

Master Thesis

**TRANSFORMATIONAL ADVERTISING VIA INSTAGRAM  
AND ITS IMPACT ON  
EXPECTED HAPPINESS AND WILLINGNESS – TO – PAY**

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## PREFACE

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## ABSTRACT

The introduction of Instagram has opened up an important marketing channel, enabling a new way of advertising through user-generated content. The present study aimed to experimentally investigate the impact of transformational, as compared to informational advertising via Instagram on women's expected happiness and willingness-to-pay for the advertised product while taking into account personal heterogeneity. Participants were 135 females aged 18 to 35 who were randomly assigned to view either a set of Instagram images of a dietary product with a transformational appeal i.e. a thin model, a set with images of a dietary product with an informational appeal or a control set of a non-dietary product with an informational appeal. The results showed that exposure to images of the diet product together with a thin model did not differ in its effect on expected happiness from the dietary product alone. Further, the regression analysis revealed that participants exposed to any of the dietary product related image sets scored lower on expected happiness as compared to the control set. Importantly, however, the images with the transformational appeal did lead to a greater willingness-to-pay for the advertised product. Thus it was concluded that the illustrated thin ideal body as well as the topic of "dieting" in itself can carry negative connotations leading to a reduced level of expected happiness. Nevertheless, the transformational format does bear additional value to the message recipient. The results support existing research of thinness promoting media effects on women and extends these to "new" media formats.

*Keywords: Happiness, Expected Happiness, Transformational Advertising, Informational Advertising, Instagram, Body Image, Personality Traits, Media*

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## INTRODUCTION

*“Advertising is based on one thing, happiness. And you know what happiness is? Happiness is the smell of a new car. It’s freedom from fear. It’s a billboard on the side of the road that screams reassurance that whatever you are doing is okay. You are okay.” Don Draper (Mad Man)*

Don Draper, the lead character in the series Mad Man, is aware of the premise that in order to produce effective evaluations of advertisements, the PR/ advertising firm Sterling Cooper must make the ordinary and mundane seem extraordinary and magical which it ultimately does via a promise of (future) happiness (Wharton, 2013).

The use of affect in TV advertising has become common practice for brands in achieving competitive advantage and is known under the term of transformational advertising. A popular and very successful example is Coca Cola’s “Open Happiness” Campaign. It was launched in 2009, during the global financial depression and “targeted to consumers longing for comfort and optimism in a tough time” as Interbrand’s best global brands report said (Frampton, Feldmeth, Isakovich, 2009). The basic premise of the campaign is to connect the belief of happiness to the soft drink itself by introducing the concept of happiness in a bottle (Ralph, 2012). Hence, this campaign appears to be one of the most transparent examples of a product promising happiness, illustrating this via its advertisement.

Essentially, transformational advertising relates the experience of using the product with a unique set of psychological characteristics that would not typically be associated with the brand experience to the same degree without previous exposure to the advertisement. Thus advertisements in this category “transform” the image of using the brand by endowing this use with a particular experience that is different from that of using any similar brand. It triggers customers to experience an affective forecast and this experience could not have been extracted without exposure to the advertisement (Puto & Wells, 1984).

From an economic perspective, using emotion and imagery creates additional intangible value to the tangible advertised product by linking advertising experiences and feelings to the actual experience of using the advertised product (Puto and Wells, 1984). With profitability being the ultimate premise of every marketing action this additional value created has to be translated into a price premium. The general notion exists that satisfied customers are willing to pay higher prices. Advertising, however, is a pre-consumption phenomenon therefore it has

to let the customer forecast a satisfactory state in order to be willing to pay a price premium for the product. This is often done through the advertisement promising happiness.

Happiness is visualized through the image of an ideal, derived from culturally bound standards. The female ideal of the 21<sup>st</sup> century is presented by a slim and normfor body image a synonym for success, beauty, health and being in control. Marketers promise customers happiness by achieving this ideal state through consumption of the advertised product.

Extensive literature has focused on the effect transformational advertising has on consumers, nevertheless traditional advertising as in TV commercials and magazines are often perceived as an exaggerated, artificial and fantasy-like construct making the idealized image an unattainable construction (Hirschman & Thompson, 1997). Thus, recently, the social media platform Instagram has become a popular new advertising stage. While being an intensively discussed medium on social media, limited scientific research has accounted for it as a new branch of transformational advertising, despite the immense increase in Instagram users and time devoted to it.

Along with traditional advertising likewise on Instagram a thin ideal body image is promoted to women. Regarding, the effect this kind of transformational advertising has on the consumer it is important to account for heterogeneous personalities leading to different counter reactions. The assumption that all women respond equally to thinness- promoting media is another weakness of previous research done (Joshi, Herman, & Polivy, 2004).

Therefore, this research will try to fill this gap and answer the following research question:

*What is the relationship between advertising (via Instagram) and the level of expected happiness, how do different personality traits influence this relationship and how does this translate into the willingness to pay for a product?*

From a scientific perspective this paper will add to the existing literature on (transformational) advertising by introducing Instagram as a new dimension of it and researching its impact from an economic side, by evaluating its effect on the willingness-to-pay, as well as a personal side, evaluating its effect on expected happiness. Tackling this issue will give marketers the ability to construct effective marketing strategies giving additional intangible value to the product, enhancing customers' well-being on the one hand, while on the other hand, increasing potential profits in the long run.

# THEORETICAL FRAMEWORK

## ADVERTISING

Advertising plays an important part in economic activity and is a significant aspect of modern societies. It is a highly visible component of everyday life and increasingly of contemporary culture (Wharton, 2013).

In general terms advertising can be understood as a specific form of communication that provides information, raises awareness or instigates interest in a particular product or service (Vakratsas & Ambler, 1999). However, over time its definition has moved away from this more innocently conceived notion to “the most persuasive possible selling message to the right prospects for the product or service at the lowest possible cost” as described by the Institute of Practitioners in Advertising (Wharton, 2013) and as of such it is all but possible to ignore; from telephone to television, radio and Internet to billboards and cinema: it is very much part of everyday life and an integral part of modern culture as Leiss et al. (Wharton, 2013) suggests. But what exactly does advertising do?

### *THE FUNCTION OF ADVERTISING*

The first and since then most relevant advertising model is the AIDA model (Attention → Interest → Desire → Action) of advertising attributed to E. St. Elmo Lewis (1906) an American advertising advocate (Rawal, 2013) with its basic premise on grabbing the consumers attention and interest to subsequently create a desire for the offered product by addressing the consumers personal needs and wants (Mind Tool Editorial, 2015). Essentially, the goal of advertising is to sell at a profitable price by persuading the consumer to purchase. It is often argued that the persuasive aspect of advertising overrides the consumers ability to make an autonomous decision concerning the necessity of a purchase by inflaming a strong desire for the product (Crisp, 1987). Georg Loewenstein describes marketing in this case as antithetical to value creation and rather as a move from marketers to sell the most profitable product unrelated to the good or bad meaning for the consumer (Loewenstein, Sutherland, Samson, 2014).

Rory Sutherland, current Executive Creative Director of Ogilvy One, however, states in one of his TED talks that advertising as such should be seen as additional intangible value to the product itself created by highlighting positive aspects of subjective experience that consumers otherwise might not have appreciated. Summoning, that the world is reaching oversaturation, intangible value starts constituting a greater part of overall value, being in many ways a excellent substitute for labour and the usage of limited resources (Sutherland, 2009).



Coherently, this additional value can be used by translating it into a price premium for the advertised product.

### *THE DIFFERENT TYPES OF ADVERTISING*

Most brands pursue the strategy of advertising a brand-differentiating benefit, showing the consumer specifically what their product is able to do in order to charge a higher price for it (Young, 2011). The gist of an advertisement is to make the consumer perceive the product as more valuable, increasing sales and prices, ultimately achieving a positive impact on profitability. Though can a price premium be evoked from the advertisement itself?

In current advertising strategy two types can be distinguished: Informational and transformational advertising.

Presumably every advertisement includes some element of information, however, informational advertising provides consumers solely with factual, relevant brand data in a clear and concise manner so that the consumer confides in the ability of the product (Puto & Wells, 1984).

Transformational advertising again relates the experience of using the product with a unique set of psychological characteristics that would not typically be associated with the brand experience to the same degree without previous exposure to the advertisement. Thus advertisements in this category “transform” the image of using the brand by endowing this use with a particular and unique experience different to any other brand (Puto & Wells, 1984).

This is in line with Rory Sutherlands suggestion of advertising creating additional intangible value. A study run by Charles Young examined the effectiveness advertising has on the willingness-to-pay for the advertised product and the strongest correlation has been found between price and an emotionally focused advertisement as opposed to a mainly information based one (Young 2011).

### *THE THIN IDEAL AS A FORM OF TRANSFORMATIONAL ADVERTISING*

Thin models and actresses appear to be the standard in today’s media, ever present on television, magazines, movies and internet sites. The mediated thin norm for body image has become a synonym of the prevailing idealized image of the 21<sup>st</sup> century entailing success, beauty, health and an image of being in control (Myers & Biocca, 1992). In essence, the thin ideal in advertisement serves as the transformational component, linking the aspects related to it with the product advertised, inherently implanting the idea that all those aspects related to the thin ideal also belong to the consumption experience of the product. Worthwhile mentioning here is that advertising serves an inversed effect: on the one hand using the concurrently followed

trending ideal to sell the product, on the other hand it also serves as a frame of reference of the trending ideal from which consumers interpret their daily lives (Hirschman & Thompson, 1997). Again, plenty of research has been concerned with the negative effect thinness-promoting media has on self-perception leading to negative feelings and increased body dissatisfaction (Heinberg & Thompson, 1995; Stice & Shaw, 1994; see Thompson & Heinberg, 1999, as cited by Joshi, Herman, & Polivy, 2004). Constant exposure to this frame of reference intentionally promotes weight loss (Bahadur, 2014) and increases women's dissatisfaction with their actual body. Especially, younger and middle-aged women, who are the target group of the "*skinny is sexy lifestyle*" (Zdesar, 2014) being more interested in appearing attractive particularly to the other sex, internalize this ideal body image. Simultaneously, they follow the goal to transform their own body shape to match the internalized ideal (Myers & Biocca, 1992). However, the vast majority of this research has been focused on the simple display of thin-models embedded in fashion, cosmetic or other product advertisements. Furthermore, most researchers focused on the current state of the message recipient, ignoring a possible future state (Hirschman & Thompson, 1997).

In comparison, an advertisement promoting a diet product though can be expected to have a different effect, since its usage potentially offers the attainability of the depicted ideal body image. In basic premises, this advertisement shows the consumer through imagery what will be possible. Due to its far-reaching relevance the focus of this research will lie on body satisfaction in relation to an advertised diet product for women and its effect will be examined on women's expected happiness as well as their willingness-to-pay for the product.

## **VALUE CREATION AND THE WILLINGNESS – TO –PAY FOR THE PRODUCT**

With much advertising expenditure wasted in ineffective campaigns (Vakratsas & Ambler, 1999), advertisers should be concerned with the return of investment advertising can obtain as well as the additional value it can create for the consumer in order to formulate more effective advertising strategies.

A notable question is whether the additional value created through transformational advertising affects customer's willingness to pay (WTP) for the product or service advertised. This relationship is of utmost importance since price is a key element of company's profitability.

The WTP is the maximum amount of money a customer is willing to spend for a product or service (Cameron and James 1987; Krishna 1991 as cited by (Homburg, Koschate, & Hoyer, 2005). In essence, WTP is a measure of the value that a person assigns to a consumption or usage experience in monetary units (Homburg et al., 2005). Supported with anecdotal evidence,

a general notion exist that a satisfied customer is willing to pay higher prices (e.g. Finkelmann 1993; Reeheld and Sasser, 1990 as cited by Homburg et al., 2005). This aligns with equity theory, focusing on fairness in social exchange meaning that parties to an exchange perceive a fair treatment if the ratio of their outcomes to inputs is distributed in a just manner. Inequalities will motivate people to alter parameters to re-establish equity (Homburg et al., 2005). Homburg et al. (2005) have shown that customers who experience high levels of satisfaction, perceive a high outcome of an exchange and therefore are willing to pay more. Nevertheless, customer satisfaction is a post consumption phenomenon. Therefore, in order for advertising, a pre-consumption phenomenon, to have an effect on WTP the customer must forecast a certain satisfactory state when having purchased the product induced through the advertisement he/ she has been exposed to. Kalra and Goodstein (1998) found that when advertising elicits strong affective reactions consumers are less price sensitive. This has been demonstrated alongside fear appeals that have been used to support a price premium presenting Michelin's implicit message that babies drive safer in cars with their tires (Kalra & Goodstein, 1998).

The gist of a product purchase is to improve ones status quo. An improvement of the individuals status quo is ultimately linked to becoming happier since striving towards happiness is the center piece of human kind. A well-established belief in today's consumer society with the individual's desire to reach this state. Hence, the evaluation of the advertisement by the consumer must ultimately result in the conveyance of happiness.

## **TRANSFORMATIONAL ADVERTISING, EXPECTED HAPPINESS AND ITS ASSESSMENT**

Overall happiness entails two components namely, the affective experience and the cognitive comparison. Both serve as 'sub-totals' in the overall evaluation of one's happiness (Rojas & Veenhoven, 2013). Likewise, in the assessment of expected happiness both play a major role. Transformational advertising fixates more strongly on the affective side, nevertheless the cognitive component cannot be foregone when assessing the effect transformational advertising has on the message recipients expected happiness.

### *AFFECTIVE ASSESSMENT*

Advertising often focuses on relating emotional experiences to the product or service being advertised, then trying to transform these emotions into an active interest to purchase.

Nevertheless, emotions are momentary experiences that are intimately tied to the ebb and flow of everyday life, hence after exposure to an advertisement the experienced emotion dissolves, therefore people make use of their generalized beliefs about those emotions (Robinson & Clore,

2002). Relating, Kahneman distinguishes ‘instant utility’ and ‘remembered utility’. Instant utility meaning being pleased or distressed at a particular moment, with the strength to interrupt the current experience. Remembered utility being the global evaluation that is retrospectively assigned to a particular past episode or to a situation in which similar experiences persist. Essentially this suggests that affective experiences are momentary and not available to introspection once the feeling dissolves. Once occurred the affective experiences need to be reconstructed based on episodic or semantic information mainly entailing peoples “general beliefs” on a specific event (Kahneman, 2003; Schwarz, Kahneman, & Xu, 2009). The same semantic knowledge serves as a basis for predicting future feelings, for which episodic information is not available to begin with (Schwarz et al., 2009).

Transformational advertising essentially lies in the concept of generalized emotions (Puto & Wells, 1984). Two processes are at work in transformational advertising: First, it eases the selective recall of past experiences associated with the same state acting as a memory search function for a set of experiences with similar quality of emotion. Second, a characteristic of generalized emotion is that it acts as a selective focus to create new fantasies which will then be associated with this state and its subsequent expression (Clynes 1980, p. 297 as cited by Puto & Wells, 1984).

Relating this back to happiness and its affective evaluation, transformational advertising displaying an ideal will induce a prediction of (expected) happiness, given the message recipients “general beliefs” about the aspects of this ideal state match positive and happy emotions. Subsequently those encountered happy emotions (general beliefs) will then be related to this ideal state resulting in expected happiness. These hedonic predictions, in turn, often serve as a basis for behavioural choice linked to the general striving of happiness (March, 1978 as cited by Schwarz et al., 2009).

#### *COGNITIVE ASSESSMENT*

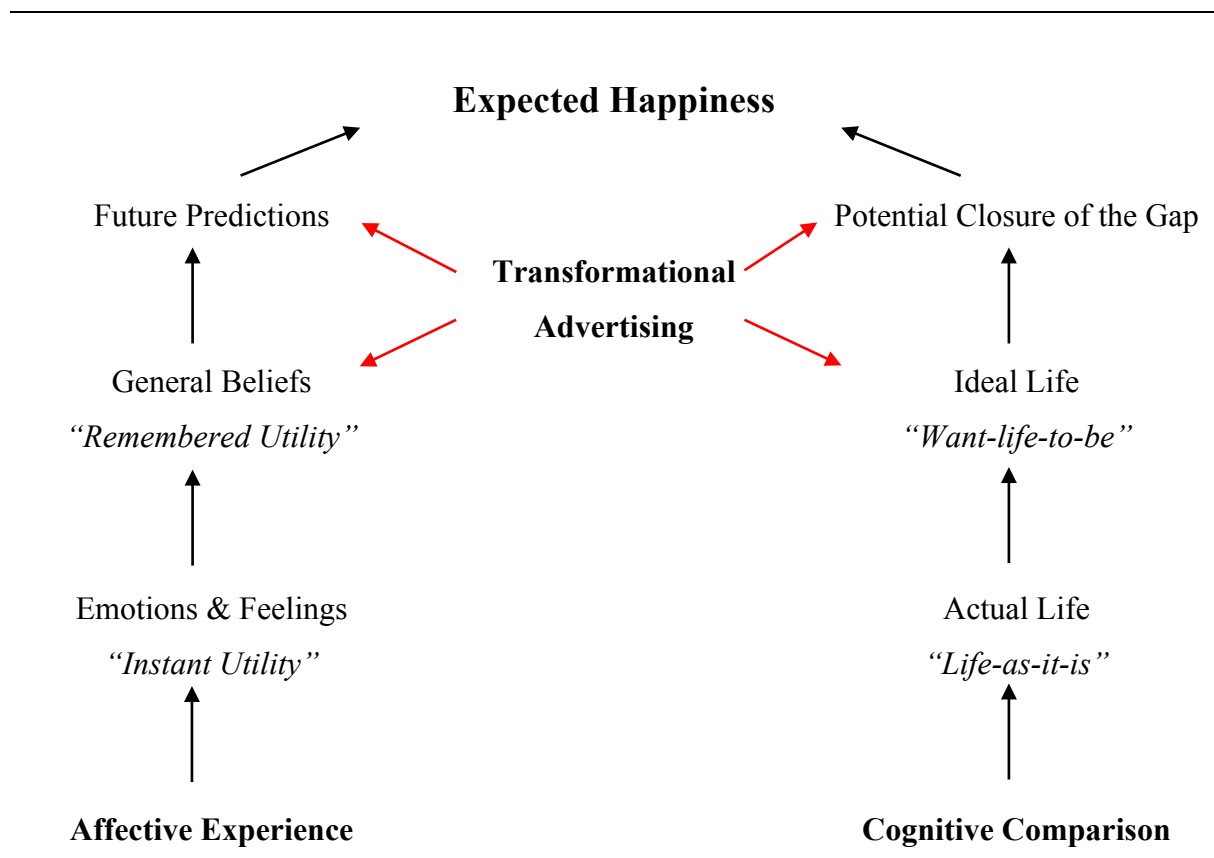
According to McDowell and Newell (1987: 204) happiness can be understood as the “*personal assessment of one’s condition compared to an external reference standard or to one’s aspirations*” (as cited by Rojas & Veenhoven, 2013). This is in line with the definition of happiness from a cognitive theorist perspective, seeing it as a cognitive judgment involving an estimate of the difference between the actual and ideal life. The smaller their perceived gap between the idealized standard and reality, the higher their level of happiness (Rojas & Veenhoven, 2013).

Transformational advertising, in this case, serves as the frame of reference in assessing the ideal. The promotion of a cultural idealized image has become the most lucrative and adapted

method in advertising (Kardes, Cline, & Cronley, 2011). Routine exposure to it leads consumers to continuously immerse in this ideological system inferring constant comparison. As McCracken (1988, p. 109) noted, "*Individuals are constantly engaged in the study of the lives of others for proof that their personal ideals have been realized.*" (as cited by Hirschman & Thompson, 1997, p. 45). This may generate a sense of displeasure in consumers with their current personal appearance, lifestyle, and possessions. Advertisements then fill the emotional void by presenting how the promoted product can move the consumer towards the desired ideal state (Hirschman & Thompson, 1997).

The impact of the advertisement, however, is related to the relevance of the ideal image to the consumer as well as its perceived attainability. As of this the consumer will be enhanced and inspired by an idealized image if they believe that they too can attain comparable success, but will be demoralized and deflated if they believe they cannot (Lockwood & Kunda, 1997). Essentially, given that the consumer regards the ideal image as relevant, the advertisement is grasped as a promise of an imminent closure of the gap between his/her actual and ideal state, resulting in a cognitive assessment of expected happiness.

**Figure 1 Expected Happiness and its components**



From the aforementioned the following hypothesis have been determined:

***Hypothesis 1:*** *A transformational advertisement i.e. a thin-ideal will increase the recipient's level of expected happiness as compared to an informational advertisement.*

***Hypothesis 2:*** *A transformational advertisement i.e. a thin-ideal will increase the recipient's willingness-to-pay for the advertised product as compared to an informational advertisement.*

The effect of anticipated satisfaction on consumer decision making was assessed in a study run by Baba Shiv and Joel Huber (2000). Preferences change in relation to the degree of anticipated satisfaction evoked, which elicits a mental-imaging process related to the option at choice. The final buying decision is then based on the ease and focus of the imagery-related process (Shiv & Huber, 2000).

Advertisements, in particular transformational advertising (Puto & Wells, 1984), offer a vivid script and narrative, facilitating mental imagery and evoking anticipated satisfaction. Strong anticipated satisfaction enhances the belief that the product works, and if we expect a product to work, we might be willing to pay a higher price for it (Shiv, 2008). By comparing anticipated satisfaction to expected happiness, the following hypothesis was formulated:

***Hypothesis 3:*** *Expected Happiness and Willingness – to – pay for the advertised product are expected to be correlated.*

Combining the cognitive and affective aspects to evaluate the effect of advertisements on the recipients' level of expected happiness, the following can be assumed: continuous exposure to an idealized image embedded in a transformational advertisement will lead to a cognitive evaluation of one's actual state compared to the idealized (displayed) state, triggering the need as well as offering the possibility to minimize the gap between those two. Furthermore, it will lead to an affective forecast linking generalized emotions to the ideal image, both potentially leading to expected happiness. Substantial research has focused on the negative consequences of comparisons to an ideal superior state, rooted in the original view of comparing solely one's current abilities to the ideal (Lockwood & Kunda, 1997). With this sole focus on the current poorer abilities inferiority, demoralization and unhappiness will be provoked. Nevertheless, by recognizing that people's self-views also incorporate a possible future self, enhancement and

inspiration can be triggered, entailing the belief that one will attain comparable success. Therefore, a transformational advertisement with an idealized image may enhance and inspire by making successful future selves appear more tangible, illustrating how future achievements may be accomplished.

## **PERSONALITY TRAITS**

*“Everybody is different”* - a well known and established premise. Nevertheless, a weakness of the current state of research on the impact of thinness- promoting media is the general inference that women react in a similar manner to thin-body images (Joshi et al., 2004). Personal heterogeneity has been mainly by-passed.

Personality can be assessed as the force leading different individuals to experience similar life-events in a more positive or negative manner (Magnus et al., 1993 as cited by DeNeve & Cooper, 1998). This raises the expectation that when exposed to media-portrayed idealized body images some women are engaged, motivated and persuaded by it while others are not. One way to answer such a question is to identify characteristics of individuals who are especially responsive to those kind of advertisements and respectively evaluate their expected happiness. Further, personality traits are the best predictors of satisfaction levels (Diener and Lucas, 1999 as cited by Ferrer-i-Carbonell & Frijters, 2004) as established by Lykken and Tellegen (1996 as cited by Ferrer-i-Carbonell & Frijters, 2004) genes and persistent psychological traits have a correlation of up to 80% with general satisfaction. Moreover, they are related to many demographic variables that are often used as predictors for general satisfaction.

Individuals confronted with an advertisement and thus addressed as consumers, relate the advertisement, if perceived as relevant, to themselves, comprehensively evaluating their need for the advertised product. An advertisement of a diet product addresses the self i.e. the individuals body activating thoughts about the self. The term self-esteem denotes an attitude about the self i.e. one's liking or disliking of oneself (Zinkhan & Hong, 1991). It is often perception rather than reality since for example a person's belief about his/ her physical attractiveness does not necessary say anything about the actual facts. When evaluating oneself against the depicted thin-ideal the consumer might perceive herself as overweight regarding the gap between her actual and ideal state as abundant. The generally negative opinions about overweight people may subsequently lead to body dissatisfaction and lower self-esteem (Miller & Downey, 1999 as cited by Van Vonderen & Kinnally, 2012). Higher self-esteem, again, may prevent this.



Women with higher BMI<sup>1</sup> are more likely to have higher levels of body dissatisfaction and lower levels of self-esteem (Hendriks & Burgoon, 2003 as cited by Van Vonderen & Kinnally, 2012) as they devalue themselves due to falling short on social standards and socially acceptable weight (Miller and Downey, 1999 as cited by Van Vonderen & Kinnally, 2012).

Thus, a woman low on self-esteem, having a great discrepancy between the actual and ideal self, being due to actual high BMI levels or rather self-perception (Higgins et al., 1987), can be either positively or negatively affected by an advertisements promoting the attainability of the idealized state. The latter is the case due to lacking confidence in their own abilities to live up to their favourable predictions or a lack in trust of the products ability therefore decreasing their level of expected happiness (Baumeister, Tice, & Hutton, 1989). A positive effect, however, can be expected when the hope prevails of closing the gap between their actual and ideal self increasing their expected level of happiness. This leads to the assumption that self-esteem will serve as a moderator variable affecting the direction of the relation between advertising and expected happiness, leading to the following hypothesis:

***Hypothesis 4:** Self-esteem moderates the relationship between exposure to a thin – ideal advertisement and expected happiness.*

Another personal difference between subjects that has to be accounted for when evaluating the diet product advertising effect is dietary behaviour. Research has shown that especially for individuals dieting an exposure to an idealized slim and fit image will lead to self-enhancement (Mills, Polivy, Herman, & Tiggemann, 2002). According to a study run by Mills at al. dieters experience a thin fantasy from being exposed to thin, idealized body images (Mills et al., 2002). Therefore, it can be expected that thinness promoting advertisements will have a greater effect on the message recipients level of expected happiness if the person is dieting.

***Hypothesis 5:** Dietary behaviour moderates the relationship between exposure to a thin – ideal advertisement and expected happiness, such that women who are restrained eaters will more likely be affected by the thin – ideal advertisement and, in turn, have an increased level of expected happiness.*

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<sup>1</sup> BMI is the weight/height index used to categorize people into underweight, healthy weight, and overweight.



The literature indicates an overall mixed opinion on the effect idealized thin body images in advertisements have on women concerning their self-perception and emotional state due to the variety of different advertising formats used as well as a stark focus on the current (body) state of the message recipient. Nevertheless, it is a proven fact that some women seem to enjoy viewing idealized images and even tend to seek out those images (Mills et al., 2002) which is particularly the case for the social medium Instagram. The societal importance of happiness as well as the increasing application of Instagram leads me to the following hypotheses and conceptual framework:

## CONCEPTUAL FRAMEWORK AND HYPOTHESIS SUMMARY

***Hypothesis 1:** A transformational advertisement i.e. a thin-ideal will increase the recipient's level of expected happiness as compared to an informational advertisement.*

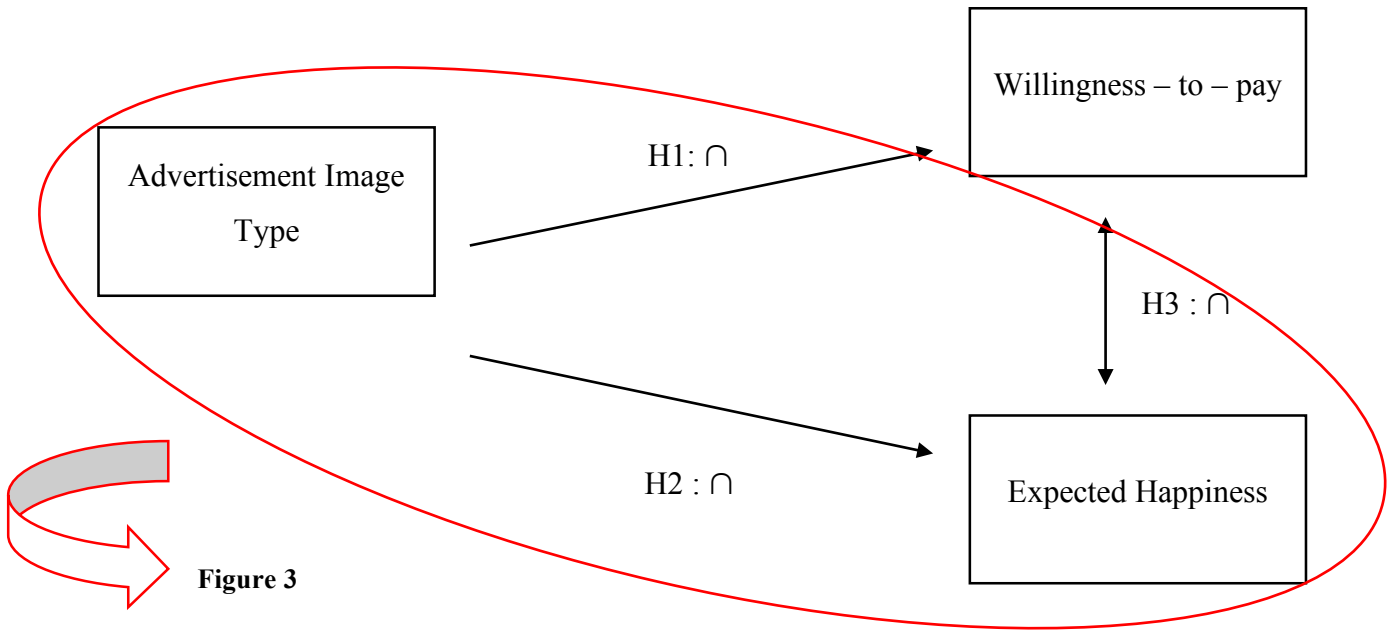
***Hypothesis 2:** A transformational advertisement i.e. a thin-ideal will increase the recipient's willingness-to-pay for the advertised product as compared to an informational advertisement.*

***Hypothesis 3:** Expected Happiness and Willingness – to – pay for the advertised product are expected to be correlated.*

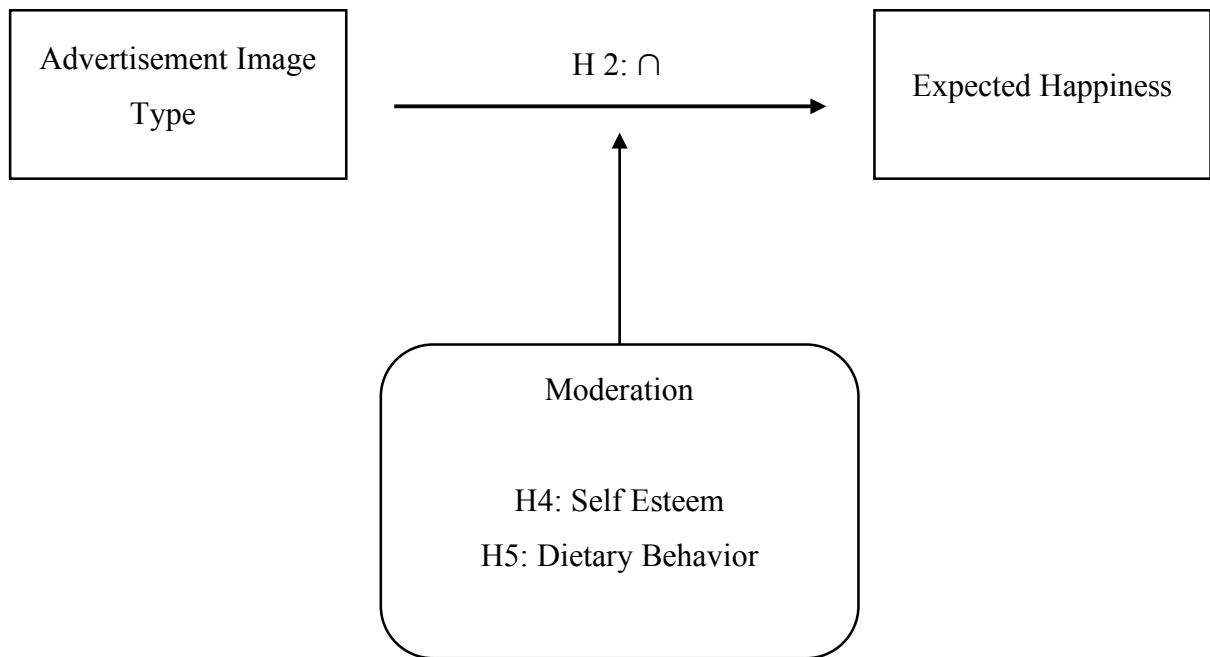
***Hypothesis 4:** Self-esteem moderates the relationship between exposure to a thin – ideal advertisement and expected happiness as well as willingness-to-pay.*

***Hypothesis 5:** Dietary restraint moderates the relationship between exposure to a thin – ideal advertisement and expected happiness, such that women who are restrained eaters will more likely be affected by the thin – ideal advertisement and, in turn, have an increased level of expected happiness as well as willingness-to-pay.*

**Figure 2**



**Figure 3**



## METHODOLOGY

In the following section the methodology underlying this research is being discussed incorporating the research design and research procedure, followed by the data analysis section.

### INSTAGRAM AS THE NEW MEDIUM OF ADVERTISING

Advertising in the traditional way as in TV commercials and magazines are often perceived as an exaggerated, artificial and fantasy-like construct making the idealized image an unattainable

construction (Hirschman & Thompson, 1997). Additionally, TV commercials have a relatively broad reach lacking the possibility to specifically address the target whom the message was constructed for. Thus, recently the social media platform Instagram<sup>2</sup> has become a popular new advertising stage. Companies have made use of this platform by setting up their own public profiles and sending opinion leaders their products in order for them to share those on their profiles. Up until now 48,8 % of brands are active on Instagram with a predicted rise to 70,7% by 2017 (Smith, 2016). Looking at the top 100 brands in the world already 90% are active on Instagram. Statistics show that 50% of Instagram users (outside of China) conduct product research on social media. This does create a high level of customer engagement with a brand and its product. Engagement with brands on Instagram turns out to be 10 times higher than for example Facebook. Using opinion leaders as brand and product endorsers the conceived idealized image is not considered to be as manipulative of reality as for example the photos in magazines. Belch and Belch (2011) disclose that many companies perceive it to be best practice to connect with consumers by using regular looking, everyday people with whom the average person can easily identify. Moreover, in line with social comparison theory (Festinger, 1954 as cited by Tiggemann & Zaccardo, 2015), the drive for self-evaluation causes people to seek out comparisons with others who are similar rather than dissimilar to themselves. Therefore, peers provide more important appearance-comparison targets than models or celebrities (Heinberg & Thompson, 1995 as cited by Tiggemann & Zaccardo, 2015). Value is created through the information-sender's knowledge, expertise and credibility especially the target groups feeling of trust towards the sender is vital (as cited by Halvorsen, Hoffmann, Coste-Manière, & Stankeviciute, 2013). Trust in that case increases the transmitters influence on recipients, and influence from a personal level has a generally larger impact than that on a commercial level (Engel, 1995 as cited by Halvorsen et al., 2013). Furthermore, a study run by L2's Instagram: User-Generated Content revealed that 55% of consumers trust customer photos more than slick brand or professional photos (Delzio, 2015). Additionally, Instagram has a high visual appeal and through their accounts businesses are able to tell complex stories in pictures (Delzio, 2015). Linking this with the use of opinion leaders, companies can advert not only a product but a related, idealized lifestyle. Moreover, and essential for advertisers of dietary products are the

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<sup>2</sup> “Instagram is a mobile photo-sharing app and social network, purely dedicated to the posting and sharing of photos, either with friends (on a private profile) or the wider public (on a public profile)” (Helmrich, 2016). Instagram was created in 2010 and has more than 400 million users as of September 2015. Users can post their own personally created images, as well as share other users' images, so that they appear on their profile (Helmrich, 2016).

demographics of Instagram users forming a highly attractive advertising platform. Recent statistics show that 90% of the 150 million people on Instagram are under the age of 35 with a significant skew towards women (Smith, 2013). Around the world over 60% of users' log in daily, resulting in Instagram having the best engagement figures besides Facebook (Mander, 2015) signifying a subject's constant exposure to the idealized image.

Essentially, Instagram can be regarded as a new format of transformational advertising relating to the experience of using the brand. Offering the consumer, a more approachable and engaging ideal.

## RESEARCH DESIGN

In order to collect the most accurate information, while minimizing error, a conclusive research design was used to test the conceptual model and the specified hypotheses. Explicitly, a causal research design was implemented to obtain evidence of an expected cause-and-effect relationship (Malhotra & Birks, 2007) between the manipulated independent variable *advertisement* and the dependent variables, *willingness-to-pay* and *expected happiness*, while accounting for the moderating effect of *self-esteem* and *dietary behaviour*. As of such an online experiment was conducted to measure the relationships between these variables.

This research employed a between-subject design given the independent variable advertisement consisted of three different levels representing distinct stimuli of Instagram images (**Table 1**). Two treatment and one control group were constructed. Essentially, treatment group 1 (*dietary product with transformational appeal*) tested the effect a transformational advertising appeal has on the message recipients *expected happiness* and *willingness-to-pay* as compared to treatment group 2 (*dietary product with informational appeal*). Treatment group 2 further served the purpose to evaluate the effect a *dietary product* has on the message recipients *expected happiness* and *willingness-to-pay* as compared to the control group with a *non-dietary product*. It is expected that the *transformational advertisement of a dietary product* will have a greater effect on both dependent variables as compared to the *informational advertisement of the dietary product*. Correspondingly, participants were randomly assigned to one of the three treatment groups. Participants were blocked on the external variables gender as well as age, being the major influencers on the dependent variables. This ensures that treatment and control groups are matched closely on those variables. The between-subject design was elected to test possible interaction effects among the variables and their corresponding levels. Additionally, this design reduced the length and duration of the questionnaire that could have lead to potential boredom for participants as well as the influence of extraneous factors (Malhotra & Birks,

2007). Moreover, by using a between- instead of a within-subject design, the risk that respondents were influenced by different treatments could be minimized (Malhotra & Birks, 2007).

R X<sub>1</sub> O<sub>1</sub>

R X<sub>2</sub> O<sub>2</sub>

R X<sub>3</sub> O<sub>3</sub><sup>3</sup>

**Table 1.** *Experimental Treatment Groups*

<b>Treatment</b>	<b>CG</b>	<u>Informational advertisement</u> : <b>non-dietary product</b> (Lipton ice tea)
	<b>1</b>	<u>Transformational advertisement</u> : <b>dietary product</b> (WomensBest)
	<b>2</b>	<u>Informational advertisement</u> : <b>dietary product</b> (WomensBest)

## DATA COLLECTION METHOD

The conceptual model was tested by using primary data, collected specifically for the purpose of addressing the problem at hand. An online survey technique was implemented following a structured data collection method in order to obtain consistent responses and reduce result variability (Malhotra & Birks, 2007). The full survey can be retrieved from Appendix A. Aligned to the three specific treatment groups, three surveys were developed, distinctive only in the advertisement presented (**Table 1**) and tested upfront for clarity, comprehensibility, length, image clarity and time in order to prevent response errors.

### ONLINE SURVEYS

The online questionnaires used in this research were distributed via Facebook and email lists with the purpose of reaching the greatest number of participants. Each of the three survey designs contained 10 different Instagram images that were embedded in the questionnaire.

One of the controversies of Mills et al. (2002; as cited by Joshi, Herman, & Polivy, 2004) was that direct questioning for the effect of exposure to images of thin women has a negative responds tendency. Therefore, this was a blind study with the cover story of testing for the appeal images have in recreational Instagram use (See Survey in Appendix A).

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<sup>3</sup> X = the exposure of a group to an independent variable, the effects of which are to be determined

O= the process of observation or measurement of the dependent variable on the test units

R= the random assignment of test units to separate treatments (Malhotra & Birks, 2007)

Despite the fact that online questionnaires provide a less controllable environment in terms of extraneous variables as well as potential technical problems this method still encompasses several advantages:

In general, surveys offer an easy and cost-efficient way to reach a large group of participants. Moreover, the interviewer bias is removed, presenting a consistent form of measurement (Malhotra & Birks, 2007). Besides, the convention of an online experiment further arises since it approximates a real life setting of the social medium Instagram. Exposure to Instagram images can occur through the usage of the smartphone app “Instagram” as well as through the accompanying website. Therefore, the display to the participants occurs on similar devices. This also entails that appropriate target groups are contacted, those being regular users of the internet (Malhotra & Birks, 2007).

Furthermore, an online survey is a form of self-report and therefore the most common and potentially best way to measure a person’s emotional experiences of expected happiness (Clore, 1994; Diener, 2000; Watson, 2000 as cited by Robinson & Clore, 2002).

#### *PARTICIPANTS*

Respondents were gathered by means of convenience sampling, a non-probability sampling technique that selects respondents based on convenience and accessibility (Malhotra & Birks, 2007), being less expensive and less time consuming. Nevertheless, self-selection arises as a potential source of selection bias (Malhotra & Birks, 2007). Random distribution to the three treatment groups served to counteract this and furthermore ensured an equivalent distribution to the three experimental conditions. Aiming for statistical significance and representativeness of the target population, the study aimed for 40 respondents per treatment group. Blocking on gender and age, exclusively female participants were contacted with age ranging from 18 to 35 years ( $M= 24.3$  years;  $SD= 3.37$ ; median age=24 years) matching Instagram user demographics.

#### *PROCEDURE*

Participants were approached for a study on “recreational Instagram use”. No incentive was offered due to the importance of anonymity in this study. After initial completion of demographic related questions participants were randomly allocated to one of the three experimental conditions (*non-dietary product informational*, *dietary product transformational*, *dietary product informational*) subject to equal Ns. Initially, they completed the measure of social media use and pre-exposure measure for satisfaction with life. Respondents were then exposed to a slideshow of images from the Women’s Best Instagram profile or the Lipton Instagram profile depending on the experimental condition they were randomly assigned to. In

each condition participants viewed 10 images for 15s each and rated to what extent they perceived the image as visually appealing (1= *strongly disagree*, 5= *strongly agree*). Attention to the images was ensured that way as well as credibility to the rationale of this study. Consecutive to image exposure, participants completed measures of willingness – to – pay, expected happiness, the PANAS scale, body perception, state self-esteem, social media usage, and dietary behavior. Moreover, participants had to indicate to what extent they believed in the effectiveness of dietary products. Finally, height and weight were measured for later BMI calculation, being the main reason for the anonymity requirement of this study. Completion of the survey lasted approximately 10min.

## MEASUREMENTS AND SCALING

The survey applied the non-comparative technique consisting of continuous and itemized rating scales i.e. Likert scales. For the latter the number of response options typically varied between five and seven following traditional guidelines (Malhotra & Birks, 2007) as well as established and implemented research the questions were extracted from. Odd numbers were selected in order to have an impartial option available through the middle scale position. Moreover, participants were forced to respond to all presented questions, an option offered by online surveys, ensuring a complete data set.

### VALIDITY

**Internal Validity** This study did suffer from the threat of internal validity, indicating whether the manipulation of the independent variables actually caused the effects on the dependent variables (Malhotra & Birks, 2007). This is due to the researcher's inability to fully control the environment in which the surveys were being completed. History, referring to any event outside of the research study altering the effect of participants' performance, accounts for the biggest driver of it. Randomization procedures as well as control variables were used in order to minimize this risk. The control variables addressed general satisfaction with life, the participants' affect towards an ideal body, own body satisfaction and the belief in the effectiveness of a dietary product being the major extraneous variables detected to potentially influence the effect on the dependent variables.

**External Validity** Despite the proximity to a real life setting, responses were still not extracted from a natural environment leaving it unclear if participants' answers reflected their true behaviour and decisions. Consequently, lower external validity can be expected. Demand characteristics, a major threat to external validity, were reduced through running a blind study.



The provided cover story lowered the possibility of participants guessing the purpose of the experiment. Furthermore, the appliance of a between-subject design made it difficult for participants to make inference upon the tested hypotheses. Ultimately, randomization decreased selection bias while simultaneously increasing external validity (Malhotra & Birks, 2007).

#### *DEPENDENT VARIABLES*

**Expected Happiness** To capture participants expected happiness the dependent variable was retrieved by asking participants if they think they will be happier after purchasing the product. Answers were based on a 5-point Likert- scale (1=*extremely unlikely*; 2= *somewhat unlikely*; 3= *neither likely nor unlikely*; 4= *somewhat likely*; 5= *extremely likely*). This practice is based on a study run by Xu & Schwarz (2006).

**Willingness – to – pay** Following the image exposure, participants were asked about their willingness to purchase the product, depending on the experimental condition either the Women’s Best Whey Protein (1000g) or the Lipton CLASSIC Iced UNSWEETENED TEA (24 cups) was displayed. Following a positive response (“*Yes*”) respondents had to indicate the maximum price they would be willing to purchase at. For the Control Group (*Lipton*) prices ranged from 5€ - 40€ in stages of five. For Treatment Group 1 and 2 prices ranged from 10€ - 80€ in stages of ten. Prices were set by taking the original price<sup>4</sup> as the midpoint and offering equal amounts of higher and lower price options. For the subsequent analysis the answer “*No*” to the willingness to purchase the product was treated as the willingness to purchase the product at a price of 0 €.

#### *INDEPENDENT VARIABLE*

**Experimental manipulation: Image type** Three sets of stimulus materials were constructed for the study, each containing 10 Instagram images. The advertised products chosen were the Lipton classic k-cup pack<sup>5</sup> and Women’s Best Whey Protein<sup>6</sup>. All images were sourced from the corresponding producers Instagram profiles.

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<sup>4</sup> Women’s Best Whey Protein, 39,90€ retrieved 15<sup>th</sup> of June 2016, (Women's Best 2016).

Lipton Classic Unsweetened Iced Tea K-Cups 24 CT, 18,90€ retrieved 15<sup>th</sup> of June 2016, (Lipton Tea,2016).

<sup>5</sup> Lipton classic k –cup pack is an unsweetened ice tea that can be freshly brewed over ice. The media price for this product is 23 €.

<sup>6</sup> Women’s Best Whey Protein is a dietary supplement. It is a high – quality protein with differing natural flavor options not containing GMO or Soy. It supports recovery after a workout. The online price is 40€.



For the transformational advertisement, images illustrating attractive, fit and slim women were selected, posing in fitness clothing and consuming the Women's Best Whey Protein shake. Next to the image a matching activity/motivation description was provided containing the pictured blogger's name (see Appendix A). Latter, emphasized the authenticity of the depicted female. The diet product image set contained images only portraying the actual Whey Protein product, in order to test the effect, the actual product has on women's happiness and willingness – to – pay. Lipton ice tea images were chosen as the control, as they are also a common form of content of an advertised product on Instagram, however unrelated to appearance or weight loss. Further, those image groups displayed a matching activity/motivation description equalling the one of the transformational advertisement. The difference lay solely in the complementing hashtag being either #WomensBest for the diet product or #lipton for the k-cup pack and the exclusion of a blogger's name being irrelevant due to the lacking depiction of one. Treatment groups were converted to dummy variables for the consecutive analysis.

In pursuance of the presented cover story the participants were asked to each image how visually appealing they perceived every image. They could answer to this question on a 5- point Likert scale (1= *Strongly disagree*, 2= *disagree*, 3= *undecided*, 4= *agree* and 5= *strongly agree*) (Tiggemann & Zaccardo, 2015).

#### *MODERATORS*

**State self-esteem** to test for the immediate effects associated with feeling about the self the State Self-Esteem Scale (SSES) of Heatheron and Polivy (1991) was chosen. The scale contains three subscales addressing different facets of self- esteem: performance, social, and appearance whereas the latter is of most interest here. The SSES consists of 20 items that tap momentary fluctuations in self-esteem and participants are asked to indicate how true each of the items is for them 'right now' based on a 5-point scale (1=*not at all*; 2= *slightly*; 3= *somewhat*; 4= *very much*; 5=*extremely*). Answers of all 20 items were added together for each participant creating a total *self-esteem* score.

**Dietary behavior** Participants were further asked to reveal how often they are dieting (*Never (1) Rarely (2) Sometimes (3) Often (4) Always (5)*).

#### *CONTROL VARIABLES*

To control for possible personal attitudinal and situational factors that might influences a participants expected happiness and willingness-to-pay several control variables were included.

**Satisfaction with life** The satisfaction with life scale (SWLS), a measure developed by E. Diener, R.A. Emmons, R.J. Larsen and S. Griffin (1985), was included in this research to control for participant's satisfaction with life. The original scale consists of 5 statements, with which the subjects are asked for an overall judgment of their life. For the purpose of this research, however, the fifth question was eliminated. Answers could be given along a 7- point Likert scale (7 = *Strongly agree*, 6 = *Agree*, 5 = *Slightly agree*, 4 = *Neither agree nor disagree*, 3 = *Slightly disagree*, 2 = *Disagree*, 1 = *Strongly disagree*). Answers to all four subscales were added together to compose a final total score of *satisfaction with life*.

**Affective Assessment of expected happiness through general beliefs** In order to examine consumer's general beliefs towards having a body aligned to the media presented ideal, participants were asked to predict how they would feel when possessing this ideal body. An image depicting two slim and fit girls was presented alongside so that imagery visualization was facilitated. Especially for the product-image treatment group and the control group facilitated imagery visualization was important due to the lack of prior exposure to an image displaying the ideal. Participants had to describe their feelings along the PANAS scale by D. Watson, L.A. Clark and A. Tellegen (1988). The scale consists of 10 items describing Positive affect (PA) and 10-items describing Negative Affect (NA) and answers were required according to a 7-Point Likert scale (1= *extremely unlikely*; 2= *moderately unlikely*; 3= *slightly unlikely*; 4= *neither likely not unlikely*; 5= *slightly likely*; 6= *moderately likely*; 7= *extremely likely*). PA and NA are shown to be largely uncorrelated, and therefore treated as two different scales (Watson, Clark, & Tellegen, 1988). Scores were therefore calculated for *Positive Affect* and *Negative Affect* separately by adding up the answers to the relating 10 items. Both scales were accounted for, however, the PA scale was of main relevance reflecting the extent to which a person feels active, alert and enthusiastic about possessing an ideal body (Watson et al., 1988). Reflecting positive "general beliefs" to this ideal state assessing the affective side of expected happiness.

**Cognitive Assessment of Expected Happiness** In order to measure participants current and ideal body Stunkard, Sørensen & Schulsinger (1983) measure of body perception has been used. The index consisted of two identical rows of female body silhouettes arranged from thinnest to largest (from left to right). Participants were asked to circle the number underneath the female silhouette that best resembles their (1) current body- size perception on the top row of silhouettes and (2) ideal body size among the bottom row of silhouettes. The possible answer range reached from one (*thinnest Silhouette*) to nine (*largest Silhouette*) (See Survey in

Appendix A). For the consecutive analysis a final *Silhouette Discrepancy* score was calculated by subtracting the *ideal* from the *actual* state. Higher scores therefore indicated a higher actual to ideal discrepancy, leading in case of relevance and perceived attainability to an increased level of expected happiness (ref. *Cognitive Assessment of Expected Happiness p.13*).

**Dietary Product Effectiveness** A relevant aspect to the effectiveness of the advertisement is the notion whether the message recipient generally believes in the capability of dietary products. Participants were, therefore, asked if they believe that dietary products help to loose weight. Answers could be given along a 5-pont Likert scale (1= *definitely not*, 2= *probably not*, 3= *might or might not*, 4= *probably yes*, 5= *definitely yes*)

#### DESCRIPTIVE

**Social networking use** Participants were asked general questions about their use of social networking sites. In more detail, the questions included whether or not they had an Instagram and/or Facebook account (Tiggemann & Zaccardo, 2015) and how frequently they visited those social media platforms (1= *several times a day*, 2= *daily*, 3 =*every two days*, 4= *weekly* or 5= *less often*). This index of the 5- point Likert scale was chosen due to higher answer accessibility for participants as compared to a minute evaluation.

## DATA ANALYSIS

### DATA COLLECTION

The data collection ran from the 26<sup>th</sup> of June to the 5<sup>th</sup> of July 2016. One hundred and thirty-five respondents started the survey, one hundred and seventeen (N= 117) fully completed the questionnaire and were included in the data analysis.

**Table 2. Response Rate**

	<b>Participation</b>	<b>Survey Completion</b>	<b>After casewise deletion</b>
<b>Online Survey</b>	135	117 ( 87%)	117

## DATA SCREENING

Exporting the complete data set from the online survey platform *Qualtrics* to SPSS, initially the data was inspected for completeness, missing values, inconsistencies, extreme values and errors. Out of 135 responses 18 responses were discarded from the analysis due to missing responses to relevant questions of the survey. Considering the amount of missing data per respondent assigning, imputing or substituting values for the missing data was not an option. The data was therefore cleaned using case wise deletion. Frequency statistics and descriptive analysis revealed extreme values for the variables height and weight. Applying pairwise case exclusion four responses were discarded from the calculation of the Body Mass Index. Apart from this the dataset did not contain any missing values or extreme values that were not located within the acceptable range.

## STATISTICAL METHODS

Recalling the aforementioned, this research employed a between-subject design with the independent variable of interest, *advertisement*, consisting of three different levels translating into three separate experimental treatment groups. With reference to the analysis, the experimental treatment groups were split into dummy variables: *dietary product transformational*, *dietary product informational* and *non-dietary product informational*.

Given the conceptual framework of this research entailed two dependent variables, two analyses were run accordingly one for *expected happiness* and one for *willingness-to-pay*.

Past research exhibits a critical difference between psychologists and economists in the interpretation of happiness scores, namely in the assumption of cardinality or ordinality respectively. Ferrer-i-Carbonell and Frijters, however, state that the assumption of cardinality or ordinality is of relative unimportance when answering general satisfaction questions, what does matter is how one adjusts for time-invariant unobserved factors that are related to observables (Ferrer-i-Carbonell & Frijters, 2004). Therefore, the dependent variable *expected happiness* could be treated as cardinal allowing for a multiple regression as a measure of analysis. The same measure was used for the assessment of *willingness-to-pay*.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon.$$

Nevertheless, as a robustness check also an ordinal logistic regression was performed, treating *Expected Happiness* as well as *willingness-to-pay* as ordinal.

$$P(y = j | x_1, x_2) = \frac{\exp(\tau_j - \beta_1 x_1 - \beta_2 x_2)}{1 + \exp(\tau_j - \beta_1 x_1 - \beta_2 x_2)} - \frac{\exp(\tau_{j-1} - \beta_1 x_1 - \beta_2 x_2)}{1 + \exp(\tau_{j-1} - \beta_1 x_1 - \beta_2 x_2)}$$

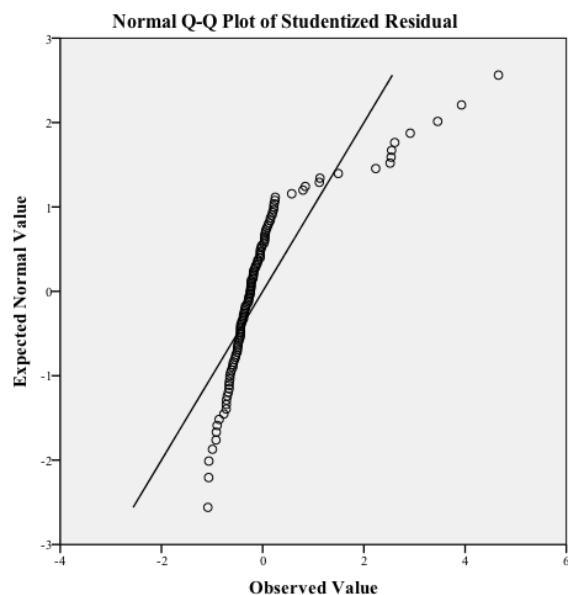
The results prove Ferrer-i-Carbonell & Frijters assumption: the signs of the coefficients are the same, whether a coefficient is significant is the same and the trade-offs between variables are roughly the same (Ferrer-i-Carbonell & Frijters, 2004). The findings differ only to a very small degree between OLS and ordered logit (See **Table 3 & 6**).

Recalling, only the inclusion of a fixed unobserved factor influences the levels of the other variables, which has been tested at hand of the inclusion of personality traits, discussed in the following section.

Prior to the main OLS analysis all significant assumptions were tested in order to ensure the applicability of this statistical method. The assumption of linearity as assessed by partial regression plots and a plot of studentized residuals against the predicted values. Homoscedasticity as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. The absence of multicollinearity, as assessed by tolerance values greater than 0.1. Further, no studentized deleted residuals greater than  $\pm 3$  standard deviations, no leverage values greater than 0.2, and values for Cook's distance above 1 and finally the assumption of normality, as assessed by Q-Q Plot (Berry, W.D., 1993). Having established this the effect of the independent variable and several control variables could be tested on the dependent variable.

Running the multiple regression on the dependent variable *willingness-to-pay* revealed a violation of the assumption of normality, as assessed by Q-Q Plot (See **Figure 3**). Therefore, the dependent variable was log transformed and the multiple regression rerun.

Figure 3

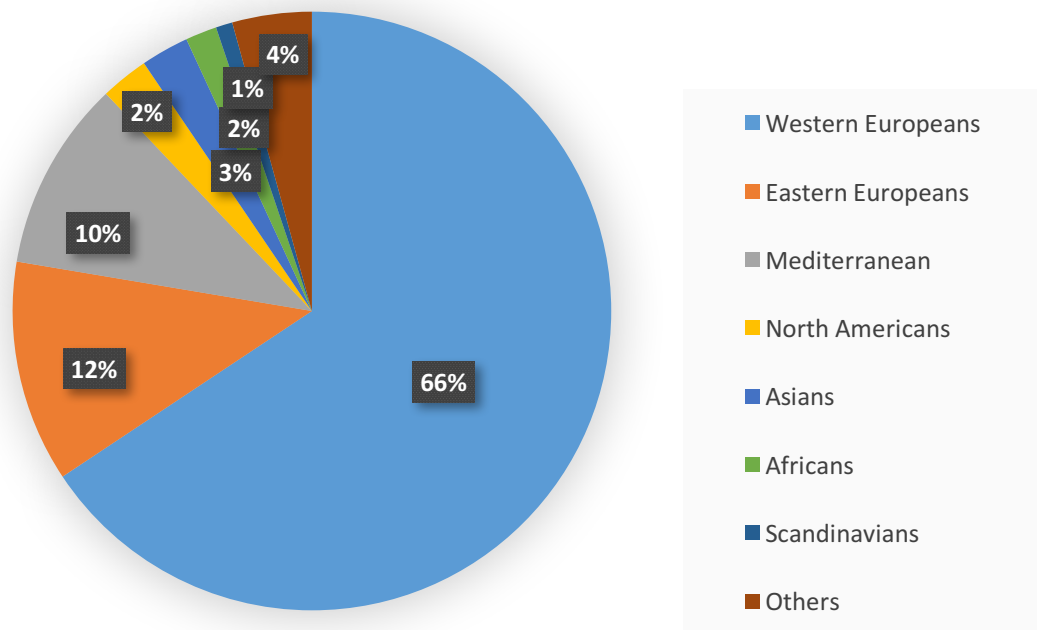


## RESULTS

### CHARACTERISTICS OF THE SAMPLE

Recalling, the women in the sample had a mean age of 24.3 years ( $SD= 3.37$ ). The main ethnic groups represented were western Europeans (65.8%); eastern Europeans (12%) and Mediterranean (10.3%). North Americans and Asians each made up 2.6%, Africans 1.7%, Scandinavians 0.9% and Others 4.3% (See **Figure 2**). The strongest representation in terms of country of origin were the Netherlands ( $N=50$ ), Germany ( $N= 36$ ), Poland ( $N=8$ ) and Turkey ( $N=5$ ). The mean Body Mass Index (BMI) was 21.94 ( $SD= 0.285$ ), falling within a normal weight range (World Health Organization, 2006). Almost all participants indicated having an Instagram or Facebook account (95.7%) of which 65% reported using it *several times a day* and 18.8% *daily*. Furthermore, 56.4% were single; 39.3% in a relationship and 4.3% married.

**Figure 4 – Ethnical Representation**



## MULTIPLE REGRESSION

### *EFFECT OF ADVERTISEMENT TYPE ON EXPECTED HAPPINESS*

The results of the multiple regression analysis on the dependent variable expected happiness are reported in **Table 3**. Model 1 represents the unconstrained controls-only model. Model 2 introduces the independent variable *Treatment Group* as a dummy variable split into *dietary product informational* image type and *dietary product transformational* leaving out the control i.e. *non-dietary product informational* as the reference category. Model 3 presents the control variables and the dummy variables of the explanatory variable, however, leaving out the *dietary product informational* as the reference category. Both models (2 & 3) represent the full regression model. Model 4 incorporates the interaction effect to test Hypothesis 4: Self-esteem will moderate the relationship between exposure to a thin – ideal advertisement and expected happiness. Model 5 consolidates the interaction effect of *dietary behaviour* in order to test Hypothesis 5: Dietary behaviour moderates the relationship between exposure to a thin – ideal advertisement and expected happiness.

**TABLE 3**  
OLS Estimates of the Effect of Advertisement on Expected Happiness<sup>a</sup>  
Dependent Variable: Expected Happiness

Variables	Regression Models				
	Model 1***	Model 2***	Model 3***	Model 4***	Model 5***
<u>Constant</u>	-0.69	-.538(.59)	-1.267*(.62)	-2.588(1.44)	-.395 (.669)
<u>Independent</u>					
Dietary Product Transformational Dummy		-.481* (.21)	.248 (.198)	1.584(1.58)	-.963 † (.512)
Dietary Product Informational Dummy		-.729**(.22)		.747(1.589)	-.761(.524)
Non-Dietary Product Informational Dummy			.729 **(.022)		
<u>Moderating Self Esteem</u>					
Self Esteem Score				.035(.023)	
Self Esteem x Dietary Product Transformational Dummy				-.039(.029)	
Self Esteem x Dietary Product Informational Dummy				-.027(.03)	
<u>Moderating Dietary Behavior</u>					
Dietary Behavior					.052(.082)
Dietary Behav.x Dietary Product Transformational Dummy					.21(.206)
Dietary Behav. x Dietary Product Informational Dummy					.03(.201)
<u>Control</u>					
PANAS positive	0.03***(.01)	.022**(.01)	.022**(.01)	.022**(.008)	.021**(.008)
Diet Product Effectiveness	0.23**(.08)	.316***(.08)	.316***(.08)	.325***(.083)	.233(.148)
Satisfaction with Life	0.04*(.02)	.057**(.02)	.057**(.02)	.064**(.021)	.057**(.02)
Silhouette Discrepancy	0.08(.08)	.129†(.08)	.129†(.08)	.145†(.077)	.095(.087)
Adj. R <sup>2</sup>	0.182	0.247	0.247	0.243	0.236

<sup>a</sup>n = 117.

† p < .10



In order to answer **hypothesis 1**: *A transformational advertisement i.e. a thin-ideal will increase the message recipients level of expected happiness as compared to an informational advertisement* a multiple regression was carried out to predict Expected Happiness from *dietary product informational* and *dietary product transformational* leaving out the control i.e. *non-dietary product informational* as the reference category. The model weakly statistically significantly predicted Expected Happiness at a 10% significance level,  $F(2,114)= 2.358$ ,  $p=0.099$ .

A stepwise, backward and forward multiple regression was run in order to determine a model improving the prediction of Expected Happiness over and above the Treatment Group alone. Incorporating the findings from all three methods the predictors *PANAS positive*, *Diet Product Effectiveness*, *Satisfaction With Life* and *Silhouette Discrepancy* were added to the model. The predictors *PANAS positive* and *Silhouette Discrepancy* were tested for potential mediation effects using the Sobel Mediator Test as well as for moderation. In both cases neither were detected as a mediator or moderator (See **Appendix B** – Sobel mediator test and moderation analysis). As of such the complete multiple regression model was run including the predictors *PANAS positive*, *Diet Product Effectiveness*, *Satisfaction With Life* and *Silhouette Discrepancy* as well as the initial major predictor of interest namely the *Treatment Groups*. In order to determine the effect, the advertisement of a *dietary product* with an *informational* or *transformational appeal* has on the recipients expected happiness, keeping all else constant, the *non-dietary product* was chosen as the reference category. The model statistically significantly predicted Expected Happiness,  $F(6,110)=7.327$   $p < .0005$ ,  $\text{adj. } R^2 = 0.247$ . All six variables added statistically significantly to the prediction,  $p < .05$  (excl. *Silhouette Discrepancy*  $p < .1$ ) (See Model 2 in **Table 3**).

In order to determine the effect, the advertisement of the *dietary product transformational* has compared to the *dietary-product informational*, the same multiple regression was run as before, leaving out the *dietary-product informational* as a reference category. The model statistically significantly predicted Expected Happiness,  $F(6,110)=7.327$   $p < .0005$ ,  $\text{adj. } R^2 = .247$ . All six variables, except the *dietary-product with transformational appeal*, added statistically significantly to the prediction,  $p < .05$  (excl. *Silhouette Discrepancy*  $p < .1$ ) (See Model 3 in **Table 3**).

While controlling for the believe in *diet product effectiveness*, *satisfaction with life*, *silhouette discrepancy* and *positive affect* towards a slim body it can be seen that individuals, who were exposed to an advertisement with a transformational appeal, scored significantly lower on the expected happiness scale ( $\beta = -0.481$ ,  $p = 0.024$ ) as compared to an advertisement

with a non-dietary product informational. This is contrary to the prediction made. Furthermore, no significant difference in the level of expected happiness could be observed between individuals who were exposed to a dietary product with transformational appeal as compared to the once exposed to the dietary product in an informational advertisement ( $\beta = 0.248$ ,  $p = 0.212$ ). Hypothesis 1 can therefore not be supported. Interestingly, however, is the observation that individuals exposed to a non-dietary product scored 0.729 points higher on the expected happiness scale as compared to those being exposed to the dietary product informational with a significance level of  $p = 0.01$ . This could either express that “dieting” carries a negative connotation lowering the expected happiness of the recipient or lipton ice tea has a strong positive effect on it, which might be due to its sugary and highly caloric characteristic.

#### *EFFECT OF ADVERTISEMENT TYPE ON WILLINGNESS-TO-PAY*

**Hypothesis 2:** *A transformational advertisement i.e. a thin-ideal will increase the message recipient’s willingness-to-pay for the advertised product as compared to an informational advertisement.*

Pursuing to answer **hypothesis 2**, as above a multiple regression was run on the log transformed dependent variable Willingness-to-pay, leaving out the control i.e. *non-dietary product informational* as the reference category. The multiple regression model statistically significantly predicted *Willingness-to-pay*  $F(6,15) = 20.335$ ,  $p < 0.0005$ , adj.  $R^2 = 0.847$ . From the other variables included in the regression only the experimental treatment i.e. the type of advertisement statistically significantly predicted the dependent variable,  $p < 0.05$ . Regression coefficients and standard errors can be found in **Table 4**. Model 1 represents the unconstrained controls-only model. Model 2 introduces the independent variable *Treatment Group* leaving out the control i.e. *non-dietary product informational* as the reference category. Model 3 presents the control variables and the dummy variables of the explanatory variable, however, leaving out the *dietary product informational* as the reference category. Both models (2 & 3) represent the full regression model. Model 4 incorporates the interaction effect of self-esteem to test Hypothesis 4. Model 5 consolidates the interaction effect of *dietary behaviour* in order to test Hypothesis 5.

While controlling for the believe in *diet product effectiveness*, *satisfaction with life*, *silhouette discrepancy* and *positive affect* towards a slim body it can be seen that individuals, who were exposed to an advertisement with a transformational appeal, would be willing to pay 1.89€ more ( $\exp(\beta=0.639) = 1.89$   $p=0.001$ ) as compared to those having seen the advertisement

with a non-dietary product informational. This is in line with the prediction made. Furthermore, individuals exposed to an advertisement of a dietary product with transformational appeal are willing to pay 0.83€ more ( $\exp(\beta = -0.185) = 0.83$   $p=0.1$ ) as compared to those exposed to the dietary product in an informational advertisement. Hypothesis 2 can therefore be supported.

**TABLE 4**  
OLS Estimates of the Effect of Advertisement on Willingness-to-pay<sup>a</sup>  
Dependent Variable: Log transformed Willingness-to-pay

Variables	Regression Models				
	Model 1	Model 2***	Model 3***	Model 4***	Model 5***
<u>Constant</u>	0.807	1.013*** (.239)	1.837*** (.274)	-.171 (.488)	.89** (.258)
<u>Independent</u>					
Dietary Product Transformational Dummy		.639*** (.07)	-.185 † (0.103)	1.324* (.44)	.965*** (.23)
Dietary Product Informational Dummy		.823*** (.103)		1.289 (.8)	.878* (.315)
Non-Dietary Product Informational Dummy			-.823*** (0.1)		
<u>Moderating_Self Esteem</u>					
Self Esteem Score				.017* (.006)	
Self Esteem x Dietary Product Transformational Dummy				-.014 (.008)	
Self Esteem x Dietary Product Informational Dummy				-.009 (.015)	
<u>Moderating Dietary Behavior</u>					
Dietary Behavior					.01 (.039)
Dietary Behav.x Dietary Product Transformational Dummy					-.113 (.078)
Dietary Behav. x Dietary Product Informational Dummy					-.028 (.089)
<u>Control</u>					
PANAS positive	0.000 (0.01)	.001 (.004)	.001 (.004)	.000 (.003)	.003 (.004)
Diet Product Effectiveness	0.112 (0.081)	.02 (.03)	.02 (.03)	-.002 (.03)	.055 (.046)
Satisfaction with Life	0.000 (0.021)	-.012 (.008)	-.012 (.008)	.005 (.01)	-.015 (.009)
Silhouette Discrepancy	0.02 (0.078)	-.043 (.03)	-.043 (.03)	.001 (.031)	-.052 (.035)
Adj. R <sup>2</sup>	-.075	.847	.847	0.882	0.839

<sup>a</sup>n = 117.

† p < .10

\* p < .05

\*\* p < .01

#### RELATION OF EXPECTED HAPPINESS AND WILLINGNESS-TO-PAY

**Hypothesis 3:** *Expected Happiness and Willingness – to – pay for the advertised product are expected to be correlated.*

A Pearson's correlation was run to assess the relationship between *Expected Happiness* and *Willingness-to-pay* for the product shown in the advertisement. Preliminary analysis showed the relationship to be approximately linear and there were no outliers. There was a moderate positive correlation between *Expected Happiness* and *Willingness-to-pay*,  $r(117) = .376$ ,  $p < .0005$ , with expected happiness explaining 14% of the variation in willingness-to-pay (See **Appendix C – Pearson Correlation**). This resembles in full support for Hypothesis 3.

#### MODERATION BY SELF-ESTEEM

Two hierarchical multiple regression were run to test **Hypothesis 4:** *Self-esteem moderates the relationship between exposure to a thin – ideal advertisement and expected happiness as well as willingness-to-pay.* The statistical significance of the interaction term between *self-esteem* and *advertisement* was assessed on the dependent variable *Expected Happiness* as well as on the log transformed dependent variable *willingness-to-pay*. Data are mean  $\pm$  standard error. There was not a statistically significant moderator effect of *self-esteem*, as evidenced by the insignificance of the interaction term for either regression (See Model 4 in **Table 3 & 4**) As such, the interaction term was dropped from the model. Therefore, one cannot claim full support of Hypothesis 4.

#### MODERATION BY DIETARY BEHAVIOUR

**Hypothesis 5:** *Dietary restraint moderates the relationship between exposure to a thin – ideal advertisement and expected happiness, such that women being restrained eaters will more likely be affected by the thin – ideal advertisement and, in turn, have an increased level of expected happiness as well as willingness-to-pay.*

Another hierarchical multiple regression was run to assess the statistical significance of the interaction term between *dietary behaviour* and *advertisement* on the dependent variable *Expected Happiness* as well as the dependent variable *Willingness-to-pay*. Data are mean  $\pm$  standard error. There was not a statistically significant moderator effect of *dietary behaviour*, as evidenced by the insignificance of the interaction term (See Model 5 in **Table 3&4**). As

such, the interaction term was dropped from the model. Therefore, one cannot claim full support of Hypothesis 5.

## ADDITIONAL ANALYSIS AND ROBUSTNESS CHECK

### *ORDINAL LOGISTIC REGRESSION*

**Dependent Variable – Willingness-to-pay** A cumulative odds ordinal logistic regression with proportional odds was run to determine the effect of PANAS positive, Diet Product Effectiveness, Satisfaction With Life, Silhouette Discrepancy of the participants and the Treatment Groups they were exposed to on their willingness – to – pay for the displayed product. The deviance goodness-of-fit test indicated that the model was a good fit to the observed data,  $\chi^2(574) = 157.579$ ,  $p = 1$ , but most cells were sparse with zero frequencies in 83.3% of cells. However, the final model statistically significantly predicted the dependent variable over and above the intercept-only model,  $\chi^2(6) = 15.547$ ,  $p = 0.016$ . The odds of participants, having been exposed to the dietary product informational advertisement, being willing to pay a higher price were 0.167 ( $\exp(\beta = -1.792)$ ), 95% CI [-3.299, -0.285] times that of those having been exposed to the non-dietary product informational advertisement, a statistically significant effect, Wald  $\chi^2(1) = 5.4298$ ,  $p = .02$  (See Model 1 in **Table 5**).

The odds of participants, having been exposed to the advertisement with transformational appeal, paying a higher price was similar to that of those exposed to the dietary product informational (odds ratio of 3.18 ( $\exp(\beta = 1.156)$ ), 95% CI [-0.278, 2.591]), Wald  $\chi^2(1) = 2.496$ ,  $p = 0.114$ ) (See Model 2 in **Table 5**). Therefore, the robustness check only partially supports the results of the main analysis.

From the control variables, only the belief in the effectiveness of a dietary product revealed a significant result. A higher score was associated with an increase in the odds of being willing to pay a higher price for it, with an odds ratio of 1.726 ( $\exp(\beta = .546)$ ), 95% CI [0.056, 1.035],  $\chi^2(1) = 4.78$ ,  $p = 0.029$ .)

**TABLE 5**  
Ordinal Logistic Regression on the Willingness-to-pay <sup>a</sup>  
Dependent Variable: Willingness-to-pay

<b>Variables</b>	<b>Model 1*</b>	<b>Model 2*</b>	<b>Model 3*</b>	<b>Model 4*</b>
<u>Independent</u>				
Dietary Product Transformational Dummy	-0.636 (0.612)	1.156 (0.732)	-0.856 (5.178)	2.221 (2.145)
Dietary Product Informational Dummy	-1.792*(.769)	-	-	-
Non-Dietary Product Informational Dummy	-	1.792*(0.77)	3.328 (5.114)	3.056 (2.12)
<u>Moderating_Self_Esteem</u>				
Self Esteem Score			.006 (.061)	
Self Esteem x Dietary Product Transformational Dummy			.063 (.087)	
Self Esteem x Dietary Product Informational Dummy			.029 (.096)	
<u>Moderating Dietary Behavior</u>				
Dietary Behavior				.322 (.411)
Dietary Behav.x Dietary Product Transformational Dummy				.101 (.556)
Dietary Behav. x Dietary Product Informational Dummy				.368 (.624)
<u>Control</u>				
PANAS positive	.041(.029)	.041(.029)	.034(.029)	.044(.03)
Diet Product Effectiveness	.546*(.25)	.546*(.25)	.589*(.257)	.548*(.255)
Satisfaction with Life	.007(.061)	.007(.061)	.015 (.064)	.002(.061)
Silhouette Discrepancy	.203(.257)	.203(.429)	.187(.267)	.011(.283)

<sup>a</sup>n = 117.

† p < .10

**Dependent Variable – Expected Happiness** As a robustness check for the multiple regression a cumulative odds ordinal logistic regression with proportional odds was run to determine the effect *PANAS positive*, *Diet Product Effectiveness*, *Satisfaction With Life*, *Silhouette Discrepancy* and *Treatment Groups*, on the expected level of happiness after having purchased the advertised product. There were proportional odds, as assessed by a full likelihood ratio test comparing the fitted model to a model with varying location parameters,  $\chi^2(18) = 14.713, p = .6825$ . The final model statistically significantly predicted the dependent variable over and above the intercept-only model,  $\chi^2(6) = 41.398, p < .001$ .

The ordinal logistic regression that was run as a robustness check did support those results. The odds of message recipients, having seen the *advertisement of a dietary product with transformational appeal*, expecting to be happier after purchasing the product was 0.337 (exp( $\beta = -1.087$ )), 95% CI [-1.526, 0.098] times that of message recipients seeing the *advertisement with a non-dietary product*, a weakly statistically significant effect, Wald  $\chi^2(1) = 2.972, p = .085$ . The odds of message recipients, having seen the *advertisement dietary product informational*, expecting to be happier after purchasing the product was 0.19 (exp( $\beta = -1.65$ )), 95% CI [-1.696, -0.062] times that of the *advertisement with a non-dietary product*, a statistically significant effect, Wald  $\chi^2(1) = 4.442, p = .035$  (See Model 1 in **Table 6**)

In continuation, another ordinal logistic regression was run this time leaving out *dietary-product informational* as the reference category. The odds of message recipients, having seen the *advertisement of a dietary product transformational*, expecting to be happier after purchasing the product was similar to that of those having seen the *dietary-product informational* (odds ratio of 1.75, 95% CI [-0.291, 1.419], Wald  $\chi^2(1) = 1.669, p = .196$ ). The odds of the message recipients, having seen the *non-dietary product informational* advertisement, expecting to be happier after purchasing the product was 5.2 (exp( $\beta = 1.65$ )), 95% CI [-2.617, -0.686] times that of message recipients having seen the *dietary product informational*, a statistically significant effect, Wald  $\chi^2(1) = 11.234, p = .001$  (See Model 2 in **Table 6**).

A higher score on the PANAS Positive scale was associated with an increase in the odds of expecting to be happier after purchasing the advertised product, with an odds ratio of 1.06 (exp( $\beta = 0.059$ )) 95% CI [0.023, 0.095],  $\chi^2(1) = 10.211, p = .001$ .



A higher score on the Satisfaction with Life scale was associated with an increase in the odds of expecting to be happier after having purchased the advertised product, with an odds ratio of 1.125 ( $\exp(\beta= 0.118)$ , 95% CI [0.028, 0.209],  $\chi^2(1) = 6.605$ ,  $p = .01$ ).

A higher score on trust in the effectiveness of a dietary product was associated with an increase in the odds of expecting to be happier after having purchased the advertised product, with an odds ratio of 2.046 ( $\exp(\beta= .716)$ , 95% CI [0.351, 1.081],  $\chi^2(1) = 14.770$ ,  $p < .001$ ).

A higher score on Silhouette Discrepancy was associated with an increase in the odds of expecting to be happier after having purchased the advertised product, with an odds ratio of 1.38 ( $\exp(\beta= 0.323)$ , 95% CI [-0.11, 0.657],  $\chi^2(1) = 3.593$ ,  $p = .058$  (See Model 1& 2 in **Table 6**).

#### *MODERATION SELF-ESTEEM*

**Hypothesis 4:** *Self-esteem will moderate the relationship between exposure to a thin – ideal advertisement and willingness-to-pay*

There was not a statistically significant moderator effect of *self-esteem*, as evidenced by the insignificance of the interaction term (See Model 3 in **Table 5&6**). Therefore, one cannot claim full support of Hypothesis 4.

#### *MODERATION DIETARY BEHAVIOR*

**Hypothesis 5:** *Dietary behaviour moderates the relationship between exposure to a thin – ideal advertisement and expected happiness, such that women being restrained eaters will more likely be affected by the thin – ideal advertisement and, in turn, have an increased willingness-to-pay.*

Also, the moderator effect of *dietary behavior* was not statistically significant, due to the insignificance of the interaction term (See Model 4 in **Table 5&6**). Therefore, one cannot claim full support of Hypothesis 5.

**TABLE 6**

Ordinal Logistic Regression on Expected Happiness<sup>a</sup>

Dependent Variable: Expected Happiness

<b>Variables</b>	<b>Model 1*</b>	<b>Model 2*</b>	<b>Model 3*</b>	<b>Model 4*</b>
<u>Independent</u>				
Dietary Product Transformational Dummy	-1.087* (.466)	.564(.436)	2.678 (3.52)	-.822 (1.06)
Dietary Product Informational Dummy	-1.65***(.493)	-	.645(3.45)	-1.796 †
Non-Dietary Product Informational Dummy	-	1.651***(.493)		(1.08)
<u>Moderating Self Esteem</u>				
Self Esteem Score			.068(.049)	
Self Esteem x Dietary Product Transformational Dummy			-.072(.065)	
Self Esteem x Dietary Product Informational Dummy			-.043 (.065)	
<u>Moderating Dietary Behavior</u>				
Dietary Behavior				.095 (.33)
Dietary Behav. x Dietary Product Transformational Dummy				-.101 (.415)
Dietary Behav. x Dietary Product Informational Dummy				.056 (.397)
<u>Control</u>				
PANAS positive	.059***(.018)	.059***(.018)	.057**(.019)	.06***(.019)
Diet Product Effectiveness	.716***(.186)	.716***(.186)	.767***(.19)	.71***(.187)
Satisfaction with Life	.118**(.046)	.118**(.046)	.138** (.048)	.117*(.046)
Silhouette Discrepancy	.323† (.257)	.323† (.257)	.337 † (.176)	.278(.193)

<sup>a</sup><sub>n</sub> = 117.

† p < .10

\* p < .05

\*\* p < .01

\*\*\* p < .001

**Table 7** *Summary of results*

	<b>Hypotheses</b>	<b>Supported/ Not supported</b>
<b>H1</b>	A transformational advertisement i.e. a thin-ideal will increase the recipient's level of expected happiness as compared to an informational advertisement.	Not supported
<b>H2</b>	A transformational advertisement i.e. a thin-ideal will increase the recipient's willingness-to-pay for the advertised product as compared to an informational advertisement.	Supported
<b>H3</b>	Expected Happiness and Willingness – to – pay for the advertised product are expected to be correlated.	Supported
<b>H4</b>	Self-esteem moderates the relationship between exposure to a thin – ideal advertisement and expected happiness as well as willingness-to-pay	Not supported
<b>H5</b>	Dietary restraint moderates the relationship between exposure to a thin – ideal advertisement and expected happiness, such that women who are restrained eaters will more likely be affected by the thin – ideal advertisement and, in turn, have an increased level of expected happiness as well as willingness-to-pay.	Not supported

## DISCUSSION

The present study aimed to determine the relationship between advertising and its effect on the message recipients level of expected happiness and his/ her willingness – to –pay for the advertised product while taking into account personal heterogeneity. More specifically this study focused on the different impact a transformational or informational advertising framework communicated through the new media platform Instagram has on women. Concentrating on the exemplification of thin – body media images as a form of transformational advertising, a diet product has been chosen as the advertised product. It was hypothesized that transformational as compared to informational advertising would have a greater positive effect

on both expected happiness as well as willingness-to-pay for the advertised product and that self-esteem and dietary behaviour would moderate this effect. Furthermore, it was expected that expected happiness and willingness-to-pay would be positively correlated.

The results indicate that despite transformational advertising being more emotionally engaging and fostering an imagery process through the quest for generalized emotions (Puto & Wells, 1984), exposure to the transformational advertisement did not result in an increase of expected happiness as compared to its informational counterpart. At variance, exposure to the transformational advertisement resulted in a lower score on the expected happiness scale as compared to the informational advertisement of the non-dietary product. Furthermore, no significantly different effect on expected happiness could be determined between the informational and transformational advertisement of the same dietary product. The finding that exposure to a diet related product led to lower scores of expected happiness relative to images related to a non-dietary product is consistent with a large body of previous research demonstrating the negative effects of viewing ideal images on women's body image (Joshi, Herman & Polivy, 2004). Although advertising on the social media platform Instagram tends to feature women who are "real" demonstrating attainability of the illustrated lifestyle, they still appear to be relatively perfect due to beneficial poses, good lightening and a filter applied to the images (Haworth, 2016). Dismantling expected happiness to its cognitive and affective sub-components, one can assume that the artificial and exaggerated nature, not only increase the gap between actual and ideal body image but further erases the possibility of achieving this ideal having a deconstructing and rejecting effect (Hirschman & Thompson, 1997) lowering the level of expected happiness. Moreover, the artificial nature of the image may bring distress at the moment of exposure (*instant utility*) leading to disruption of the search for general beliefs matching the characteristics of the advertisement (*remembered utility*). At this point it is worthwhile mentioning the difficulty to disentangle the general beliefs touched upon by the transformational advertisement. Recalling, transformational advertising serves as a memory search function for experiences with a similar quality of emotion, nevertheless, the search "criteria" applied is difficult to assess. Two main criteria were extrapolated, namely the positive affect towards an ideal body and the belief in a diet products effectiveness. The results indicate a significant positive effect of both on the message recipients expected happiness. It turns out that specifically the belief in the effectiveness of a diet product yields a great impact on expected happiness. Scepticism may bring unfavourable "general beliefs" as well as doubt in the attainability of the presented ideal having a negative impact on both the cognitive as well as the affective assessment of expected happiness.

Another interesting finding is that a larger silhouette discrepancy of the participant, namely a larger gap between the actual and ideal body, has a greater effect on her expected happiness as compared to a woman being close to her ideal body. Perhaps, the reason hereof is that the person perceives the advertisement as more relevant to herself discovering a greater need for the product. This applies for both the diet product, assuming that the individual has the goal to lose weight, as well as the Lipton Tea, inferring the participant likes to indulge in high caloric and sugary food. Nevertheless, this supports a body of research stating advertising as most effective when relevant to the message recipient (Lockwood & Kunda, 1997).

A further expectation was that people, having been exposed to a transformational advertisement, would be willing to pay more for the product contrary to those having seen the informational image type. This hypothesis was based on a study run by Kalra & Goodstein (1998). The multiple regression run on the log transformed dependent variable willingness-to-pay gave rise to the conclusion that the advertisement type presented did affect the perceived value of the advertised product. This would support Rory Sutherlands (2009) suggestion of advertising adding intangible value to the product itself by highlighting positive aspects of subjective experiences the consumer might have not appreciated. Nevertheless, this value may not come purely from the expectation of future happiness. This is further supported by the moderate correlation of the two variables of interest.

The final interesting finding of this study concerns the moderating effect of both the participants level of self-esteem as well as their dietary behaviour. Opposing the assumption, that banks on a study run by Joshi, Herman, & Polivy (2004) stating that restrained eaters experience self-enhancement from viewing thinness-promoting images, no moderating effect could be established in this study.

## LIMITATIONS

Alongside various insights this research yields, also several issues have to be accounted for. The first and main drawback is the selection of pictures depicting a purely informational versus transformational form of advertising. The set of images chosen for the transformational form of advertising does fulfil the requirements of Puto's and Wells' (1984) definition of a transformational advertisement<sup>7</sup>. The set depicted for the informational form of advertising,

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<sup>7</sup> Puto and Wells (1984) give the following definition of informational advertising:

- provides consumers with relevant and factual brand data in clear and logical manner
- Gives information which is immediate and obviously important to the potential consumer

however, does not clearly delineate from the transformational set. It is clearly less emotionally focused than the transformational set, nevertheless, it does not provide the consumer with sufficient factual and relevant data about the product and the brand. This led to limited results showing a difference between the two groups of interest.

A second drawback was the setting in which the pictures were presented. Although, the images were shown on an ecologically valid device, i.e. either a computer or a smartphone, they were still embedded in a survey and therefore grasped in a different way than during normal Instagram usage. In addition, the pictures were staged one by one without the option of viewing the complete profile of the product or the blogger displayed. A profile display might have increased the “transformational” effect of the advertisement by better communicating the possible “ideal” lifestyle. Furthermore, the opportunity of visiting the Instagram profiles of the girls displayed would have made the ideal seem more attainable and trustworthy. Recalling, this trust increases the transmitters influence on the recipient, which differentiates social from commercial media.

Third, the possibility to interact with the images, namely like or comment on them, was not given. Interactivity as such, is the main characteristic distinguishing social media technology from conventional mass media (Perloff, 2014).

Fourth, in recent years a shift towards self- acceptance and acknowledgment of diversity in female body shapes has taken place. The starring example for this is Dove with its “Real Beauty Campaign” sharing the message of self-love and acceptance through positive and affirming attitudes toward ones own and other’s bodies. Hence, a diet product might have evoked rather negative than positive connotations. Moreover, a diet product addresses the self directly by activating thoughts about the self. The control product (Lipton) again might have been to neutral and irrelevant to the self in order to serve as a comparison.

Fifth, concerns the measurement of the moderator self-esteem. The measure used tapped into momentary fluctuations in self-esteem instead of assessing the actual time-invariant personality trait. A pre and post exposure evaluation would have given more confound insights but given the short time frame available (10min) might have led to boredom or suspicion concerning the survey.

- 
- Data which the consumer accepts as verifiable

And transformational advertising:

- Associates the experience of using a brand with a set of psychological characteristics
- Focus on the user of a brand and their life style, aims on developing a brand image

## SUGGESTIONS FOR FUTURE RESEARCH

From the drawbacks of this research mentioned in the preceding paragraph several recommendations for future research arise. For the most part, it would be important to distinguish informational versus transformational advertising in a more concise manner. Instagram is a medium focused on the pleasurable depiction of things as well as the lifestyle of users. Hence, for a sharp distinction of the effect of transformational versus informational advertising a different medium should be selected for the latter, as for example advertisements in magazines including a detailed description of the product at hand. Nevertheless, for appropriate analysis of the new medium comparability is key, therefore another option would be the more elaborate usage of captions, implementing a detailed product description under each “informational” picture. Appending a further suggestion would be to assess Instagram in its actual form, allowing for complete profile viewing as well as interaction via likes and comments. This would further allow for a better evaluation of Instagram as a new medium of advertisement.

Along those lines it would be interesting to compare conventional ways of transformational advertising to Instagram as a new platform. From a managerial perspective this would give more profound insights on which medium would be the more profitable one to use. Bearing upon this a consecutive step would be the assessment of the advertising effectiveness of low versus high involvement products on Instagram. This been said given the research by Rossiter, Percy, & Donovan (1991) who distinguish between high and low involvement and positive and negative motivations when selecting an advertising format.

Finally, this research method only takes into account a one-time exposure time in measuring the effect of transformational advertising. More insights could be acquired by means of panel data; distributing the survey among the same women for several weeks. In this way exposure frequency, a vital aspect of advertising could be accounted for as well as the drawbacks concerning the measurement of self-esteem.

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