

The portrayal of slimness through design: an analysis of a misleading weight loss advertisement

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The portrayal of the ultra-thin ideal model in the media contributes to body discontent amongst some viewers of the intended target groups. This in its turn may lead to excessive weight concerns and so create a vulnerable group that is primed for commercial exploitation. Advertising designers exploit this vulnerable population through the use of visceral imagery and text in misleading weight loss advertisements in order to better market their products. The ultra-thin models used in weight loss advertisements act as strong emotional cues and enable advertisers to influence even wary consumers to respond to these cues. This case study analysis of a weight loss advertisement highlights and illustrates how designers proceeded to create an elusive promise of slimness by misrepresenting scientific data and employed misleading textual and graphic cues in order to create an effective but nonetheless misleading advertisement.

Key words: weight loss advertisement, misleading visuals, ultra-thin model

Die voorstelling van slankheid deur ontwerp: 'n annalise van 'n misleidende gewigsverlies-advertensie

Die voorstelling in die advertensiemedia van uitermatige skraalheid as ideaal mag daartoe bydra dat lede van die voorgestelde teikengroepe ontevredenheid met hul voorkoms ervaar. Dit mag weer lei tot 'n ongesonde besorgdheid oor liggaamsgewig en sodoende 'n kwesbare groep daarstel wat vatbaar is vir kommersiële uitbuiting. Die ontwerpers van advertensies buit hierdie kwesbare groep uit deur subtiele beelde en teks in misleidende gewigsverlies-advertensies te gebruik om sodoende hul produkte meer effektief te bemark. Die ultra-slank modelle wat in hierdie advertensies optree, dien as sterk emosionele leidrade en stel adverteerders in staat om selfs oplettende verbruikers na wense te beïnvloed. Die onderhawige analise as gevallestudie van 'n werklike gewigsverlies-advertensie beklemtoon en illustreer hoe ontwerpers 'n misleidende voorstelling van slankheid geskep het deur wetenskaplike data valslik voor te stel en misleidende tekstuele en grafiese sleutels ingespan het om sodoende 'n doeltreffende maar nietemin misleidende advertensie te skep.

Sleutelwoorde: gewigsverlies-advertensie, misleidende beelde, ultra-slank model

This paper presents a case study analysis of a misleading weight loss advertisement and the design techniques that designers employ to effect this process. The analysis is preceded by a reflection on research results regarding the thin-ideal, viewers' response to relevant images, the thin-ideal as visceral cue, misleading design elements in weight loss advertisements, and the design of a hypothetical misleading weight loss advertisement through a synthesis of published research results. In the context of this study the term "misleading" refers to the situation where a viewer is misled through his or her own interpretation of the text and images in an advertisement as a result of the images and/or text messages exaggerating or omitting information, lacking accuracy, being ambiguous, or through any other process or processes (ASASA 2013a).

The ultra-thin ideal portrayal of women in the media and viewers' response

Designers gain information regarding viewers' responses to graphic elements and pictorial imagery from scientific articles published in non-design or art-related journals. Articles, for example, that report on how viewers respond to the portrayal of the ultra-thin ideal women in the advertising media are mostly published in academic journals related to medical, psychological,

behavioural and dietetic research. The results of these empirical studies indicate similar results, namely that exposure to the thin-ideal may create body dissatisfaction amongst some viewers, may cause a drive for slimness and may even lead to eating disorders. An experimental study conducted by Hawkins *et al.* (2004: 41), for example, found that women, when exposed to the thin-ideal image, experience significantly higher levels of dissatisfaction regarding their bodies than a similar group of women that were asked to view neutral images. Tiggermann and Pickering's (1996: 201) study indicates that the thin-ideal figures in movies, soaps and television series contribute towards body dissatisfaction, whilst the same imagery in music videos contributes towards a drive for thinness. A study by Ahern, Bennett and Hetherington (2008: 301-303) found that women who accept the stereotypical portrayal of the ultra-thin ideal body are more likely to have a stronger drive for thinness. It is in particular women that are concerned about their appearance and body weight that are affected, even if they have a normal body mass index (BMI). Scholars have also found that these women are vulnerable and are more susceptible when exposed to the visual portrayal of thinness than those that are less concerned about their weight (Dittmar & Howard 2004: 486-491). These studies typically use young women and adolescents as test subjects.

The concern about one's weight and body image, even for individuals with a normal BMI, is not, however, limited to adolescents and young adults. A recent report released in the Netherlands indicates that the trend of body discontent and weight loss behaviour even extends to primary and secondary schoolchildren (Bun *et al.* 2011: 131-132). This particular study was extensive and collected data pertaining to 10 767 children. The researchers found that 6.9% of the primary schoolgirls with a normal BMI had a negative body image, and that 1.9% resorted to weight loss activities. These figures increased in secondary schools where 27.5% of the girls with a normal BMI were dissatisfied with their appearance, and of these, 12.9% resorted to weight loss behaviour. Although the researchers did not discuss the reasons for the body discontent, or the motivation for the weight loss behaviour, it is highly likely that these subjects were to some or other degree influenced by the media's portrayal of the ultra-thin ideal body. The number of scholarly articles on the portrayal of the ultra-thin ideal women in the media, the effect that it has on some viewers, the associated drive for slimness and associated eating disorders, and the vulnerability of this particular segment of viewers is extensive. The five studies cited above are but a small sample of similar studies. Two large meta-analyses studies, that covered 110 experimental studies, reported similar results (Grabe *et al.* 2013). These meta-analyses studies indicate that some women who are overly concerned about their appearance and weight, even those with a normal BMI, are influenced by the media's portrayal of the ultra-thin figure, are vulnerable for commercial exploitation, often develop a drive for thinness, and some could even develop bulimia nervosa. It is these ultra-thin figures that are described as unrealistic and near impossible for most persons to achieve (Attie & Brooks-Gunn 1989).

Researchers have not only determined that there is a relationship between the portrayal of the thin-ideal image and a drive for thinness, but also calculated the BMI of ultra-thin models portrayed in the media. Two studies measured and analysed the imagery in Playboy magazine centrefolds. These researchers used the self-reported data sheets of the featured playmates to calculate their BMI and their waist-to-hip ratio. Katzmarzyk and Davis (2001: 591), whose work covered Playboy centrefolds from 1978 to 1998, found that 70% of the models are underweight as measured against the World Health Organization's (2000: 9) suggested BMI of 18.5. A similar study of the South African edition of Playboy (February 1994 to February 1995) indicates that 72% of the featured playmates are underweight, and their BMI below 18 (Szabo 1996: 838-839). Katzmarzyk and Davis (2001: 591) rightfully argue that the playmates' self-reported figures may

not be accurate, but that it is the portrayal of this thinness and low body weight that is projected as the ideal figure. One may nonetheless argue that centrefolds are directed to male readers, and that women do not necessarily use these images as their frame of reference, but are more likely influenced by events and magazines aimed at their particular interests. A study of the 1953 to 1985 Miss American Pageant winners found that all the winners are classifiable as underweight (Spitzer *et al.* 1999). These images are more likely to reach a predominantly female audience and viewership than the images published in magazines specifically aimed at a male readership.

The ultra-thin ideal and misleading design techniques in weight loss advertisements

Designers of weight loss advertisements often make use of the ultra-thin ideal image to either provide an implicit visual demonstration of the product's efficacy, or use it as a text-visual testimony of the advertised product. These advertisements not only employ imagery of the ultra-thin, but some also claim medical endorsement and scientific validation through models in white lab coats sporting stethoscopes and superscripts that direct viewers to footnotes with references to scientific articles. Images of nature, water and greenery with text such as "natural" and "herbal" are meant to convey the perception of safety based on the false premise that all from nature is safe and healthy. The visual portrayal of self-styled medical doctors, pharmacists and dieticians, references to scientific studies and implied natural and/or safety claims are seldom recognised by viewers as deceptive. One qualitative study found that only 17% of adolescent girls recognised this misleading technique (Hobbs *et al.* 2006: 723-727). They also found that only 11% recognised the persuasive technique of using images from nature to falsely imply that a product is safe and that the ingredients are natural. This study furthermore shows that a high level of emotional resonance exists between the viewer and this type of imagery. More than 90% of the study's subjects emotionally identified with the models depicted in the advertisements, but they did not recognise how this emotional identification process is used to sell the product. The models are typically persons that are projected as struggling to lose weight or "before" photographs are usually shown. The test subjects, however, were able to recognise some of the more well-known misleading visual techniques and claims, namely references to rapid weight loss (57%), permanent results (48%), testimonials and before and after images (71%).

The aforementioned misleading weight loss marketing techniques, namely that the product is apparently endorsed by doctors or other members of the medical profession or that the effectiveness of the product is clinically proven, testimonials, before and after images, rapid weight loss, permanent weight loss as well as the natural/safe element were also highlighted in a report by the Federal Trade Commission (FTC) (Cleland, Gross, Koss, Daynard & Muoio 2002) more than a decade ago. The FTC project also identified techniques such as stating that no dieting and/or exercise are required and that the subsequent weight loss is long-term or permanent, as misleading. The study also compared the themes found in 1991 media with their 2001 analysis. Their comparison indicates that weight loss advertisements increased significantly due to an increase in dietary supplements, that there was an increase in personal testimonies, and an increase in false efficacy claims. A subsequent study, published in a medical journal, mentions an additional three misleading techniques, namely a money-back guarantee, weight loss on specific areas of one's body, and a warning to reduce the intake of the product if weight loss is excessive (Roberts 2004: 46-48).

It is in particular with the before and after photographs and testimonials that De Beaufort and Vandamme (2008: 218) raise serious ethical concerns. The before images and the "before I used the product" testimonial typically stereotype the not-so-slim person as lazy, unhealthy,

unattractive and lacking willpower. Arguing from a medical-ethical perspective, De Beaufort and Vandamme (2008: 227) emphasise that this is an exploitative process, it abuses a vulnerable population, and that the viewer becomes even more gullible through the misplaced threat of a health risk.

The ultra-thin ideal as visceral cue

The experimental work of Amos and Spears (2010) specifically considered the use of testimonials and before and after photographs in weight loss advertisements. Their study used the Theory of Visceral Influence (TVI) as a basis for their experiments. This theory predicts that a consumer, when in a visceral “hot” state such as intense thirst, pain, sexual desire, or passionate emotions, will value immediate consumption of a lesser product more than the consumption of a superior product if there is a delayed gratification. The stronger the visceral influence, the more impulsive the consumer’s subsequent decisions. Amos and Spears’s study consisted of three experiments where they exposed subjects to manipulated weight loss advertisements that contained visceral and non-visceral cues, namely vivid and non-vivid headlines and testimonials, as well as before and after photographs. Their study indicates that the inclusion of before and after photographs have a significant positive effect on attitudes toward the product, attitudes toward the advertisement as well as purchase intentions. The study found that subjects who are highly involved with their body weight, were significantly affected by visceral cues such as before and after photographs and testimonials. These consumers are vulnerable and they suspend deliberative cognitive evaluations when they are in the presence of visceral stimuli. Consumers in this “hot” visceral state will make decisions on superficial inputs such as a photograph of an attractive model or the testimony of a stranger in a weight loss advertisement. These consumers will also experience strong emotions if the mental imagery is concrete (Loewenstein 1996). Consumers that are not in this “hot” visceral state may view other consumers’ strong visceral responses as impulsive and devoid of rational decision-making.

The portrayal of the ultra-thin ideal, the effect this has on some viewers and the resulting body discontent place viewers in a driver state of heightened emotions. These viewers are in a “hot” visceral state, are more susceptible to visceral cues, and will be more inclined to suspend rational decision-making and resort to impulsive purchasing behaviour. These viewers are thus “primed” to be more susceptible to misleading claims in weight loss advertisements. As such weight loss messages that include visceral stimuli, such as vivid testimonial, before and after images and vivid headlines, have the potential to significantly influence a viewer’s buying intentions.

A hypothetical effective misleading weight loss advertisement

If one would synthesise the results of studies on the ultra-thin ideal image, its effect on viewers, how viewers respond to weight loss advertisements, and the effect of visceral images and text on viewers, one could design a compelling, but nonetheless misleading, weight loss advertisement. The design elements in the example presented below are similar to what we find in some current weight loss advertisements and similar to those elements identified by Cleland et al. (2002), Roberts (2004) and the FTC’s Red Flag publication regarding false or spurious weight loss claims (FTC 2003).

The design elements in the example below contribute to the misleading effect as follows: (i) a temporal headline that promises immediate results, (ii) a product name to imply the desired results, (iii) a confirmatory sub-headline with supporting text that addresses the needs of a vulnerable viewer, (iv) a personal testimony from a person that used the product, (v) an asterisk that provides a reference to a university where the product was tested, (vi) an image of a doctor to falsely provide medical endorsement, (vii) a before image with which viewers can identify, (viii) an after image (the typical ultra-thin ideal) to endorse the claimed efficacy of the product, (ix) scientific (or quasi-scientific) labels and terms for the ingredients to imply scientific validation, and (x) a small disclaimer at the bottom to partially protect the marketer in the event of complaints. Misleading endorsement is also possible through the inclusion of text and/or a graphic that claim the support of a (self-styled) weight loss organisation.

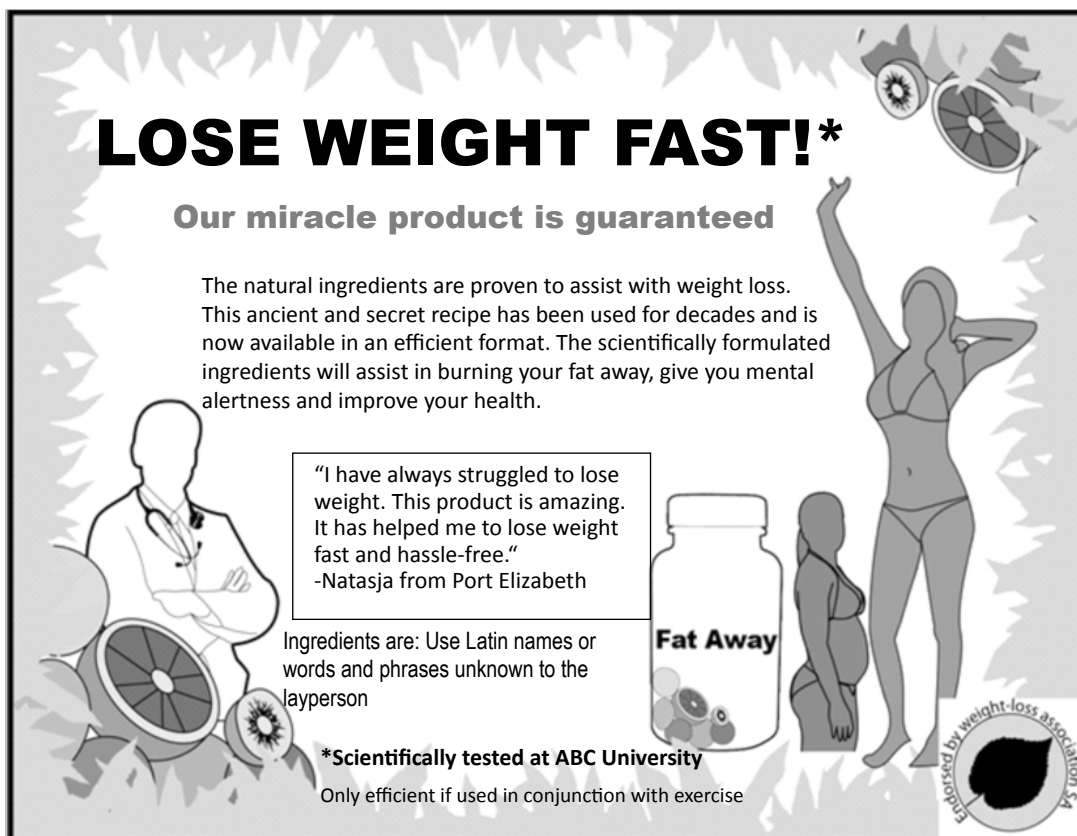


Figure 1
Hypothetical example of a scientifically effective, but misleading, weight loss advertisement.

The hypothetical advertisement presented in Figure 1 above is but one example of what an advertisement could entail, if one would combine several, but obviously misleading graphic and text elements. Current weight loss advertisements do not all include all these elements and do not necessarily use obviously misleading claims such as a rapid weight loss, money-back guarantees and text information that is evidently false. The analysis of a misleading weight loss advertisement presented below (Figure 2) is a case study where the designer has carefully constructed text and combined this with imagery to mislead the viewer to accepting the claims of the producer.

The analysis of a misleading weight loss advertisement

Direct and indirect claims by advertisers through the use of text or graphics must comply with the Advertising Code of the Advertising Standards Authority of South Africa (ASASA 2013b), the Consumer Protection Act, no 68 of 2008 (South Africa 2009), as well as with the Foodstuffs, Cosmetics and Disinfectants Act, no 54 of 1972, and specifically the Regulations Relating to the Labelling and Advertising of Foodstuffs (South Africa 2010).

ASASA's Advertising Code consists of four sections and ten appendices. Each appendix applies to a specific category such as the advertising of alcohol or slimming products. Advertisers must conform to the regulations in the different sections and applicable appendices. Section II of the Code, for example, requires that all advertising must be truthful and honest and that advertisers must hold evidence to substantiate their claims, whether the claims are made through text or visual means. An appendix on slimming provides detailed requirements in terms of diet plans, mass loss and appetite depressants to name but three. An advertiser, for example, may not claim that there are ingredients in their product that helps to speed up the process of losing weight (ASASA 2013c). The Advertising Code and the two Acts make it clear that advertisers may not mislead consumers by means of text or visual representations and that they must hold substantiation for their claims. An analysis of an advertisement is an evaluation process of the text and visual content by measuring these items against the requirements of one of the two Acts, the Advertising Code or a combination of the three. This case study analysis reported here evaluated an advertisement against ASASA's Advertising Code. Consumers are able to lodge a complaint regarding an advertisement to an advertising regulatory body, such as ASASA, without costs. The Advertising Code (ASASA 2013b) is well established, is based on international norms and provides a valid measuring instrument to test and judge misleading marketing material.

Details of the misleading advertisement

The advertisement under discussion (Supashape 2012) is a full-page, full-colour advertisement promoting a product called "Diet Whey". The product is advertised as a meal replacement diet shake. A photograph of an ultra-thin ideal model in underwear occupies the left side of the advertisement. A sub-headline and the main headline in bold and red letters, namely "LOSE 25X MORE ABDOMINAL FAT" occupies the top right quarter whilst a photograph of the product is placed in the bottom right quarter. An asterisk to the right of the word "FAT" refers the viewer to a footnote at the bottom in which a claim is made regarding scientific evidence. Two more products are placed at the bottom left. Five small logos are placed in the bottom right of the advertisement. The three main graphic design elements are the model, the headline, and the product itself. The company's name is placed in the top right corner.

The text in the advertisement claims that two items in their product, namely green tea extract and L-carnitine, are energy boosting and fat burning ingredients. The text also claims that a key ingredient in their product (the green tea extract) helped test subjects to lose 25 times more abdominal fat in a clinical trial. The words "energy boosting", "fat burning" and "to help" in the text convey the message that their ingredients have the property of hastening the process of weight loss and the burning of fat. The advertiser further promotes the diet shake product as a meal replacement and claims that it makes dieting easier.

The headline, the image of the model and the image of the product are all in close proximity of each other. The combination of the headline, the model, and the product conveys a strong

message that the use of the product will result in 25 times more abdominal fat loss. Text next to the model identifies her as a “Supashape Fitness Athlete”. This reinforces the link between the product and the model. The model’s abdomen is horizontally aligned with the product and this further reinforces the visual message, namely that by using the product, one can expect a significant reduction in abdominal fat. The model reinforces the messages that the purpose of the product is to induce fat loss and create slimness. An outline drawing, after the original advertisement, is presented in Figure 2 below. The labels on the drawing are as follows: 1 = a photograph of the product displaying the product name; 2 = a photograph of the ultra-thin ideal model that acts as a visual testimony of the product’s efficacy and as an endorser of the product; 3a = a sub-heading on top of the main heading that claims clinical evidence for the product’s efficacy; the main heading that claims that 25 times more abdominal fat loss is possible; 3b = an asterisk and superscript 1 in the headline that refer to a footnote at the bottom of the advertisement. This footnote is a reference to a scientific article; 3c = text underneath the heading that claims weight loss and other properties for the ingredients of the product; 4 = images of other products, similar to the one advertised.

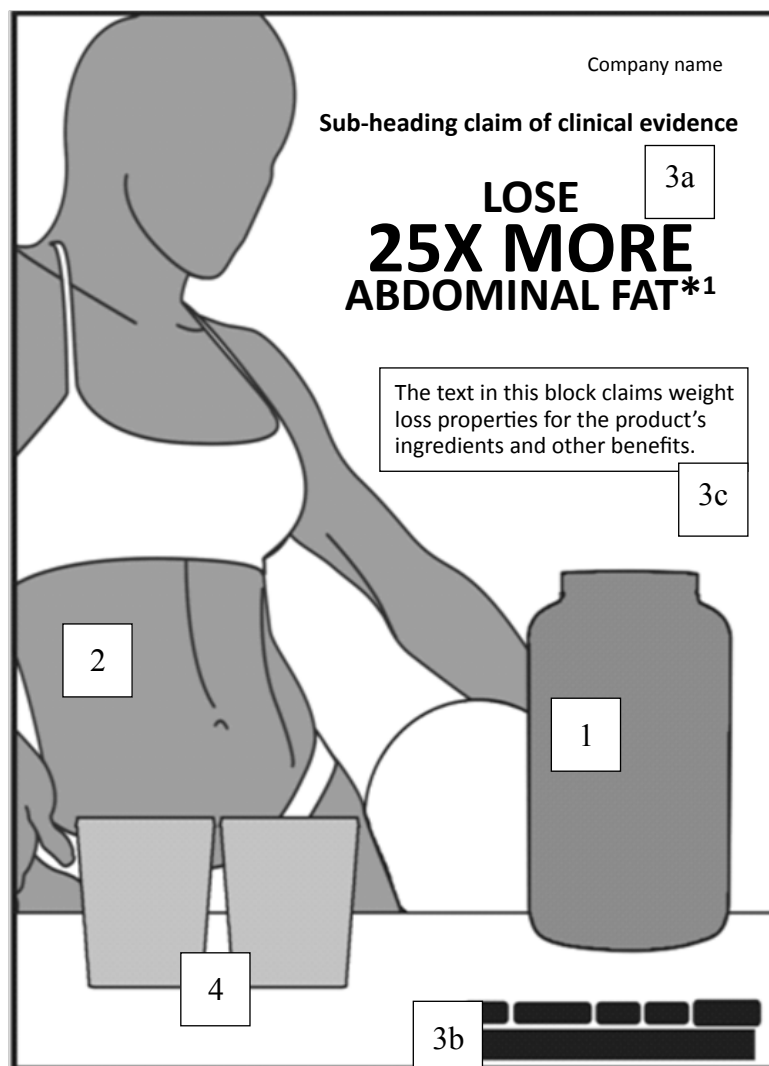


Figure 2
An outline of the misleading weight loss advertisement drawn after the actual advertisement (Supashape 2012).

The misleading design elements in the advertisement

There are three misleading claims imbedded in the text of the advertisement, one misleading claim in the headline and sub-headline, and one misleading visual claim.

The first misleading textual claim is the statement that the ingredients, namely green tea extract and L-carnitine, are energy boosting and fat burning and that a key ingredient (green tea extract) helped test subjects to lose 25 times more abdominal fat. The words “energy boosting”, “fat burning”, “to help” and “lose” in the context of the text and headline convey the message that the ingredients have the property of hastening the process of weight loss and the burning of fat. These textual claims are in conflict with Clause 2.2.2 of Appendix D of the Advertising Code which stipulates that an advertiser may not directly or indirectly claim that an ingredient has or contains properties that will in itself hasten the process of losing mass (ASASA 2013c).

The second misleading textual claim is that their product makes dieting easier through the use of their creamy shakes. The advertisement fails to inform the reader that it is only effective when used as part of a kilojoule-controlled diet. Here the advertisement does not comply with Clause 2.3.1 of Appendix D of ASASA’s Advertising Code which requires weight loss advertisements to prominently state that their product is only effective when used in conjunction with, or as part of, a kilojoule-controlled diet (ASASA 2013c).

The advertisement thirdly misleads viewers through textual inaccuracy and omission. The footnote at the bottom of the advertisement is nearly illegible due to its small size. It is significantly smaller than the text used in the advertisement copy. Clause 4.2.6 in Section II requires that footnotes must not be smaller than the size of the substantive text in the advertisement. Their subheading, just above the main headline, states “*The ultimate high-protein diet shake with a key ingredient that was shown in clinical trials to help test subjects...*” The plural -s at the end of the word „trials“ implies more than one trial. The footnote clearly refers to a single clinical trial only. The clinical trial, on which the weight loss benefits are based, included exercise and physical tests. The trial was therefore an exercise-induced trial. The advertisement thus omits to state that the key ingredient may only be effective if it is used in conjunction with an exercise programme. These factors may appear to be insignificant and trivial, but are examples of a misleading process through inaccuracy and omission. Clause 4.2.1 of Section II of the Advertising Code (Misleading claims) states that “*Advertisements should not contain any statement or visual presentation which, directly or by implication, omission, ambiguity, inaccuracy, exaggerated claim or otherwise, is likely to mislead the consumer*” (ASASA 2013a).

The advertisement further misleads viewers by implying scientific support which it does not possess. A superscript asterisk with a number 1 on the top right of the word “FAT” in the headline refers to a nearly illegible footnote which states: “*A key ingredient in Diet Whey Meal Replacement was tested in a double-blind placebo-controlled clinical trial and after 12 weeks test subjects were reported to have a 25-times Greater Reduction in Total Abdominal Fat when compared to the control group.*” The clinical trial referred to in the footnote, however, does not support the claim that the product will produce the slimming/weight loss effect as indicated by the text and demonstrated by the model. The scientific article that the advertisement refers to is not a clinical trial report of the product, but a report of a clinical trial about the effect of green tea extract when consumed by obese and overweight adults in conjunction with exercise. The specific article does not report about the efficacy or lack of efficacy of the advertised product. The advertiser, when challenged, was not able to provide substantiation that the product as a whole, and when consumed at the recommended dose, will produce the effects as claimed in

the headline (ASASA 2012). As such their claim contravenes Clause 4.1.1 and Clause 4.2.5 of Section II of the Advertising Code that requires substantiation and which prohibits the misuse of research results (ASASA 2013a).

The bold red headline claims a “25X” effect, but this is in conflict with Clause 4.2.1 of Section II of the Advertising Code (ASASA 2013a). The headline uses the number 25 and the letter X as a graphic “text language” to communicate the idea that their product has the ability to effect twenty-five times more abdominal fat loss. The advertiser misrepresented scientific data extracted from the article on which the claim of scientific support is based. They divided the Least Square Mean (LSM) of the total abdominal fat area of the control group (0.03) into the LSM of the total abdominal fat area of the experimental group (7.7). These numbers appear in figure 3 of the scientific article, and refer to the mean cm² abdominal fat loss of the control and experimental groups (Maki *et al.* 2009: 268). The actual difference between means of the abdominal fat areas of the two groups in the study is only 7.4%, and this translates to less than 7g if one would weigh the LSM abdominal fat difference. It would be difficult to equate the concept of 25X (which implies a significant amount) and the ultra-thin ideal model, with a relatively small loss of fat area weighing only a few grams.

The use of the ratio (although a correct calculation) misleads the public, not only through the misuse of scientific information, but also through ambiguity. A consumer is not able to determine what the indexical value of the 25 is and against what or whom it is to be compared. The clinical trial only suggests that green tea extract may enhance exercise-induced loss of abdominal fat for obese and overweight adults. The experimental group did not lose significant weight and there was not a significant difference between their waist circumferences (Maki *et al.* 2009: 266). The use of the 25X (as the ratio) in this advertisement is thus misusing the results of a clinical trial. The combination of the number and letter (25X) conjures a mental image that significant abdominal fat reduction is possible. The toned abdomen of the model also reinforces the idea that significant fat loss is possible. However, it is not possible to equate the text *losing 25X more abdominal fat* with the conclusion of a study that green tea extract may enhance exercise-induced loss of abdominal fat for obese and overweight adults. The clinical trial also reported that the waist circumference of the two groups did not differ significantly after twelve weeks. There was no significant difference in weight between the two groups, the experimental group did not experience a reduction in their waists, and there was no significant difference in the percentage of fat mass between the groups. The article concludes that the green tea extract “may” enhance the loss of abdominal fat though exercise, but that further research is required (Maki *et al.* 2009: 269). A reasonable consumer is nonetheless likely to believe that “25X MORE” in the headline has greater validity than the actual results of the clinical trial. The claim of “25X more” and the emphasis of this apparently large amount indicated in bold and red letters misuse scientific information in order to mislead a viewer about the efficacy of the product.

The advertisement further contravenes Clause 4.2.1 of Section II of the Advertising Code. This Clause does not permit testimonials and endorsements “... *unless it is genuine and related to the personal experience over a reasonable period of the person giving it.*” Testimonials are not allowed to make claims that are not related to the product. Visual representations may not be used if these are likely to mislead a consumer (ASASA 2013a). The ultra-thin image acts as a personal testimony and endorsement of the product and is likely to mislead the viewer. The advertiser, after a consumer complaint, was not able to provide proof that the model’s physique (i.e. that of Tammy Jackson) is a result of ingesting the product (ASASA 2012). The

advertisement omitted to inform the consumer that the model follows a regimented exercise plan and that she is a bodybuilder (Tammyjackson 2013).

A reasonable viewer, after reading the headline about losing fat, the text about fat-burning ingredients, the word DIET that is part of the product name, the footnote that subjects in a clinical trial achieved a reduction in abdominal fat, and viewing the model with a highly toned and flat abdomen, could mistakenly believe that by consuming the product, one can expect to achieve significant abdominal fat loss as illustrated by the picture. Words such as "... an effective approach ...", "... building a lean ..." and "... a little easier ..." help to create the impression that the desired slimness and loss of fat is not only achievable, but also easy.

The argument that the image of the ultra-thin ideal model misleads viewers is also informed by the work of Amos and Spears (2010). A photograph, such as the one used in the advertisement, has the ability to cause a customer to suspend cognitive activities in terms of decision-making, and to buy on impulse in order to obtain the rewards associated with thinness. The photograph of Tammy Jackson in the advertisement acts as a visceral stimuli that enhances the "hedonic appeal" and leads to impulsive responses. Amos and Spears (2010: 36) explain that these "sexy images and vivid information related to the reward [of weight loss] can spur situational impulsivity."

What further strengthens the visual message is the strong, self-confident expression from a slightly elevated position. The value of the photograph is further strengthened by placing the red part of the headline at the same level of the model's face. The body language is self-assured, the arm leads the eye towards the product, and the same red in the product label is repeated in the headline. The message of the visceral photograph may be summed up as follows: I am confident and self-assured. Look at my physique. You will lose 25X more abdominal fat, and this is the product you need to help you succeed. It is highly probable that some viewers, who are concerned with their body weight, will show a strong response to Tammy Jackson's visual message, and will believe that they may lose significant abdominal fat. One could deduce from Amos and Spears's work that the persuasive power of Tammy Jackson's visceral image is even greater than the visceral headline in the advertisement.

The judgment that the photograph of the model misleads consumers is also informed by the requirements of the FTCs Bureau of Consumer Protection Business Center (2013). It may be true that regulations from other countries, in this case the United States of America, do not necessarily apply to South Africa. It is nevertheless not incorrect to consider and to be informed by the practices of advertising regulating bodies in other countries as a comparative exercise. This particular publication acts as a guide to the media on how to screen out deceptive advertisements. The Bureau also provides the typical buzzwords and phrases often used in misleading advertisements. In the section about glowing consumer testimonials, they state that when an advertiser uses a consumer testimonial, they must hold substantiation that the average consumer will obtain the same or similar results as claimed with the testimonial. A disclaimer that results may vary is not acceptable. The reasonable viewer will most likely view the confident and strong visceral image of Tammy Jackson as a visual testimony and even a guarantee of the product's efficacy. One could therefore conclude that the visual image is not only misleading, but also deceptive unless the advertiser can provide proof that the user at home will obtain the same results as communicated by the photograph of the model's toned abdomen.

Discussion

This paper reflects briefly on the media portrayal of the ultra-thin ideal, viewers' responses to these images, and how these images and other design elements may be used to construct an effective, but misleading weight loss advertisement. Designers are able to construct effective misleading weight loss advertisements by using images and text that are able to solicit a visceral response from viewers who are concerned about their appearance and body weight. The present case study analysis highlighted how designers misuse scientific information and use ambiguity to project an exaggerated efficacy of an advertised product that is likely to mislead a viewer. The hedonic image of the ultra-thin ideal model in the advertisement under consideration further enhances the misleading claims of the advertisement and acts as a false testimony of the product's unsubstantiated efficacy. Graphic designers may not have sufficient knowledge of self-regulating organisations, such as ASASA, the advertising codes, and that marketers must hold substantiation for their claims. This possible lack of knowledge places designers in a precarious position in that they may unknowingly contribute to misleading communication and so exploit a vulnerable group of consumers. An appropriate response would be to sensitise designers to ethical issues when encoding weight loss and food supplement communication material. De Beaufort and Vandamme's (2008) article on the misleading promises of the weight loss industry highlights three ethical issues for consideration, namely the exploitation of vulnerable viewers, the stigmatisation of obese individuals and the danger of some weight loss treatments. They further recommend that one should empower viewers to become more critical of hidden messages and promises made by marketers.

An area that could benefit from further research is to determine how South African designers respond to ethical challenges when faced with a request to design misleading communication. There is also a need to determine the themes and frequency of misleading graphic elements as employed by designers in current South African weight loss advertisements.

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