Increasing advertising power via written scent references

Anna Fenko*, Svenja Breulmann & Svetlana Bialkova
Department of Communication Science
University of Twente, Netherlands

*Corresponding author:
Anna Fenko
Faculty of Behavioral Sciences
University of Twente
De Zul 10, 7522NJ, Enschede, the Netherlands
E-mail: a.fenko@utwente.nl

Abstract

Olfactory cues in advertisements can evoke positive consumer emotions and product attitudes, yet including real scent in advertising is not always feasible. This study aimed at investigating whether written scent references could produce effects similar to real scents. Participants in online experiment (N=197) evaluated advertisings for two products (a pen and a soap) with or without scent references. The results demonstrated that the written scent reference had positive effects on consumer emotions and attitudes towards both products. These results suggest that including scent reference in advertising may positively influence attitudes towards a product without attracting consumers’ full attention.

Keywords:
Olfactory cues, written scent reference, advertising, peripheral cues, product attitudes
1. Introduction

Nowadays, consumers are bombarded with huge amounts of information about products available in the marketplace. Companies and brands must work harder than ever to cut through this information clutter and gain consumers’ attention. In this context, multisensory marketing could be considered as a means to enhance advertising effectiveness. Facilitated by technological advancements, new possibilities to include multisensory stimuli in advertising emerged. For example, print advertisements can have specially designed paper to replicate certain textures or product scents embedded, and some even included taste-test strips. Although multisensory cues in marketing communications have been gaining interest (Lwin, Morrin, & Krishna, 2010), it is still not possible to include scents samples in the TV and online ads. Therefore, other means should be searched for to communicate olfaction and integrate multisensory experience in order to increase the advertising power of TV and on-line commercials. The current paper explores the potential of written scent references to affect the advertising power and product evaluation.

1.1. Olfactory cues in advertising

Olfaction is commonly considered an emotional sense (Schifferstein & Spence, 2007), as olfactory perception has been shown to strongly correlate to emotional responses (Schifferstein & Tanudjaja, 2004). Responses to odors are primarily automatic and stimulate the part of the brain associated with emotional responses, i.e. limbic system (Ellen & Bone, 1998). In comparison with other sensory modalities, scent-related information has a stronger association with emotional experiences (Lwin & Morrin, 2012). Furthermore, smells are commonly associated with autobiographical memories that are often related to emotional experiences (Herz, 2004).

Scents have been shown to influence consumers’ attitudes and to evoke product emotions (Krishna, 2012; Schifferstein & Spence, 2007; Magnini & Karande, 2010). Product evaluations and consumer behaviors in a scented store environment differed from those in an unscented store environment (Spangenberg, Crowley, Henderson, 1996). Recent study on the everyday product experience (Schifferstein & Desmet, 2007) reported that when participants were not able to smell the product, the functional judgment of the product did not suffer, but the emotional product experience was affected negatively. Moreover, scent cues have been found to elicit stronger and more favorable feelings for the ad and the brand and created more emotionally charged memory traces than pictorial cues (Lwin & Morrin, 2012).

1.2. Written scent references in advertising

Including scents in advertisements might be beneficial, but they might not always be feasible, for example, in case of TV and online ads. As an alternative, advertisers might consider making people think of a scent by stimulating sensory imagery (Schifferstein & Spence, 2007). Imagining a scent can produce effects similar to actual perception of an odor (Stevenson & Case, 2005). Reading odor related words (e.g., cinnamon, garlic, jasmine) has been shown to activate olfactory brain regions (González et al., 2006). If written olfactory information stimulates the cerebral area associated with olfaction, a verbal description of a scent might thus evoke the same effects on product experience as an actual scent.

The effect of a written scent reference on the affective response towards the ad was recently explored in an ecotourism advertisement (Magnini & Karande, 2010). Respondents evaluated
the ad with the scent reference significantly more favorably than those without such a reference. This is a promising result, inviting further research to investigate whether and how consumers would evaluate the effect of written scents for different products. The present study addresses these issues by looking at the potential of written scent references to influence consumer emotions and product attitudes.

1.3. Relevance of scent to the product attributes

Previous studies (i.e., Ellen & Bone, 1998) suggest that scent cues in advertisements do not automatically result in a positive affective response towards an ad and a brand. A reason may be the relevance of the scent to the product attribute(s). While for some products (such as personal care products) scent is a primary attribute, for others (such as hi-tech products) scent is virtually unimportant (Schifferstein, 2006). We therefore assume that a scent reference might be more relevant for products for which scent is an essential attribute and irrelevant for products for which scent is not important. Our assumption is further based on findings that when (additional) information in an advertisement is perceived as relevant, it is likely to have a positive effect on the viewer’s affective response (Heckler & Childers, 1992; Lee & Mason, 1999). Conversely, when the information is perceived as irrelevant, it can negatively affect evaluation of the ad. Following this reasoning, we suggest that for products for which scent is a primary product attribute, a written scent reference might be more relevant and thus result in a more favorable affective response, attitude towards the ad and towards the brand than for products for which smell is not important.

2. Method

We performed the on-line experiment with 2 (relevant vs. irrelevant scent reference) x 2 (advertisement with or without scent reference) between-subject design.

2.1. Participants. A convenience sample of 197 German-speaking participants (79% females, mean age 33 years) took part in the experiment. Participants were equally distributed among the four experimental conditions.

2.2. Stimulus material. Each respondent was exposed to one of the four target advertisements (Figure 1). In the pretest, liquid soap was selected as the product for which scent was an important product attribute. Pen was chosen as the product for which scent was irrelevant. Advertisements were created for a fictive soap brand (“Savonel”) and a fictive pen brand (“Skriptel”).

Each advertisement showed a picture of the product (either a soap dispenser or a pen), the brand name and five product attributes. For each target product two versions of the advertisement were created: one with and one without written scent reference. The scent reference was put in a prominent place so that participants would notice it. To evoke olfactory associations, written scent reference needed to be simple and concrete. Based on previous findings that jasmine, lemon and rose have strong olfactory associations (Gonzáles et al., 2006), the pre-test suggested to use the word “rose” as a scent cue which is well-known to both men and women.

2.3. Procedure. Participants received an invitation to take part in the Internet survey that aimed at testing draft version of an advertisement for a new product. After clicking on the link that had randomly assigned participants to one of the four research conditions, they were
exposed one of the four target advertisements and answered the questions about their affective reactions, attitudes towards the ad and the product, purchase intention, and demographic questions. Finally, respondents were thanked for their participation. The survey took approximately ten minutes.

Figure 1. Target advertisements for soap with written scent reference (upper left) and without scent reference (upper right) and for a pen with written scent reference (lower left) and without scent reference (lower right)

2.4. The measures. The survey was pretested by three independent experts to check for clarity, text comprehension and question formulation. All scales and stimulus materials were translated into German. The Pleasure-Arousal-Dominance-scale (Mehrabian & Russell, 1974) was used to measure emotional reactions to the advertisement. Lee and Mason’s (1999) scale was used to measure attitude toward the ad. Attitude toward the product was measured with the scale of Peracchio and Meyers-Levy (1994). Purchase intention was measured by the scale of Baker and Churchill (1977). All the scales yielded high reliability (from $\alpha = .83$ to $\alpha = .94$).

3. Results

A Multivariate analysis of variance (MANOVA) was conducted with two independent factors: Product (soap/pen) and Scent reference (present/absent) and the six dependent variables: Pleasure, Arousal, Dominance, Attitude towards the ad, Attitude towards the product and Purchase intention.

Scent references had significant positive effect on five out of six dependent variables: Pleasure, $F(1, 189) = 7.92$, $p < .01$, Dominance, $F(1, 189) = 4.05$, $p = .046$, Attitude towards the ad, $F(1, 189) = 14.52$, $p < .001$, Attitude towards the Product, $F(1, 189) = 8.19$, $p < .01$, and Purchase intention, $F(1, 189) = 6.03$, $p < .05$. Only the effect on Arousal was not
significant (p > .05). Pleasure was higher when the ad contained a written scent reference than without it, and this effect was significant for both products (see Figure 2A). The respondents felt more dominant when they were exposed to an advertisement with the written scent reference than without the reference, p < .05. Respondents had a more positive Attitude towards the ads with a scent reference than without the reference (see Figure 2B). Respondents had a more positive Attitude toward the product when the ad included the scent reference compared to the ad without the scent, p < .05 (Figure 2C). Purchase intentions were higher when advertising contained a written scent reference in comparison with ad without scent reference, p < .05 (Figure 2D). However, this effect was only significant for the soap, p < .05. For the pen the effect was not significant (p > .05).

Figure 2. Mean scores of Pleasure (A), Attitude towards the Ad (B), Attitude towards the Product (C) and Purchase Intention (D) for two products

4. Discussion

The results are unambiguous in showing that written scent references play a role in advertising evaluation and product purchase intention. We found that irrespective of its relevance for the advertised product, the written scent reference trigger a more positive affective response, attitudes towards the ad and the product compared to an advertisement without scent reference. In addition, scent reference increased respondents’ intention to buy the soap. These results imply that people do not engage in deep elaboration of the advertisements and do not evaluate whether the scent reference is relevant for the advertised product or not. In line with the Elaboration Likelihood Model (Petty & Cacioppo, 1986) and findings of Magnini and Karande (2010), we can conclude that written scent references appear to function as peripheral cues. Consumers tend to rely on these cues to form affective responses and attitudes towards the product.
The current study used two relatively low involvement products. It would be interesting to investigate the effects of written scent references on high involvement products, since consumers tend to demonstrate a higher motivation to process information about high involvement products compared to low involvement products (Belch & Belch, 2007; Laurent & Kapferer, 1985). The effect of written scent references might be lower for high involvement products compared to low involvement products.

Another aspect that needs further investigation is the congruency between different advertising elements. Attitudes to an ad and a product have been shown to depend on cue congruency (MacInnis & Park, 1991). It has been found that congruent pictures and colors enable better odor identification and discrimination (Gottfried & Dolan, 2003; Stevenson & Oaten, 2008). Attitude formation also appears to be a function of (in)congruency of the scent with the pictures in the advertisement. For instance, in the study of Ellen and Bone (1998) incongruent scented panels (e.g. pine scent/floral picture) induced negative responses towards the ad and the brand. Milotic (2006) also stressed the importance of congruency between all advertising cues, including product labels, packaging and colors with the odor of the product. Further research is needed to explore the effects of (in)congruency of pictures and written scent reference in advertising.

4.1. Practical implications

Our study has demonstrated that the written scent reference positively affects consumers’ affective responses and attitudes towards an ad and a product. This effect has been shown to occur independently of the type of product and can be explained by automatically evoked positive associations with pleasant olfactory cues. Thus, a written scent reference functions as a peripheral cue that evokes positive affective responses when no cognitive elaboration takes place. For advertisers these findings create a possibility to appeal to the sense of smell by written scent references when including actual scents would be impossible (e.g., in online advertising, radio and TV commercials). Also, a written scent reference can be a lower-cost alternative to more expensive options such as scented panels or paper imbued with a scent.

Our findings may be especially beneficial for online advertisers. Usually, online advertisements receive only marginal attention during Internet surfing (Drèze & Hussersh, 2003), as consumers’ motivation to process information in such advertisements is low. Thus, introducing peripheral cues, such as written scent references in online advertisements, might be an efficient tool to increase the advertisement power.

References


