirmatory factor analysis was conducted to verify validity. As shown in table 2, Fitness was verified through X^2 , RMR, NFI, IFI, TLI, and CFI, and the model is considered fit when the case of X^2 is not statistically meaningful ($p > .05$); RMR is below .06; and NFI, IFI, TLI, CFI are all over .90. When applying the standard above, an examination of the fitness related to social-face analysis was $X^2=215.41$, $p < .001$, RMR=.06, NFI=.92, IFI=.94, TLI=.92, CFI=.94, so that excluding X^2 all the other fitness factors satisfied the standards. In the case of X^2 , it is sensitive to sample size and considering that in the case it does not satisfy the standard, evaluation is made utilizing the other fitness factors, we can evaluate the model used in this study to be relatively sound.

TABLE II
CONFIRMATORY FACTOR ANALYSIS (SOCIAL-FACE SENSITIVITY)

	Standardized β	S.E.	t
SFS02 $\leftarrow$ SFS	.83	—	—
SFS04 $\leftarrow$ SFS	.86	.07	1432***
SFS03 $\leftarrow$ SFS	.86	.07	1415***
SFS07 $\leftarrow$ SFS	.85	.07	1414***

SFS10←SFS	.86	.07	1433***
SFS05←SFS	.87	.06	1795***
SFS06←SFS	.88	.07	1479***
SFS09←SFS	.89	.07	1514***
SFS01←SFS	.89	.07	1523***
SFS08←SFS	.87	.07	1457***
SFS11←SFS	.88	.07	149***
SFS13←SFS	.89	.07	1515***
SFS12←SFS	.90	.07	1546***

*** p<.001

Communication effort, sympathy effort, compliance effort, verbal behavior, feedback, helping others all consisted of single factors with 3 questions and in this study we examined internal consistency (Cronbach's α) using reliability analysis. The result was communication effort .915, sympathy effort .916, compliance effort .921, verbal behavior .928, feedback .938, and helping others .954.

B. Interaction Effect Analysis

In order to verify the difference in communication effort, sympathy effort, compliance effort, (verbal spread) verbal behavior, feedback, and helping others based on visual metaphor type (concrete vs abstract) and social-face sensitivity (high vs low); a univariate analysis of variance through a 2x2 factor design was conducted. The level of social-face sensitivity was classified by calculating the cumulative of the total average, with 50% as the standard, 40% and below was set as low, 60% and above was set as high, with the result of 59 people (48.4%) who were classified as low, and 63 people (51.6%) who were classified as high.

C. The Interaction Effect on Visual Metaphor Type and Consumer Social-face Sensitivity for Communication Effort

As shown in table 3, 4, An examination of the interaction effect on visual metaphor type and consumer social-face sensitivity

level for communication effort showed that there was no interaction effect between visual metaphor type and social-face sensitivity level ($F=3.321$, $p>.05$), but a main effect was found in visual metaphor type ($F=37.722$, $p<.001$) and social-face sensitivity level ($F=490.929$, $p<.001$). In visual metaphor type, concrete metaphor ($M=4.235$) showed higher levels of communication effort than abstract metaphor ($M=3.555$); and in social-face sensitivity levels, low levels ($M=5.209$) showed higher levels of communication effort than high levels ($M=2.740$). Therefore, we evaluate communication effort to be higher in cases of concrete metaphor over abstract metaphor, and in cases where social-face sensitivity levels are lower.

TABLE III
THE INTERACTION EFFECT ON VISUAL METAPHOR TYPE AND CONSUMER
SOCIAL-FACE SENSITIVITY FOR COMMUNICATION EFFORT

	F	Eta ²	Observed Power
Visual metaphor type(a)	37.722***	.242	1.000
Social-face sensitivity level(b)	490.929***	.806	1.000
(a) * (b)	3.321	.027	.440

*** $p<.00$

TABLE IV
MEAN AND STANDARD DEVIATION OF VISUAL METAPHOR TYPE
AND CONSUMER SOCIAL-FACE SENSITIVITY FOR COMMUNICATION EFFORT

Visual metaphor type	Social-face sensitivity level	N	M (Std)
Concrete metaphor	Low	33	5.596 (.616)
	High	35	2.952 (.334)
	Sum	68	4.235 (1.417)
Abstract metaphor	Low	26	4.717 (.862)
	High	28	2.476 (.562)
	Sum	54	3.555 (1.338)
Sum	Low	59	5.209 (.850)
	High	63	2.740 (.506)
	Sum	122	3.934 (1.418)

D. The Interaction Effect on Visual Metaphor Type and Consumer Social-face Sensitivity for Sympathy Effort

As shown in table 5, 6, in figure 1, An examination of the interaction effect on visual metaphor type and consumer social-face sensitivity level for sympathy effort showed that there was an interaction effect ($F=5.016$, $p<.05$). More specifically, in the case of visual metaphor type, sympathy effort ($M=5.808$) was highest in the case of concrete metaphor and high social-face sensitivity; and sympathy effort ($M=2.261$) was lowest in the case of abstract metaphor and low social-face sensitivity.

TABLE V
THE INTERACTION EFFECT ON VISUAL METAPHOR TYPE AND CONSUMER
SOCIAL-FACE SENSITIVITY FOR SYMPATHY EFFORT

	F	Eta ²	Observed Power
Visual metaphor type(a)	61.237***	.342	1.000
Social-face sensitivity level(b)	488.427***	.805	1.000
(a) * (b)	5.016*	.041	.603

* $P<.05$ *** $p<.001$

TABLE VI
MEAN AND STANDARD DEVIATION OF VISUAL METAPHOR TYPE
AND CONSUMER SOCIAL-FACE SENSITIVITY FOR SYMPATHY EFFORT

Visual metaphor type	Social-face sensitivity level	N	M (Std)
Concrete metaphor	Low	33	5.808(.721)
	High	35	2.923(.420)
	Sum	68	4.323(1.564)
Abstract metaphor	Low	26	4.615(.877)
	High	28	2.261(.539)
	Sum	54	3.395(1.395)
Sum	Low	59	5.282(.988)
	High	63	2.629(.577)
	Sum	122	3.912(1.552)

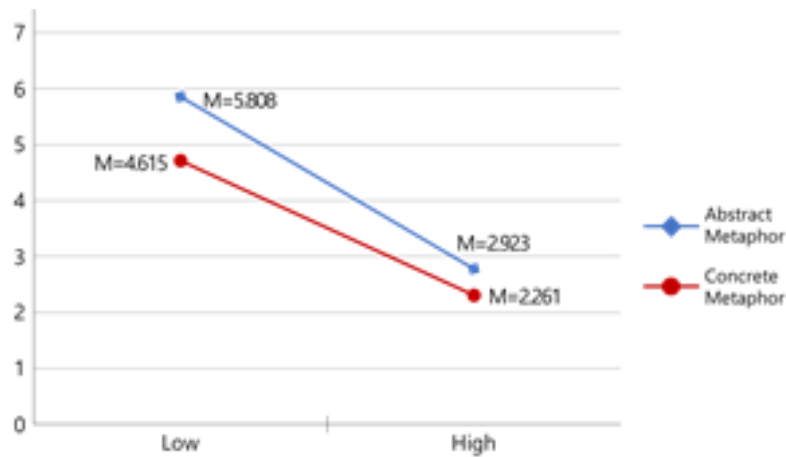


Figure 1: The interaction effect on visual metaphor type and consumer social-face sensitivity for sympathy effort.

E. The Interaction Effect on Visual Metaphor Type and Consumer Social-face Sensitivity for Compliance Effort

As shown in table 7, 8, in figure 2, An examination of the interaction effect on visual metaphor type and consumer social-face sensitivity level for compliance effort showed that there was an interaction effect ($F=11.937$, $p<.01$). More specifically, in the case of visual metaphor type, compliance effort ($M=6.010$) was highest in the case of concrete metaphor and low social-face sensitivity; and compliance effort ($M=2.190$) was lowest in the case of abstract metaphor and high social-face sensitivity.

TABLE VII
THE INTERACTION EFFECT ON VISUAL METAPHOR TYPE AND CONSUMER SOCIAL-FACE SENSITIVITY FOR COMPLIANCE EFFORT.

	F	Eta ²	Observed Power
Visual metaphor type(a)	82.655***	.412	1.000
Social-face sensitivity level(b)	607.549***	.837	1.000
(a) * (b)	11.937**	.092	.929

* $p<.01$ *** $p<.001$

TABLE VIII
MEAN AND STANDARD DEVIATION OF VISUAL METAPHOR TYPE
AND CONSUMER SOCIAL-FACE SENSITIVITY FOR COMPLIANCE EFFORT.

Visual metaphor type	Social-face sensitivity level	N	M (Std)
Concrete metaphor	Low	33	6010(549)
	High	35	2828(346)
	Sum	68	4372(1.664)
Abstract metaphor	Low	26	4589(807)
	High	28	2190(755)
	Sum	54	3345(1.436)
Sum	Low	59	5384(976)
	High	63	2545(645)
	Sum	122	3918(1.643)

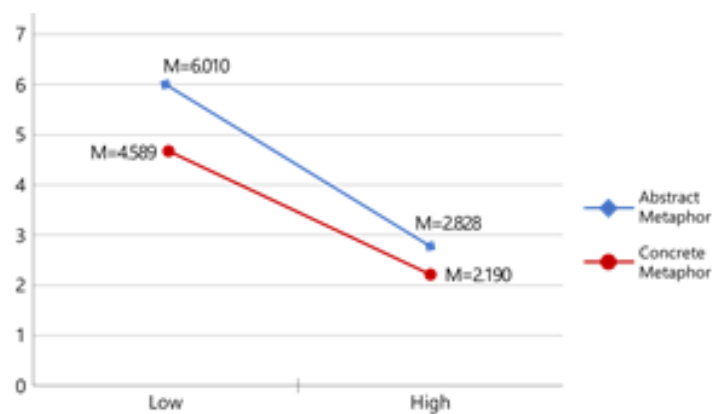


Figure 2: The interaction effect on visual metaphor type and consumer social-face sensitivity for compliance effort.

F. The Interaction Effect on Visual Metaphor Type and Consumer Social-face Sensitivity for Verbal Spread (verbal behavior)

As shown in table 9, 10, in figure 3, An examination of the interaction effect on visual metaphor type and consumer social-face sensitivity level for verbal spread (verbal behavior) showed that there was an interaction effect ($F=8.695$, $p<.01$). More specifically, in the case of visual metaphor type, verbal spread ($M=6.010$) was highest in the case of concrete metaphor and low social-face sensitivity; and verbal spread ($M=2.178$) was lowest in the case of

abstract metaphor and high social-face sensitivity.

TABLE IX
THE INTERACTION EFFECT ON VISUAL METAPHOR TYPE AND CONSUMER
SOCIAL-FACE SENSITIVITY FOR VERBAL SPREAD (VERBAL BEHAVIOR).

	F	Eta ²	Observed Power
Visual metaphor type(a)	102.273***	.464	1.000
Social-face sensitivity level(b)	630.296***	.842	1.000
(a) * (b)	8.695**	.069	.833

* p<.01 *** p<.001

TABLE X
MEAN AND STANDARD DEVIATION OF VISUAL METAPHOR TYPE
AND CONSUMER SOCIAL-FACE SENSITIVITY FOR VERBAL SPREAD (VERBAL
BEHAVIOR).

Visual metaphor type	Social-face sensitivity level	N	M (Std)
Concrete metaphor	Low	33	5.888(.599)
	High	35	2.933(.341)
	Sum	68	4.367(1.563)
Abstract metaphor	Low	26	4.512(.784)
	High	28	2.178(.562)
	Sum	54	3.302(1.355)
Sum	Low	59	5.282(.968)
	High	63	2.597(.587)
	Sum	122	3.896(1.562)

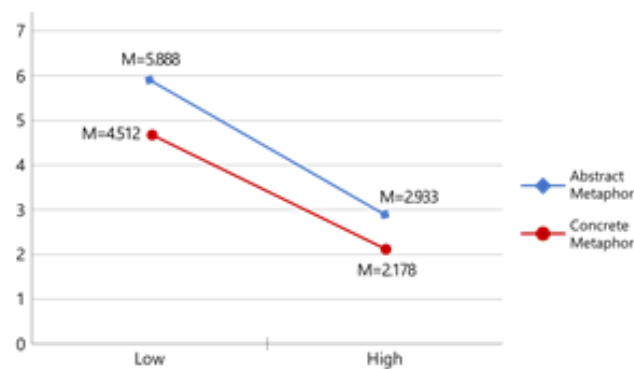


Figure 3: The interaction effect on visual metaphor type and consumer social-face sensitivity for verbal spread (verbal behavior).

G. The Interaction Effect on Visual Metaphor Type and Consumer Social-face Sensitivity for Feedback

As shown in table 11, 12, An examination of the interaction effect on visual metaphor type and consumer social-face sensitivity level for feedback showed that there was a interaction effect ($F=8.695$, $p<.01$). More specifically, in the case of visual metaphor type, feedback ($M=5.929$) was highest in the case of concrete metaphor and low social-face sensitivity; and feedback ($M=2.011$) was lowest in the case of abstract metaphor and high social-face sensitivity.

TABLE XI
THE INTERACTION EFFECT ON VISUAL METAPHOR TYPE AND CONSUMER
SOCIAL-FACE SENSITIVITY FOR FEEDBACK

	F	Eta ²	Observed Power
Visual metaphor type(a)	92.901***	.440	1.000
Social-face sensitivity level(b)	598.977***	.835	1.000
(a) * (b)	5.575*	.045	.649

* $p<.05$ *** $p<.001$

TABLE XII
MEAN AND STANDARD DEVIATION OF VISUAL METAPHOR TYPE AND
CONSUMER SOCIAL-FACE SENSITIVITY FOR FEEDBACK

Visual metaphor type	Social-face sensitivity level	N	M (Std)
Concrete metaphor	Low	33	5.929(.654)
	High	35	2.847(.480)
	Sum	68	4.343(1.652)
Abstract metaphor	Low	26	4.551(.782)
	High	28	2.011(.605)
	Sum	54	3.234(1.454)
Sum	Low	59	5.322(.988)
	High	63	2.476(.679)
	Sum	122	3.852(1.656)

H. The Interaction Effect on Visual Metaphor Type and Consumer Social-face Sensitivity for Helping Others

As shown in table 13, 14, An examination of the interaction effect on visual metaphor type and consumer social-face sensitivity level for helping others showed that there was no interaction effect between visual metaphor type and social-face sensitivity level ($F=3.321$, $p>.05$), but a main effect was found in visual metaphor type ($F=37.722$, $p<.001$) and social-face sensitivity level ($F=490.929$, $p<.001$). In visual metaphor type, concrete metaphor ($M=4.279$) showed higher levels of helping others than abstract metaphor ($M=3.123$); and in social-face sensitivity levels, low levels ($M=5.350$) showed higher levels of helping others than high levels ($M=2.285$). Therefore, we evaluate helping others to be higher in cases of concrete metaphor over abstract metaphor, and in cases where social-face sensitivity levels are lower.

TABLE XIII.
THE INTERACTION EFFECT ON VISUAL METAPHOR TYPE AND CONSUMER
SOCIAL-FACE SENSITIVITY FOR HELPING OTHERS.

	F	Eta ²	Observed Power
Visual metaphor type(a)	139.326***	.541	1.000
Social-face sensitivity level(b)	998.282***	.894	1.000
(a) * (b)	.019	.000	.052

*** $p<.001$

TABLE XIV
MEAN AND STANDARD DEVIATION OF VISUAL METAPHOR TYPE
AND CONSUMER SOCIAL-FACE SENSITIVITY FOR HELPING OTHERS.

Visual metaphor type	Social-face sensitivity level	N	M (Std)
Concrete metaphor	Low	33	5.848(.559)
	High	35	2.800(.304)
	Sum	68	4.279(1.597)
Abstract metaphor	Low	26	4.717(.798)
	High	28	1.642(.394)
	Sum	54	3.123(1.668)
Sum	Low	59	5.350(.876)
	High	63	2.285(.674)
	Sum	122	3.767(1.722)

5 CONCLUSION AND IMPLICATIONS

The purpose of this study was to analyze the difference in consumer participation behavior and citizenship behavior based on visual metaphor type and consumer social-face sensitivity for high-tech products. Consumer participation behavior was limited to communication effort, sympathy effort, and compliance effort. Consumer citizenship behavior was limited to verbal, feedback, and helping others. The study conducted on college students.

The results of the study were that the interaction effect based on visual metaphor type and consumer social-face sensitivity levels appeared in sympathy effort, compliance effort, verbal behavior, and feedback. That is, in all cases for communication effort, compliance effort, verbal behavior, and feedback of the consumer, the highest response was shown in cases of concrete metaphor and low social-face sensitivity. Conversely, it was lowest in cases of abstract metaphor and high social-face sensitivity. At the same time, main effect appeared in communication effort and helping others of consumers. That is, in the case of visual metaphor, concrete metaphor showed higher levels than abstract metaphor. For social-face sensitivity, low levels of social-face sensitivity showed higher levels than high levels.

The implication of these research results is that the advertisement information evaluation of consumers occurs in one direction but also by vertical judgement consolidating the many design cues presented in the advertisement. We found that when vertical judgements are made through the partial design cues of the advertisement strong prior recognition occurs. Most advertising design elements which utilize metaphor select strategic design cues to stimulate the vertical judgement of consumers. Because cues that fit the existing scenario of the consumer act as the guideline for judgement, stimulus through selective exposure of metaphoric cues becomes an effective method of expression. The reason that concrete metaphors have a stronger influence than abstract metaphors is because abstract metaphors act as an element that disturbs the expansion of the mind. Another noteworthy research result was that low levels of social-face sensitivity showed a more positive result in participation behavior or citizenship behavior compared to high levels. The

implication of this research result is that in the case of high levels of social-face sensitivity, which put priority on scientific and logical decisions, decisions were made for specific behavior comprehensively considering the environment at the time of exposure to advertising stimulus rather than being affected by prior experiences.

The fact that consumer social-face sensitivity has a different effect based on the advertising expression presents an important guideline for establishing advertising creative strategy. If the planning process of an advertisement is a systematic and logical representation process, stimulating the emotions of the consumer can be said to be the ultimate creative element that is designed. In other words, the design elements of advertisements that utilize metaphor are devised to act as decisive factors to induce consumer behavior. If the visual metaphor cue of an advertisement is direct expression content to prove scientific fact, it cannot stimulate the imagination of the consumer. However, advertisements that utilize concrete metaphor elements can make the consumer identify with it. It is only that social-face sensitivity cannot be the absolute basis to decide whether concrete metaphors or abstract metaphors are effective persuasion methods. The reason for this is that in the case when visual metaphor is combined with the product type or verbal elements, it can lead to different results. What is clear is that when considering creative strategy for advertisements, to overlook consumer social-face sensitivity or metaphor type will make it difficult to induce the desired result.

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