

**THE ROLE OF SCHEMA SALIENCE IN AD PROCESSING AND  
EVALUATION**

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## REPORT SERIES *RESEARCH IN MANAGEMENT*

BIBLIOGRAPHIC DATA AND CLASSIFICATIONS		
Abstract	<p>Advertising grids such as the Rossiter-Percy grid (Rossiter &amp; Percy 1991, 1997) propose that brand-matching advertising is more effective than brand-mismatching advertising. However, for the match hypothesis to hold the brand schema needs to be salient in ad processing and evaluation. In this study we test how schema salience affects ad processing and evaluation. Two separate experiments were conducted, employing the same brand descriptions and ad scenarios. In the first experiment, the brand schema was made salient in ad processing, whereas in the second experiment the ad schema was made salient.</p> <p>In the first experiment brand(ad combinations were evaluated in line with the Rossiter-Percy advertising grid. If the brand schema was salient, consumers evaluated matching combinations of ad type and brand purchase motivation more favorably than mismatching combinations. In the second experiment, brand(ad combinations were evaluated in accordance with the existing ad schema. This implies that when the ad schema was salient, evaluations of brand(ad combinations were not affected by matches or mismatches between ads and purchase motivations for the brands.</p> <p>The two studies show that evaluation of brand(ad combinations depends on the schema that is salient at the time of information processing. Consequently, brand-matching advertising is effective only if consumers consciously relate ad information to brand knowledge, i.e., if the brand schema is salient in ad processing</p>	
Library of Congress Classification (LCC)	5001-6182	Business
	5410-5417.5	Marketing
	HF 5801+	Advertising
Journal of Economic Literature (JEL)	M	Business Administration and Business Economics
	M 31	Marketing
	C 44	Statistical Decision Theory
	M 37	Advertising
European Business Schools Library Group (EBSLG)	85 A	Business General
	280 G	Managing the marketing function
	255 A	Decision theory (general)
	290 L	Advertising
Gemeenschappelijke Onderwerpsontsluiting (GOO)		
Classification GOO	85.00	Bedrijfskunde, Organisatiekunde: algemeen
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Keywords GOO	Bedrijfskunde / Bedrijfseconomie	
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# **THE ROLE OF SCHEMA SALIENCE IN AD PROCESSING AND EVALUATION**

## **ABSTRACT**

Advertising grids such as the Rossiter-Percy grid (Rossiter & Percy 1991, 1997) propose that brand-matching advertising is more effective than brand-mismatching advertising. However, for the match hypothesis to hold the brand schema needs to be salient in ad processing and evaluation. In this study we test how schema salience affects ad processing and evaluation. Two separate experiments were conducted, employing the same brand descriptions and ad scenarios. In the first experiment, the brand schema was made salient in ad processing, whereas in the second experiment the ad schema was made salient.

In the first experiment brand–ad combinations were evaluated in line with the Rossiter-Percy advertising grid. If the brand schema was salient, consumers evaluated matching combinations of ad type and brand purchase motivation more favorably than mismatching combinations. In the second experiment, brand–ad combinations were evaluated in accordance with the existing ad schema. This implies that when the ad schema was salient, evaluations of brand–ad combinations were not affected by matches or mismatches between ads and purchase motivations for the brands.

The two studies show that evaluation of brand–ad combinations depends on the schema that is salient at the time of information processing. Consequently, brand-matching advertising is effective only if consumers consciously relate ad information to brand knowledge, i.e., if the brand schema is salient in ad processing.

## INTRODUCTION

Advertising grids, such as the Rossiter-Percy grid (Rossiter, Percy & Donovan 1991, Rossiter & Percy 1997) and the FCB grid (Vaughn 1980, 1986) have related the type of brand–ad combination to advertising effectiveness. The normative recommendation from both grids is that the ad appeal should match the brand attitude basis. However, Dubé, Chattopadhyay & Letarte (1996) note that the evidence in support of this recommendation is anecdotal and neither systematically nor empirically investigated.

Furthermore, research on attitudes and persuasion (Edwards 1990, Millar & Millar 1990) and schema theory (Mandler 1982, Meyers-Levy & Tybout 1989, Lee & Mason 1999) has yielded results conflicting with the match hypothesis advanced in the advertising grids. Together, these studies point to the importance of further investigating the assumptions regarding the effectiveness of brand-matching advertising.

In an experimental test of the Rossiter–Percy (RP) grid, Loef, Antonides & Van Raaij (2001) found evidence for a mismatching hypothesis. Contrary to RP grid predictions, they found higher effectiveness of ads that did not match the purchase motivation for the brand than mismatching ads. A possible explanation of this result is that the brand schema was not salient in the processing of the ad. Furthermore, salience of the ad schema might play a role in ad processing and evaluation (cf. Goodstein, 1993). For the match hypothesis from advertising grids to hold, it seems necessary that consumers consciously relate ad information to the brand schema.

In the next section, we discuss the schemas used in ad processing and evaluation and explain how schema salience affects ad processing and evaluation. We continue by describing two experiments employing the same brands and ads but

different schemas that are salient in ad processing and evaluation. Ad–brand combinations were evaluated in agreement with the match hypothesis in the first experiment when the brand schema was salient. However, in the second experiment, when the ad schema was salient, brand–ad evaluations were not influenced by matches or mismatches between ad types and brand schemas. We discuss the implications of our findings in the final section.

## **THEORY**

Two schemas have been proposed in the literature as being relevant for ad processing. Both the RP grid and the FCB grid assume that ad effectiveness is related to the brand schema. The brand schema includes knowledge about the brand and its position in the product category (Krishnan 1996, Park, Jaworski & MacInnis 1986). Alternatively, Goodstein (1993) assumes that ad effectiveness is related to the ad schema, which includes knowledge about advertising in the product category. In this section, ad processing and evaluation based on the brand schema, as specified by the RP grid, is explained. Next, the moderating role of the ad schema in resolving incongruity between the brand and its advertising will be discussed. Finally, we will explain ad processing and evaluation when the ad schema rather than the brand schema is salient.

### **Salience of the brand schema**

The RP grid specifies the relationships between brand–ad combinations and advertising effectiveness. For a detailed discussion of these relationships and the advertising tactics developed for each of the four quadrants identified in the advertising grid we refer to Rossiter, Percy & Donovan (1991) and Rossiter & Percy (1997). However, the main implication of their theory on advertising effectiveness is

that the type of advertising should reflect the brand purchase motivation. This approach acknowledges the perceived differences between brands of the same product category (Park, Milberg & Lawson 1991, Broniarczyk & Alba 1994).

An important implication of the RP grid concerns the use of informational and transformational advertising for utilitarian and hedonic brands. Given a functional purchase motivation for a utilitarian brand, the RP grid recommends advertising that provides information about the brand. Likewise, given a purchase motivation of receiving pleasure for hedonic brands, the RP grid recommends transformational advertising, containing associations with the positive experiences of using the brand. Thus, the RP grid predicts that informational advertising is more effective than transformational advertising for utilitarian brands. Likewise, transformational advertising presumably is more effective than informational advertising for hedonic brands.

In the shampoo category, for example, widely divergent brand concepts exist (Drolet & Aaker 2001). Head&Shoulders (H&S) is strongly associated with dandruff control, and is likely to be bought out of a problem-solving motive (utilitarian brand). Johnson&Johnson Baby Shampoo (J&J) is associated with softness and mildness and therefore likely to be purchased because of sensory gratification motives (hedonic brand). The advertising grid states that advertising should take differences in purchase motivation into account. According to the tactics in the advertising grid, the H&S advertisement should use a simple problem-solution format, and include one or two extremely stated benefits (informational advertising), whereas the J&J ad should display emotional authenticity associated with the brand (transformational advertising).

In the RP grid, brand attitude is considered the main indicator of advertising effectiveness, given brand awareness. The implicit assumption in the advertising grid is that consumers relate the information in the ad to their knowledge of the brand, which is included in the brand schema. However, the results of Loef, Antonides & Van Raaij (2001) suggest that mere awareness of the brand may not be enough for the predictions of the advertising grid to hold. Their results are inconsistent with recommendations of the RP grid, although the participants in their study had full brand awareness. In addition to brand awareness, it seems that brand schema salience is required. The notion of brand schema salience differs from brand awareness in that consumers do not only know whether a particular brand has utilitarian or hedonic features, but also actively use this knowledge in information processing of the ad (Fiske & Taylor 1984).

In line with the advertising grid, schema theory suggests that if advertising information does not match the brand purchase motivation, less favorable evaluations will result. This is explained by the superiority of relevant over irrelevant information (Lee & Mason 1999). If the brand schema is salient, consumers have a clear mental image of the brand and its defining features. If an ad is incongruent with the brand purchase motivation the ad represents irrelevant information to the brand's positioning in the product category and will be evaluated negatively. Likewise, if an ad is congruent with the brand purchase motivation the ad contains relevant brand information (Heckler & Childer 1992, Lee & Mason 1999) and will be evaluated positively. This implies that the match hypothesis from the RP grid is likely to hold if the brand schema is salient in ad processing. This leads to hypotheses 1 and 2.



H1: If the brand schema is salient, informational advertising leads to higher brand and ad evaluations for a utilitarian brand than transformational advertising.

H2: If the brand schema is salient, transformational advertising leads to higher brand and ad evaluations for a hedonic brand than informational advertising.

### **The moderating role of the ad schema**

When advertising does not match the purchase motivation for the brand, consumers will try to resolve this incongruity (Mandler 1982, Stayman, Alden & Smith 1982). Consumers can resolve incongruity by referring to knowledge available from related schemas. Note that consumers will not refer to knowledge from other schemas in case of congruity with the salient schema. For example, consumers who try to categorize a new product that has features incongruent with the relevant existing category but congruent with a different product category, use the latter type of knowledge to resolve the incongruity (Meyers-Levy & Tybout 1989, Peracchio & Tybout 1996, Stayman et al. 1992). Similarly, when the brand schema is salient, ad schema knowledge may be employed by consumers to resolve incongruity between the brand and its advertising. So if an advertisement does not match the purchase motivation for the brand, this incongruity may be resolved by the assertion that the ad is congruent with other ads in the product category. Consequently, the ad's congruity with the ad schema diminishes the mismatch between the brand and its advertisement (Mandler 1982). In the studies on new product evaluation (e.g., Meyers-Levy & Tybout 1989), resolving incongruity has led to relatively favorable evaluations. This implies that brand-mismatching advertising that is congruent with the ad schema will

lead to more favorable evaluations than brand-mismatching advertising that is incongruent with ad schema knowledge.

A related stream of research arrives at similar predictions. Heckler & Childers (1992) explicitly identify two dimensions of incongruity. They state that advertising can be incongruent because the ad presents irrelevant information, unexpected information or both. In case of brand-mismatching, the ad represents irrelevant information to the brand's positioning. A match with the ad schema implies that the ad is not uncommon for the product category itself and hence represents expected information. However, when the ad does not match the ad schema, the ad will represent unexpected information in addition to being irrelevant. Lee & Mason (1999) show that ads containing irrelevant but expected information are less incongruent and evaluated more favorably than ads containing irrelevant and unexpected information. In conclusion, schema theory suggests that the ad schema may improve ad evaluations that do not match the purchase motivation for the brand.

H3: If the brand schema is salient, brand-mismatching advertising that is congruent with the ad schema leads to more favorable brand–ad evaluations than brand-mismatching advertising that is incongruent with ad schema knowledge.

The moderating role of ad schema in brand-mismatching advertising is expected only if the ad schema is uniform in nature, i.e., the ad schema contains either informational or transformational ads but not both. Goodstein (1993) suggests that an ad schema, i.e., a notion about what to expect from ads in a certain product category, cannot exist when consumers perceive variety among ads in the product category. However, Loef et al. (2001) find that there are also product categories for which

strong ad schemas exist even though consumers perceive variety among ads in the product category. In those product categories both types of advertising identified in the RP grid are perceived as typical ads. Consequently, in those product categories the presence of an ad schema cannot distinguish between brand-mismatching ads in terms of advertising effectiveness. In our research, the role of ad schema variety will be explored further.

### **Ad schema salience**

Contrary to advertising grid assumptions, the ad schema rather than the brand schema may be salient in ad processing and evaluation. The ad schema contains knowledge about advertising in a particular product category (Goodstein 1993). This implies that consumers do not necessarily relate ads to brand knowledge but may primarily judge whether ads match with other ads from the product category. In the case of ad schema salience, the match hypothesis of the RP grid is not likely to hold, because the ad's relevancy to the brand is of secondary importance. When an ad matches the ad schema, the ad presents expected information to the consumer, and when the ad does not match the ad schema knowledge it is likely to be perceived as unexpected information (Heckler & Childers 1992). Only if the ad is incongruent with the ad schema, consumers will consider the ad's relevancy to the brand (Mandler 1982, Meyers-Levy & Tybout 1989). Goodstein's findings (1993) suggest that ads that are congruent with the ad schema (typical ads) are evaluated more favorably than ads that are incongruent with the ad schema (a-typical ads). This implies that the pattern of evaluations formulated in hypothesis 1 and 2 may still occur, but only if the type of advertising recommended in the RP grid is also typically associated with the product category (and consequently with the ad schema). However, even when the pattern of

evaluations is similar to the advertising grid, this will not be caused by the brand  $\times$  ad type interaction that is central to the RP grid.

H4: If the ad schema is salient, brand and ad evaluations will not be affected by the brand-matching or brand-mismatching nature of advertising as specified in the RP grid.

Our hypotheses will be examined in two experiments in which the salient schema for ad processing and evaluation is different. In experiment 1 the brand schema is made salient and consequently evaluations are expected to follow predictions from the advertising grid, i.e., brand-matching advertising is more effective than brand-mismatching advertising (hypotheses 1 and 2). Furthermore, the moderating role of ad schema in evaluations of brand-mismatching advertising is investigated (hypothesis 3). In experiment 2, the ad schema is made salient and the greater effectiveness of brand-matching advertising compared to brand-mismatching advertising is not expected (hypothesis 4).

## **EXPERIMENT 1**

In the first experiment, we tested the matching hypothesis from the RP grid with different brands and different ads. The brand schema was made salient and advertising that matched the brand's purchase motivation was expected to be more effective than advertising that did not match the purchase motivation for the brand. Furthermore, the moderating role of the ad schema in the evaluation of brand-mismatching advertising was investigated.

## Method

*Design.* A 2 (brand purchase motivation)  $\times$  2 (type of advertising) experimental design was used. Brand and ad perceptions were manipulated by means of hypothetical brand descriptions and ad scenarios (see appendix 1). This resulted in four brand–ad combinations that were constructed according to the tactics outlined in the RP grid. In two brand–ad combinations, the ad matched the brand purchase motivation, i.e., an informational ad for a utilitarian brand, and a transformational ad for a hedonic brand. In the other two brand–ad combinations, the ad did not match the purchase motivation for the brand, i.e., a transformational ad for a utilitarian brand, and an informational ad for a hedonic brand.

The experiment was conducted for each of two product categories: deodorant and soft drinks. The ad schema was expected to be different across these categories. Subjects in the experiment received either two matching or two mismatching brand-ad combinations from one of the product categories. This means that brand purchase motivation and type of advertising were within-subject factors, but brand-matching that resulted from the interaction between brand purchase motivation and type of advertising was a between-subjects factor.

*Subjects and procedure.* Data were collected in June 2001. 76 Dutch undergraduate students were told that they took part in a study on advertising and that we were interested in their opinions about brands, ads and brand–ad combinations.

The questionnaire was constructed as follows. First subjects read two brand descriptions from the same product category, one for a utilitarian brand and another for a hedonic brand, before answering questions about their initial brand attitudes and brand perceptions. Then they read two ad scenarios, an informational and a transformational ad scenario, and subsequently answered questions about their initial

attitudes toward the ad and ad perceptions. Next, subjects were asked to choose the ad that fitted each of the brands best. The choice task served to make the brand schema salient in ad processing and evaluation for the remainder of the questionnaire.

Collection of the dependent measures in the questionnaire started with the second part of the choice task, in which participants had to rank all four brand–ad combinations in order of preference. This task will be referred to as the ranking task. Next, subjects were requested to rate each of two brand–ad combinations, either the two brand-matching combinations or the two brand-mismatching combinations. The ads in the brand–ad combinations were introduced as if they were selected by the respective manufacturers in their marketing campaigns. This task will be referred to as the rating task. Subjects provided attitude ratings for the utilitarian and hedonic brands and their accompanying ads from the marketing campaign on 7-point scales. Finally, ad schema and incongruity perceptions were measured in this part of the questionnaire.

*Measures.* The independent variables in this study were brand purchase motivation, and type of advertising. Incongruity resulted from the interaction between brand and ad perceptions, possibly moderated by ad schema perceptions. The dependent variables in this study were brand and ad evaluation measures (see appendix 2). Most Cronbach  $\alpha$ 's of the constructs were higher than 0.7, and a few were in the 0.5–0.7 range (see table 1). Although some constructs were not measured reliably for specific brands or ads, the same scale items were used for reasons of comparability.

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Table 1 about here  
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## Results

### *Manipulation checks*

Overall, the manipulation checks were successful and are discussed in detail below.

*Brand perceptions.* The paired-samples t-tests for brand purchase motivation showed that the utilitarian and hedonic brand descriptions were perceived as intended (see table 2). Both for deodorants and soft drinks, the utilitarian brand was more likely to possess utilitarian product attributes than the hedonic brand, while the reverse was true for hedonic product attributes. Independent-samples t-tests showed that the differences between utilitarian and hedonic product attributes were also significant within each brand for both product categories. Finally, the initial attitude toward the utilitarian brand was more favorable than toward the hedonic brand in both product categories. This result is somewhat surprising for the soft drink category, because consumers predominantly buy soft drinks for hedonic reasons (sensory excitement).

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Table 2 about here  
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*Ad perceptions.* The paired-samples t-tests for type of advertising showed that the ad descriptions were perceived as intended (see table 2). Both for deodorants and soft drinks, the informational ad was likely to feature more informational ad content than the transformational ad, while the reverse was true for transformational ad content. Independent-samples t-tests showed that the differences between informational and transformational ad content within each type of ad were also significant for both product categories. Finally, the initial attitude toward the

transformational ad was more favorable than for the informational ad in both product categories. This is not surprising because transformational ads are intended to elicit positive emotions that enhance the user's brand experience (Aaker & Stayman 1992).

*Ad schema.* The ad schema for deodorants was different than for soft drinks. Paired-samples t-tests for ad schema content showed that the ad schema for soft drinks was more likely to feature transformational ad content than informational ad content (5.60 vs 2.77,  $p < .001$ ), whereas the ad schema for deodorant did not differ significantly in terms of transformational and informational ad content (4.98 vs 4.51,  $p < .001$ ). Furthermore, the affect associated with typical soft drink ads was more positive than the affect associated with typical deodorant ads (independent-samples t-test: 4.30 vs 3.45,  $p < .01$ ).

*Incongruity perceptions.* Incongruity perceptions associated with the four brand-ad combinations were investigated through the relevancy and expectancy dimensions identified by Heckler & Childers (1992). The relevancy and expectancy dimensions of incongruity were examined separately for both product categories, using GLM repeated measures with brand-matching condition (referred to as “condition” from here on) as between-subjects factor and brand as within-subjects factor. The estimated marginal means of relevancy and expectancy are displayed in table 3.

The GLM repeated measures for ad relevancy in the soft drink category showed a significant main effect of condition ( $p < .001$ ), indicating that consumers perceived ads in the brand-matching condition as more relevant to the brand than ads in the brand-mismatching condition. Furthermore, there was a significant brand  $\times$  condition interaction ( $p < .001$ ), which showed that the difference in perceived ad relevance caused by mismatching brand perceptions was greater for the utilitarian



brand than for the hedonic brand. The condition main effect for ad relevancy showed that the manipulation of the ad's incongruity with brand perceptions was successful.

The GLM repeated measures for ad expectancy in the soft drink category showed a significant brand  $\times$  condition interaction ( $p < .001$ ). The estimated marginal means for expectancy (see table 2) showed that the ad in the brand-matching condition was relatively atypical for the utilitarian brand, while the ad in the mismatch condition was relatively atypical for the hedonic brand. Both ads were informational and consequently did not match the transformational ad schema for soft drinks. Thus, the brand  $\times$  condition interaction effect for ad expectancy showed that the manipulation of the ad's incongruity with ad schema perceptions was successful.

The GLM repeated measures for ad relevancy in the deodorant category showed a significant main effect of condition ( $p < .001$ ), indicating that consumers perceived ads in the brand-matching condition as more relevant to the brand than ads in the brand-mismatching condition. Furthermore, there was a significant brand  $\times$  condition interaction ( $p < .05$ ), which showed that the difference in perceived ad relevance caused by mismatching brand perceptions was larger for the utilitarian brand than for the hedonic brand. The condition main effect for ad relevancy showed that the manipulation of the ad's incongruity to brand perceptions was successful.

The GLM repeated measures for ad expectancy in the deodorant category showed a significant brand  $\times$  condition interaction ( $p < .05$ ). The estimated marginal means for expectancy showed that for the hedonic brand, the ad in the brand-mismatching condition was relatively atypical, while for the utilitarian brand, the ads were equally typical in both conditions. No brand  $\times$  condition interaction was expected, because both informational and transformational ads were expected to be congruent with the deodorant ad schema. Thus, the manipulation of the ad's

incongruity with ad schema perceptions was not successful. Consequently, there may also be a moderating effect of ad schema for deodorant. In addition to the brand  $\times$  condition interaction, the brand main effect ( $p < .01$ ) and the condition main effect ( $p < .10$ ) for ad expectancy were also significant, but these effects were probably caused by the unexpected brand  $\times$  condition interaction.

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Table 3 about here  
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The ad stimuli were also compared directly with the ad schemas in terms of informational and transformational ad content. The paired-samples t-tests for soft drinks showed that the informational ad was less transformational ( $p < .001$ ) and more informational ( $p < .001$ ) than the soft drink ad schema, while the transformational ad was more transformational ( $p < .001$ ) than the soft drink schema and equally informational ( $p > .10$ ). This implies that the transformational ad was congruent with the ad schema (even more transformational) and the informational ad was incongruent with the ad schema in terms of perceived ad content. Thus the soft drink ads' incongruity with the ad schema was perceived as intended.

For deodorant the paired-samples t-tests showed that the informational ad was less transformational ( $p < .01$ ) and more informational ( $p < .001$ ) than the deodorant ad schema, while the transformational ad was more transformational ( $p < .001$ ) and less informational ( $p < .01$ ) than the deodorant ad schema. This suggests that the deodorant ads were good examples of the informational and transformational ads that are both part of the deodorant ad schema.

### *Hypotheses*

Hypotheses 1–3 were investigated by means of both the ranking and the rating task. The results showed strong evidence for the match hypothesis in both product categories. Furthermore, we found evidence for a moderating effect of ad schema, but only in the ranking task.

*Ranking task.* The hypotheses for the ranking task were examined with Wilcoxon signed rank tests. The mean ranks for each of the brand–ad combinations are shown in table 4. The Wilcoxon test showed that the utilitarian–informational combination was ranked higher than utilitarian–transformational combination ( $p < .001$ ), and the hedonic–transformational combination was ranked higher than the hedonic–informational combination ( $p < .001$ ) for both deodorant and soft drinks, thus confirming hypotheses 1 and 2.

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Table 4 about here  
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Hypothesis 3 specified that the two mismatching brand–ad combinations would differ in rank as a result of the moderating effect of ad schema. Specifically, we expected that the mismatching brand–ad combination that was congruent with the ad schema would be ranked higher than the mismatching brand–ad combination that was incongruent with the ad schema. The Wilcoxon test for soft drinks showed that the utilitarian–transformational combination was ranked somewhat higher than the utilitarian–informational combination (one-tailed  $p < .10$ ). This was in accordance with the relatively transformational content of the ad schema for soft drinks, thus confirming hypothesis 3.

For deodorant, the Wilcoxon test showed that the utilitarian–transformational combination was ranked higher than the hedonic–informational combination (two-

tailed  $p < .01$ ), although the ad schema for deodorant was not perceived as predominantly transformational. This is not in agreement with hypothesis 3.

In addition to our hypotheses, we also checked whether the two matching brand–ad combinations differed in rank, but this was the case for neither of the product categories (two-tailed  $p > .10$ ). In conclusion, the rankings showed evidence for the matching hypothesis and, in the case of soft drinks, also for the moderating role of ad schema.

*Rating task.* The hypotheses for the rating task were examined for both product categories through GLM repeated measures with brand–ad match vs mismatch as between-subjects factor and brand as within-subjects factor. The dependent measures included in the GLM analyses were attitude change scores, because the manipulation checks showed that there were significant differences in prior attitudes between brands and ads in both product categories. The attitude change scores were calculated for both brands and ads by subtracting the prior attitudes from post-manipulation attitudes. The estimated marginal means for changes in attitudes are shown in table 4.

The GLM repeated measures for soft drinks showed a significant main effect of matching for both brand attitude ( $p < .001$ ) and attitude toward the ad change scores ( $p < .001$ ). Both brand attitude and attitude toward the ad change scores were more favorable in the match condition than in the mismatch condition (see table 4). This means that the match hypothesis was confirmed for the soft drink category. In addition, the main effect of brand was marginally significant ( $p < .10$ ) for brand attitude change scores, showing that on average the brand attitude change score was more favorable for the hedonic soft drink brand than for the utilitarian soft drink brand.

The GLM repeated measures for deodorant showed a significant main effect of matching for both brand attitude ( $p < .01$ ) and attitude toward the ad change scores ( $p < .05$ ). Both brand attitude and attitude toward the ad change scores were more favorable in the match condition than in the mismatch condition (see table 4). This means that the match hypothesis was also confirmed for the deodorant category. Thus, we find strong support for hypothesis 1 and 2 in both categories.

Hypotheses 3 stated that the mismatching brand–ad combination that was congruent with the ad schema would be evaluated more favorably than the mismatching brand–ad combinations that was not congruent with the ad schema. Neither for soft drinks nor for deodorant the brand  $\times$  matching interaction effect was significant, neither for brand attitude change scores nor for attitude toward the ad change scores. This means there was no evidence for the moderating role of the soft drinks and deodorant ad schemas, so hypothesis 3 was not confirmed. Unlike the ranking task, the subjects did not distinguish between the two mismatching brand–ad combinations in the rating task. In conclusion, the rating task showed evidence for the matching hypothesis, but not for the moderating role of ad schema.

## **Discussion of experiment 1**

It appeared that brand-matching advertising was more effective than brand-mismatching advertising when the brand schema was made salient. Consumers preferred ads matching the brand purchase motivation to mismatching ads in two different product categories, with two different tasks. Thus strong support was found for the matching hypothesis from the RP grid.

In an earlier experimental test of the RP grid (Loef et al. 2001), in which schema salience was not controlled experimentally, we found that brand-mismatching

advertising was more effective than brand-matching advertising. This was explained by suggesting that brand schema salience is required for the matching hypothesis from the RP grid to apply. Salience of the brand schema was accomplished in the current experiment by letting the participants fit ad scenarios to particular brand descriptions. Since deodorant was included in both the current experiment and our previous study, the difference in results already provided evidence that schema salience played a crucial role. If schema salience indeed caused the different patterns of evaluations for deodorant, reducing brand schema salience for soft drinks should also cause a different pattern of evaluations. This proposition is tested in the second experiment of this study.

The evidence for a moderating role of ad schema in this experiment was less pronounced than the evidence for the matching hypothesis. We found that the ad schema moderated evaluations of the two mismatching brand–ad combinations for soft drinks, but only in the ranking task, not in the rating task. For deodorant, the ad schema was both informational and transformational. In this case, the evaluations of mismatching brand–ad combinations indicated preference for the combination including transformational advertising. This result is plausible, given the relatively favorable attitudes toward transformational advertising.

## **EXPERIMENT 2**

In the second experiment, we tested the proposition that brand schema salience was responsible for the match hypothesis found in the first experiment. We reduced the importance of the brand purchase motivation by making the ad schema salient in ad processing and evaluation. Consequently, we no longer expected that brand-matching

advertising would lead to more favorable brand and ad evaluations than brand-mismatching advertising.

## **Method**

*Design.* A 2 (brand purchase motivation)  $\times$  2 (type of advertising) experimental design was used. As explained in the discussion of the first experiment, only soft drinks were included in experiment 2. Brand and ad perceptions were manipulated by means of hypothetical brand descriptions and ad scenarios. Exactly the same ads were used as in the first experiment. However, the brand descriptions (see appendix 2) were abbreviated to make brand information less salient to the participants without changing the essential characteristics of the brands. Again, two brand–ad combinations represented brand-matching advertising and two brand–ad combinations represented brand-mismatching advertising. Because the ad schema was made salient, no effect of the interaction between brand purchase motivation and type of advertising on incongruity perceptions were expected. Instead, incongruity was expected with ads mismatching the ad schema perceptions. For reasons of comparability, subjects in this experiment received either two matching or two mismatching brand-ad combinations like they did in the first experiment. Thus brand-matching was a between-subjects factor.

*Subjects and procedure.* Data were collected in October 2001 in a sample of 51 Dutch undergraduate students. The students were told that they were part of a study on advertising and that we were interested in their opinion about brands and ads. In contrast to experiment 1 we also instructed the participants that they should try to evaluate brands and ads just like they would do if they watched commercials on television. The questionnaire for experiment 2 contained largely the same questions as

in experiment 1. However, the order of the questions was changed to make the ad schema salient and some questions were left out to avoid brand schema salience or because they were redundant.

The questionnaire was constructed as follows. First, subjects answered questions about their ad schema perceptions to make the ad schema salient in ad processing and evaluation for the remainder of the questionnaire. Then subjects read the two ad descriptions, and answered questions about their initial attitudes and the ads' perceived fit with the ad schema. Next, the dependent measures were collected by means of a rating task. Just like in the first experiment brand–ad combinations were introduced as the ad that was selected by the manufacturers for use in their marketing campaigns. However, in this experiment the ad schema was made salient before the participants read the (abbreviated) brand descriptions. Subjects received either the two brand-matching or the two brand-mismatching combinations. Finally, subjects were asked to perform a ranking task in which they had to rank all four brand–ad combinations in order of preference and subsequently answered questions about the ads' relevancy to the brands for the two brand–ad combinations they had evaluated.

In experiment 1, the ranking task was used for testing hypotheses. In experiment 2 the ranking task merely served as a manipulation check to verify that the abbreviation of the brand descriptions did not change consumer brand perceptions. Therefore, the introduction to the ranking task emphasized the importance of fit between the brand and the ad as in the first experiment.

*Measures.* The independent variables in this study were brand purchase motivation and type of advertising. The dependent variables in this study were brand and ad evaluation measures (see Appendix 2).



## Results

### *Manipulation checks*

Overall, the manipulation checks were successful. The manipulation checks for brand, ad, ad schema and incongruity perceptions are described in detail below.

*Brand perceptions.* The manipulation checks for brand perceptions were examined by means of Wilcoxon signed rank tests. The mean ranks for each of the brand–ad combinations are shown in table 5. In the ranking task, the brand schema was salient, so according to the match hypothesis brand-matching combinations should be ranked higher than brand-mismatching combinations. The Wilcoxon tests showed that the utilitarian–informational combination was ranked higher than utilitarian–transformational combination ( $p < .001$ ), and the hedonic–transformational combination was ranked higher than the hedonic–informational combination ( $p < .001$ ). This means that although the brand descriptions were abbreviated for the purpose of this experiment, participants' rankings were still in accordance with the match hypothesis when instructions emphasized fit with the brand schema. Therefore, we can conclude that the brands were perceived as intended. Further evidence for this conclusion is discussed in the manipulation checks on incongruity.

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Table 5 about here  
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*Ad perceptions.* Since the same informational and transformational soft drink ads were used as in experiment 1, ad content perceptions were not measured in experiment 2. Paired-samples t-tests were used to examine the initial attitudes toward

the experimental ads. The transformational ad was evaluated more favorably than the informational ad (4.84 vs. 3.04,  $p < .001$ ), which was in line with the first experiment.

*Ad schema perceptions.* Paired-samples t-tests for ad schema content showed that the ad schema for soft drinks was more likely to feature transformational than informational ad content (5.74 vs. 2.95,  $p < .001$ ). Consequently, the ad schema for soft drinks can be qualified as predominantly transformational in nature.

*Incongruity perceptions.* Incongruity associated with the four brand–ad combinations was examined through the relevancy and expectancy dimensions identified by Heckler & Childers (1992). The paired-samples t-tests for ad typicality showed that the transformational ad was perceived as more typical than the informational ad (2.84 vs. 4.04,  $p < .001$ , larger figures indicating less typical ads). This means that the manipulation of the ad's incongruity with ad schema perceptions reflecting the expectancy dimension was successful.

Although, the relevancy dimension of incongruity was not of primary importance to subjects' evaluations in the second experiment, we included it in our experiment to examine whether abbreviation of the brand descriptions had changed the meaning of the brands. Since the brand schema was salient directly after the ranking task, we expected that ads in the brand-matching condition were more relevant than ads in the brand-mismatching condition. The GLM repeated measures for ad relevancy with brand as within-subjects factor and matching as between-subjects factor showed a significant main effect for matching ( $p < .001$ ). This is additional evidence that the abbreviation of the brand description did not alter the characteristics of the brand. In addition to the main effect of matching, a brand  $\times$  matching interaction was found for ad relevancy ( $p < .01$ ). This interaction effect indicated that the differences in ad relevancy as a result of the ad mismatching the

brand purchase motivation, was larger for the utilitarian brand than for the hedonic brand (see Table 5).

### *Hypotheses*

Hypothesis 4 was investigated by means of a rating task. Similar as in experiment 1, participants evaluated two of the four brand–ad combinations on 7-point scales. GLM repeated measures was used with brand-matching condition as between-subjects factor and brand as within-subjects factor. The dependent measures were attitude change scores for attitude toward the ad and post-manipulation brand attitude. Attitude toward the ad change scores were used because the manipulation checks showed that there were significant differences in prior attitudes between the informational and transformational soft drink ads. Contrary to experiment 1, we could not use brand attitude change scores, because prior brand attitudes were not measured in this experiment. Measurement of prior brand attitudes was excluded from experiment 2 because it was likely to interfere with ad schema salience. The estimated marginal means for brand attitude and attitude toward the ad change are shown in table 6.

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Table 6 about here  
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Hypothesis 4 stated that when the ad schema is salient, brand and ad evaluations would not be affected by the brand-matching or brand-mismatching nature of advertising. The GLM repeated measures showed a significant brand  $\times$  matching interaction for both post-manipulation brand attitudes ( $p < .001$ ) and attitude toward the ad change scores ( $p < .10$ ). Contrary to experiment 1, the main effects of

matching were not significant in the GLM analyses of experiment 2, supporting hypothesis 4.

The brand  $\times$  matching interaction for post-manipulation brand attitudes indicated that the brand-mismatching ad was evaluated more favorably than the brand-matching ad for the utilitarian brand, while the reverse was true for the hedonic brand. Thus, both the utilitarian and hedonic brands were evaluated more favorably when they were paired with the transformational ad than when the brands were presented in combination with the informational ad. The brand  $\times$  matching interaction for attitude toward the ad change scores indicated that the brand-matching ad led to greater attitude change scores than the brand-mismatching ad for the utilitarian brand, while the reverse was true for the hedonic brand. Thus, the informational ad led to greater attitude change scores than the transformational ad.

*Comparison between experiments 1 and 2.* To investigate hypothesis 4 further, we also analyzed the soft drink data with GLM repeated measures for both experiments together. The dependent measures were attitude toward the ad change scores and post-manipulation brand attitudes. Brand-matching condition and saliency (either brand schema or ad schema salient) were included as between-subjects factors and type of brand was included as within-subjects factor. The GLM repeated measures for attitude toward the ad change showed significant main effects of salience ( $p < .001$ ) and matching ( $p < .001$ ). Furthermore, the brand  $\times$  matching ( $p < .05$ ) and salience  $\times$  matching ( $p < .001$ ) interaction effects were significant. The salience  $\times$  matching interaction indicated that ad evaluations differed between the brand-matching and brand-mismatching conditions in line with the match hypothesis when the brand schema was salient (estimated marginal means: 0.255 vs. -0.791), but

not when the ad schema was salient (estimated marginal means: 0.235 vs. 0.233). This two-way interaction effect supported hypothesis 4 for ad evaluations.

The GLM repeated measures for post-manipulation brand attitudes showed significant main effects of salience ( $p < .10$ ) and matching ( $p < .001$ ). Furthermore, the brand  $\times$  matching ( $p < .001$ ), and brand  $\times$  salience  $\times$  matching interaction ( $p < .01$ ) effects were significant. The brand  $\times$  salience  $\times$  matching interaction indicated that the brand evaluations showed a brand  $\times$  matching interaction when the ad schema was salient but not when the brand schema was salient. The estimated marginal means for the ad schema salient condition showed that the utilitarian brand was evaluated more favorably in the brand-mismatching condition than in the brand-matching condition (4.08 vs. 4.73), while the reverse was true for the hedonic brand (5.12 vs. 3.72). This means that when the ad schema was salient both brands were evaluated relatively favorably when they were paired with a transformational ad. When the brand schema was salient, both brands were evaluated more favorably when they were paired with an ad that matched the brand purchase motivation. Thus, both the utilitarian (5.22 vs. 4.46) and hedonic brand (5.08 vs. 4.03) were evaluated more favorably in the brand-matching condition than in the brand-mismatching condition. This three-way interaction effect supported hypothesis 4 for brand evaluations.

## **Discussion of experiment 2**

Contrary to experiment 1, the results from the second experiment did not indicate that brand-matching advertising was more effective than brand-mismatching advertising. Instead of preferring brand-matching advertising, participants' evaluations of both brands and ads were generally in line with initial ad evaluations. This

suggested that brand-matching aspects of advertising were not important to subjects when the ad schema was salient.

## **GENERAL DISCUSSION**

Taken together, these experiments supported the role of schema salience in ad processing and evaluation. In the first experiment, the brand schema was salient and consumer evaluations were in accordance with the match hypothesis of the RP grid. Brand-matching advertising was more effective than brand-mismatching advertising. This suggested that consumers explicitly related ads to brand knowledge, because the informational ad provided relevant information about the utilitarian brand, while the transformational ad contained relevant information about the hedonic brand. In the second experiment, brands and ads were essentially the same as in the first experiment, but the relative effectiveness of brand-matching advertising was not found. Instead, the brand and ad evaluations were in line with prior attitudes toward the ad. The only difference between the two experiments was ad schema saliency. The results of the second experiment showed that consumers ignored the brand-matching aspects of advertising, which means that consumers did not relate the ads to their brand knowledge. This finding has important implications for both advertising research and practice.

The main theoretical implication, from this study and our previous study is that brand awareness, which is a prerequisite in the RP advertising grid, may not be enough. Instead, brand salience is required for the predictions from the RP grid to hold. Brand salience differs from brand awareness in that consumers do not only know the brand and its features but also actively use this knowledge in processing ad information. Possibly, brand salience in ad processing is assumed in the advertising

grid, but our study shows the importance of explicitly identifying schema salience as an additional requirement in the RP grid. Furthermore, the ad schema was identified as an alternative schema that is used by consumers in ad processing and evaluation. Although Goodstein (1993) already suggested the importance of the ad schema in ad processing, the effect of brand schema knowledge is not clear from his research. We explicitly incorporated brand schema knowledge and found that consumers did not pay attention to the fact whether ads matched or mismatched with brand perceptions, when the ad schema was salient.

This also has important implications for advertising practice. When different ads are tested for a brand, brand schema salience is required. When consumers do not actively use brand knowledge in judging ads, brand managers may select ads that do not clearly communicate the brand's positioning for their ad campaigns. Furthermore, the finding that congruity with existing brand knowledge is not always important to consumers also indicates that clearly communicating the brand's positioning in advertising will not always be effective. When consumers predominantly use the ad schema to process ads, it may also be a good approach for the manufacturer to use an ad that is moderately incongruent with the ad schema. Schema theory suggests that these ads may attract attention and lead to relatively favorable evaluations.

## **APPENDIX 1: Brand descriptions and ad scenarios**

*Utilitarian soft drink brand (experiment 1):* Zest is a new brand of soft drink, which is expected to be available very soon. This new drink is especially formulated for sporty people. The carbonated beverage has a slightly sweet taste and tastes best when it is served at a cold temperature. A 1.5L bottle of Zest contains only 1 calorie, so it keeps you slim and in shape. Furthermore, the beverage contains natural ingredients that immediately give you a new boost of energy when you are feeling tired. Zest will be available in supermarkets and sports centres.

*Hedonic soft drink brand (experiment 1):* Cool'N'Fresh is a new brand of soft drink, which is expected to be available very soon. This new drink is especially formulated for young people. The carbonated beverage has a slightly sweet taste and tastes best when it is served at a cold temperature. A can of Cool'N'Fresh gives you the ultimate refreshing experiences when the weather is hot. Moreover, the beverage is fit for all situations, so it tastes great whether you are at home, at a party with friends or out drinking. Cool'N'Fresh will be available in supermarkets.

*Utilitarian soft drink brand (experiment 2):* Zest is a new brand of soft drink. This drink contains 1 calorie per bottle and is based on natural ingredients that give new energy.

*Hedonic soft drink brand (experiment 2):* Cool'N'Fresh is a new brand of soft drink. This drink is refreshing, tasty and can be consumed anywhere.

*Informational soft drink ad (experiments 1 and 2) – Fitness Club:* A young woman sits in the locker room of a fitness club and looks in the camera. She tells that it is important to her to keep in shape and be fit. "That's why I go to my fitness club once a week. First, I am busy on different types of fitness machines and afterwards it is nice to catch up with my friends. But it is such a pity when you immediately start



drinking coke then, just because you are thirsty..." Then she smiles in the camera:  
"Of course it tastes great, but you immediately gain all calories you just burned. That's why I drink <ZEST> or <COOL'N'FRESH>. It only contains 1 calory and it immediately gives you a new boost of energy. The commercial ends with a voice-over saying <ZEST, fresh and energetic> or <COOL'N'FRESH, fresh and cool>.

*Transformational soft drink ad (experiments 1 and 2) - Party:* The commercial shows various, flashy images of young people partying. Alternately you see pictures of youths from various parts of the world. Footage of a beach party from Brazil. Images of an audience at a big pop concert in a park somewhere in Europe. Dancing people in a London disco. Pictures of teenagers relaxing in the sun in Central Park, New York. Meanwhile, the camera zooms in on various attractive young people drinking <ZEST> or <COOL'N'FRESH> and cans of <ZEST> or <COOL'N'FRESH> cooled on ice cubes. The commercial ends with a voice-over saying <ZEST, fresh and energetic> or <COOL'N'FRESH, fresh and cool>.

*Utilitarian deodorant brand (experiment 1):* Protect is a new deodorant that lasts all day long. Now you don't have to worry any more about the unpleasant effects of perspiration. This deodorant is available in both rollerstick and spray variants. The brand will be on sale in supermarkets and drug stores.

*Hedonic deodorant brand (experiment 1):* Seductive is a new deodorant with a tempting scent. With this deodorant you will feel simply irresistable. This deodorant is available in both rollerstick and spray variants. The brand will be on sale in supermarkets and drug stores.

*Informational deodorant ad (experiment 1) – Business Woman:* A woman in her early thirties, wearing a suit looks in the camera and tells that she always has to

look good in her job. She says: “I have to trust that I always make a self-assured impression, no matter how busy I am. Thanks to <PROTECT> or <SEDUCTIVE> deodorant I feel fresh and secure all day and can concentrate fully on my work.” The voice-over ends with the claim <PROTECT deodorant protects you all day long> or <SEDUCTIVE deodorant for an unforgettable impression>.

*Transformational deodorant ad (experiment 1) - Disco:* The camera shows images of a crowded disco with young people dancing on steamy R&B music. Then the camera zooms in on a seductive woman and follows her while she dances to the center of the floor with sensual movements. She immediately attracts attention and admiring looks from all the men she passes. The voice-over ends with the claim <PROTECT deodorant protects you all day long> or <SEDUCTIVE deodorant for an unforgettable impression>.

## **APPENDIX 2: Overview of independent and dependent measures**

All constructs were measured with seven-point scales. Both Likert-type scales and semantic differentials were used. The reliabilities of the constructs used in both experiments are displayed in table 2.

*1. Brand perceptions.* Product belief ratings indicated the extent to which the brands were associated with utilitarian and hedonic purchase motives. Two product beliefs represented utilitarian benefits, and two product beliefs were hedonic benefits. For soft drinks subjects indicated whether the brand was a drink that 1. gives new energy when feeling tired, 2. you use when you care about your health, (utilitarian product beliefs), 3. is highly enjoyable, 4. gets you a refreshing taste experience (hedonic product beliefs). For deodorant subjects indicated whether the brand was a deodorant that 1. gives long-lasting protection , 2. is highly effective against perspiration (utilitarian product beliefs), 3. has a pleasant, seductive scent, 4. makes you feel attractive (hedonic product beliefs). Factor analyses of the four product beliefs were performed for each experimental brand separately and per type of brand (the two utilitarian brands and the two hedonic brands together). All factor analyses showed that the four product beliefs loaded on two factors, with the utilitarian product beliefs loading on one factor and the hedonic product beliefs on the other. Therefore the product attribute beliefs were grouped together to represent utilitarian and hedonic purchase motivation.

*2. Ad perceptions.* Informational ad content was measured with the following Likert-type scales: “the commercial is factual and informative”, “the advertisement suggests the solution to a problem”, “the ad focuses on usage benefits associated with the brand”, and “the ad makes a rational appeal” (adapted from Holbrook & Batra

1987, Olney, Holbrook & Batra 1991). Transformational ad content scales were “the commercial tries to create a mood”, “the advertisement presents a slice of life”, “an enjoyment appeal is used in the ad”, and “the ad contains many images showing positive emotions”. Factor analyses of the eight ad content items were performed for each experimental ad separately and per type of ad (the two informational ads and the two transformational ads together). All factor analyses showed a two-factor solution. Generally, the items intended to measure informational ad content loaded on one factor, and the items intended to measure transformational ad content loaded on the other. Thus the ad content items were combined in an informational and a transformational ad construct.

3. *Ad schema perceptions.* General ad schema characteristics were measured by Goodstein's (1993) thirteen-item questionnaire about expectations for product category ads. Factor analyses of the thirteen ad schema statements were performed for each product separately and for both products together. All factor analyses showed a two-factor solution, one factor containing five statements related to ad schema strength and another factor containing eight statements reflecting ad schema affect. Consequently, the items were grouped in a schema strength and a schema affect construct. Furthermore, ad schema content perceptions were measured with the same eight items that measured ad content perceptions. Again factor analyses of the eight ad schema content items were performed for each product separately and for both products together. All factor analyses showed a two-factor solution, one containing most informational ad content items, and the other containing the four transformational ad content items. Thus, the ad content items were grouped in an informational and a transformational ad construct.

4. *Incongruity perceptions.* Relevancy and expectancy represent two dimensions of incongruity. Four statements about the fit between the brand and its accompanying ad (adapted from Heckler & Childers 1992) measured the relevancy dimension of incongruity: “The <AD SCENARIO TITLE> ad fits <BRAND> very well”, “The commercial clearly presents <BRAND>'s defining characteristics”, “This type of advertising is very appropriate for <BRAND>”, “The ad for <BRAND> contains relevant information about the brand”. Four adjectives (adapted from Goodstein 1993 and Heckler & Childers 1992) measured ad typicality or the expectancy dimension of incongruity. Consumers indicated to what extent the ad was “different”, “atypical”, “unique” and “unexpected”, compared to product category ads in general.

5. *Brand evaluation.* Prior and post-campaign brand attitudes were measured by three items “good-bad” “positive-negative” “favorable-unfavorable” (Batra & Ahtola's 1990 items for overall brand attitude).

6. *Ad evaluation.* Prior and post-campaign attitudes toward the ad were measured by four items “good-bad”, “like-dislike”, “irritating-not irritating”, “interesting-uninteresting” (Mitchell & Olson 1981).

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**TABLE 1 – Reliability coefficients (both experiments)**

	EXPERIMENT 1	EXPERIMENT 2
	(n = 76)	(n = 51)
	Brand purchase motivation <sup>a</sup>	
Utilitarian brands		
▪ Utilitarian purchase motivation	.5860	n.a.
▪ Hedonic purchase motivation	.6202	n.a.
Hedonic brands		
▪ Utilitarian purchase motivation	.8003	n.a.
▪ Hedonic purchase motivation	.8111	n.a.
	Type of advertising <sup>a</sup>	
Informational ads		
▪ Informational ad content	.6441	n.a.
▪ Transformational ad content	.5404	n.a.
Transformational ads		
▪ Informational ad content	.7082	n.a.
▪ Transformational ad content	.8169	n.a.
	Ad schema <sup>a</sup>	
Ad schema characteristics		
▪ Schema strength	.8448	.7755
▪ Schema affect	.9042	.8255
Ad schema content		
▪ Informational ad content	.8362	.6731
▪ Transformational ad content	.8342	.7508
	Incongruity <sup>a</sup>	
Ads paired with utilitarian brand		
▪ Relevancy	.9584	.9295

▪ Expectancy (atypicality)	.8816	n.a.
Ads paired with hedonic brand		
▪ Relevancy	.8577	.8536
▪ Expectancy (atypicality)	.9059	n.a.
Informational ad		
▪ Expectancy (atypicality)	n.a.	.5805
Transformational ad		
▪ Expectancy (atypicality)	n.a.	.7947
	Brand attitude <sup>b</sup>	
Utilitarian brands		
▪ Prior attitude	.9469	n.a.
▪ Post-manipulation attitude	.9177	.9404
Hedonic brands		
▪ Prior attitude	.9395	n.a.
▪ Post-manipulation attitude	.9613	.9470
	Attitude toward the ad <sup>b</sup>	
Informational ads		
▪ Prior attitude	.7969	.8632
Transformational ads		
▪ Prior attitude	.8606	.8213
Ads paired with utilitarian brand		
▪ Post-manipulation attitude	.7621	.9117
Ads paired with hedonic brand		
▪ Post-manipulation attitude	.9186	.9180
n.a. = not available for this experiment		
<sup>a</sup> Independent variables, <sup>b</sup> Dependent variables		

**TABLE 2 – Manipulation checks of brand and ad perceptions (experiment 1)**

<b>SOFT DRINKS</b>			
<b>Brand Perceptions</b>	<i>Utilitarian brand</i>	<i>Hedonic brand</i>	Between brands (paired-samples t-test)
Utilitarian purchase motivation	5.75 <sup>a</sup>	3.11 <sup>b</sup>	p < .001
Hedonic purchase motivation	4.35 <sup>a</sup>	5.58 <sup>b</sup>	p < .001
Prior brand attitude	5.43	4.81	p < .001
<b>Ad Perceptions</b>	<i>Informational ad</i>	<i>Transformational ad</i>	Between ad types (paired-samples t-test)
Informational ad content	5.04 <sup>e</sup>	2.65 <sup>f</sup>	p < .001
Transformational ad content	4.01 <sup>e</sup>	6.03 <sup>f</sup>	p < .001
Prior attitude toward the ad	3.58	4.89	p < .001
<b>DEODORANT</b>			
<b>Brand Perceptions</b>	<i>Utilitarian brand</i>	<i>Hedonic Brand</i>	Between brands (paired-samples t-test)
Utilitarian purchase motivation	6.39 <sup>c</sup>	2.98 <sup>d</sup>	p < .001
Hedonic purchase motivation	3.39 <sup>c</sup>	6.18 <sup>d</sup>	p < .001
Prior brand attitude	5.85	4.95	p < .05
<b>Ad Perceptions</b>	<i>Informational ad</i>	<i>Transformational ad</i>	Between ad types (paired-samples t-test)
Informational ad content	5.52 <sup>g</sup>	3.22 <sup>h</sup>	p < .001
Transformational ad content	4.09 <sup>g</sup>	5.92 <sup>h</sup>	p < .001
Prior attitude toward the ad	3.88	4.93	p < .001
Figures with the same subscript indicate significant differences within each brand (a-d: independent-samples t-test: p < .001) or within each ad type (e-h: independent-samples t-test: p < .001).			

**TABLE 3 – Manipulation checks of incongruity perceptions (experiment 1)**

	<b>UTIL + INF (brand- matching advertising)</b>	<b>UTIL + TRANSF (brand- mismatching advertising)</b>	<b>HED + TRANSF (brand- matching advertising)</b>	<b>HED + INF (brand- mismatching advertising)</b>
<b>SOFT DRINKS</b>				
Relevancy	5.40	2.21	4.66	2.57
Expectancy (atypicality)	3.45	2.44	2.59	3.81
<b>DEODORANT</b>				
Relevancy	6.00	2.92	5.62	2.22
Expectancy (atypicality)	2.75	2.89	2.90	4.53

**TABLE 4 – Results of ranking and rating tasks (experiment 1)**

	<b>UTIL + INF (brand- matching advertising)</b>	<b>UTIL + TRANSF (brand- mismatching advertising)</b>	<b>HED + TRANSF (brand- matching advertising)</b>	<b>HED + INF (brand- mismatching advertising)</b>
<b>SOFT DRINKS</b>				
Mean preference ranks (ranking task)	1.41	3.39	1.63	3.57
Mean changes in brand attitude ratings (rating task)	-0.173	-1.086	0.259	-0.926
Mean changes in attitude toward the ad ratings (rating task)	0.452	-0.667	0.03	-0.778
<b>DEODORANT</b>				
Mean preference ranks (ranking task)	1.68	3.18	1.36	3.77
Mean changes in brand attitude ratings (rating task)	0.231	-0.889	0.462	-1.074
Mean changes in attitude toward the ad ratings (rating task)	0.558	-0.556	0.192	0.06

**TABLE 5 – Manipulation checks of brand and incongruity perceptions**  
**(experiment 2)**

	<b>UTIL + INF (brand- matching advertising)</b>	<b><u>HED +</u> <u>INF</u> (brand- mismatching advertising)</b>	<b>HED + TRANSF (brand- matching advertising)</b>	<b>UTIL + TRANSF (brand- mismatching advertising)</b>
<b>Brand Perceptions</b>				
Mean preference ranks	2.00	3.29	1.54	3.17
<b>Incongruity Perceptions</b>				
Relevancy	5.15	3.44	4.72	2.61
Expectancy (atypicality)	4.04		2.84	

**TABLE 6 – Results of rating task (experiment 2)**

	<b>UTIL + INF (brand- matching advertising)</b>	<b>UTIL + TRANSF (brand- mismatching advertising)</b>	<b>HED + TRANSF (brand- matching advertising)</b>	<b>HED + INF (brand- mismatching advertising)</b>
<b>Dependent Measures</b>				
Post-manipulation brand attitudes	4.10	4.83	5.14	3.83
Mean changes in attitude toward the ad ratings	0.413	0.120	0.048	0.320

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