

May 2005

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Recommended Citation

Ait El Houssi, A.; Morel, K. P.; and Hultink, E. J.: The disruptive impact of attribute information on the effectiveness of analogies in print advertising as a means to enhance consumer learning of new product benefits 2005.

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Keywords

Analogies, really new products, consumer learning, advertising, attribute information

Disciplines

Business | Social and Behavioral Sciences

Publication Details

This conference paper was originally published as Ait El Houssi, A, Morel, KPN and Hultink, EJ, in The disruptive impact of attribute information on the effectiveness of analogies in print advertising as a means to enhance consumer learning of new product benefits. 34th EMAC Conference, Milan, Italy, 24-27 May 2005.

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Paper prepared for the 33rd EMAC Conference,
Murcia, Spain, 18th – 21st May, 2004

Suggested tracks:

1. Marketing Communications
2. Marketing and Innovation

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The presented study had two purposes. First, it pursued to demonstrate that it is more effective to use analogies in advertisements for really new products to increase consumers' comprehension of the new product's benefits than not to use analogies. Second, it aimed to test the (counterintuitive) assumption that inclusion of product attribute information in the advertisement in addition to the analogy would actually frustrate benefit comprehension. The results of the experiment showed that advertisements with an analogy lead to greater benefit comprehension than advertisements without an analogy. Further, it is more effective in print advertising in managing consumer learning of a new product's benefits to use an analogy without than with additional product attribute information. The use of analogies did not increase purchase intention however. We discuss these findings and outline directions for future research.

Keywords: Analogies; Benefit comprehension; Attribute information; Really new products.

Suggested track: Advertising, Promotions and Marketing Communications

1. Introduction

New product marketers are constantly seeking ways to ensure that their advertisements not only attract consumers' attention and generate interest, but educates them about their new products' benefits as well (cf. Aaker, Batra, and Myers, 1992). Educating consumers is especially relevant in the case of really new products, because such products are relatively complex and often combine several functionalities. As a result, advertisements for really new products typically contain a lot of information. Moreover, this information is likely to consist of technical features and language that consumers are unable or unwilling to understand (Bradley and Meeds, 2004; Meeds, 2004). In interviews with prospective consumers of several really new products, Veryzer (1998) found that "quite often customers had no experience with the technologies underlying these products and thus they had little or no frame of reference for understanding them" (p.143).

Given the complexity of really new products and their advertisements, the communication objective for such products should not be to emphasize the product's new technology and its different components. Instead, a more effective communication objective would be to persuade consumers of the new benefits that the new product (technology) provides them with in such a way that they will be eager to purchase it (Lee and O'Connor, 2003). The question is how marketers should do this? Analogies have been proposed to be effective learning aids as they involve the transfer of existing knowledge (the base) to the new product (the target) in order to facilitate learning, increase comprehension, and direct consumer's attention to the key benefits (Gregan-Paxton and Roedder John, 1997). The effectiveness of analogies as a means to enhance consumer learning of really new products has been the topic of recent research (Gregan-Paxton, Hibbard, Brunel, and Azar, 2002; Roehm and Sternthal, 2001). These studies have provided interesting but inconclusive results. Roehm and Sternthal (2001) compared the use of analogy with literal similarity in advertising and demonstrated that messages containing an analogy are better comprehended and are more persuasive, but only when the recipient has expertise with regard to the base. They further found that the effectiveness of an analogy is not only moderated by consumers' ability to map structural relations, but also by the availability of cognitive resources to perform the comparison task. In another study, Gregan-Paxton et al. (2002) showed that the use of analogy directs consumers' attention to the corresponding relations between target and base. Although it is suggested that the structural relation between the base and the target is more informative about what benefits a product offers (Gregan-Paxton and Roeder John, 1997), this assumption has not been empirically tested by Gregan-Paxton et al. Hence the important question remains whether a focus on corresponding attributes actually enhances consumer's *comprehension* of the key benefits of a really new product. Answering this question constitutes the first objective of the present study.

Gregan-Paxton et al. (2002) have also shown that analogy triggers selective processing of new product information. They have suggested that analogy can effectively direct consumer's attention to some attributes and away from others. Having said this, we believe that one reason why the use of analogies in previous research has not worked as well as expected, may be that the investigated advertisements used attribute information in addition to the analogy. It is proposed here that the inclusion of technical attribute information in an ad copy is likely to prevent consumers from paying sufficient attention to the analogy and thus from forming a concrete representation of the new product and the benefits it offers (Bradley and Meeds, 2004). The second objective of the present study is to investigate the plausibility of this proposition by means of an experiment in which consumers' comprehension of a new product's benefits advertised through both an analogy and attribute information is compared with consumers' comprehension of a new product's benefits advertised through an analogy only.

2. The beneficial effects of analogies

When processing an analogy, cognitive effort has been found to be allocated to the structural relations between the base and the really new product rather than to attribute similarities between them (which are few or absent) (Gergan-Paxton et al., 2002). The focus on structural relationships enhances comprehension of the distinctive benefits of the really new product, because structural relations are thought to be more informative about what benefits a product offers than are attributes (Gergan-Paxton and Roeder John, 1997). Therefore, our first hypothesis reads as follows:

H1a: Consumers will better comprehend the distinctive benefits of a really new product when it is advertised through an analogy than when no analogy is used.

Marketers strive for communication goals that go beyond understanding. They aim to create a positively exaggerated impression of the key benefits in order to make their new product more appealing to consumers. It can therefore be expected that benefit comprehension will lead to a more positive evaluation of the new product. Marketers will make sure only to emphasize product benefits that consumers are likely to appreciate. Since an analogy is believed to attract attention to the key benefits of a really new product and given the assumption that consumers appreciate these key benefits, a positive relation is expected between the use of analogies in ads for really new products and consumers' intention to purchase the new product.

H2a: Consumers will have higher intentions to purchase a really new product when it is advertised through an analogy than when no analogy is used

3. Attribute information as a disruptive factor

In practice, companies often communicate attributes when introducing new products (Hoeffler, 2003). Since really new products are relatively complex, advertising of these products is especially prone to technical features and language (Bradley and Meeds, 2004; Meeds, 2004). Including attribute information to an ad containing an analogy may be very demanding for consumers, because most consumers do not have the knowledge to evaluate such technical information. Previous research has demonstrated that even consumers with expertise in the domain of a really new product experience difficulties with comprehending and appreciating the benefits of this type of products (Moreau et al., 2001). The inclusion of technical characteristics of a really new product may induce consumers to focus on what is not known (Lee and O'Connor, 2003) and thus impose significant learning requirements upon the consumer (Lehmann, 1997).

Roehm and Sternthal (2001) offered evidence that the processing of an analogy is a resource-demanding task. This is because analogies rely on the mapping of structural relations that can be difficult to detect and resource demanding to map. When technical attribute information is presented in an ad that also contains an analogy, consumers' cognitive resources are used to search memory for representations that are capable of making sense of the highly unfamiliar product attributes. Simultaneously, however, substantial resources must be allocated to the processing of the analogy if the analogy is to be successful (Roehm and Sternthal, 2001). In other words, consumers' cognitive resources must be divided over the task of comprehending the technical characteristics of the really new product on the one hand, and the task of comprehending the analogy on the other. When the former task demands a great percentage of the available resources, comprehension of the analogy may be compromised. If this happens, the merits of using an analogy are likely to be reduced or even

nullified. In support of this account, Gregan-Paxton et al (2003) found that consumers who processed advertisements containing an analogy recalled significantly fewer new product features than those who processed advertisements without an analogy. In short, we hypothesize that the positive effects of the use of analogies on benefit comprehension and purchase intention will be weakened by the inclusion of attribute information in the advertisement. Hence, hypotheses 1b and 2b read:

H1b: Consumers will better comprehend the distinctive benefits of a really new product when it is advertised through an analogy only than through an analogy plus attribute information.

H2b: Consumers will have higher intentions to purchase a really new product when it is advertised through an analogy only than through an analogy plus attribute information.

4. Method

Participants

Participants were 122 pupils from a secondary school, 61 percent male and 39 percent female with an average age of 16.6 years, who participated voluntarily. They were recruited at school during breaks and free periods. Secondary school pupils were selected, as they are most likely to be interested in the new products presented. Apart from this, they are less likely to have a special interest or expertise in advertising.

Design, Stimuli and Procedure

The study employed a 2 (product category: PH 530, RP 530) by 3 (message type: no-analogy condition, analogy only condition, analogy plus attributes condition) between-subjects design. The PH 530 is a mobile phone with music functionality to mix and create music and ring tones. The RP 530 is a portable pen-like reading device that provides definitions, spelling and pronunciation of words. The experimental treatment consisted of exposure to one of the message types for one of the two products.

Three versions of an ad for each new product were created by a graduate student in Industrial Design Engineering. The products were chosen based on a brainstorm session with two student groups of five persons each who indicated that these product categories were highly relevant to secondary school pupils. All versions of the ad were constructed to be as similar as possible to eliminate the lay-out of the ad as a possible confound. No brand names were provided because we did not want participants' judgments to be based on such peripheral cues (Ozanne, Brucks, and Grewal, 1992). The ad for the no-analogy and the analogy plus attributes condition consisted of a headline at the top of the page, a coloured picture of the new product at the centre of the page, and a body copy text at the bottom of the page. Copy block length (i.e., number of words) was controlled in the ads, with a maximum length difference of less than eight percent. The analogy was manipulated in the headline (i.e., PH 530: "Be your own DJ"; RP 530: "With the RP 530 you always have your language teacher close at hand"). The ad copy described general features of the new product; no benefits were included, only attributes. The ad version for the analogy only condition used the same format except for the body copy containing the product attributes that was not included. The original product names were changed to fictitious names (i.e., RP 530, PH 530) in order to minimise associations regarding the products' attributes and benefits.

Each participant received a booklet containing instructions, stimulus, and dependent measures. Participants were allowed to examine the ad at their own pace and they could freely turn back to the ad while filling out the questionnaire. After they completed the questionnaire, the purpose of the experiment was explained. The whole procedure took less than 10 minutes.

Measures

Product interest. To ensure the relevance to the sample group participants were asked to rate the extent to which they were interested in the new product presented in the ad on three items ($\alpha = .84$): “not interesting at all” / “very interesting”, “dislike it very much” / “like it very much”, and “does not interest me at all” / “interests me very much”.

Benefit comprehension. Based on Roehm and Sternthal (2001) participants were given a list of 11 characteristics of the advertised product presented in a random order (see table 1). This list was a result of a literature search of both new products containing the product’s attributes and benefits. They were asked to indicate by a checkmark the three main characteristics *that were clarified by the advertisement for the new product*. Participants were instructed not to select features that they personally considered important. To reduce possible primacy and recency effects, the first and last characteristic on the list were fillers. Apart from the fillers, the list included three distinct benefits of the new product, three attributes that were presented in the ad copy, and three attributes that the advertised product has but that were not mentioned in the ad. The number of benefits, ranging from zero to three, marked by the participant from the list determined the degree of participant’s comprehension of the new product’s benefits.

Purchase intention. Participants’ intention to purchase the new product was measured on a single seven-point bipolar adjective item with end points of “a product I absolutely would not like to buy”/“a product I absolutely would like to buy”).

	THE PH 530...	THE RP 530...
1.	is made of synthetic material (f)	is made of synthetic material (f)
2.	has a talk time of 6 hrs max. (a)	has a microcomputer (a)
3.	makes it possible to create your own music (b)	translates words (b)
4.	has a melody editor (ac)	has a scanner (ac)
5.	has an audio recorder (ac)	has a speech function (ac)
6.	makes it possible to create your own ring tones (b)	spells words (b)
7.	has exchangeable covers (a)	has a dictionary Dutch-English / English-Dutch (ac)
8.	has a standby time 300 hrs max. (a)	has a summary function (a)
9.	makes it possible to mix music (b)	gives the correct pronunciation of words (b)
10.	has FM radio (ac)	comes with a headset (a)
11.	is for sale online(f)	is for sale online (f)

Table 1: list of the product characteristics of the PH 530 and RP 530. (a)= attribute *not* mentioned in the ad copy, (ac)= attribute mentioned in the ad copy, (b)= benefit, (f)= filler.

5. Results

To ensure the selected product categories were relevant to secondary school pupils interest in the advertised product was measured. Results show that participants were equally interested in both products (PH 530: 4.5, RP 530: 4.5). Consistent with hypotheses 1a and 1b an ANOVA with benefit comprehension as the dependent variable yielded a significant main effect for message type ($M_{\text{no-analogy}} = .38$; $M_{\text{analogy + attributes}} = .88$; $M_{\text{analogy only}} = 1.55$; $F_{2,116} = 22.91$, $p < .01$). A Tukey post-hoc comparison test showed that the difference of the analogy only condition and the analogy plus attributes condition with the no-analogy condition reached significance (mean difference_{analogy + attributes vs. no-analogy} = .50, $p < .05$; mean difference_{analogy only vs. no-analogy} = 1.17, $p < .05$). The difference of the analogy only condition with the analogy plus

attributes condition also reached significance (mean difference_{analogy only vs. analogy + attributes} = .67, $p < .05$). Further, the analysis of variance revealed the presence of a marginally significant two-way interaction between message type and product category ($F_{2,116} = 2.93$, $p = .058$). The same significant differences between message types were found for the PH 530, but not for the RP 530. For this product significant differences were found between the analogy only condition and the no-analogy condition (mean difference_{analogy only vs. no-analogy} = .76, $p < .05$).

Hypotheses 2a and 2b were rejected as an ANOVA with purchase intention as the dependent variable failed to show any significant effects ($F_{2,116} = .01$, $p = .99$). All three message types generated equally positive purchase intentions for both new products ($M_{\text{no-analogy}} = 3.56$, $M_{\text{analogy only}} = 3.50$, and $M_{\text{analogy + attributes}} = 3.56$).

6. Conclusion and discussion

The presented study had two purposes. First, it pursued to demonstrate that it is more effective to use analogies in advertisements for really new products to increase consumer comprehension of the distinctive benefits of the new product than not to use analogies. Second, it aimed to test the (counterintuitive) assumption that inclusion of product attribute information in the advertisement in addition to the analogy would actually frustrate benefit comprehension. The rationale for this assumption is that inclusion of relatively complex technical attribute information in an advertisement requires consumers to spend a disproportional part of their available processing resources to it in order to comprehend it. As a result, limited attention is dedicated to comprehension of the analogy, decreasing its potential beneficial effects on product benefit comprehension.

With respect to the first purpose, the results showed that advertisements with an analogy lead to greater benefit comprehension than advertisements without an analogy. It did not increase purchase intention. Regarding the second purpose, the results showed that it is more effective in print advertising in managing consumer learning of a new product's benefits to use an analogy without than with additional product attribute information. An interesting finding that has not been reported earlier, but that should be mentioned here is that although the ads containing an analogy only scored higher on consumer benefit comprehension, consumers found this ad less informative than the ad containing an analogy plus attributes. This finding is surprising because it suggests that while consumers perceive attribute information to be informative, inclusion of such information in an ad with an analogy actually leads to lower product benefit comprehension. This finding may be the result of a kind of 'more is better' heuristic that consumers apply and that, as is the case with most heuristics, is generally effective. In case of the particular circumstances that were investigated in this study more information appears to be worse, however

It should be noted that the set up of the study was conservative in the sense that participants were free to spend as much time on processing the advertisement as they wished. This gave them ample of time to process both the attribute information and the analogy. Nevertheless, benefit comprehension was lower in the analogy plus attributes condition than in the analogy only condition. In reality, consumers only spend a short time on viewing and processing an ad as a result of which the available cognitive resources will be even more scarce.

The use of an analogy only in marketing communications increased our participants' understanding of what benefits the new product had to offer, but surprisingly consumers' purchase intention appeared to be unaffected. Our results showed that this cannot be attributed to a difference in product interest between participants in different conditions. We do not know why no difference regarding purchase intention was found. Future research will need to

look more deeply into the relationship between benefit comprehension and dependent variables such as product preference, purchase intention, and actual product purchase.

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