

From Informational Towards Transformational Advertising Strategies?

A Content Analysis of Belgian Food Magazine Advertisements

Abstract

Purpose: To perform a preliminary examination of informational and transformational advertising appeals in contemporary advertisements for healthy and unhealthy foods.

Design/setting/subjects: Western (European) food advertisements published in Belgian food magazines were content analysed to identify informational and transformational advertising appeals. Belgian food advertising was selected as an adequate representation of Western (European) food advertising because marketing in Belgium is permeated by international influences (cf., Belgian Federal Government). Advertisements were sampled from three magazines over a period of five years, from January 2009 to December 2013. The sample comprised 325 unique advertisements, including 159 for healthy foods and 166 for unhealthy foods.

Findings: The results of the content analysis indicated that healthy food advertisements in Belgium are mainly informational, whereas unhealthy food advertisements are mainly transformational.

Originality/value: This preliminary examination of informational and transformational advertising appeals in contemporary healthy food and unhealthy food advertisements shows that healthy food advertisements in Belgium are mainly informational, whereas the segment of consumers which is precarious – people low-involved with healthy food – are mainly attracted by transformational advertising appeals. The contrasting transformational strategy of unhealthy-food advertisements can provide inspiration for healthy food advertisers to help increase healthy food consumption.

Keywords: informational appeals, transformational appeals, food advertising

Article type: Research paper

1 The World Health Organization (2014) has declared obesity a public health epidemic: the
2 worldwide incidence of obesity more than doubled between 1980 and 2014. In Europe, 62% of
3 the adult population are overweight, and 25% are obese (WHO, 2014). Countering this
4 epidemic is critical because excess weight and obesity are major risk factors for a number of
5 chronic diseases, including diabetes, cardiovascular problems and cancer (Kelly *et al.*, 2008).
6 Of particular importance in the fight against obesity are those segments of the population with
7 low interest in health issues (e.g., general health, diet, and natural products) (Zandstra *et al.*,
8 2001).

9 Reversing this trend requires a variety of methods and a major shift in mentality. Food
10 advertising can affect the popularity and consumption of certain types of food; for example,
11 previous research has shown that the use of emotional appeals, sensory aspects, fantasy features,
12 or images of attractive models in advertisements increases the consumption of specific foods
13 (Elder and Krishna, 2010; Roberto *et al.*, 2010). Particularly for unhealthy food, there is a
14 consensus that advertising pays off (Andrejeva *et al.*, 2011).

15 This potential of advertising to change consumers' patterns of consumption should extend
16 to healthy food. The continuing decline in fruit and vegetable intake (Casagrande *et al.*, 2007),
17 however, casts doubt on the success of current healthy food campaigns. This failure raises
18 questions about how advertisements for healthy and unhealthy foods differ.

19 The present study aimed to clearly elucidate the advertising strategies used in healthy and
20 unhealthy food advertising via content analysis of food advertisements for the presence of
21 informational and transformational advertising appeals (Puto and Wells, 1984). The dichotomy
22 of informational versus transformational recurs frequently in advertising typologies, such as
23 think/feel (Vaughan, 1980), utilitarian/value-expressive (Johar and Sirgy, 1991), and
24 utilitarian/hedonic (Hirschman and Holbrook, 1982). In each of these typologies, one category
25 is information-based, providing rational information that is directly related to the product

1 advertised. The other category is imagery-based and appeals to the feelings of consumers
2 (Albers-Miller and Stafford, 1999). This dichotomy is also integrated in models of consumer
3 food choice such as the Total Food Quality Model (Grunert *et al.*, 1995), which posits that
4 consumers evaluate quality based on extrinsic quality cues that are either informational in
5 nature (e.g., colour of the product implying taste) or emotional (e.g., luxury cues implying
6 pleasure) (Brunsø *et al.*, 2002). The present paper follows Putto and Wells (1984) and refers to
7 these two categories as informational appeals and transformational appeals.

8 Puto and Wells (1984, p. 638) define informational advertising appeals as: '*appeals*
9 *providing consumers with factual (i.e., presumably verifiable), relevant brand data in a clear*
10 *and logical manner such that they have a greater confidence in their ability to assess the merits*
11 *of buying the brand after having seen the advertisement.*' According to Puto and Wells (1984),
12 the following elements must be present to classify advertisements as informational: (1) factual,
13 relevant brand information, (2) information that is immediately and obviously important to the
14 consumer, and (3) data that is perceived by the consumer as verifiable.

15 Transformational advertising appeals are defined as: '*appeals that associate the experience*
16 *of using (consuming) the advertised brand with a unique set of psychological characteristics*
17 *which would not typically be associated with the brand experience to the same degree without*
18 *exposure to advertising*' (Puto and Wells, 1984, p. 638). Transformational advertising must (1)
19 evoke a richer, warmer, more exciting, and enjoyable experience of product consumption
20 compared to an informational advertisement, which merely provides an objective description
21 of the product or brand, and (2) must connect the experience induced by the advertisement so
22 strongly with the experience of consuming the product that it is impossible for the consumer to
23 remember the product without recalling this experience evoked by the advertisement (Puto and
24 Wells, 1984).

Puto and Wells (1984) indicate that informational and transformational appeals in advertising are not mutually exclusive. An advertisement can thus be classified as highly informational and transformational, slightly informational and transformational, predominantly informational, or predominantly transformational. Each of these combinations differentially affects advertising effectiveness, and these effects are the basis for theoretical propositions.

There is general consensus in the field that advertising effectiveness can be improved by matching an appeal to the specific profile of the consumer (cf. Liao *et al.*, 2009; Verbeke, 2008). ‘Consumer involvement’ is an important aspect of the consumer profile. According to Cooremans, Geuens, and Pandelaere (2017) and Zandstra *et al.* (2001), when general health interest and involvement with healthy food are low, the likelihood of being overweight or obese is greater. To reach these low-involvement segments in which healthy food consumption remains substandard, public policy makers and healthy food producers must employ appealing advertising strategies (Ambler, 2006). Emotional (i.e., transformational) advertising is particularly effective for low product involvement (Rossiter *et al.*, 1991; Johar and Sirgy, 1991; Geuens, De Pelsmacker and Fasseur, 2011), whereas when involvement is high, utilitarian advertising appeals are more effective (Johar and Sirgy, 1991; Verbeke, 2008). Hence, healthy food advertising should mainly exploit transformational advertising appeals to reach low-involvement segments. However, transformational advertising is also the recommended strategy for unhealthy food since unhealthy food is a hedonic product, which is best promoted via transformational appeals (Rossiter *et al.*, 1991). Accordingly, the following hypothesis is proposed:

H: Advertisements for both healthy and unhealthy food products predominantly use transformational appeals.

Material & Methods

1 *Sample of Advertisements*

2 To test the hypothesis that transformational appeals are used more often than informational
3 appeals for both healthy and unhealthy food products, a content analysis of food advertisements
4 published in Belgian food magazines was performed. Belgian food advertising was sampled as
5 a fairly adequate representation of Western (European) food advertising because marketing in
6 Belgium is permeated by international influences (cf., Belgian Federal Government).
7 Advertisements were sampled from three magazines over a period of five years, from January
8 2009 to December 2013. Each magazine was among the ten most popular weekly magazines in
9 Belgium (The Flemish Regulator for the Media; CIM). Libelle ($\pm 200,000$ annual circulation) is
10 Belgium's oldest women's magazine (www.libelle.be; CIM). Humo ($\pm 116,000$) features a
11 young public readership and is a rather satirical magazine that presents humorous cartoons
12 (www.humo.be; CIM). By contrast, Knack Weekend ($\pm 100,000$) primarily reports on current
13 affairs and politics (www.knack.be; CIM). Knack mainly targets middle-aged and higher-
14 educated readers. These three magazines encompass a range of content and different population
15 segments, and their advertisements therefore cover the full scope of magazine food
16 advertisements. Advertisements were selected for inclusion according to strict guidelines: only
17 full- and double-page ads that promoted healthy food or unhealthy food were included. The
18 study sample comprised 325 unique advertisements.

19

20 *Sample of Informational and Transformational Advertising Appeals*

21 To perform content analysis of the prevalence of informational and transformational
22 appeals in healthy and unhealthy food advertisements, more specific definitions of these appeals
23 were required to minimize subjective interpretations.

24 *Sampling informational appeals*

Candidate items for the category of informational appeals were derived from items used in prior research on the informational content of advertisements (cf., Resnik and Stern, 1977). In addition, the appeals complied with the definition of informational appeals of Puto and Wells (1984), were relevant for food advertising, and were verifiable information (Puto and Wells, 1984). Informational appeals can include both credence (e.g., keeps your heart young) and experience (e.g., sweet taste) cues (Grunert, 2005). That is, in the absence of additional information, the quality of the food can only be determined with certainty through actual consumption (Grunert, 2005). The following five appeals were selected: taste, sensorial impact, product performance, practical relevance and quality.

First, the appeal ‘*taste*’ was selected. To content analyse ‘*taste*,’ this appeal was defined as follows: ‘*references to the type of taste (e.g., sweet or sour) and its intensity (e.g. strong, subtle).*’ For example, the iced tea brand Lipton claims its product is ‘without a bitter aftertaste.’ Taste was selected as the first type of informational appeal as it is one of the most important sources of information and determinants of food choice (Krishna, 2011). In addition, taste provides factual and verifiable information (e.g., sweet, sour, spicy) that can be experienced (i.e., experience cues). Promotional references to taste (e.g., how delicious the product tastes) are more subjective – and therefore less verifiable – and are not included in this definition.

Second, because all tastes other than the basic five (i.e., sweetness, sourness, saltiness, bitterness, and umami) are a result of input from the other senses (i.e., smell, touch, vision and audition) (Krishna, 2011), the advertising appeal ‘sensorial impact’ (i.e., experience cues such as harsh, slimy, and sticky) was selected and defined as ‘*the verbal presence of at least one of the four senses: touch, taste, smell or sound, or mentioning ‘senses’ in general.*’ For example, Jazz apples uses the slogan ‘taste you can hear.’ Although this appeal is not accounted for by Resnik and Stern (1977), it was included in the coding scheme because of its strong relationship with taste and high relevance for food products (Krishna, 2011).

As the third appeal, 'product performance' was defined as '*references to the functionality of a food product (and the direct consequences or advantages of these functionalities)*.' For example, the biscuit brand Lu claims to provide essential carbohydrates required before noon. This utilitarian aspect is relevant in food advertising as consumers often eat foods for their immediate functionalities (e.g., energy provided by energy drinks) (Hanzaee and Rezaeyeh, 2013). Given the rise of functional foods (Verbeke, 2005), the importance of product performance appeals in food advertising will likely continue to grow.

Fourth, 'practical relevance' was selected. This appeal refers to '*the derivative or indirect (dis)advantages of (not) consuming the product in daily life*.' For example, the butter brand Becel highlights the advantages of consuming the product (e.g., Becel helps keep the heart young). In view of food's credence aspects, practical relevance is an important type of informational appeal (i.e., credence cues).

Fifth, 'quality' was selected as an informational advertising appeal. Advertising appeals were categorized as food quality appeals when '*references are made to the craftsmanship and durability of the product, to the excellence of the ingredients used or to the general quality*.' For example, the cheese brand Oud Brugge refers to its superior quality; this appeal obviously provides immediately relevant and verifiable information (i.e., experience cues).

Sampling transformational appeals

In addition to informational appeals, transformational appeals were identified. Because there is no content scheme for transformational advertising appeals, popular advertising appeals corresponding to Puto and Wells' (1984) definition of transformational appeals were selected based on the advertising literature. Accordingly, the selected transformational appeals were required to make the consumer experience richer, warmer, and more exciting and enjoyable, etc., and this experience must be so strong that it always coincides with consumption of the

1 product. The following five appeals were selected: imagery, artistic expression, warmth,
2 eroticism and beauty.

3 For content analysis, ‘imagery’ was defined as ‘*stimulations of positive vivid mental*
4 *representations, such as product enjoyment or surreal stimuli showing an imaginary world or*
5 *narrative image*’. For example, the mashed potato brand My Puree uses the description
6 ‘delicious mashed potatoes with an authentic taste just as you are used to at home’ (i.e., product
7 enjoyment), and Coca-Cola depicts people on scooters gliding above the clouds (i.e.,
8 surrealism). Such appeals are considered transformational appeals because the mental images
9 are anchored in the consumer’s experience base (MacInnis and Jaworski, 1989). Previous
10 research (Finke and Shepard, 1986) has shown that imagery can be as effective as actual
11 experience in guiding behaviour. For example, ‘actually having fun with friends when having
12 a Coke’ can be equally effective as ‘imagining having fun with friends when sharing a Coke.’
13 Consequently, even when drinking a Coke alone, the mere imagery of sharing a Coke is
14 sufficient to enjoy consuming the product. As such, by means of imagery, advertising can carry
15 over the ad-induced experience to what consumers experience when using the brand for real.
16 According to Rossiter (1982), surrealistic visuals – even though somewhat abstract – also
17 virtually encourage imagery and therefore were included in the definition of imagery. The
18 importance of imagery as a type of transformational appeal is emphasized by the sharply
19 increasing reliance of global marketing and international brands such as Coca-Cola, Pepsi, and
20 Perrier on imagery in recent decades (Branthwaite, 2002).

21 The second transformational appeal was ‘artistic expression’: ‘*verbal or visual artistic*
22 *expressions, such as poetry or expressive colours and shapes.*’ Coca-Cola, for example, refers
23 in its advertisements to bottle designs by Karl Lagerfeld. Artistic expression in advertising is
24 included here as a transformational appeal since art is a sign of affluence; i.e., it belongs to the
25 ‘good life’ of the rich and the beautiful (Berger, 2008). As such, the function of artistic

expressions in advertising is to ‘level up’ the experience of the consumer when thinking about the product, which is a transformational act. This transformational appeal is also included due to its importance for advertising itself. According to Hoffman (2003), art, as a symbol of high culture, has influenced the history of advertising.

The third appeal was ‘warmth.’ Warmth as a transformational appeal was defined as *‘references to feelings of love, romance, friendship, cosiness, affection, safety and harmony.’* For example, the sausage brand Zwan pictures friends together in a coach and uses ‘real moments, real Zwan’ as its tagline. Such appeals can be recognized as transformational because they focus on sentimental/family-kids/friends-feelings/feel-good-about-yourself approaches (Aaker and Bruzzone, 1981). In addition, there is a natural association between emotional and transformational advertising, as the aim of emotional advertising is to associate feelings with the experience of consuming the product (Aaker and Stayman, 1992). As such, warmth appeals fit the definition of transformational appeals of Puto and Wells (1984) by making the experience of consuming the product warmer and more exciting and enjoyable (Puto and Wells, 1984). Warmth appeals are frequently used in advertising (De Pelsmacker and Geuens, 1997; Geuens and De Pelsmacker, 1999).

The fourth transformational appeal was ‘eroticism,’ which is regularly used in advertising (Reichert and Carpenter, 2004). Eroticism in advertising was defined as *‘the presence of sexuality, nudeness, physical contact, provocative clothing, seductive looks and suggestive verbal expressions.’* For example, the ‘What did you expect’ advertisements of the lemonade brand Schweppes often display a brothel-like setting. Eroticism is considered a transformational appeal because eroticism and sexuality exist in a context of pleasure and hedonism in advertising today (Kilbourne, 2005) and thus present an exciting and enjoyable experience.

The fifth and last transformational appeal, ‘beauty,’ is often used in advertising (Frith *et al.*, 2004; Kilbourne, 2000). This appeal was defined as *‘the presence of physically attractive*

1 *and beautiful people or references made to it.* For example, Moët champagne pictures Scarlett
2 Johansson, a celebrity well-known for her beauty. The inclusion of attractive people is
3 considered a transformational appeal because advertisers strive to communicate a ‘look,’
4 impression or feeling – and thus experience – related to the product advertised by creating a
5 gestalt, such as a beautiful person or beauty in general (Englis, Solomon and Ashmore, 1994).

6 *Coding Guidelines*

7 Content analysis was performed using the following strategy. When coding an advertising
8 appeal, the judges coded all 325 advertisements for this appeal. This approach ensured uniform
9 coding of the specific appeal for all advertisements. No judge coded all ten appeals as this
10 process would be too exhaustive; instead, four groups of five independent judges were formed,
11 and each group of five judges coded only two or three appeals for all advertisements. All judges
12 were students ($M_{\text{age}} = 23$; 25% male), except one 59-year-old woman.

13 The judges underwent a three-hour training session to become familiar with coding habits
14 in general and the two or three appeals they were assigned to code more specifically. The
15 definition of each appeal was clearly explained as stated above, and coding of the appeals was
16 practiced via three exemplar advertisements. The goal of each training session was to ensure
17 that all five coders independently rated each appeal for a particular advertisement relatively
18 similarly.

19 To code the appeals ‘sensorial impact,’ ‘performance,’ ‘taste,’ and ‘quality,’ the judges
20 counted the number of words referring to each of these aspects in each advertisement. For
21 coding the appeals ‘practical relevance,’ ‘imagery,’ ‘artistic expressions,’ ‘warmth,’
22 ‘eroticism,’ and ‘beauty,’ the word count was not applicable as these appeals can be both
23 verbalized and visualized (e.g., to indicate practical relevance, the product's benefits can be
24 visualized in a daily life setting). Hence, 5-point Likert scales ranging from ‘I feel this appeal

is not represented in the advertisement’ to ‘I feel this appeal is strongly represented’ were used. Because the ranges of the scales differed, standardized scores were used in all analyses.

Categorizing Healthy and Unhealthy Food Advertisements

The extent to which different food products are perceived and classified as healthy versus unhealthy varies greatly (e.g., Ireland *et al.*, 2002; Moubarac *et al.*, 2014), and no generally agreed-upon classification exists. Because advertising strategies can bias health perceptions, the classification of healthy or unhealthy was based on the food product itself instead of the advertisements promoting it, relying on Huyghe *et al.* (2017), who measured health perceptions associated with 107 food products. Each product was rated on a 9-point ‘vice-virtue’ continuum (the higher the score, the more the product was perceived as a vice). A vice was described as a tempting food product whose consumption did not imply long-term benefits, i.e., something truly desired but at the same time guilt-inducing (e.g., unhealthy food). A virtue was described as a product that was not very tempting immediately but was advantageous in the long run, i.e., something less likely to cause regret (e.g., healthy food) (Huyghe *et al.*, 2017).

All products promoted in the sample of advertisements were included in the study of Huyghe *et al.* (2017). Advertisements promoting a product with a score equal to or less than 5 in Huyghe *et al.* (2017) (e.g., milk) were classified as healthy food advertisements since they promote products perceived as a virtue (i.e., healthy). Advertisements promoting products with scores above 5 in Huyghe *et al.* (2017) (e.g., chocolate bar) were classified as unhealthy food advertisements as they promote products perceived as a vice (i.e., unhealthy). In total, 159 healthy food advertisements and 166 unhealthy food advertisements were identified.

Results

Coding Reliability

All analyses were conducted using the Statistical Package for the Social Sciences (SPSS). To measure inter-rater agreement (two-way consistency average measures), the intra-class correlation (ICC) was used since there were more than two judges and the data were continuous. The agreement ranged between 56% (i.e., moderate) and 91% (i.e., excellent) for all appeals except the item 'imagery', for which agreement was merely 40%. Imagery is also a personality trait (Marks, 1973): people who find it difficult to imagine in general will also have a lower ability to recognize advertising appeals as imagery evoking. This property of imagery explains the observed variation among the judges. Since the average agreement among the judges for all ten appeals was 72%, the mean of all five ratings for each appeal was used as the data input for further analyses (Hallgren, 2012).

Principal Component Analysis and Results

For clarity, the number of comparisons was decreased by reducing the five informational and five transformational advertising appeals to a comprehensive set of dimensions by two principle component analyses with Varimax rotation. The input for the analyses was the mean of the responses of the five judges for each informational appeal (5 variables, 325 responses) or each transformational appeal (5 variables, 323 responses) for each of the 325 advertisements. The two principal component analyses of the informational and transformational items resulted in the extraction of two and three factors, respectively, with Eigenvalues ≥ 1 explaining 80.69% and 83.85% of the variance. With regard to the informational appeals, the first factor, 'product information', was a composite of the appeals 'quality', 'performance', and 'practical relevance' (Cronbach's $\alpha = .84$), whereas the second factor, 'sensorial information', included both the 'taste' and 'sensorial impact' scores ($r = .62$). With regard to the transformational appeals, the first factor, 'human appearance', was a composite of 'beauty' and 'eroticism' ($r = .61$), and the second factor, 'human creation', comprised 'artistic expression' and 'imagery' ($r = .50$). The third factor represented the appeal

1 'warmth'. All items scored higher than .60 on their focal factor and did not have cross-
2 loadings higher than .35 (Nunnally 1987). The rotated two-dimension and three-dimension
3 solutions and all factor loadings are reported in Table I.

4 [Table I here]

5 *Repeated-measures Analysis of Variance*

6 The data were analysed in SPSS using separate repeated-measures ANOVA for the two
7 types of advertisements. The five factors (i.e., product information, sensorial information,
8 human appearance, human creation, and warmth) were used as dependent variables. For both
9 healthy and unhealthy food advertisements, Mauchly's test indicated that the assumption of
10 sphericity was violated for the main effect of advertising appeal: $\chi^2_{\text{healthy}}(9) = 102.61, p < .001$,
11 and $\chi^2_{\text{unhealthy}}(9) = 185.51, p < .001$. Therefore, the degrees of freedom were corrected using
12 Greenhouse-Geisser estimates of sphericity ($\epsilon_{\text{healthy}} = .755$; $\epsilon_{\text{unhealthy}} = .715$).

13 The repeated-measures ANOVA for healthy advertisements revealed a main effect of the
14 type of factor ($F(3.02; 477.01) = 19.23, p < .001$). Thus, the five dimensions were represented
15 differently in the healthy food advertisements. More specifically, the informational factors, i.e.,
16 product information ($M = .31, SE = .06$) and sensorial information ($M = .14, SE = .06$), were
17 more strongly represented than each of the transformational factors: human appearance ($M = -$
18 $.14, SE = .03$), human creation ($M = -.14, SE = .04$) and warmth ($M = -.13, SE = .06$) (Figure I).
19 All differences were significant at $p \leq .001$ (see Table II). Therefore, informational appeals
20 were more prevalent than transformational appeals in the healthy food advertisements.

21 [Table II here]

22 The repeated-measures ANOVA for unhealthy advertisements also indicated a main effect
23 of the type of factor ($F(2.86; 471.96) = 16.56, p < .001$). However, in contrast to the pattern for
24 healthy food advertisements, transformational factors dominated in unhealthy food
25 advertisements (Figure I). Product information ($M = -.30, SE = .03$) and sensorial information

($M = -.13$, $SE = .04$) were less prevalent than human appearance ($M = .14$, $SE = .07$), human creation ($M = .13$, $SE = .04$), and warmth ($M = .13$, $SE = .07$). All differences were significant at $p \leq .001$. Therefore, in the unhealthy food advertisements, transformational appeals were more strongly represented than informational appeals (see Table II).

[Figure I here]

Next, the healthy and unhealthy food advertisements were compared directly. More specifically, the results of a MANOVA analysis with product type as the independent variable and the five dimensions as dependent variables showed that product information ($M_{product\ info} = .31$, $SE = .05$) and sensorial information ($M_{sensorial\ info} = .14$, $SE = .05$) were represented more strongly in the healthy food advertisements than in the unhealthy food advertisements ($M_{product\ info} = -.30$, $SE = .04$, $F(1, 323) = 94.57$, $p < .001$, and $M_{sensorial\ info} = -.13$, $SE = .05$, $F(1, 323) = 16.17$, $p < .001$). By contrast, all three transformational dimensions were less pronounced in the healthy food advertisements than in the unhealthy food advertisements. That is, in the healthy food advertisements, human appearance ($M_{human\ appearance} = -.14$; $SE = .05$), human creation ($M_{human\ creation} = -.14$; $SE = .04$), and warmth ($M_{warmth} = -.13$; $SE = .06$) were less strongly represented than in the unhealthy food advertisements ($M_{human\ appearance} = .14$, $SE = .05$, $F(1, 323) = 14.46$, $p < .001$; $M_{human\ creation} = .13$, $SE = .04$, $F(1, 323) = 24.11$, $p < .001$ and $M_{warmth} = .13$, $SE = .06$, $F(1, 323) = 9.05$, $p = .003$, see Figure I). Thus, the hypothesis that transformational appeals are used more often than informational appeals for both healthy and unhealthy food products is rejected.

Discussion & Conclusion

The content analysis provided insights on the informational and transformational advertising strategies used in contemporary Western (European) food advertising. Specifically, this study shed light on the different strategies adopted in advertising for healthy versus unhealthy foods. Among healthy food advertisements, the informational approach was

1 significantly more prevalent than the transformational approach. The informational dimensions,
2 i.e., product information and sensorial information, were significantly more pronounced than
3 each of the three transformational dimensions, i.e., human appearance, human creation and
4 warmth. The opposite pattern was observed among unhealthy food advertisements, in which
5 the transformational dimensions were more prominent than the informational dimensions. The
6 direct comparison of healthy and unhealthy food advertisements further confirmed that the
7 healthy food advertisements were more informational than the unhealthy food advertisements,
8 whereas the unhealthy food advertisements were more transformational than the healthy food
9 advertisements.

10 Based on these findings, it can be speculated that companies producing and advertising
11 healthy foods are not currently targeting low-involvement segments since targeting non-users
12 who are not interested or inclined to buy the company's product could be more risky than
13 targeting highly involved users. However, it is also possible that healthy food companies are
14 reluctant to spread transformational promotional messages because such messages are less in
15 sync with their company image (i.e., rational). The literature suggests that healthy food and
16 pursuing good health in general are viewed as less pleasurable (Mai *et al.*, 2015); thus, pursuing
17 health can imply rational consciousness, for which transformational appeals are considered less
18 suited.

19 *Contributions*

20 The first contribution of this paper is the disclosure of a discrepancy between theoretical
21 propositions and the daily practice of healthy food marketing strategies. Healthy food
22 advertising should emphasize transformational advertising appeals to reach low-involvement
23 segments because theoretical propositions state that transformational appeals are more effective
24 in cases of low product involvement (Geuens, De Pelsmacker and Fasseur, 2011; Johar and
25 Sirgy, 1991; Rossiter *et al.*, 1991). The results of the content analysis, however, showed that

1 the dominant strategy used by healthy food advertisers was informational rather than
2 transformational.

3 The second contribution of this paper is the provision of a clear advertising strategy for
4 healthy food advertisers, marketers and public policy makers (e.g., school campaigns). Healthy
5 food advertisers should shift their strategies towards a more transformational advertising
6 approach to attract low-involvement segments. To improve the effectiveness of healthy food
7 advertisements, advertisers could use unhealthy food advertisements as an inspiration and
8 valuable source of information. For example, Bublitz and Peracchio (2015) propose that
9 marketing strategies used for hedonic (i.e., often unhealthy foods) can be adapted to effectively
10 promote healthy foods. However, transformational approaches must be implemented with
11 caution. and simply adopting strategies for unhealthy food advertising is not an option.
12 According to the match-up hypothesis, advertising appeals must match the specific
13 characteristics and benefits of a product to be effective (Choi *et al.*, 2012; Liebermann and
14 Flint-Goor 1996). Therefore, to improve the image of healthy foods, transformational
15 advertising appeals must be differentiated to the unique characteristics of each healthy product.
16 The focus on transformational appeals can be intensified as long as its relevance to the product
17 remains significant (Choi *et al.*, 2012; Liebermann and Flint-Goor, 1996). In addition, to satisfy
18 the information demands of high-involvement consumer segments, concise information is
19 desirable, and additional informational appeals should be provided via alternative sources such
20 as product packaging or a website.

21 *Limitations and Further Research*

22 The results of this study are subject to a number of limitations that also provide scope for
23 further research. First, the sample of advertisements included only Belgian magazines.
24 However, the sample is fairly representative of Western food advertising because the Belgian
25 market is permeated with global influences (Belgian Federal Government, n.d.). Further

1 research is needed to establish the generalizability of the present findings to media channels
2 other than print advertising, such as the internet and television. However, as various channels
3 are simply different means of spreading a single-topic campaign, it is likely that the same focus
4 is consistently applied in all channels.

5 Second, to achieve excellent inter-rater reliability, the appeals were carefully defined, with
6 coding practiced during exhaustive training. However, because the sample contained many
7 different types of advertisements, the inter-rater reliability was good (72% on average) but not
8 excellent.

9 Third, the sampling of informational and transformational advertising appeals was not
10 exhaustive. Further research is required to identify other informational and transformational
11 advertising appeals.

12 Finally, more experimental research is called for to assess the effectiveness of
13 transformational appeals and determine their appropriate intensity when applied to healthy food
14 advertising. The use of transformational appeals could repel high-involvement consumers who
15 predominantly prefer informational appeals (Naylor *et al.*, 2008). However, Pham *et al.* (2013)
16 have suggested that the effectiveness of ad-evoked emotions does not depend on the level of
17 product involvement. Further research should investigate whether high-involvement consumers
18 are willing to buy healthy foods when transformational appeals are used.

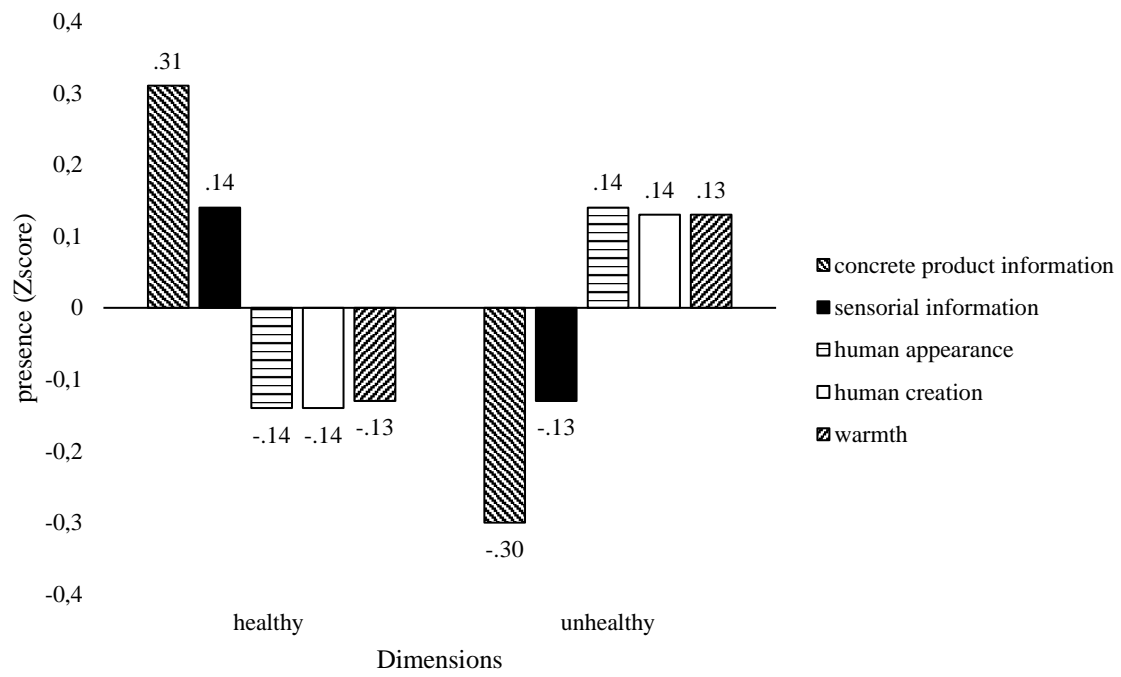
Informational appeals	Product info	Sensorial info	Transformational appeals	Human appearance	Human creation	Warmth
Quality	.906	.079	Eroticism	.907	.034	.021
Performance	.889	.214	Beauty	.856	.172	.145
Quality	.679	.546	Artistic expression	.142	.889	-.141
Sense	.061	.901	Imagery	.060	.821	.332
Taste	.306	.839	Warmth	.117	.068	.965

Notes: Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser normalization. The rotation converged in five iterations.

Table I. Rotated Component Matrices of informational appeals and transformational appeals

	Within healthy food advertisements		Within unhealthy Food advertisements	
	F (1, 158)	p	F (1, 165)	p
Product info – human appearance	52.58	<.001	29.67	<.001
Product info – human creation	32.44	<.001	72.162	<.001
Product info - warmth	28.57	<.001	30.30	<.001
Sensorial info – human appearance	19.73	<.001	11.45	=.001
Sensorial info – human creation	15.49	<.001	25.67	<.001
Sensorial info - warmth	12.57	=.001	11.35	=.001

Table II. Repeated Measures ANOVA within healthy food advertisements and within unhealthy food advertisements



1

2 Figure I. Differences within and between healthy and unhealthy food ads

3

References

- Aaker, D. A., and Bruzzone, D. E. (1981), "Viewer perceptions of prime-time television advertising", *Journal of Advertising Research*, Vol. 21 No. 5, pp. 15–23.
- Aaker, D. A., and Stayman, D. M. (1992), "Implementing the concept of transformational advertising", *Psychology and Marketing*, Vol. 9 No.3, pp. 237-253.
- Albers-Miller, N. D., and Royne Stafford, M. (1999), "An international analysis of emotional and rational appeals in services vs goods advertising", *Journal of Consumer Marketing*, Vol. 16 No.1, pp. 42–57, <https://doi.org/10.1108/07363769910250769>.
- Ambler, T. (2006), "Does the UK promotion of food and drink to children contribute to their obesity?", *International Journal of Advertising*, Vol. 25 No. 2, pp. 137-156.
- Andreyeva, T., Kelly, I.R. and Harris, J. L. (2011), "Exposure to food advertising on television: Associations with children's fast food and soft drink consumption and obesity", *Economics & Human Biology*, Vol. 9 No. 3, pp. 221–233, <https://doi.org/10.1016/j.ehb.2011.02.004>.
- Belgian Federal Government (n.d.). *Open economy*. <http://ib.fgov.be/en/environment/01/> (accessed April 22, 2016).
- Berger, J. (2008), *Ways of seeing*, Vol. 474, Penguin UK.
- Branthwaite, A. (2002), "Investigating the power of imagery in marketing communication: evidence-based techniques", *Qualitative Market Research: An International Journal*, Vol. 5 No.3, pp. 164-171, <https://doi.org/10.1108/13522750210432977>.
- Brunsø, K., Fjord, T. A., and Grunert, K. G. (2002), *Consumers' Food Choice and Quality Perception*, The Aarhus School of Business Publ., Aarhus, Denmark.

- 1 Bublitz, M. G., and Peracchio, L. A. (2015), “Applying industry practices to promote healthy
2 foods: An exploration of positive marketing outcomes”, *Journal of Business Research*,
3 Vol. 68 No.12, pp. 2484-2493, <https://doi.org/10.1016/j.jbusres.2015.06.035>.
- 4 Casagrande, S., Wang, S. Y. Anderson, C. and Gary, T. L. (2007), “Have Americans increased
5 their fruit and vegetable intake? The trends between 1988 and 2002”, *American Journal of*
6 *Preventive Medicine*, Vol. 32 No.4, pp. 257–263,
7 <https://doi.org/10.1016/j.amepre.2006.12.002>.
- 8 Choi, H., Paek, H. J., and Whitehill, K. (2012), “Are nutrient-content claims always effective?
9 Match-up effects between product type and claim type in food advertising”, *International*
10 *Journal of Advertising*, Vol. 31 No.2, pp. 421–443, [https://doi.org/10.2501/IJA-31-2-421-](https://doi.org/10.2501/IJA-31-2-421-443)
11 443.
- 12 CIM (n.d.). Echtverklaring resultaten - persamenvatting 2014-T1/2014-T4 [Authentication
13 results – press summary 2014-T1/2014-T4]. [http://www.cim.be/nl/pers/echtverklaring-](http://www.cim.be/nl/pers/echtverklaring-resultaten)
14 resultaten (accessed April 22, 2016).
- 15 Cooremans, K., Geuens, M., and Pandelaere, M. (2017), “Cross-national investigation of the
16 drivers of obesity: Re-assessment of past findings and avenues for the future”, *Appetite*,
17 Vol. 114, pp. 360-367, <https://doi.org/10.1016/j.appet.2017.04.010>.
- 18 De Pelsmacker, P., and Geuens, M. (1997), “Emotional appeals and information cues in Belgian
19 magazine advertisements”, *International Journal of Advertising*, Vol. 16 No.2, pp. 123-
20 147, <https://doi.org/10.1080/02650487.1997.11104682>.
- 21 Elder, R. S., and Krishna, A. (2010), “The effects of advertising copy on sensory thoughts and
22 perceived taste”, *Journal of Consumer Research*, Vol. 36 No.5, pp. 748–756,
23 <https://doi.org/10.1086/605327>.

- 1 Englis, B. G., Solomon, M. R., and Ashmore, R. D. (1994), “Beauty before the eyes of
2 beholders: The cultural encoding of beauty types in magazine advertising and music
3 television”, *Journal of advertising*, Vol. 23 No.2, pp. 49-64.
- 4 Federal Public Department of Economy (2016), “Public law on comparative advertising”,
5 [http://economie.fgov.be/nl/consument/Handelspraktijken/vergelijkende_reclame/#.VxjFr](http://economie.fgov.be/nl/consument/Handelspraktijken/vergelijkende_reclame/#.VxjFr_nvNEI)
6 [_nvNEI](http://economie.fgov.be/nl/consument/Handelspraktijken/vergelijkende_reclame/#.VxjFr_nvNEI) (accessed April 21, 2016).
- 7 Finke, R. A., and Shepard, R. N. (1986), “Visual functions of mental imagery”, in K. R. Boff,
8 L. Kaufman, and J. P. Thomas (Eds.), *Handbook of perception and human performance*,
9 Vol. 2., Oxford, England: John Wiley, pp. 1-55.
- 10 Flemish Regulator for the Media (2015). Mediaconcentratie in Vlaanderen [Concentration of
11 media in Flanders]. [http://www.vlaamseregulatormedia.be/nl/3-informatie-over-](http://www.vlaamseregulatormedia.be/nl/3-informatie-over-mediaconcentratie/31-informatie-over-mediaconcentratie-mediavorm/313-geschreven-2)
12 [mediaconcentratie/31-informatie-over-mediaconcentratie-mediavorm/313-geschreven-2](http://www.vlaamseregulatormedia.be/nl/3-informatie-over-mediaconcentratie/31-informatie-over-mediaconcentratie-mediavorm/313-geschreven-2)
13 (accessed April 21, 2016).
- 14 Frith, K. T., Cheng, H., and Shaw, P. (2004), “Race and beauty: A comparison of Asian and
15 Western models in women's magazine advertisements”, *Sex Roles*, Vol. 50 No. 1-2, pp.
16 53–61, <https://doi.org/10.1023/B:SERS.0000011072.84489.e2>.
- 17 Geuens, M., and De Pelsmacker, P. (1999), “Affect intensity revisited: Individual differences
18 and the communication effects of emotional stimuli”, *Psychology & Marketing*, Vol. 16
19 No.3, pp. 195-209.
- 20 Geuens, M., De Pelsmacker, P., and Faseur, T. (2011), “Emotional advertising: Revisiting the
21 role of product category”, *Journal of Business Research*, Vol. 64 No. 4, pp. 418-426,
22 <https://doi.org/10.1016/j.jbusres.2010.03.001>.

- 1 Grunert, K. G., Larsen, H. H., Madsen, T. K., and Baadsgaard, A. (1995), *Market orientation*
2 *in food and agriculture*, Springer Science & Business Media.
- 3 Grunert, K. G. (2005), “Food quality and safety: consumer perception and demand”, *European*
4 *review of agricultural economics*, Vol. 32 No.3, pp. 369-391.
- 5 Hallgren, K.A. (2012), “Computing inter-rater reliability for observational data: An overview
6 and tutorial tutor”, *Quantitative Methods for Psychology*, Vol. 8 No. 1, pp. 23–34,
7 <https://doi.org/10.20982/tqmp.08.1.p023>.
- 8 Hanzaee, K. H., and Rezaeyeh, S. P. (2013), “Investigation of the effects of hedonic value and
9 utilitarian value on customer satisfaction and behavioural intentions”, *African Journal of*
10 *Business Management*, Vol. 7 No.11, pp. 818-825, <https://doi.org/10.5897/AJBM11.728>.
- 11 Hirschman, E. C., and Holbrook, M. B. (1982), “Hedonic consumption: emerging concepts,
12 methods and propositions”, *The Journal of Marketing*, Vol. 46 No.3, pp. 92-101,
13 <https://doi.org/10.2307/1251707>.
- 14 Hoffman, B. (2003), *The fine art of advertising*, New York: Stewart. Tabori and Chang Inc.
- 15 Huyghe, E., Verstraeten, J., Geuens, M., and Van Kerckhove, A. (2017), “Clicks as a Healthy
16 Alternative to Bricks: How Online Grocery Shopping Reduces Vice Purchases”, *Journal*
17 *of Marketing Research*, Vol. 54 No., pp. 61-74, <https://doi.org/10.1509/jmr.14.0490>.
- 18 Ireland, J., van Erp-Baart, A. M., Charrondiere, U. R., Møller, A., Smithers, G., and
19 Trichopoulou, A. (2002), “Selection of a food classification system and a food composition
20 database for future food consumption surveys”, *European Journal of Clinical Nutrition*,
21 Vol. 56, pp. 33-45, <https://doi.org/10.1038/sj/ejcn/1601427>.
- 22 Johar, J. S., and Sirgy, M. J. (1991), “Value-expressive versus utilitarian advertising appeals:
23 When and why to use which appeal”, *Journal of advertising*, Vol. 20 No.3, pp. 23–33.

- 1 Kilbourne, J. (2000), "Beauty... and the beast of advertising", In *Women in Culture: An*
2 *Intersectional Anthology for Gender and Women's Studies*, eds. B., Scott, S.e. Cayleff, A.
3 Donadey, Lara, I. John wiley & Sons, pp. 183-186.
- 4 Kilbourne, J. (2005), "What else does sex sell?", *International Journal of Advertising*, Vol. 24
5 No.1, pp. 119–122.
- 6 Krishna, A. (Ed.). (2011), *Sensory marketing: Research on the sensuality of products*,
7 Routledge.
- 8 Liao, S. L., Shen, Y. C., and Chu, C. H. (2009), "The effects of sales promotion strategy,
9 product appeal and consumer traits on reminder impulse buying behavior", *International*
10 *Journal of Consumer Studies*, Vol. 33 No.3, pp. 274-284, [http://dx.doi.org/10.1111/j.1470-](http://dx.doi.org/10.1111/j.1470-6431.2009.00770.x)
11 [6431.2009.00770.x](http://dx.doi.org/10.1111/j.1470-6431.2009.00770.x).
- 12 Liebermann, Y., and Flint-Goor, A. (1996), "Message strategy by product-class type: A
13 matching model", *International Journal of Research in Marketing*, Vol. 13 No.3, pp. 237–
14 249, [https://doi.org/10.1016/0167-8116\(96\)00005-5](https://doi.org/10.1016/0167-8116(96)00005-5).
- 15 MacInnis, D. J., and Jaworski, B. J. (1989), "Information processing from advertisements:
16 Toward an integrative framework", *The Journal of marketing*, Vol. 53 No. 4, pp. 1–23,
17 <https://doi.org/10.2307/1251376>.
- 18 Mai, R., Hoffmann, S., Hoppert, K., Schwarz, P., and Rohm, H. (2015), "The spirit is willing,
19 but the flesh is weak: the moderating effect of implicit associations on healthy eating
20 behaviors", *Food Quality and Preference*, Vol. 39, pp. 62-72.
- 21 Marks, D. F. (1973), "Visual imagery differences in the recall of pictures", *British journal of*
22 *Psychology*, Vol. 64 No. 1, pp. 17–24.

- 1 Moubarac, J. C., Parra, D. C., Cannon, G., and Monteiro, C. A. (2014), “Food classification
- 2 systems based on food processing: significance and implications for policies and actions:
- 3 a systematic literature review and assessment”, *Current obesity reports*, Vol. 3 No.2, pp.
- 4 256-272, <https://doi.org/10.1007/s13679-014-0092-0>.
- 5 Naylor, G., Kleiser, S. B., Baker, J., and Yorkston, E. (2008), “Using transformational appeals
- 6 to enhance the retail experience”, *Journal of Retailing*, Vol. 84 No. 1, pp. 49-57.
- 7 Nunnally, J. (1978), *Psychometric methods*, New York: McGraw-Hill.
- 8 Puto, C. P., and Wells, W. D. (1984), “Informational and transformational advertising: The
- 9 differential effects of time”, *NA-Advances in Consumer Research*, Vol. 11, pp. 638–643.
- 10 Reichert, T., and Carpenter, C. (2004), “An update on sex in magazine advertising: 1983 to
- 11 2003”, *Journalism & Mass Communication Quarterly*, Vol. 81 No.4, pp. 823–837.
- 12 Resnik, A., and Stern, B. L. (1977), “An analysis of information content in television
- 13 advertising”, *The Journal of Marketing*, Vol. 41 No. 1, pp. 50–53,
- 14 <https://doi.org/10.2307/1250490>.
- 15 Roberto, C. A., Baik, J. Harris, J. L., and Brownell, K. D. (2010), “Influence of licensed
- 16 characters on children's taste and snack preferences”, *Pediatrics*, Vol. 126 No.1, pp. 88–
- 17 93, <https://doi.org/10.1542/peds.2009-3433>.
- 18 Rossiter, J. R. (1982), "Visual imagery: applications to advertising", in *NA - Advances in*
- 19 *Consumer Research*, 09, eds. A. Mitchell, A. Abor, MI: Association for Consumer
- 20 Research, pp. 101-106.
- 21 Rossiter, J. R., Percy, L., and Donovan, R. J. (1991), “A better advertising planning grid”,
- 22 *Journal of Advertising Research*, Vol. 31 No. 5, pp. 11–21.

- 1 Vaughan, D. (1980), “How advertising works: a planning model”, *Journal of Advertising*
2 *Research*, Vol. 20 No. 5, 27-33, <https://doi.org/10.2307/1251999>.
- 3 Verbeke, W. (2005), “Consumer acceptance of functional foods: socio-demographic, cognitive
4 and attitudinal determinants”, *Food quality and preference*, Vol. 16 No. 1, pp. 45-57,
5 <https://doi.org/10.1016/j.foodqual.2004.01.001>.
- 6 Verbeke, W. (2008), “Impact of communication on consumers' food choices”, *Proceedings of*
7 *the Nutrition Society*, Vol. 67 No. 3, pp. 281-288,
8 <https://doi.org/10.1017/S0029665108007179>.
- 9 World Health Organization (2014), *Obesity and overweight*, <http://www.who.int> (accessed
10 September 22, 2015).
- 11 Zandstra, E. H., De Graaf, C., and Van Staveren, W. A. (2001), “Influence of health and taste
12 attitudes on consumption of low-and high-fat foods”, *Food Quality and Preference*, Vol. 12
13 No.1, pp. 75–82, [https://doi.org/10.1016/S0950-3293\(00\)00032-X](https://doi.org/10.1016/S0950-3293(00)00032-X).