

COGNITIVE AND AFFECTIVE CONSEQUENCES OF TWO TYPES OF INCONGRUENT ADVERTISING

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**COGNITIVE AND AFFECTIVE CONSEQUENCES OF TWO TYPES OF
INCONGRUENT ADVERTISING**

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ABSTRACT

In this study, Heckler & Childers' (1992) two-dimensional conceptualization of incongruity is employed and related to the different schemas that consumers use in ad processing. Consumers can relate advertising to expectations about ads for the product concerned from the ad schema or to brand-related expectations from the brand schema. If an ad is incongruent with the brand schema, consumer responses to incongruity do not only reflect expectancy of the ad, but also involve determining relevancy to the brand, consistent with the two-dimensional conceptualization of incongruity. However, if an ad is incongruent with the ad schema consumers will only react to the expectancy dimension of incongruity.

Therefore, these two types of incongruity have different consequences in terms of consumer evaluation, processing and categorization. We find that incongruity with the ad schema mainly has affective consequences. Ads that are incongruent with the ad schema lead to more arousal and consequently more favorable ad evaluations than ads that are congruent with the ad schema. Incongruity with the brand schema has predominantly cognitive consequences. Ads that are incongruent with the brand schema lead to more extensive processing than ads that are congruent with the brand schema. Furthermore, consumer brand beliefs and categorization change as a result of incongruent advertising information.

INTRODUCTION

In a cluttered media environment, one of the major challenges for advertising is to attract and retain the attention of consumers. One of the most commonly used ways to create attention-getting ads is to develop ads that are incongruent with consumers' expectations. Such ads are thought to be more extensively processed, and more positively evaluated. Goodstein (1993) and Olney, Holbrook & Batra (1991) show that consumers watch ads with a unique execution longer than standard ads, and Heckler and Childers (1992) show that some types of incongruent ads are better recalled than congruent ads. Lee & Mason (1999) show that incongruity leads to more positive ad and brand evaluations. Several studies have shown that incongruent ads are perceived to be humorous, and produce positive affective responses (Lee & Mason, 1999; Alden, Mukherjee & Hoyer 2000).

But not all evidence rules in favor of incongruity. Wansink & Ray (1996) find that ads propagating incongruent new uses of a brand are evaluated less favorably than ads featuring congruent new uses. Similarly, Goodstein (1993) finds that, although ads with a unique execution are watched longer and processed in more detail, they are not liked better than typical ads. The earlier cited study by Lee & Mason (1999) finds that unexpectedly executed ads are evaluated more favorably than expected ads, but only when the ads feature information that is relevant to the brand.

More insight into the effects of incongruity in advertising can be gained by looking at how consumers determine incongruity. We propose that the effects of incongruity differ between different types of incongruity. We look at two different types of incongruity, namely incongruity of the ad's execution, and incongruity in the message conveyed by the ad. We examine the effects of these two types of

incongruity on consumer processing and evaluation of the ad, and the evaluation and categorization of the advertised brand.

THEORY

Incongruity is often approached from the perspective of schema theory (Fiske & Taylor, 1984). Schemas are cognitive structures that represent knowledge about a concept, and can be viewed as abstract expectations that guide cognitive processes. In line with this, marketing researchers use the term schema incongruity to refer to any information that is not consistent with prior expectations (Desai & Gencturk, 1995).

Consumers have been shown to use two different schemas in processing ad information, the brand schema and the ad schema. The brand schema contains knowledge about the brand's defining characteristics and its position in the category (Krishnan, 1996), whereas the ad schema reflects knowledge about advertising in a product category (Goodstein, 1993). This implies that consumer expectations about advertising can be based on brand-related or advertising-related knowledge, depending on the schema that is used in ad processing. Brand knowledge is involved if consumers relate advertising to expectations based on brand purchase motivation (Rossiter & Percy, 1997), or current uses of the brand (Wansink & Ray, 1996). Advertising knowledge is involved if consumers relate advertising to expectations concerning executional style (Goodstein, 1993) or typical ad content (Olney et al., 1991). Thus, contrary to incongruity with the brand schema incongruity with the ad schema is often cosmetic rather than substantive in nature (Goodstein, 1993).

Based on this distinction, we argue that incongruity may occur because an ad deviates from consumer expectations of such ads, but also because the ad deviates from consumers expectations of the advertised brand. In other words, an ad may be

incongruent with two different types of schemas. The knowledge that is stored in these schemas may be retrieved when consumers process an advertisement.

Furthermore, we propose that the schema that is used to determine an ad's incongruity will also affect how incongruity is determined. Heckler and Childers (1992) developed a two-dimensional framework for studying the processing of incongruent information in ads. In their framework, incongruity is conceptualized along two dimensions, i.e., expectancy and relevancy. This distinction has been further examined by Lee and Mason (1999), and Ang and Low (2000). Within the framework, expectancy refers to the degree to which an ad conforms to consumer expectations about such advertising. Relevancy refers to the degree to which incongruent elements in an ad provide meaningful information about the brand, or contribute to consumer identification of the ad's primary message. This two-dimensional approach to incongruity points out that consumer reactions to incongruity do not only reflect expectancy perceptions, but can also involve determining relevancy. Most studies on the effects of incongruity on evaluation, processing, categorization and recall in marketing examine the effects of unexpected information. In studies of incongruity in the context of new product evaluation (e.g., Meyers-Levy & Tybout, 1989), for example, incongruity reflects differences in expectancy, because the discrepant attribute information is not expected but relevant for product understanding and categorization. We propose that determining relevancy is more important for understanding the effects of ads that are incongruent with the brand schema than for ads that are incongruent with the ad schema. This is in line with the notion that, contrary to incongruity with the brand schema, incongruity with the ad schema is cosmetic rather than substantive in nature (Goodstein, 1993). In the remainder of this section, we discuss how expectancy can have both cognitive and

affective consequences in the context of incongruity, whereas relevancy has predominantly cognitive consequences.

The two-dimensional approach to incongruity proposed by Heckler & Childers (1992) shows that judgements of relevancy are important, because consumers react differently to incongruent information that is unexpected but relevant than to incongruent information that is unexpected and irrelevant. Although Heckler & Childers (1992) refrain from classifying unexpected-irrelevant (and expected-irrelevant) information as either congruent or incongruent, their manipulation check shows that unexpectedness, irrelevancy, and their interaction all diminish consumer understanding of the ad. If we interpret ease of understanding as overall degree of incongruity, both unexpected-irrelevant (and expected-irrelevant) information reflect cases of incongruent advertising. Lee & Mason (1999) show the importance of relevancy for consumer evaluation. Incongruent ads are evaluated favorably provided that the ad presents relevant information to the brand. On the contrary, incongruent ads that are simply unexpected to consumers but are irrelevant to the brand are evaluated unfavorably.

Previous studies on this two-dimensional conceptualization have manipulated incongruity within the ad, by including pictures that deviate from brand-related expectations cued by the ad claim. However, Goodstein (1993) shows that consumers who have advertising-related expectations, processing incongruent information does not lead to more brand-related thoughts than congruent information does. This suggests that for incongruity with the ad schema, consumers simply focus on the expectancy dimension of incongruity in ad processing. The difference in consumer responses to incongruities with brand and ad schemas is explicable, because incongruity with the ad schema is derived from how information is communicated

rather than from what is communicated in advertising. Thus, including relevancy in the conceptualization of incongruity is only likely to contribute to our understanding of incongruity in advertising as far as it concerns brand schema-based expectations.

In case of incongruity with the brand schema, consumers do not only respond to the expectancy of the ad, but also consider relevancy to the brand. Mason & Lee (1999) find that relevant advertising is evaluated more favorably than irrelevant advertising and the evaluation of unexpected information depends on its relevancy to the brand. Consumer preference for relevant advertising is in line with Rossiter & Percy's (1997) recommendation that ads should match consumers' brand purchase motivation to be effective i.e., these ads lead to more favorable brand attitudes, than ads that do not match the brand purchase motivation. If the ad matches the brand purchase motivation, the ad is congruent with the brand schema and presents relevant information about the brand to consumers.

H1: Compared to ads conveying a message that is congruent with the brand schema, ads conveying a message that is incongruent with consumers' brand schema lead to (a) less favorable ad attitudes, and (b) less favorable brand evaluations.

Stimuli that are incongruent with the expectations stored in schemas draw consumer attention (Fiske & Taylor, 1984). Consumers attend to incongruent information in the ad and seek to incorporate it with the information in their current brand schema. Processing of incongruent information has been studied extensively in the context of product categorization. Incongruent information in these studies is unexpected product information that is relevant to the categorization task. Moderately unexpected product information is assimilated in an existing product category schema

(Meyers-Levy & Tybout, 1989; Stayman et al., 1992). In case of strongly unexpected product information, consumers have to restructure their category schema to “make it fit”, through a process of accommodation, which results in subtyping (Sujan & Bettman, 1989). Thus, unexpected product information leads to more elaborate information processing than expected product information (Meyers-Levy & Tybout, 1989; Sujan, 1985). Similarly, ads with unexpected brand information will lead to more extensive information processing than ads with expected brand information.

H2: If ads are incongruent with the brand schema, consumers will have (a) more thoughts in total and (b) more incongruity-related thoughts than if ads are congruent with the brand schema.

Consumer perceptions of brand positioning can change as a result of advertising information that is incongruent with the brand schema, but only if consumers perceive unexpected information as relevant to the brand. This is in line with recent research on the role of advertising in influencing consumer categorization. Moreau, Markman & Lehmann (2001) find that categorization of a new product can be determined by advertising, i.e. consumers rely on the cues for categorization provided in the ad. For ads that are incongruent with the brand schema, this suggests that brand categorization will be shifted toward the categorization suggested by the ad, and consumers will rely less on the categorization that is proposed by the brand schema.

H3: If ads are incongruent with the brand schema, consumer brand categorization will be less in line with the categorization suggested by the brand schema, than if ads are congruent with the brand schema.

If incongruity with the ad schema is concerned, relevancy to the brand is not considered, because consumers will primarily respond to the fact that the execution is unexpected. The use of ad-related knowledge has been supported by Goodstein (1993) and Olney et al. (1991). They show that when ads are compared with other product category ads in ad processing, incongruity can be captured with adjectives such as unique, typical and different, that reflect the expectancy dimension of Heckler and Childers' (1992) framework. Both studies suggest that the relation between incongruity and favorability of evaluations is likely to be described by an inverted U-shaped curve. Olney et al. (1991) suggest that a moderate amount of unexpectedness is perceived as interesting and therefore evaluated more favorably than lower or higher levels of unexpectedness. Goodstein (1993) finds that typical or expected ads lead to more favorable brand and ad evaluations than atypical or unexpected ads. However, he also suggests that the relationship between unexpectedness and the favorability of evaluations might be described by an inverted U-shape in line with Mandler's (1982) hypothesis. Mandler (1982) states that incongruity leads to arousal and therefore consumers will attempt to resolve incongruity through schema-based processing. Moderate incongruity can be resolved through assimilation, and consequently arousal results in favorable evaluations. Strong incongruity cannot be resolved without restructuring schema knowledge, which is accompanied by negative affect leading to unfavorable evaluations. Evidence for Mandler's hypothesis has been found by several studies (Meyers-Levy & Tybout, 1989; Stayman et al., 1992). Thus, incongruity with the ad schema leads to arousal and this is interpreted by consumers as a favorable advertising experience, as long as the unexpected ad does not lead to extremely high levels of arousal. Since arousal potential of incongruity

with the ad schema is limited (Steenkamp, Baumgartner & Van der Wulp, 1996), favorable consumer evaluations are likely to result.

H4: Compared to ads which are executed in a manner that is congruent with the ad schema, ads of which the execution is incongruent with consumers' ad schema lead to (a) more arousal, and consequently (b) more favorable ad evaluations, and (c) more favorable brand attitudes.

Incongruity with the ad schema will also lead to more extensive information processing. However, the focus of information processing is on the discrepant executional characteristics (Goodstein, 1993). This may result in an adjustment of consumers' ad schema, but consumer brand perceptions are not affected.

H5: If ads are incongruent with the ad schema, consumers will have (a) more thoughts in total and (b) more incongruity-related thoughts than if ads are congruent with the ad schema.

METHOD

Design

Ad execution (congruity with ad schema) and ad appeal (congruity with brand schema) were manipulated in a 2×2 between-subjects experimental design.

Originally, focus of processing was included as an additional experimental manipulation by processing instructions that emphasized either brand schema or ad schema. We expected stronger results for ad schema-related hypotheses in the ad processing group than in the brand processing group, and vice versa for brand

schema-related hypotheses. However, the focus of processing manipulation was not successful and the experimental design was collapsed to the above described factors.

Congruity with the brand schema was manipulated by using ads with appeals that were either congruent or incongruent with the brand's positioning in the product category. The brand that was used in the experiment was positioned on a hedonic purchase motivation. We constructed a transformational ad that was congruent with this positioning, as well as an informational ad that was incongruent with the positioning (cf. Rossiter & Percy 1997). To avoid bias, we used a fictional brand, for which we wrote a brief description that depicted a clearly hedonic positioning.

Congruity with the ad schema was manipulated by the exclusion or inclusion of an unexpected element in the ad execution. The incongruent versions of the informational and transformational ad scenarios featured Martians rather than humans as central characters in the ad. See Appendix 1 for the brand description and ad scenarios that were employed in this study.

Pretests

Two pretests were conducted. The first pretest was used to select a product category that could be purchased for both utilitarian and hedonic reasons, so both utilitarian and hedonic positioning in the product category were credible to consumers. Fifteen student subjects judged the extent to which they purchased products for hedonic or utilitarian reasons on a 7-point bipolar scale that ran from completely utilitarian (1) to completely hedonic (7). Two of 16 products, yogurt and fruit juice, were purchased equally for utilitarian and hedonic reasons ($X_{\text{Yogurt}} = 4.40$ and $X_{\text{Fruit Juices}} = 4.33$).

The second pretest examined whether both informational and transformational ads occurred in the yogurt and fruit juice categories. This prevents a confound

between incongruity with the brand schema and incongruity with the ad schema. Furthermore, this pretest was used to derive the attributes for the experimental brand description and ad scenarios. Fifteen new subjects indicated their ad-related expectations for yogurt and fruit juices. Yogurt was selected for use in the experiment, because subjects indicated that both informational and transformational appeals were common in Dutch yogurt ads. Transformational ads typically show people enjoying yogurt in a family setting. Informational ads emphasize the healthy aspects of yogurt and keeping slim. Similar scenarios were used in our experiment.

Subjects and Procedure

Data were collected in November and December 2001. Subjects were 153 Dutch students in psychology, who received credit for participation. Subjects were told that they participated in an advertising study. The questionnaire was structured as follows. Subjects read the brand description and ad scenario from the front page of the questionnaire and then answered questions about the brand and its accompanying ad. First, overall brand attitude and attitude toward the ad measures were collected. Then, subjects answered questions about thoughts and emotions that were elicited in response to the ad. Subsequently, questions concerning brand beliefs, perceived ad appeal and brand categorization were presented. Finally, subject perceptions of expectancy of the ad and relevancy to the brand were measured.

Measures

The dependent variables were consumer evaluation, processing and categorization (see Appendix 2). Consumer evaluation was measured by brand attitude and attitude toward the ad. Processing consisted of cognitive and affective processing, as reflected

by information processing and arousal respectively. Similarity to other brands, categorization of the experimental brand, and brand beliefs measured categorization. Table 1 gives an overview of the hypotheses classified by the dependent measures.

Table 1 about here

RESULTS

Manipulation checks

The manipulations of congruity with brand schema and ad schema were successful. Ads with an informational appeal were incongruent with the hedonic brand schema, and less relevant to the brand than ads with a transformational appeal. Furthermore, ads with Martians as central characters were incongruent with the ad schema and less expected than the ads with humans as central characters. The manipulation checks are discussed in detail below.

Incongruity with the brand schema. First, the appeals made by the informational and transformational ads were examined. The transformational ad was designed to make a sensory gratification appeal, whereas the informational ad was intended to make a problem avoidance appeal. Consumer ratings of these appeals showed that the manipulations were successful. Compared to the informational ads, the transformational ads were rated higher on sensory gratification (6.17 versus 5.34, $F(1, 149) = 18.971, p < .001$), but lower on problem avoidance (2.37 versus 3.91, $F(1, 148) = 37.361, p < .001$). Then, relevancy of the ads to the brand was investigated. The transformational ads were more relevant to the hedonic brand than the informational ads (5.81 versus 5.32). This was confirmed by a GLM for relevancy to the brand with ad appeal and execution as factors that showed a marginally significant main effect for ad appeal ($F(1, 149) = 3.427, p < .10$), and no effect for

execution. Thus, manipulation of incongruity with the brand schema was successful, although it could have been stronger. Incongruity with the brand schema was not strong enough to cause significant differences in expectancy of the ad. The GLM for expectancy of the ad with ad appeal and execution as factors showed no effect of ad appeal. Informational and transformational ads were rated equally on the expectancy dimension of incongruity ($F(1, 149) = 0.438$, means were 5.61 versus 5.80).

Incongruity with the ad schema. The GLM for expectancy of the ad with ad appeal and execution as factors showed a significant main effect of execution ($F(1, 149) = 47.072$, $p < .001$). The execution main effect indicated that the ad execution with Martians was less expected than the ad execution with humans (4.72 versus 6.68). Furthermore, relevancy of the ad was not affected by ad execution. Thus, the manipulation of incongruity with the ad schema was successful.

Hypotheses. All hypotheses were tested by GLM analysis with ad appeal (incongruity with the brand schema) and execution (incongruity with the ad schema) as factors. Generally, the results were in line with our hypotheses (see Table 2). The results are discussed in detail below. In the remainder of this section we focus on how each of the dependent measures is affected by incongruity with the brand schema and incongruity with the ad schema

Table 2 about here

Attitude toward the ad and brand attitude. The main effects for ad appeal were not significant in the GLM analyses for attitude toward the ad and brand attitude, so that H1a and H1b were not supported. The informational ad appeal may not have been

strong enough to cause differences in consumer evaluations as a result of incongruity with the brand schema. Possible explanations will be given in the Discussion.

The GLM for attitude toward the ad with ad appeal and execution as independent factors did show a significant main effect of execution ($F(1,149) = 7.013$, $p < .01$). Ads with Martians as central characters were evaluated more favorably than ads with humans as central characters (4.01 versus 3.57). This supported H4b, which stated that incongruity with the ad schema would lead to more favorable attitudes toward the ad. In the GLM for brand attitude the main effect of execution was also significant ($F(1,149) = 3.752$, $p < .10$), but the direction of this effect run counter to our expectations. Ads that congruent with the ad schema lead to more favorable brand attitudes than incongruent ads (5.21 versus 4.94), which contradicts H4c.

Arousal. The GLM for arousal with ad appeal and execution as independent factors showed a significant main effect of execution ($F(1,147) = 17.403$, $p < .001$). Ads with Martians were unexpected and led to higher arousal than the expected ads with humans (3.77 versus 3.19), confirming H4a. We also tested if arousal caused processing affect that resulted in more favorable ad evaluations. Regressions of attitude toward the ad on brand attitude, arousal on brand attitude, and arousal on attitude toward the ad were all significant. If arousal and attitude toward the ad were both regressed on brand attitude, arousal was not significant, supporting that attitude toward the ad was determined by arousal (Baron & Kenny, 1986, see Table 3).

Table 3 about here

Pleasure. We further investigated affective processing by performing a GLM for pleasure with ad appeal and execution as factors. The GLM showed a significant main effect of ad appeal ($F(1,147) = 4.903$, $p < .05$) and a marginally significant ad appeal

× execution interaction ($F(1,147) = 3.312$, $p < .10$). The ad appeal main effect indicated that transformational ads were more pleasurable than informational ads (4.76 versus 4.42), which is in line with their intended function (e.g., Puto & Wells, 1984). This effect was qualified by an ad appeal × execution interaction, which showed that the Martian execution was more pleasurable than the humans execution for the informational ad (4.59 versus 4.26), but that both executions were equally pleasant for the transformational ad (4.65 versus 4.86). These findings suggest that incongruity with the ad schema may also contribute to pleasure if ads are not very entertaining as such.

Information processing. The GLM for total number of thoughts, incongruity-related thoughts and congruity-related thoughts with ad appeal and execution as factors showed significant ad appeal (Wilks' Lambda $F(3, 147) = 3.622$, $p < .05$) and execution (Wilks' Lambda $F(3, 147) = 17.431$, $p < .001$) main effects. Informational ads lead to more thoughts in total (3.70 versus 3.25, $F(1, 149) = 5.554$, $p < .05$) and more incongruity-related thoughts (0.62 versus 0.33, $F(1, 149) = 8.232$, $p < .01$) than transformational ads. Thus, incongruity with the brand schema leads to more extensive processing, which supports hypotheses 2a and 2b.

The execution main effect indicated that ads with Martians lead to more incongruity-related (0.81 versus 0.15, $F(1, 149) = 44.729$, $p < .001$) and less congruity-related thoughts (0.30 versus 0.61, $F(1, 149) = 9.559$, $p < .01$) than ads with humans. This confirms H5b. Incongruity with the ad schema did not lead to more thoughts (H5a), but it did change the focus of processing.

Valuation of thoughts. To gain more insight into cognitive processing, we also analyzed subjects own valuation of their thoughts. The GLM for positive, negative and neutral thoughts with ad appeal and execution as factors showed significant main

effects for ad appeal (Wilks' Lambda, $F(3, 147) = 2.698, p < .05$) and execution (Wilks' Lambda, $F(3, 147) = 3.520, p < .05$). The ad appeal main effect showed that the informational ads that were incongruent with the brand schema, lead to more negative thoughts than the congruent transformational ads (1.66 versus 1.26, $F(1, 149) = 5.209, p < .05$). This finding shows that incongruity with the brand schema is evaluated negatively, which is in line with hypothesis 1.

The execution main effect showed that ads that are incongruent with the ad schema lead to less negative thoughts (1.19 versus 1.74, $F(1, 149) = 11.637, p < .01$) and more positive thoughts (1.60 versus 1.29, $F(1, 149) = 3.239, p < .10$) than ads that are congruent with the ad schema, which is in line with hypothesis 4.

Brand categorization. Brand categorization was investigated by similarity to other brands, categorization of the experimental brand as either a utilitarian or hedonic brand, and subjects' brand beliefs. The GLM for similarity to two existing Dutch yogurt brands with ad appeal and execution as factors showed a significant main effect of ad appeal (Wilks' Lambda, $F(2, 146) = 7.583, p < .01$). The two brands were good examples of utilitarian (U) and hedonic (H) positioning in the yogurt category ($X_U = 2.69$ and $X_H = 7.89$, 1 = completely utilitarian and 9 = completely hedonic). If the experimental brand was paired with an informational ad similarity to the utilitarian yogurt was greater than if the brand was paired with a transformational ad (5.32 versus 4.37, $F(1, 147) = 7.976, p < .01$). The reverse pattern occurred for similarity to the hedonic yogurt (4.16 versus 5.46, $F(1, 147) = 12.504, p < .01$). In sum, similarity to a utilitarian yogurt brand increased and similarity to a hedonic yogurt brand decreased as a result of incongruity with the hedonic brand schema.

Categorization of the experimental brand as a utilitarian or hedonic yogurt was tested by binary logistic regression. Ad appeal was significant ($p < .001$) in this

regression, indicating that the use of a congruent transformational ad resulted in categorization as a hedonic yogurt as suggested by the brand schema.

The GLM for utilitarian and hedonic brand beliefs with ad appeal and execution as factors, showed an ad appeal main effect (Wilks' Lambda, $F(2, 148) = 12.692, p < .001$). Compared to transformational ads, informational ads lead to higher ratings of utilitarian beliefs (4.43 versus 3.40, $F(1, 149) = 22.511, p < .001$), and lower ratings of hedonic beliefs (5.42 versus 5.80, $F(1, 149) = 6.242, p < .05$) for the experimental brand. Thus, incongruity with the brand schema shifts categorization toward the category communicated in the ad, and away from category positioning suggested by the brand schema (H5).

DISCUSSION

This study investigated the effects of incongruity of advertising with brand schema and ad schema perceptions on consumer evaluation, processing and categorization. We hypothesized that consumer reactions to incongruity with the ad schema reflect expectancy of the ad, whereas the effects of incongruity with the brand schema are determined by both expectancy of the ad and relevancy to the brand. Furthermore, we argued that expectancy can have both cognitive and affective consequences in the context of incongruity, whereas relevancy has predominantly cognitive consequences. In line with this reasoning, our findings show that incongruity with the brand schema is relatively cognitive, whereas incongruity with the ad schema is relatively affective.

In case of incongruity with the brand schema, consumers compare the ad to brand knowledge. Ads that were incongruent with the brand schema presented irrelevant information to consumers. The incongruent ad appeals did not affect expectancy of the ad. Consequently, there was no effect of incongruity with the brand

schema on arousal. In line with the hypotheses, incongruity with the brand schema affected consumer processing and categorization. Information processing was more elaborate as a result of incongruity with the brand. Furthermore, categorization was less in accordance with the brand schema as a result of incongruent ad appeals. Thus, incongruity with the brand schema had predominantly cognitive consequences.

Contrary to expectations, consumer evaluation of congruent or relevant advertising was not relatively favorable. This might be explained by consumers forming only a relatively weak brand schema for a fictitious brand. Consumers attended to incongruent advertising and recognized that it was not in accordance with the brand attributes. However, they were unlikely to dismiss the information in the ad as completely irrelevant. Research from psychology shows that if consumers have a strong brand schema, they are unwilling to change their brand perceptions (cf., Drolet & Aaker 2001), and thus more likely to dismiss unexpected information as irrelevant. However, if consumers have a relatively weak brand schema it is difficult for them to determine ad relevancy, and consequently unexpected advertising information is fit more easily into the brand schema. This suggests that ad relevancy judgements depend on the strength of consumers' brand schema. Thus, the informational ad might have increased the perceived importance of utilitarian brand beliefs and decreased the importance of hedonic brand beliefs, resulting in equally favorable brand and ad evaluations for informational and transformational ad appeals.

In case of incongruity with the ad schema, consumers compare the ad to other product category ads. Ads that were incongruent with the ad schema presented unexpected information to consumers. In line with the hypotheses, incongruity with the ad schema affected consumer evaluation and processing. Incongruity with the ad schema changed the focus of information processing as indicated by the number of

incongruity-related thoughts. Furthermore, this type of incongruity caused arousal, which resulted in relatively favorable ad evaluations. Thus, incongruity with the ad schema had predominantly affective consequences. Contrary to expectations, incongruity with the ad schema did not result in more favorable brand evaluations. This finding implies that likable ads do not necessarily imply more likable brands. In our study, the favorable ad evaluations did not transfer to the brand, suggesting that consumers evaluated ads in an experiential way, and brands in a functional way.

Study limitations and suggestions for future research. This study was conducted in Western Europe, and it is possible that the generalizability of its findings is limited to this setting, although most results are in line with earlier findings from studies in the US. Future research should examine how the findings of our study and other studies on advertising incongruity are affected by cultural factors. A first hint at the existence of cross-cultural differences in this area is provided by Aaker & Sengupta (2000), who found cross-cultural differences in the ways in which consumers process incongruent information.

In this study incongruity with the brand schema and incongruity with the ad schema were manipulated independently to examine the effects of these types of incongruity. In reality, incongruity with the brand and incongruity with the ad schema can be confounded (in many product categories the ad schema is either informational or transformational) so that is difficult to determine which processes dominates ad processing in a natural environment. One way in which future research could explore this issue further is by manipulating consumers' use of ad or brand schemas in processing ads by priming or training procedures

APPENDIX 1: Brand description and ad scenarios

Hedonic brand: Fruit & Creamy is creamy yogurt with a rich taste. The yogurt contains pieces of fresh fruit that make Fruity & Cream a real treat.

Informational ad appeal – expected (unexpected) execution: The camera shows a man and a woman (two Martians) exercising in a fitness club. Meanwhile, the voice-over emphasizes the importance of paying attention to your health. After their exercises, the two are catching their breath with a cup of yogurt. While they are consuming the yogurt, they talk about sport and healthy food (in a subtitled alien language), and the camera regularly zooms in on their spoons with yogurt. Finally, the camera focuses on the cups of yogurt and the voice-over ends with the claim "Fruit & Creamy the soundest yogurt (... on earth)"

Transformational ad appeal – expected (unexpected) execution: The camera shows a man and a woman (two Martians) sitting in the kitchen. It is weekend, and they are relaxing at the kitchen table with a cup of yogurt. They are enjoying the yogurt, while talking about their fun adventures the night before (in a subtitled alien language). During their conversation the two smile regularly and the camera zooms in on their spoons with yogurt. You can see from their delighted looks that the yogurt tastes really good. Finally, the camera focuses on the yogurt packaging at the table and the voice-over ends with the claim "Fruit & Creamy the most appetizing yogurt (... on earth)"

APPENDIX 2: Overview of independent and dependent measures

1. Brand perceptions. The attributes “rich taste” and “a real treat” from the experimental brand description reflect an enjoyment appeal. They were elicited in a pretest and classified as hedonic. In the experiment, brand perceptions for four existing brands were measured as part of the categorization measure. Subjects indicated the degree to which they perceived each of those brands as utilitarian or hedonic yogurts on a 9-point scale (1 = very good example of a utilitarian yogurt, 9 = very good example of a hedonic yogurt).

2. Ad perceptions. Subjects rated the ads on 7-point Likert-type scales: "This is a yogurt you can really enjoy" (sensory gratification), and "If you eat this yogurt, you don't have to worry about staying slim" (problem avoidance)

3. Relevancy perceptions. Relevancy of the ad to the brand was measured by two items. Subjects indicated on a 9-point scale the degree to which the ad communicated the brand characteristics from the description (1 = very bad, 9 = very good), and the degree to which the ad presented relevant information to the experimental brand (1 = very irrelevant, 9 = very relevant).

4. Expectancy perceptions. Subjects rated the degree to which the ad was typical compared to other yogurt ads on a 9-point scale (1 = very atypical, 9 = very typical), and the degree to which the ad corresponded with their expectations for this type of product (1 = very unexpected, 9 = very expected).

5. Ad evaluation. Attitude toward the ad was measured by four items “good-bad”, “like-dislike”, “irritating-not irritating”, and “interesting-uninteresting”, rated on a 7-point semantic differential..

6. Brand evaluation. Brand attitude was measured by 3 items “good-bad”, “positive-negative”, and “favorable-unfavorable”, rated on a 7-point semantic differential.

7. Cognitive processing. Sujon (1985) developed a coding scheme to characterize cognitive processing, with the total number of thoughts and classification in types of thought as relevant indicators. In this study, total thoughts, incongruity-related and congruity-related thoughts were employed to measure cognitive processing.

Furthermore, subjects coded their own thoughts as positive, negative or neutral.

8. Affective processing. The emotional dimensions of arousal and pleasure were used to distinguish feelings elicited in response to the ad. Arousal was measured with the items “stimulated-relaxed”, “excited-calm”, “frenzied-sluggish”, “jittery-dull”, and “wide awake-sleepy” (Olney et al., 1991). The items “happy-unhappy”, “pleased-annoyed”, “satisfied-unsatisfied” (Olney et al., 1991), “in good mood-in bad mood”, “surprised-bored”, “enthusiastic-reserved” (Mano & Oliver 1993), and “gloomy-cheerful” (Russell, 1980) measured pleasure. The items from Mano & Oliver (1993) and Russell (1980) were adapted to obtain meaningful translations into Dutch. Both arousal and pleasure were measured with 7-point scales.

9. Similarity to existing brands. In categorization literature it is assumed that categorization is determined by similarity (Komatsu, 1992). Subjects rated the experimental brand’s similarity to four existing yogurt brands (see Brand perceptions) on 9-point scales (1 = very dissimilar, 9 = very similar).

10. Categorization. Subjects were asked to categorize the experimental brand as either a hedonic yogurt (i.e. the type yogurt you eat if you want to indulge yourself) or a utilitarian yogurt (i.e. the type of yogurt you eat if you want to keep healthy and slim).

11. Brand beliefs. Brand beliefs were measured with 7-point Likert-type scales. The three hedonic product beliefs included “rich taste”, “a real treat”, and “creamy”, whereas the three utilitarian product beliefs were “few calories”, “healthy snack”, and “lean”.

REFERENCES

- Aaker, J.L., & J. Sengupta (2000). Additivity versus attenuation: The role of culture in the resolution of information incongruity. *Journal of Consumer Psychology*, 9, 67-82.
- Alden, D. L., A. Mukherjee & W.D. Hoyer (2000). The effects of incongruity, surprise and positive moderators on perceived humor in television advertising. *Journal of Advertising*, 29, 1–15.
- Ang, S.H. & S.Y.M. Low (2000). Exploring the dimensions of ad creativity. *Psychology and Marketing*, 17, 835-854
- Baron, R.M. & D.A. Kenny (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Desai, K.K. & E. Gencturk (1995). Schema incongruity: A multidimensional perspective involving advertising schema, self-schema, and product schema. *Advances in Consumer Research*, 22, 390.
- Drolet, A. & J.L. Aaker (2001). Off-Target? Changing cognitive-based attitudes. *Journal of Consumer Psychology*, 12, 59-68.
- Fiske, S. T. & S.E. Taylor (1984), *Social cognition*, 1st ed. New York: McGraw-Hill.
- Goodstein, R.C. (1993). Category-based applications and extensions in advertising: Motivating more extensive processing. *Journal of Consumer Research*, 20, 87–99.
- Heckler, S.E. & T.L. Childers (1992). The role of expectancy and relevancy in memory for verbal and visual information: What is incongruity? *Journal of Consumer Research*, 18, 475–492.
- Komatsu, L.K. (1992). Recent views of conceptual structure. *Psychological Bulletin*, 112, 500–526.

- Krishnan, H.S. (1996). Characteristics of memory associations: A consumer-based brand equity perspective. *International Journal of Research in Marketing*, 13, 389-405.
- Lee, Y.H. & C. Mason (1999). Responses to information incongruity in advertising: The role of expectancy, relevancy, and humor. *Journal of Consumer Research*, 26, 156–169.
- Mandler, G. (1982). The structure of value: Accounting for taste. In: *Affect and Cognition: The 17th Annual Carnegie Symposium on Cognition*, ed. M.S. Clark & S.T. Fiske. Hillsdale, NJ: Lawrence Erlbaum, pp. 3–36.
- Mano, H. & R.L. Oliver (1993). Assessing the dimensionality and structure of the consumption experience: Evaluation, feeling, and satisfaction. *Journal of Consumer Research*, 20, 451–466.
- Meyers-Levy, J. & A.M. Tybout (1989). Schema congruity as a base for product evaluation. *Journal of Consumer Research*, 16, 39–54.
- Moreau C. P., A.B. Markman & D.R. Lehmann (2001). What Is It? Categorization flexibility and consumers' responses to really new products. *Journal of Consumer Research*, 27, 489–498.
- Olney, T.J., M.B. Holbrook & R.Batra (1991). Consumer responses to advertising: The effects of ad content, emotions, and attitude toward the ad on viewing time. *Journal of Consumer Research*, 17, 440–453.
- Rossiter, J.R. & L. Percy (1997). *Advertising Communications and Promotion Management*, Boston, MA: McGraw-Hill, second edition.
- Russell, J.A. (1980). A circumplex model of affect. *Journal of Personality and Social Psychology*, 39, 1161–1178.

- Stayman, D.M., D.L. Alden & K.H. Smith (1992). Some effects of schematic processing on consumer expectations and disconfirmation judgments. *Journal of Consumer Research*, 19, 240–255.
- Steenkamp, J.E.B.M., H. Baumgartner & E. van der Wulp (1996). The relationships among arousal potential, arousal and stimulus evaluation. *International Journal of Research in Marketing*, 13, 319–329.
- Sujan, M. (1985). Consumer knowledge: Effects on evaluation strategies mediating consumer judgments. *Journal of Consumer Research*, 12, 31–46.
- Wansink, B. & M.L. Ray (1996). Advertising strategies to increase usage frequency. *Journal of Marketing*, 60, 31–46.

TABLE 1 – Overview of hypotheses *

Consumer evaluation		
	<i>Incongruity with brand schema</i>	<i>Incongruity with ad schema</i>
Attitude toward the ad	Hypothesis 1a: I less favorable than C	Hypothesis 4b: I more favorable than C
Brand attitude	Hypothesis 1b: I less favorable than C	Hypothesis 4c: I more favorable than C
Processing		
	<i>Incongruity with brand schema</i>	<i>Incongruity with ad schema</i>
Cognitive processing	Hypothesis 2a,b: I more extensive than C	Hypothesis 5a,b: I more extensive than C
Affective processing	- (see Discussion)	Hypothesis 4a: I more arousal than C
Categorization		
	<i>Incongruity with brand schema</i>	<i>Incongruity with ad schema</i>
Brand categorization	Hypothesis 3: I less in accordance with brand schema than C	- (see Theory)

* I = ads that are incongruent, C = ads that are congruent with the schema concerned

TABLE 2 – Overview of results from GLM

Consumer evaluation				
	<i>Brand schema</i>		<i>Ad schema</i>	
	<i>Incongruent</i>	<i>Congruent</i>	<i>Incongruent</i>	<i>Congruent</i>
Attitude toward the ad	3.75 (0.133)	3.89 (0.132)	4.01 (0.132)	3.57 (0.133)
Brand attitude	5.04 (0.098)	5.11 (0.097)	4.94 (0.097)	5.21 (0.098)
Processing				
Information processing:				
(a) total thoughts	3.70 (0.135)	3.25 (0.134)	3.38 (0.134)	3.57 (0.135)
(b) incongruity-related	0.62 (0.070)	0.33 (0.070)	0.81 (0.070)	0.15 (0.070)
(c) congruity-related	0.43 (0.070)	0.47 (0.070)	0.30 (0.070)	0.61 (0.070)
Valuation of thoughts:				
(a) positive	1.50 (0.122)	1.39 (0.121)	1.60 (0.121)	1.29 (0.122)
(b) negative	1.66 (0.122)	1.26 (0.122)	1.19 (0.122)	1.74 (0.122)
(c) neutral	0.54 (0.086)	0.60 (0.085)	0.60 (0.085)	0.54 (0.086)
Arousal	3.58 (0.098)	3.38 (0.098)	3.77 (0.098)	3.19 (0.098)
Pleasure	4.42 (0.106)	4.76 (0.106)	4.62 (0.106)	4.56 (0.106)
Categorization				
Brand similarity:				
(a) utilitarian brand	5.32 (0.238)	4.37 (0.236)	4.95 (0.236)	4.74 (0.238)
(b) hedonic brand	4.16 (0.261)	5.46 (0.259)	4.86 (0.259)	4.76 (0.261)
Brand beliefs:				
(a) utilitarian beliefs	4.43 (0.153)	3.40 (0.152)	3.91 (0.152)	3.92 (0.153)
(b) hedonic beliefs	5.42 (0.108)	5.80 (0.107)	5.67 (0.107)	5.56 (0.108)

Figures represent estimated marginal means (standard errors in parentheses)

TABLE 3 – Regression analyses

Regression 1: dependent variable A_b		
<i>Variables</i>	<i>β (standard error)</i>	<i>p-value</i>
Constant	4.154 (0.244)	< .001
A_{ad}	0.241 (0.056)	< .001
R^2 (adj.)	0.104	
F-Value	18.582	< .001

Regression 2: dependent variable A_b		
<i>Variables</i>	<i>β (standard error)</i>	<i>p-value</i>
Constant	4.488 (0.271)	< .001
Arousal	0.172 (0.075)	< .05
R^2 (adj.)	0.034	
F-Value	5.181	< .05

Regression 3: dependent variable A_{ad}		
<i>Variables</i>	<i>β (standard error)</i>	<i>p-value</i>
Constant	0.860 (0.294)	< .01
Arousal	0.851 (0.084)	< .001
R^2 (adj.)	0.416	
F-Value	108.032	< .001

Regression 4: dependent variable A_b		
<i>Variables</i>	<i>β (standard error)</i>	<i>p-value</i>
Constant	4.257 (0.268)	< .001
Arousal	-0.057 (0.095)	.547
A_{ad}	0.269 (0.072)	< .001
R^2 (adj.)	0.104	
F-Value	9.717	< .001

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