

The Effects of Advertising Messages about a Non-target Product on the Evaluation of a Target Product: An Experimental Study

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In two experiments, we manipulate the advertising messages of non-target product and investigate their effects on evaluation of target product. The results of the two experiments shown that sensitivity to the limitations of evidence and the likelihood of judgmental moderation increases if (1) a target product is evaluated in the non-target product described on judgment relevant dimensions with differ from those used in describing the target or (2) a target is judged in the non-target of a completely different type of product described by a relatively large amount of messages. The findings from this paper have indicated that the effect depends on the type and amount of attribute message provided to the non-target product.

Introduction

The amount of message used to form an overall evaluation on product influences the extremity of the overall evaluation and confidence in that evaluation is suggested by Information Integration theory (Anderson 1967,1981,1982,1991; Louviere 1988; Lynch 1985; Troutman and Shanteau 1976; Sanbonmatsu et al. 1997,1998). The information is then combined, according to an integration rule (e.g., the average rule), into an overall evaluation of the product (Meyer 1981; McCann 1982; Kardes & Kalyanaram, 1992). There are many studies in the field of information integration. The most interesting and valuable findings is the set-size effect — the overall evaluation of an object becomes more extreme as the amount of information known about the object increases. In addition, the real product is hardly discussed in the classic experiment on the set-size effect (Anderson 1967), subjects judged the likability of a target person described by sets of 1,2,3,4,or 6 adjectives. Furthermore, while the number of presented adjectives increased, the evaluation extremity increased either.

It is well-know that consumers encounter numerous advertising messages from many sources and through various media in every day, so advertisers are increasingly concerned about the effectiveness of their messages. The results from many studies in marketing and advertising found the ways to enhance advertising effectiveness. Gordon, McKeage, and Fox (1998) proposed that advertisers strive to produce advertisements that will

involve the audience, thus causing the audience to pay more attention to the ads, focus more attention on product-related message contained in the ad, so researchers (e.g., Smith 1996) argue that advertisers should pay attention to how the ads messages are shown and presented to consumers. For example, the way message is constructed significantly to influence the consumers' judgments and decisions about the products (Zhang & Buda 1999; Sanbonmatsu et al. 1997,1998; Smith 1996; Ganzach and Karsahi 1995; Woodside and Singer 1994; Puto 1987). The evidence (Levin & Gaeth 1988; Gaeth et al.1990) reveals that the effects of message framing may vary under different conditions. Smith (1996) is also suggested that the impact of message framing may depend on the type of product. Positive ad have a more favorable impact than the negative ad on purchase-decision judgments for transformational products.

Indeed, consumer studies have extended the scope of the investigation and explored the effect of deterministic product attribute framing on overall product judgment (e.g., Sanbonmatsu et al. 1997,1998; Levin and Gaeth 1988). Also, the effect of framing advertising messages is considered by advertisers (e.g., Smith 1996; Zhang & Buda 1999).

In many decision situations, people form evaluation about product based on available message partially. For example, there are many situations to be considered when a consumer needs to purchase a new sport shoes. The most important attribute on which to evaluate sport shoes is subjective by different consumers. Unfortunately, not all attributes and styles of sport shoes are compared. Therefore, the consumer is faced with the problem of how to respond when the value of a salient product attribute is unknown or a particularly important attribute is missing. Sometimes, a subsequent evaluation about the same product may be made upon receiving new message (e.g., a new ad).

A judgment often requires the gathering, assessment, and integration of multiple information. The limited or incomplete information is often encountered during judgment process. As a result, most information integration judgments are made with incomplete knowledge of all the relevant attributes or qualities.

The overall judgment is performed under the knowledge of the value and the importance or diagnosticity of each of the known attributes is integrated. Most instances show that the amount or set size of the message is applied to adjust the information integration judgments. When the important attributes message is missing, the overall judgment of a product is often moderated. It has been demonstrated in the "set-size effect". In addition, the amount of information described decreases, the evaluations become moderated, even the value (the evaluative implications) of each piece of message is held (Anderson,1981,1982,1991; Kaplan, 1981; Kardes & Kalyanaram, 1992). Yamagishi & Hill, 1981, 1983; Sanbonmatsu et al.1991, 1997, 1998).

Detection of the General Limitations of the Given Message

Judgments through limited information may be affected by non-target cues in increasing sensitivity. In some cases, a great deal of message in a non-target product significantly

may highlight the small amount of message in a target product, thus leading to judgmental moderation. This analysis reveals that the amount of message used in describing a non-target product may influence perceptions of the amount of message given about a target product, even the non-target product is non-relevant on different dimensions from the target product.

For example, following exposure to a large amount of message about a soft drink, people may be more sensitive to the limited message presented about sport shoes. Thus, the set-size of a description of a non-target product may influence subsequent judgments of a completely different target product. Hence,

H1a : Ad messages of product increase, the evaluations become more extreme
(similar product category)

H1b : Ad messages of product increase, the evaluations become more extreme
(different product category)

Mission-Detection of Specific Attribute Message of Product

The non-target cues that heighten cognizance of the absence of specific attribute message should reduce the weighting of the given evidence and increase judgmental moderation through the limited message. Judgment of an object through limited information tend to be over extremely because of the object is judged in isolation (Fox & Tversky 1995; Hsee and Leclerc 1998; Kaplan, 1981; Sanbonmatsu et al., 1992). Hsee and Leclerc (1998) found that for two different objects that were positively evaluated in isolation, presenting the objects together led to each object serving as a basis of comparison for the other. Consequently, both objects received lower evaluations when presented together relative to when they were presented in isolation. From these instances, non-target cues may stir the recognition of specific attributes are not proposed.

With similar attributes, the specific omissions may not be apparent. However, when two products have different attributes, the attributes of one product may alert judges to the message missing in respect to the other. To understanding comparison process has to distinguish the differences between similar and different attributes (Tversky, 1977). Shared attributes are features which are used to describe two objects, whereas unique attributes are features used in describing one object but not the other. For instance, if one brand of soft drink is described by five attributes and another brand is described by a subset of three of the original five attributes, these three attributes are shared by both brands. In this case, the presence of message about two additional attributes in the large set brand (i.e., the brand described by more message) and the absence of message about the two additional attributes in the small set brand (i.e., the brand described by less message) should be highlighted. This enhances the sensitivity in omissions and more moderate judgments depend on the minor set object.

Some instances, show that there is no overlap between the features of two objects. For example, if one brand of automobile is described by five attributes and another is

described by three attributes that are unrelated to the original five, both objects are described by attributes unique to each brand. In this case, the absence of message about the five original features of the large set object should produce judgmental moderation toward the small set object. Similarly, the message missing about these three features of the small set object in the description of the large set object produce judgmental uncertainty and moderation toward the large set object. Therefore, more moderate judgments of the small set object are observed in shared attribute conditions, and more moderate judgments of both objects have to be observed in unique attribute conditions. The type of description is either positive or negative for general Ad message.

The foregoing discussion leads to the formulation of three hypotheses as follow:

H2 : Ads messages describe in shared attributes are more extreme than Ads messages describe in unique attributes, across set-size.

H3 : Ads messages describe positively are more extreme than Ads messages describe negative, across set-size.

Method

Two experiments investigated the effects of non-target factors on judgment based on limited message. These experiments attempt to demonstrate that sensitivity to the limitations of evidence and the likelihood of judgmental moderation is increased (1) a target is evaluated in the non-target product described on judgment relevant dimensions is different from those used to describe the non-target and (2) a target product is judged in the non-target product described by a relatively large amount of message. These two experiments are as follows :

Experiment 1

Subjects, Procedure and Measures

The subjects were one hundred and twenty undergraduate students in Department of International Trade, National Taipei College of Business. They were randomly assigned to experimental conditions. Participants received descriptions of two soft drinks¹ (Brand A and B), one of which was described by five attributes (the large messages) and the other by three attributes (the small messages). The statements of the small message were either a subset of the large message (shared attribute conditions) or not a subset (unique attribute conditions). Both of two products were put on the same questionnaire in the same page, and the descriptions were either all positive or all negative. After reading the product's descriptions, participants evaluated each soft drink on a 15-point scale by -7 (=extremely unfavorable) and +7 (=highly favorable).

Experimental Design

The design for this study was a 2 (message amount : large or small) x2 (attribute valence : positive or negative) x2 (attribute type : shared or unique attributes) mixed design. There are eight groups totally.

Results

The sample has been tested and passed the requirement of normal distribution, which is represented the characteristics of population. This three-way ANOVA (see Table 1) presented significant main effect for set size, F -statistic = 17.98, $df = (1, 116)$, which was statistically significant at the 0.0001 level, valence, $F(1, 116) = 7.65$, $p < 0.0062$, and for the type of attributes, $F(1, 116) = 9.17$, $p < 0.0028$. The mean analysis of Experiment 1 (see Table 2), as predicted, evaluative extremity was greater in large (vs small) set size condition, in shared (vs unique) attribute and in positive (vs negative) attribute condition. A marginally significant attribute type by valence interaction presented, $F(1, 116) = 3.7$, $p < 0.0559$, as the type of attribute effect tended to be more significant in negative attribute condition (See Figure 1). No other interaction effect was observed.

Discussion

The results of Experiment 1 same as previous research and show that moderate judgments are formed toward an object described by a small amount of message. More importantly, less extreme judgments are formed toward a product described by a large amount of message as well as a small amount of message, when each product is described by unique, non-overlapping attributes. Attributes unique to one product imply a lack of message about these specific attributes regarding the other product. Detecting specific omissions increases the awareness of the specific limitations of the given evidence and results in more moderate judgments. Hence, message concerning one product provides a cue for assessing the sufficiency of the specific evidence provided to another product.

Table 1. ANOVA Results

Source of Variation	Sum of Squares	df	F	P
Amount of Ads message (A)	124.6202	1	17.98	0.0001
attribute valence (B)	53.0048	1	7.65	0.0062
attribute type (C)	63.5817	1	9.17	0.0028
A x B	3.5048	1	0.51	0.4778
B x C	25.6202	1	3.7	0.0559
A x C	0.2356	1	0.03	0.8539
A x B x C	1.7356	1	0.25	0.6173

Table 2. Mean Analysis of Experiment 1

Amount of Ads message	Positive attributes		Negative attributes	
	Shared	Unique	Shared	Unique
Product evaluation				
Small amount	2.69	2.54	-2.31	-0.38
Large Amount	4.23	3.58	-4.19	-2.12
	(n = 30)	(n = 30)	(n = 30)	(n = 30)

Consequently, the recognition of the missing message may have had a greater effect in the negative valence conditions than in the positive valence conditions. Experiment 1 examined the judgmental effects of evaluating a product in the context of another product described on different attribute dimensions. Message about the unique attributes of the non-target product increased sensitivity to the absence of message about these specific attributes in the description of the target. These results provide support for H2 & H3.

Experiment 2

Subjects, Procedure and Measures

The subjects were ninety undergraduate students in the Department of International Trade, National Taipei College of Business. They were randomly assigned to experimental conditions. Participants received descriptions of two products, soft drink and shoes ². Half of the participants read message about the soft drink, the other read message about shoes at the same time. Both of two products were put on the same questionnaire in the same page, and the descriptions were all positive and were proclaimed by experts. The first product was described varied as either 4 (small set-size), 8 (medium set-size), or 12 (large set-size) statements. The second product was always described by the 4 statements. After reading the product's descriptions, participants evaluated each product on a 9-point scale by -4 (=extremely unfavorable) and +4 (=highly favorable).

Experimental Design

The design for this study was a 2 (two product) x3 (set size of the non-target product) mixed design. There are six groups totally.

Results

This two-way ANOVA presented a significant main effect of the set size, $F(2,84)=4.73$, $p<0.0005$. The mean analysis of Experiment 2 (see Table 3), as predicted, evaluation of target product became less extremity as the amount of message describing the non-target product increased. Evaluation of product were less extreme when the first product was described by 12 attributes to 8 attributes, the same as, from 8 attributes to 4 attributes, but the trend was not significant. The products (which is first) had no major or interaction effects.

Table 3. Mean Analysis of Experiment 2

Object	Ads message amount of non-target product		
	Small	Medium	Large
Non-target product	1.96	2.31	2.50
Target product	1.96	1.69	0.96
	(n = 30)	(n = 30)	(n = 30)

Discussion

From Experiment 1, the non-target and the target products were the members in the same product category (both were soft drinks). In contrast, Experiment 2 examined the judgmental effects of evaluating a target product in the context of the other product belonging to and totally different product category (a soft drink and sport shoes).

Here, more moderate judgments of the target product were formed as the amount of message used to describe the non-target product increased. Hence, the amount of message used to describe a non-target product appears to influence sensitivity to the limitations of the evidence about subsequently considered stimuli. Interestingly, this pattern was observed even though the non-target (first) product and the target (second) product were members of different categories. Products belonging to different categories are generally non-comparable, so message about one product often has little direct impact on judging the other. These results provide support for H1a & H1b.

It is suggested that the amount of message used to describe the non-target product diminished the weight in of the description of the target object. When non-comparable product is described by a large amount of message, people may realize that they have limited message about a briefly described target. This realization may not require the detection of specific missing attributes. A general sense that message is limited may be sufficient to lead to judgmental moderation.

Although soft drink and sport shoes do not have many shared attributes. Some overlap may especially exist along abstract dimensions, such as reliability or quality (Johnson 1984). Thus, there would have some possibility that the message presence of a particular dimension of one product has cued judges to the message absence on this dimension which is concerning another products, analogous to the unique attribute effects examined in Experiment 1.

Another possible interpretation of the results of Experiment 2 is that the shift in judgments of the target product observed shift as a function of the amount of messages describing non-target product may be stemmed from a change in the criteria used to evaluate the evidence. The non-target product with extreme descriptions may be contributed to an evaluative contrast effect (Herr, Sherman, & Fazio, 1983; Parducci & Wedell, 1986; Petty & Wegener, 1993; Wedell, 1991, 1994) where the estimation of non-target product served as a reference point or anchor from the target product shifted away to a more moderate position.

Conclusions

When the perceived sufficiency of the evidence was lower, the non-target product was described by a large (vs small) amount of message. Also, judgment confidence of target product tended to be weaker when the non-target product was described by a large (vs small) amount of message. In fact, it is gained that confidence was significantly correlated with extremity and perceived sufficiency from this study.

The experiments shown that sensitivity to the limitations of evidence and the likelihood of judgmental moderation increases if (1) a target product is evaluated in the non-target product described on judgment relevant dimensions with differ from those used in describing the target or (2) a target is judged in the non-target of a completely different type of product described by a relatively large amount of messages. Thus, non-target product, even product of a different category may influence judgments of targets described by limited evidence. The findings from this paper have indicated that the effect depends on the type and amount of attribute message provided to the non-target product.

Thus, the effects of message about a non-target product on target extremity are mediated by the changes in perceived weight or evidence sufficiency. At least, non-target product may affect and decrease the weighting of overall evaluation on target product message in four ways: (1) lacking confidences in evaluating the value of the product (2) under the situation of limited (or insufficient) information (3) the absence of specific attribute information (4) while non-comparative basis, people are getting conserved for evaluating of a product.

The findings suggest that non-target products message may alert people to detect specific omissions of comparable product is described on different dimensions (Experiment 1). In this situation, message about attributes unique to one product can increase the sensitivity to a lack of message about these specific attributes concerning the other product.

Implication for Advertising

This study can be provided as the reference while enterprise advertises print advertising in front/rear or the same page, the evaluation of a product will be affected by the quantity of product message in the front print advertising. Therefore, the advertising message of necessary commodities has to prevent the usage of negative statement. It is strongly suggested to increase the volume of ad message if your products want to have the positive and firm evaluation; otherwise, to adopt less volume of ad message or the totally different characters from other brands (ex. by the style of unique attribute) to get moderate evaluation. In sum, both of them can reach the similar effectiveness.

Footnotes

- 1 The sets of favorable soft drink attributes were quenching, peptic, supplement vitamin, refresh, deoverdo, balance nutrition, enforce physical strength, cosmetic, prevent constipation, dietry, tasty, multi-flavor.
- 2 The sets of favorable sport shoes attributes were flexibility, ventilation, excellent fit, brisk, durable, colorful, touchy, soften cushion, comfortable, full-sized, attractive, fashionable.

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