

# **A Study in Pink and Other Feminine Stereotypes**

**The Effect of Congruence between  
Self-construal and Gender Stereotypes on the  
Appraisal of  
Products and Advertisements.**

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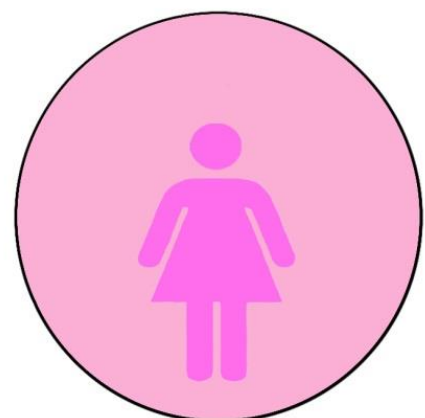
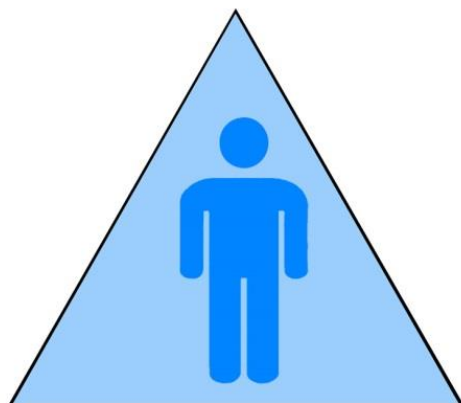
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## **Abstract**

Gender marketing is an often employed strategy to target women; an increasingly attractive target group for companies. Gender marketing is based on gender stereotypes, which consequently results in the frequent use of stereotypes in advertisements. The purpose of this study was to examine whether by priming an individual's self-construal situational acceptance or rejection of gender stereotypes can occur. It was expected that respondents with a self-construal congruent to the stereotypical nature of the product design will have more favourable attitudes to the advertisement and product than when there is incongruence between the type of self-construal and the stereotypical nature of the product design. Additionally, the influence of gender identity on advertisement and product appraisal was examined. The study of Aaker and Lee (2001) has been used as guidelines to prime self-construal with different advertisement scenarios. Consequently, four different advertisements, differing on the type of advertisement scenario (business/family) and the type of product design (gender stereotypical/gender neutral) were randomly distributed over 160 women. Results indicated that congruence between self-construal and type of product design did not result in a significant increase in favourable attitudes towards advertisement or product. The respondent's gender identity also did not influence the attitude towards the advertisement or product. However, if the multivariate analysis was run including age, split in three age groups, it appeared that the youngest age group had more favourable attitudes towards the advertisement with the stereotypical product design in the interdependent self-construal condition, while the oldest age group showed preference for the advertisement with the gender-neutral product design in the interdependent self-construal condition. A possible explanation for the unexpected results is that the respondents did not process the elements of the advertisement elaborately, so that recognition and appraisal of the gender stereotypes could not take place.

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## 1. Introduction

Women play an increasingly important role as consumers in today's global market. Research has indicated that women influence almost 80% of the household's spending and women, globally, control \$20 trillion of the annual consumer spending, which could rise to \$28 trillion in the next few years (Nicholas, 2007; Silverstein & Sayre, 2009). The fact that women own and earn more than ever before, with globally a total yearly income of \$13 trillion, which could rise to \$18 trillion in a few years, also makes them a very interesting target group for companies (Silverstein & Sayre, 2009). Resulting from women's increased spending power and increased influence on household spending, women, in aggregate, represent a growth market that is almost twice growth market of China and India combined (Silverstein & Sayre, 2009). Many companies have become aware that women are an emerging market, which they yet have to target. The real challenge is how to reach women and which tools should be used to appeal to them.

Traditionally, women have been consistently portrayed in advertisements as either the nurturing and dependent housewife or as a sexy, beautiful woman, who is sexually available (Cohen-Eliya & Hammer, 2004). Research by Lindner (2004) shows that in the period from 1955 to 2002, there only have been few significant changes in images of women in magazine advertisements of the magazines *Time* and *Vogue*. In the study, the author assigned the advertisements to several categories of certain stereotypical depictions. Results indicated that in 78% of the researched magazine advertisements women were depicted in a stereotypical manner, that corresponded with at least one of the nine stereotypical depiction categories (Lindner, 2004). The only decrease was found in the stereotypical depiction categories 'feminine touch' (depiction of a woman touching herself or her clothes in an unnatural way), 'ritualization of subordination' (depiction of a woman in an subordinate pose) and 'movement' (depiction of a woman who is inhibited by her own movement) (Lindner, 2004). The question is whether women appreciate and feel attracted to advertisements or products that use such gender stereotypes in their marketing.

Marketers might have to rethink their marketing strategies, as it is essential for marketers to choose an appropriate strategy if they want to target women successfully. Companies can avoid gender stereotypes altogether by taking a gender-neutral marketing approach. However, this approach can prove to be ineffective for targeting women. According to Westwood, Pritchard & Morgan (2000), such a gender-neutral approach, where gender awareness and knowledge have not been integrated into the marketing principles, is unappreciated by women, as they feel that their needs are not acknowledged.

In order to target women more effectively, companies can engage in gender marketing, which entails adapting the visible design features, advertising, promotion, and distribution of a product in order to incorporate symbols, by which the product is exclusively associated with one sex (Alreck, 1994). Companies still seem to struggle with finding the right approach to market their products to women. This is illustrated by industry research, although dating from years ago, by Greenfield Online for Arnold's Women Insight Team which found in a study of a thousand participants that 91% of the women felt misunderstood by marketers (Barletta, 2003). Additionally, 58% of the women were annoyed with how their gender was portrayed in advertisements (Barletta, 2003). More recent research, among 1300 women by Insight in Marketing LLC found that only 17% of the women think that today's marketers target women effectively (Insights in Marketing, LLC, 2013).

There are some striking examples of companies that failed to address women's needs or created unappreciated stereotypical marketing campaigns. The pink Honda Fit She's, which has been introduced to the Japanese market, has been widely discussed (often with disapproval) in the western world because of its striking features that had to appeal to women. Its pink design and features, like a windshield designed to block skin-wrinkling ultraviolet rays, makes the Honda Fit She's, according to Honda, specifically a car 'for her' (Eisenstein, 2012). However, with the memory of female-targeted cars that flopped (like the Dodge La Femme and the soccer-mom minivans) fresh in mind, the automobile industry in the United States is hesitant to go over-the-top like that and choose to take a subtler route to target women in the United States (Eisenstein, 2012). Another example is the launch of Dell's website and marketing campaign for 'Della', a new colourful netbook for her, which contained tools like a calorie counter and enables to store favourite recipes. The criticism that followed claimed that the website and marketing campaign were insulting and condescending to women and as result Dell had to adjust the campaign (Casserly, 2009).

The Honda Fit She's and the Della are two clear examples of how a company determines what the stereotypical needs of a woman are: an anti-wrinkle windshield or a calorie counter as laptop tool. However, success stories of gender marketing are known like the introduction of the pink Blackberry Pearl by RIM and Verizon Wireless with 'the right shade of pink for business and personal needs' (Pawlikowska, 2011; Holson, 2008). The Dutch brewing company Heineken introduced a special cider for women, Jillz, after research had shown that women disliked beer because of its bitter taste (MarketReponse, 2011). In line with the thought that beer is still considered a men's drink, which women find too bitter, the beer brewer created a sweet cider Jillz, as the 'ideal drink for women'. The positioning of the cider can therefore be considered as stereotypical.

The commercial features handsome, shirtless men, picking apples, who are meant to seduce the target group. This typically female-targeted drink seems to have been received well, as research has shown that four out of ten women thought Jillz to be appealing and 34% considered to buy Jillz (MarketResponse, 2011). Jillz also received the Top Food Award for best introduction in the food industry and despite its slow start, the brand captured a 54% volume share of the total cider and perry market in the Netherlands in 2012 (FoodPersonality, 2010; Euromonitor, 2013). Another example of a success story is Tomboy Tools, which was launched in the year 2000 by three women. The company offered specially designed ergonomic and lightweight tools for women (Caliendo, 2012). Their mission was to inform and empower women with regard to home projects and the company was in the Entrepreneur Magazine Brilliant Company Top 100 of 2010 (Tomboy Tools, 2013). Additionally, the company managed to reach the million-dollar annual revenue mark in only four years (Caliendo, 2012). The success of this concept is remarkable, especially because every one of these for women designed tools, up to and including the tool belt, is fluorescent pink. The positioning of this product was not stereotypical but its design was.

It should be noted that the previous examples contain a certain incongruence between the presented product and its promotion. Although Jillz is positioned as a stereotypical feminine drink, the sexy, shirtless men featured in the Jillz commercial are presented in quite a non-stereotypical way, as men are usually portrayed in occupational roles and as successful, tough and powerful (Cohen-Eliya & Hammer, 2004). Conversely, Tomboy Tools is a non-stereotypical concept, while the product design is very stereotypical.

It appears that women are frustrated and –often- insulted by over-the-top gender stereotypes in advertisements, product features or marketing campaigns. On the other hand, women appreciate it if their specific wants and needs are recognised by companies, therefore preferring gender-related marketing messages. Judging from the considerable positive reception of the pink Blackberry, the cider, Jillz, and the Tomboy tools, it seems that in certain situations women accept gender stereotyped design or positioning of products or marketing. This sparks the question of what is known about a person's appraisal of gender stereotypes and what factors determine this appraisal.

In scientific literature, stereotyping is a widely discussed and analysed topic. Bargh, Chen and Burrows (1996), for example, found in their research that automatic, unconscious stereotype activation can take place through priming, after which the participants engaged in stereotype-related behaviour.



In one of their studies, non-African American participants, who received a subliminal prime in the form of a picture of an African American male, showed more hostility after a demanding request of the experimenter than those who were primed with a picture of a non-African American male (Bargh et al., 1996). Additionally, Chiu et al. (1998) reported that when gender stereotypes were activated, the participant became momentarily more accessible to stereotypes and consequently such stereotypes were applied as self-presentation or to form impressions of others.

These two examples stress that stereotypes can be unconsciously activated in a person and that this person's attitudes and behaviour are influenced by such stereotypes. However, little research has been found that examines the possibility of a sub-conscious mechanism that allows for the appraisal of stereotypes, like acceptance or rejection when being confronted with gender stereotypes. The presence of such a mechanism seems very plausible because women are required to fulfil many roles nowadays like being a business woman, a wife, a mother and a friend, so it can be expected that when fulfilling these roles, women may be at times more susceptible to stereotypical advertisement messages than at others and evaluate such messages differently.

In order to understand in what situations gender stereotypes can be best avoided or used successfully, insights should be gained about the underlying reasons that stereotypes are accepted or rejected and if a mechanism that coordinates this can be identified. Consequently, from this knowledge, conditions for the use of gender stereotypes in advertisements could be derived, which lead to a successful advertisement. Additionally, the (in)congruence between the product positioning or design and other stimuli involved in the product promotion could be of considerable importance for the appraisal of stereotypes. Will an advertisement with all stimuli congruently supporting the stereotypical product or message increase acceptance or liking of the stereotypical product or message?

## **1.1 Outline of thesis**

This study addressed the question if there is a sub-conscious mechanism which causes altering appraisals of gender stereotypes in advertisements so that women either to accept and react positively to one gender stereotypical advertisement, product or marketing campaign but reject and react negatively to the other. It can be concluded from the literature that the different types of self-construal could bring about either acceptance and rejection of gender stereotypes. Moreover, this study examined this sub-conscious mechanism, that regulates the appraisal of stereotypes. The appraisal of stereotypes was expected to be optimized by the congruence between the advertisement scenario, that is to elicit a type of self-construal, and the extent to which the product design is stereotypical. More specifically, a favourable attitude towards the advertisement and product was expected when there is congruence between the advertisement scenario and the design elements that make the product gender stereotypical or gender neutral, namely the type of scripture, colour and the shape of the product. The study of Aaker and Lee (2001) has been used as guideline for this study. The authors' prime for self-construal (advertisement scenario and slogan) has been used as example for the purpose of the current study.

In the next chapter, literature will be discussed concerning concepts of gender and self-construal to identify which could influence such situational acceptance or rejection of gender stereotypes. Furthermore, the role of (in)congruities within advertisements will be examined as well as the relationship between (in)congruent advertisement and the reaction to gender stereotyping in an advertisement. Before introducing the study's central research question and hypotheses, the aspects of gender marketing are discussed. In the third chapter, the study's methodology will be laid out with regard to both the pre-test and the main study. Chapter four reports the results of the experiment and the implications and limitations of this study are discussed in the fifth chapter.

## **1.2 Scope of thesis**

It is of importance to give insight in the delineation of this study. The research, that looks into gender stereotypes and the effects of stereotypes and stereotypical role portrayals on the appraisal of the marketing of a product and the products itself, is very extensive. Therefore, this study is subject to certain boundary conditions that have been imposed due to time and resources restraints. These boundary conditions are listed below.

- The focus of this study is only on gender stereotypes aimed at women and therefore only women's appraisal of gender stereotypes will be assessed.
- The chosen marketing communication channel that features the gender stereotype is a print advertisement. The appraisal of the gender stereotype will, aside of the respondent's intention to buy the product, be measured in terms of the respondent's attitude towards the advertisement.
- There are many forms in which gender stereotypes can appear in an advertisement (for example through gender portrayals). But for this study's experiment, it has been decided to use a gender stereotyped product design.

## **2. Theoretical Framework**

This research attempts to examine if there is a mechanism that unconsciously leads to the acceptance or rejection of gender stereotypes which, when applied in the right way, could ensure successful use of stereotypes in advertisements. Furthermore, it will be examined whether congruence or incongruence between aspects of the advertisement or product design will be beneficial for the appraisal of stereotypes in an advertisement. In order to accomplish this, it is necessary to gain more insight in some components of the self to find out if a sub-conscious mechanism can be identified. As this research focuses on gender stereotypes, a logical starting point is to examine the concept of gender in order to find out whether varying gender roles or identities can account for a differing evaluation of gender stereotypes. However, there is no universal definition of gender and researchers often do not define gender or the relationship between this concept and sex in their research (Howard & Hollander, 2000; Glasser & Smith, 2008). Therefore, first the main concepts sex and gender are briefly discussed, before three prevalent psychological perspectives are reviewed, that will look at sex and gender from divergent point of views.

### **2.1 Conceptualization of gender & sex**

The concept sex concerns “the biological characteristics that distinguish males and females, such as reproductive organs or chromosomes” (Howard & Hollander, 2000, p. 9). The common line of thought is that there are two sexes (male and female) and that an individual falls in one of the two categories and remains in that category for the rest of his or her life. However, for intersexed individuals, who cannot be distinctly identified as male or female because of ambiguous reproductive organs or combinations of chromosomes, or transsexuals, who changed their sex, this is not the case. That is why professor of biology and gender studies, Anne Fausto-Sterling (1993) notes in her paper that one can argue for at least five sex classifications (male, female, and three intersex subgroups). However, in our present society, the dichotomous nature of sex is considered as standard and when encountering individuals, whose gender is ambiguous, we still try to place them in one of the two gender classifications (Howard & Hollander, 2000).

The definition of gender is not as straightforward as that of sex. There are many different perspectives on gender, which vary in accordance with the different psychological approaches. These approaches will be reviewed next, to illustrate the diversity of perspectives on gender.

### *2.1.1 Essentialist approach*

This line of thinking, which prevailed in the first half of the 20<sup>th</sup> century, presupposes that there are two sexes, which are biologically determined and therefore innate and unchangeable (Howard & Hollander, 2011; Glasser & Smith, 2008). An important implication of the essentialism perspective is that everything can ultimately be reduced to sex. This means that sex and gender are considered as the same and that the classification of an individual's sex determines social behaviour (Howard & Hollander, 2000). The latter implication entails that an individual engages in certain behaviour because it is the nature of the individual to do so. Although many scholars nowadays do not support a strict essentialist approach, some of its assumptions still appear in research (Howard & Hollander, 2011). Lerner (1986) and Kacen (2000), for example, note that the construct gender is often both in research and in the media considered inseparable from or interchangeably used with the biological construct sex.

### *2.1.2 Socialization approach*

This psychological approach became popular in the 1960s and 1970s. Scholars found new evidence that from a social psychological perspective, there were more similarities than differences between men and women (Howard & Hollander, 2011). The differences that were detected were attributed to the process of socialization, instead of biological factors (Howard & Hollander, 2011). According to the socialization approach, gender behaviour develops in early childhood, through learnt gender norms and values from the environment of the child. Gender is considered a culturally and socially determined construct: every society defines the appropriate roles and behaviour associated on the basis of gender and little children are expected to comply with these culturally-derived gender norms (Bem, 1981; Lerner, 1986). The premise that children learn appropriate gender behaviour at a young age, implies that gender is not innate and unchangeable, especially if society's gender norms are modified (Howard & Hollander, 2011). Research by Burke et al., however, (see Burke and Franzoi, 1988; Burke and Hoelter, 1988; Burke and Reitzes, 1981; Burke and Tully, 1977; Matran and Burke, 1979; Burke and Hoelter, 1988; Burke and Reitzes, 1981) indicated that identities overall are relatively stable (Burke, Stets & Pirog-Good, 1988). This is also illustrated in Kohlberg's Developmental Theory which proposes that children on a very early age go through several stages to discover gender constancy; the unchangeability of gender (O'Keefe & Hyde, 1983; Bussey & Bandura, 1992). As children learn about the gender norms during socialization, they are also confronted with prescriptions and descriptions for behaviour, like gender roles and gender stereotypes (Howard & Hollander, 2000).

### Gender roles

According to the socialization approach, individuals become at a very young age familiar with the prescribed behaviour for both genders and therefore gender roles. Kessler and McKenna (1978) define gender roles as “a set of expectations about what behaviours are appropriate for people of one gender”. Gender roles are regarded by our society as ascribed roles: roles based on attributes –in this case gender- over which its occupants have no control (Kessler & McKenna, 1978). It is expected that people behave in conformity with the prescriptions of their gender role, which include aspects like sexual orientation, interests, skills and clothing (Kessler & McKenna, 1978).

### Gender stereotypes

Odekerken-Schröder, De Wulf and Hofstee (2002, p. 410) described stereotyping, based on reviewed literature, as “the assignment of a (usually negative) label to certain groups of people, based on a certain belief about how these people tend to behave.” Kessler and McKenna (1978) specifically link gender roles to gender stereotypes, when they describe the concept as beliefs about the characteristics of an occupant of a gender role, which is applied to any role occupant, regardless of the circumstances. These definitions imply that gender stereotypes are overgeneralizations, which prescribe certain behaviour, and that stereotypes also have an evaluative component, in which behaviour and characteristics of individuals are categorized as good or bad (Kessler & McKenna, 1978; Howard & Hollander, 2011). Additionally, in line with the common idea that sex is dichotomous, gender stereotypes are often polar opposites: warmth and expressiveness are considered as typical female traits, while dominance and assertiveness is characteristic for men (Howard & Hollander, 2000).

### Gender identity

Gender identity is one of the earliest manifesting and most important components of the self-concept (Feiereisen, Broderick & Douglas, 2009; Palan, 2001). This concept can be defined as the extent to which an individual identifies or thinks him- or herself to be as masculine or feminine (Fischer & Arnold, 1990 as cited in Palan, 2001). Gender identity is therefore established by the self-attribution of gender (Kessler & McKenna, 1978). This self-attribution of gender is not necessarily similar to the gender attribution that is made by others. As gender identity is an important component of the self-concept, the extent to which a woman feels very feminine could be a factor that influences the acceptance or rejection of stereotypes.

Many self-report scales have been developed to measure the extent that an individual thinks him- or herself to be masculine or feminine, thus gender identity. This will be further discussed in *paragraph 2.2*.

### *2.1.3 Social constructionist approach*

The social constructivist approach claims that “social reality is created through human action and the interpretation of those actions” (Howard & Hollander, 2000, p. 35). Gender, according to supporters of this approach, is only partly imposed on us by society, but constructed through interaction between men and women and their performance of gender as well. People create gender by choosing for particular behaviour and attitudes, which in that social situation is considered as gender appropriate (Howard & Hollander, 2000). An important distinction between the social constructionist approach and the essentialist and socialization approach is that in the former theory attributes gender differences to the active creation of social behaviour by individuals, whereas in the latter gender differences are considered natural and are attributed to either nature or nurture (Howard & Hollander, 2000).

## **2.2 Measuring gender identity**

As discussed, biological sex is often considered to be a binary concept: an individual is either a man or a woman. Gender, however, has for long also been recognised as a bi-polar construct whereby gender was measured on a one-dimensional continuum with masculinity and femininity at the extremes (Bem, 1974; Pallan, 2001; Gill, Stockard, Johnson & Williams, 1987).

From the 1970s on, measurement scales have been developed that did conceptualize gender identity in two dimensions, which measured the extent to which an individual may exhibit varying degrees of both masculinity and femininity (Feiereisen et al., 2009; Bem, 1974). The first and most widely used scales are Bem’s Sex-Role Inventory (BSRI) and the Personal Attributes Questionnaire (PAQ), which classifies individuals as either feminine, masculine, androgynous (possessing both masculine and feminine traits) or undifferentiated (scoring low on both masculine and feminine traits) (Gill et al., 1987; Pallan, 2001; Feiereisen et al., 2009). Both the BSRI and the PAQ have received a lot of criticism concerning methodological and theoretical issues in the 1980’s (Gill et al., 1987).

Gender identity has frequently been used to examine its effect on consumer behaviour. However, despite the aforementioned criticism on the two most commonly used scales, the BSRI and the PAQ, are still continuously –and often exclusively- used to measure gender identity (Palan, Areni & Kiecker, 1999; Gill et al., 1987). It appears that in many studies inadequate measurement techniques have been used to assess the relationship between gender identity and other variables.

Any significant relationships found in such studies are considered questionable by researchers who have reviewed these gender studies or the gender identity measurement scales (Palan, 2001; Gill et al., 1987). According to Wolin (2003), who evaluated 35 research articles on gender related advertising, dating from the 1970s to 2000, the majority of the marketing gender research, evaluated gender as a binary variable, like sex, and as result overlooked the potential impact of gender identity as a psychological and social construct on consumer responses to advertisements (Feiereisen et al., 2009).

Considering the literature which has been discussed above, both the conceptualization of gender and the measurement of gender identity proves to be a complicating factor. In many of the studies, the BSRI or the PAQ scales have been used. These measurement scales have been subject to methodological and theoretical criticism, which makes the results of these studies less reliable. Another important thing to note is that gender identity is assumed to be relatively stable over time. This research examines if a sub-conscious mechanism can be identified, which regulates women's acceptance of a stereotypical advertisement at a certain moment, but the rejection of another stereotypical advertisement. Therefore it is necessary to look into more fluctuating elements of the self which may change per situation and thus allow for such situational attitudes.

### **2.3 Self-construal**

This fluctuating element of the self could in fact be self-construal. Markus and Nurius (1986) claim that every individual has a repertoire of possible selves: the desired self, the past self, the probable self. In order to examine an individual's possible selves the working self-concept should be assessed, instead of the self-concept, which is considered as a single, generalized self-view (Markus & Nurius, 1986). The working self-concept is fluctuant and continuously active and its variation depends on changes in internal states and social circumstances (Markus & Nurius, 1986). The conceptualization of the self or a self-presentation can also be termed as self-construal. According to Cross, Hardin and Gercek-Swing (2011, p.143), self-construal is typically defined as "how individuals see the self in relation to others". This definition of self-construal is the result of a study by Markus and Kitayama (1991) who observed differences in the way how individuals in Western or non-Western cultures, like the United States and Japan, define and make meaning of themselves. These authors discerned two different types of self-construal: in Western cultures, the self is often construed as independent from others and the type of self-construal is therefore coined as independent self-construal (Cross et al., 2011).



The essence of independent self-construal is that an individual is a unique and independent entity and can be characterized by traits like autonomy, self-containment and ego-centrism (Gudykunst, Matsumoto, Ting-Toomey, Nishida, Kim & Heyman, 1996; Markus & Kitayama, 1991).

In contrast, in non-Western cultures interdependent self-construal prevails, which holds that self is viewed as fundamentally connected to others and the self is defined by its relationships to others (Cross et al, 2011). Typical traits for interdependent self-construal are collectivism, holism and contextualism (Markus & Kitayama, 1991). According to Kanagawa, Cross and Markus (2001), the main goal of individuals with interdependent self-construal is to fit and assimilate to a situation context to preserve harmony and occupy one's proper place. Markus and Kitayama (1991) also pose that American middle-class white men are thought to have a pre-dominant independent self-construal, whereas women or men from other ethnic groups are thought to have an interdependent self-construal. Even though distinctions can be made about the prevailing type of self-construal in different cultures, research has shown that both independent and interdependent self-construal exist in varying degrees within an individual (Gudykunst, Matsumoto, Ting-Toomey, Nishida, Kim & Heyman, 1996; Kim, Hunter, Miyahara, Horvath, Bresnahan, & Yoon, 1996; Singelis, 1994, as cited in Ting-Toomey, Oetzel & Yee-Jung, 2001). Either type of self-construal can be made temporarily available by referencing tasks, situational contexts or priming techniques (Aaker & Lee, 2001). This is supported by Cross et al. (2011), who reviewed the research that has been conducted on manipulating self-construal. According to these authors, priming techniques can be used to explore the effects of self-construal on (consumer) behaviour. Consequently, a lot of research has been conducted to the influence of self-construal on different antecedents of social behaviour like cognition, affect and motivation, but the effects on decision-making and reactions to advertisements have also been examined (Cross et al., 2011; Ng & Houston, 2006).

### *2.3.1 Priming self-construal*

Different techniques are available to activate either an independent or an interdependent self-construal. In accordance with Pennebaker and Lay (2002), who state that the use of different pronouns can be related to depression, suicide and issues concerning identity, the pronoun circling task is a commonly used technique in research to prime independent or interdependent self-construal (Oyserman & Lee, 2008; Cross et al., 2011). During this task participants had to circle either 'I' related pronouns, like me and my, or 'we' related pronouns, like us and ours, in a paragraph (Oyserman & Lee, 2008; Cross et al., 2011).

Another prevalent technique is the similarities and differences with family and friends task. Participants had to think of what made them different from (independent prime) or similar to (interdependent prime) family and friends (Oyserman & Lee, 2008; Cross et al., 2011). In their studies, Lee, Aaker and Gardner (2000) and Aaker and Lee (2001) used another approach to prime an independent and interdependent self-construal, namely group imagination. Participants were asked to imagine a certain scenario which either used an independent prime (*"You are playing in a tennis tournament and have made it to the finals. If you win this last match, you will win the championship title and bring home the huge trophy."*) or an interdependent prime (*"Your team is playing in a tennis tournament and have made it to the finals. You are representing your team in the finals. If you win this last match, your team will win the championship title and bring home the huge trophy."*) (Aaker & Lee, 2001, p. 40). Oyserman and Lee (2008) found in their moderation analyses that group imagination priming techniques resulted in small, but significant effect on self-concept. The authors from both studies also concluded that group imagination was a successful approach to activate an independent or interdependent self-construal.

Perhaps even more interesting is the priming technique used by Aaker and Lee (2001) in their first experiment. A website advertisement was created which had to prime the two types of self-construal. The manipulated elements in the advertisement were the image and the text, focusing either on the individual or a family. The manipulation check, as part of the analysis, also confirmed that the two different versions of the advertisement effectively activated the independent or the interdependent self-construal (Aaker & Lee, 2001). The study of Ng and Houston (2006) used similar material to prime an independent or interdependent self-construal.

Consequently, it can be assumed that certain advertisement scenarios may be capable of eliciting certain self-representations. Advertisements, which explicitly refer to a social context and promote social and stereotypical roles, can temporarily activate an interdependent self-construal in a woman. As discussed previously, an individual with interdependent self-construal is more inclined to see oneself in a social context and has as goal to adapt certain situations to maintain harmony and take one's proper place as expected by the group. When recalling what has been said about stereotypes earlier this chapter, gender stereotypes are associated with prescribed behaviour: beliefs of others about how someone ought to behave. As result of the independent self-construal prime, a woman may be more sensitive to prescribed gender behaviour (stereotypes) held by others and acceptant to stereotypical advertisements or marketing campaigns thus evaluating such advertisements positively. On the other hand, an advertisement, set in a professional context where the focus is on the individual, may bring about an independent self-construal in a woman.

Individuals with a pre-dominant independent self-construal view themselves as unique and distinctive from others. This self-construal could result in an aversion of stereotypical advertisements, which can promote traditional gender portrayals or stereotypical products, as individuals who perceive themselves as unique and independent are not attracted to a product or advertisement that contains or promotes gender prescriptions.

The different types of self-construal therefore seem to provide a plausible explanation as to why at one moment certain gender stereotypes might be accepted, while others are rejected. Now it has been established that self-construal could function as the sub-conscious mechanism influencing the appraisal of gender stereotypes, its relationship with the (in)congruent advertisement stimuli will be discussed.

## **2.4 Congruence between advertisement stimuli**

Congruence of sensory modalities used in product design is an important factor for communicating a coherent message about the product, but also for aesthetic appeal and product liking (Schifferstein & Spence, 2008). In a study by Reber, Schwarz and Winkielman (2004), it is discussed that the more an object can be fluently processed, the higher the aesthetic pleasure and more positive affective reactions of the beholder. Features like goodness of form and symmetry, but also conceptual and perceptual priming can contribute to processing fluency (Reber et al., 2004). This is supported by Wang and Kao (2013), who claim that processing fluency can also be achieved by colour fluency, which in turn enhanced purchase intention and website appeal ratings (Wang & Kao, 2013). Congruence between elements of a(n) (advertisement or product) design plays an important role for the appraisal of the design.

Spence (2011) expands in his article on the distinction between semantic and synaesthetic congruence. Semantic congruence usually refers to the presentation of auditory and visual stimuli, which either match or mismatch in identity or meaning (Spence, 2011). An example of semantic incongruence would be the picture of a cat accompanied with a woofing sound (Spence, 2011). Synaesthetic congruence refers “to correspondences between more basic stimulus features in different modalities,” like for example the correspondence between bright light and a high-pitched sound (Spence, 2011, p. 972).

Advertisements, however, are mainly perceived through the vision, which means that multisensory messages do not often occur. There is a considerable amount of research that discusses the symbolic meaning congruence of stimuli (like colour or types of scripture) and the product (design).

Zhang, Feick and Price (2006) state in their study that angular shapes are often associated with traits that express toughness, strength and energy, whereas round shapes are often affiliated with traits that express harmony, approachableness and friendliness. The results of their study showed that individuals with conflict confrontation as a pre-dominant conflict resolution style are more attracted to angular shapes, whereas individuals with conflict avoidance as pre-dominant conflict resolution style prefer round shapes for logos and trademarks (Zhang et al., 2006). Solomon, Ashmore and Longo (1992) proposed in their study that types of beauty can be associated with different personalities and life-styles. Consequently, their results showed that if the type of beauty of a model present in an advertisement matched the image of the brand endorsed, a clearer intended brand image can be achieved. Van Rompay and Pruyn (2011) found in their study that congruent symbolic meaning of shape and type of scripture (for example masculine script and masculine shape of product) positively influenced brand credibility, product aesthetics and product value. Furthermore, Petruvu (2004) and Feiereisen et al. (2009) both found that an individual's advertisement response is likely to be more favourable when the gender portrayal in the advertisement is in line with an individual's gender role expectations and beliefs. Morrison and Shaffer (2003) reported similar results from their study where respondents with a traditional gender-role orientation evaluated the stereotypical advertisement more favourably than the non-stereotypical advertisement. Consequently, the respondents with a non-traditional gender-role orientation showed a slight inclination for the non-stereotypical advertisement. Morrison and Shaffer (2003) categorized participants that were classified as feminine women and masculine men after filling out the BSRI as those with a traditional gender-role orientation, whereas androgynous individuals, feminine men and masculine women were classified as individuals with a non-traditional gender-role orientation. Feiereisen et al. (2009) also refers to this correspondence between gender portrayals in advertisements and an individual's gender schema as gender congruence.

In this paragraph, different types of congruence have been discussed. Considering the discussion about self-construal and what has been said about gender congruence, it is expected that if the advertisement scenario, which elicits the desired self-construal, coincides with the gender stereotypical stimulus, the advertisement will be successful. So if the advertisement scenario focusing individual, which primes an independent self-construal and thus rejection of the gender stereotype, is congruent to a gender-neutral designed product endorsed in the advertisement, the advertisement is thought to be more favourably perceived.

In this paragraph, several aspects of advertisements have been discussed which can be adapted to make an advertisement congruent ( product endorser, type of scripture, shapes). In the next paragraph, different stimuli will be discussed that can be used for gender marketing and more specifically gender stereotypes in advertisements.

## **2.5 Gender marketing**

According to Feiereisen et al. (2009), gender is a good criterion for dividing the target markets of those products because gender segments are easy to identify, easily accessible and also large enough to be profitable. As mentioned in the first chapter, gender marketing involves designing, producing and marketing a product, while symbols of the image or identity of men and women are taken into account. Gender marketing concerns only those products that are purchased and consumed by both genders (Alreck, 1994). The product is often brought on the market exclusively 'for him' or 'for her'. As result of increased gender role blurring, some companies, which primarily sold products typically targeted at one gender, attempt to target their products at the other gender. A notable example is Harley Davidson, which owes 12% of their motorcycle sales to women in 2006, compared to only 4% in 1990, and is now producing more feminine motorcycles (Kraus, 2007). With cosmetic companies, the reverse is the case: initially cosmetics have been perceived as products for women, while at the moment men's cosmetics and grooming products are the fastest growing segments in the beauty industry (Tuttle, 2012).

Over the years, an enormous amount of research has been dedicated to gender differences with a large number of topics, ranging from sociological research on gender differences in alcohol consumption to medical research on gender differences in response to pain. For marketers however, it is essential to gain a better understanding in how men differ from women, especially in the way each gender processes and evaluates marketing campaigns, if they want to reach each gender successfully with their marketing efforts.

### **2.5.1 Information processing types**

As discussed in *paragraph 2.4*, information processing is an important factor for the appraisal of a design. A wide range of research examined the differences between the ability of men and women to process advertisements.

One prevailing theory is the selectivity hypothesis, which claims that men engage in a different type of information processing, namely a selective type, than women, who use an elaborate processing style (Meyers-Levy & Maheswaran, 1991; Darley & Smith, 1995). According both Putrevu (2004) and Darley and Smith (1995) gender differences in general can be attributed to both social and biological factors. It is suggested by these researchers, but by Meyers-Levy and Sternthal (1991) as well, that the differences in information processing are induced by social role prescriptions. Nelson and Vilela (2012) suggest that with new technologies, like fMRI, biological causes for differencing information processing styles can be sought.

According to selectivity theory, men are selective in processing information and employ a less effortful strategy by utilizing heuristics which are based on salient and highly available cues, that convergently imply a certain inference (Darley & Smith, 1995; Putrevu, 2004). On these inferences men base their judgements. Women, on the other hand, engage in elaborate and comprehensive analysis of information by attempting to take in all possible cues and basing judgement on the most relevant information (Darley & Smith, 1995; Putrevu, 2004). An important condition of the selectivity hypothesis theory is that the differences in information processing strategies employed by men and women are eliminated under specific situational circumstances (Darley & Smith, 1995). Meyers-Levy and Maheswaran (1991) found in their study that in certain situations message characteristics or the response task can motivate both men and women to engage in comprehensive information processing. It is important to note, however, that research assessing different studies on the selectivity hypothesis found often inconsistent results, whereby the selectivity hypothesis was sometimes supported or rejected (Putrevu, 2004; Nelson & Vilela, 2012). These inconsistent results were attributed, amongst other things, to differences in methodology, dependent variables or product involvement, but also in the measurement of gender and gender identity (Putrevu, 2004; Nelson & Vilela, 2012).

Nevertheless, despite the inconsistency in results, research, assessing these information processing studies, did find that there was overall enough evidence to support the notion that women use a more elaborate information processing strategy than men (Wolin, 2003; Nelson & Vilela, 2012). Additionally, research results from a study by Petruvu (2004) indicated that women are inclined (in terms of affect and purchase intentions) towards advertisements that are verbal, harmonious, complex, and category-oriented, whereas men prefer comparative, simple, and attribute-oriented advertisements (in terms of affect and purchase intentions).

### 2.5.2 *Gender stereotypes in advertisements*

According to Alreck (1994), all the symbols, like colours, images, words and shapes, and the image of the product, that are identified with one specific gender in gender marketing, are derived from gender stereotypes. Gender marketing is therefore based on prescriptive stereotypes, which may or may not be appreciated by the target group.

Since the 1960s, the role portrayal of women in advertising has become an important topic of debate in society. This on-going debate also resulted in increased scientific attention for the role portrayal of women in advertisements and the 1970s marked a starting point for the examination of this issue by different fields of research, mainly in an American advertising context (Odekerken-Schröder et al., 2002). Since then, a large body of research examined the prevalence of stereotypes in advertisements and whether these stereotypes have changed conform to the changed roles of women in society (Caterall & Maclaran, 2002). The role-portrayals of men and women in advertising were based on the assumption that men are inclined to an agentic role, which is characterized by concern for the self. Women, on the other hand, prefer a communal role, which is characterized by concern for the self and also concern for others (Vantomme, Geuens & Dewitte, 2005; Meyers-Levy & Sternthal, 1991). According to Eagly and Steffen (1984) these assumptions stem from the observation that women usually occupied social roles as homemakers and men that of breadwinner, therefore resulting in the association of women as nurturing and caring and of men as autonomous and dominant. Consequently, marketers were likely to use these stereotypes, because men were thought to be sensitive to independence appeals, whereas women were thought to evaluate affiliation appeals in advertisements favourably (Vantomme et al., 2005; Hupfer, 2002). Women now actively take part in the labour market, which gives, according to Hupfer (2002), reason to question the assignment of communal roles to women and agentic roles to men. According to Barry, Gilly and Doran (1985) research has shown that women are mainly depicted traditionally as housewife in advertisements. More recent research by Kacen and Nelson (2002) indicated that stereotyping of women in advertisements has not changed and that women are still portrayed as decorative objects, or in the roles of wives and mothers (as cited in Caterall & Maclaran, 2002).

The question which then arises is if women appreciate and respond favourably to advertisements in which traditional stereotypes of women prevail. Research that has attempted to answer that question is inconsistent and contradictory (Orth & Holancova, 2004). Zawisza and Cinnirella (2010) note that these contradictory results can be the result of various gender-related variables used (like gender identity, gender ideology and gender attitude) in past research.

According to Courtney and Whipple (1983; 1985), there is evidence that the modern portrayal of women may create new effectiveness problems and repel non-targeted members (as cited in Orth & Holancova, 2004). Additionally, Zawisza and Cinnirella (2010) reported that in their experiment, participants responded more favourably on an affective and cognitive level to the stereotypical advertisement (including a traditional housewife) than the non-stereotypical advertisement. On the other hand, research by for example Jaffe (1991) showed that there was a higher advertisement response among women (captured by purchase intentions, purchase probability and information interest) when there was a modern positioning of women compared to traditional positioning. Additionally, Jaffe and Berger (1994) found in their study that women prefer an egalitarian positioning (the portrayal of a working woman, who shares household responsibilities with her husband) over the traditional or superwoman positioning (the portrayal of a women managing both her job and the household effectively) in advertisements.

### *2.5.3 Gender-specific product design*

As men and women have at times very distinct wishes and preferences with regard to personal products, a gender-specific product design might be necessary (Xue & Yen, 2007). In their research, Xue and Yen (2007) conducted a pilot study to gender perceptions of product language, identity and preferences in order to gain a better insight in the preferred product design of both genders. The results of their study with 72 participants indicated that men appreciate product characteristics like compactness, minimalism and sleekness, while women are concerned with characteristics like smoothness, uniqueness and slimness, suggesting that men are interested in the overall structure of the product (like shape), whereas women appreciate organic forms, details and textures (Xue & Yen, 2007). As mentioned previously, Zhang et al. (2006) noted in their study that angular shapes were associated with toughness and strength while round shapes were perceived as harmonious. The former are traits that can be classified as stereotypical male attributes, which is why angular shapes can be considered masculine. The latter are stereotypical feminine traits, which is why round shapes are considered to be feminine. According to Pan and Schmitt (1996), this concept of masculine and feminine shapes can also be applied to scripture.

Colour is another element which can be used to make a distinctive gender-specific design of products or advertisements. Colour is an essential element in both product design and promotion as it can induce moods, the perception and behaviour of the consumer and serves as an important tool for product differentiation (Aslam, 2006). The meaning and associations with a certain colour differ per culture and country (for an elaborate overview, see Aslam, 2006).



Results of research by Hurlbert and Ling (2007) indicate that, contrary to what many researchers agree upon, namely that blue is an universally preferred colour, there is a distinction in colour preference between gender. According to these authors, in former research different measurement techniques have been used, which makes it difficult to come to a systematic, quantitative conclusion on colour preference. In their study, Hurlbert and Ling (2007) used a forced choice colour picking task, where participants had to select their favourite colour from a pair of coloured rectangles. Women showed a greater preference for reddish-purple colours and men preferred blue-green colours (Hurlbert and Ling, 2007).

Colours can be gender stereotypical: in western cultures, little girls are often dressed in pink and given pink toys, while blue is considered a suitable colour for boys (Karniol, 2011). It is worth noting, however, that these stereotypes were not always the same: until somewhere in the 1920s, pink was the popular colour for boys (Heller, 1989 as cited in Koller, 2008). From a very early age one, children are taught that pink is a feminine colour, often associated with the Barbie doll, and blue is a masculine colour (Koller, 2008). Research has shown that at the age of 2.5 girls show a clear preference for the colour pink, while boys at the same age display an increasing avoidance for pink (LoBue & DeLoache, 2011).

Conclusively, it can be said that gender marketing is primarily based on gender stereotypes in order to give a product a feminine or masculine image. This can be achieved by incorporating product features or showing advertisements, sustaining certain gender roles, but also by adjusting the product or advertisement design in such a way that it is attractive for either men or women.

## **2.6 Central research question**

In the theoretical framework, different elements of the self have been examined. Self-construal appeared to be a construct, which can be activated after exposure to an advertisement with a dominant individualistic or collectivistic focus. Therefore, it seems to be a fitting explanation to the question why women might accept a certain stereotypical advertisement and while rejecting others.

The following question will be the central research question of this study:

*“What is the effect of congruence between self-construal and a (non)stereotypical product design in an advertisement in terms of the appraisal of the advertisement and the product?”*

With regard to the scientific contribution of this study, this research examines the influence of self-construal on the evaluation and acceptance of a (non)stereotypical product design. Specifically, it is researched if congruence between the advertisement scenario, which elicits a type of self-construal and thus acceptance or rejection of a gender stereotype, and the extent of stereotypical product design lead to more favourable attitudes to the product and advertisement. In *paragraph 2.4*, research has been presented that discusses the effect of congruence between different elements in an advertisement. No other research has been found that examines this congruence between self-construal (translated into advertisement scenarios) and stereotypical product design. Therefore, this study will shed light on the possible effect of this congruence in terms of attitude towards the advertisement and the intention to buy the product.

In terms of scientific relevance, this research will also look further into the possibility to prime independent and interdependent self-construal with different types of advertisements and specifically, different advertisement scenarios. Even though this priming technique has been used in research before, where it proved to be effective, it has not been used frequently, which is why this research will give insight in the applicability of priming self-construal in a broader context than the obvious priming tasks regarding grammar and stories. This is also of societal relevance, because if self-construal types can be effectively activated by specific advertisement scenarios, this is of essential importance to marketers. This would mean that marketers would be able to target their customers even more specifically by choosing a certain advertisement scenario, which elicits a self-construal that matches the endorsed product and thus results in favourable attitude towards the advertisement and the intention to buy the product. Furthermore, a better insight in the variables that influence the appreciation of gender stereotypes in advertisements is required for marketers, as many companies are still at a loss of how to target women. The results of this research might therefore be translated in very practical implications.

## **2.7 Hypothesis formulation**

Based on the literature reviewed in the previous paragraphs, the following hypotheses can be derived. In order to examine these hypotheses, the types of self-construal and the extent of stereotypical product design will be manipulated. It is expected that if women are confronted with an advertisement, set in a professional context, depicting product consumption in the work place and stressing the individual, thus a non-traditional gender role, their independent self-construal is made accessible.

Therefore, when confronted with an advertisement containing this advertisement scenario and featuring a gender stereotypically designed product, they will not develop favourable attitudes towards the stereotypical product (in terms of the intention to buy the product) and the advertisement. Instead, when they are confronted with a gender-neutral designed product in such an advertisement, this will be congruent to their independent self-construal and therefore result in a favourable attitude towards the gender-neutral product and advertisement.

Furthermore, an interdependent self-construal is elicited when women are confronted with an advertisement, set in a social setting, featuring product consumption in a social setting with traditional gender roles that stresses the individual in group context. When confronted with an advertisement, containing such an advertisement scenario and showing a gender stereotypically designed product, this results in favourable attitude towards the gender stereotypical product and advertisement. Conversely, when they are confronted with such an advertisement featuring gender-neutral product, this is not in line with their interdependent self-construal, which results in the development of unfavourable attitudes towards the product and advertisement.

This can be summarized in the following hypotheses:

**H1:** *When the self-construal of women is congruent to the preferred product design (extent of stereotyping) more favourable attitudes will develop, compared to when the self-construal of women is incongruent to the product design.*

More specifically, the following hypotheses were formulated:

**H1a:** *Women, who are confronted with advertisement containing the professional advertisement scenario, featuring a product with a gender stereotypical product design, will develop a less favourable attitude to the advertisement, and have a lower purchase intention, compared to women who are confronted with the advertisement containing the professional advertisement scenario featuring the gender-neutral product design.*

**H1b:** *Women, who are confronted with advertisement containing the social advertisement scenario, featuring a product with a gender stereotypical product design, will develop a more favourable attitude to the advertisement, and have a higher purchase intention, compared to women who are confronted with the advertisement containing the social advertisement scenario featuring the gender-neutral product design.*

Additionally, it is expected that when a woman's gender beliefs and expectations are congruent to the type of product design featured in the advertisement, the woman will develop more favourable attitudes towards the product and advertisement, than when the woman's gender beliefs and expectations are incongruent to the type of product design.

This can be translated into the following hypothesis.

**H2:** *The gender identity of women will have a moderating influence on the relationship between the independent variables, self-construal and the extent of stereotypical product design, and the dependent variables, attitude towards the advertisement and intention to buy.*

More specifically, the following hypotheses were formulated

**H2a:** *Women with a traditional gender identity (feminine women) will develop more favourable attitudes to the product and advertisement when they are confronted with an advertisement that shows the product of which the design is congruent to their gender identity, namely the gender stereotypical product design, compared to when they are confronted with the advertisement that shows the product of which the design is incongruent to their gender identity (gender-neutral product design).*

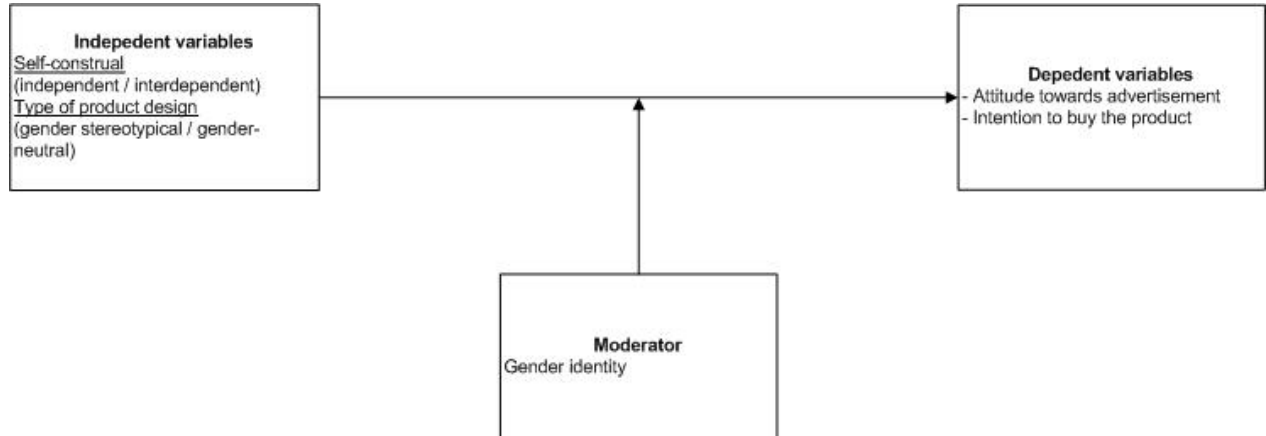
**H2b:** *Women with a non-traditional gender identity (androgynous, masculine and undifferentiated women) will develop more favourable attitudes to the product and advertisement when they are confronted with an advertisement that shows the product of which the design is congruent to their gender identity, namely the gender-neutral product design, compared to when they are confronted with the advertisement that shows the product of which the design is incongruent to their gender identity (gender stereotypical product design).*

### 3. Methodology

#### 3.1 Research model

In this research, the congruency effect of self-construal, elicited by advertisement scenarios, in combination with the stereotypical design of the product on the appraisal of the advertisement and product was examined. Furthermore, the influence of gender identity on the relationship between self-construal and the stereotypical design of the product and the appraisal of the advertisement and product was assessed. The assessment of the relationship between these variables was achieved by manipulating different elements of an advertisement in a 2 (self-construal: independent vs. interdependent) x 2 (product design: gender stereotypical vs. gender-neutral) between subjects design. In this chapter, first the set-up and results of the pre-test will be described, before going into the main study. In Figure 1, the research model is displayed.

**Figure 1 – Research model**



#### 3.2 Pre-test

In the main study, different elements of both the advertisement and the product design will be manipulated: the product featured in the advertisement will be either stereotypically feminine or gender-neutral in its design and the advertisement will contain a professional scenario, set at the office or somewhere work-related, or a social scenario, set during an activity with family or friends.

A questionnaire has been created to find out which elements of a product are considered to be typically feminine or gender neutral by women and which professional and social scenarios create a feeling of independence or interdependence. The questions of the questionnaire concern advertisement scenarios and slogans, the shape of the product, script types and the colour of the product. Because different elements of the advertisement and product will be manipulated in the main study, it was decided that the product featured in the advertisement should be as neutral as possible and its design would have to be realistically manipulated. A soft drink has been chosen as the featured product, because a soft drink is not a typical product for either men or women and different elements like its colour and shape can easily be adapted. The soft drink was named Splash. Splash has been chosen as fictional product name as it sounds fresh and energizing and is not associated with either one gender in particular.

### *3.2.1 Participants*

For the pre-test, a convenience sample of 28 participants was recruited through e-mail and social media. All participants were female and were aged between 15 and 34. Almost all participants (93%) were either enrolled at an academic education or had concluded it. The other 7% was enrolled at an institution on HBO-level or had concluded such an education.

### *3.2.2 Procedure*

For this pre-test, a questionnaire was created and published on the website thesistool.com. The motivation for an online questionnaire was to increase convenience for the respondents, as they were able to fill out the questionnaire online without having to return paperwork and such. The link to the questionnaire was mailed to the convenience sample. When starting the questionnaire, respondents were informed about the purpose of the pre-test and that the elements, which they were to evaluate, would be used to design a new soft drink and its advertisement. The first elements, which the respondents had to assess, were the advertisement scenario and slogan. Participants had to read short texts and answer a few questions before moving on to the next scenario. For shape, script type and colour, pictures were provided, which were positioned above the question. At the end of the questionnaire, participants had to answer a few demographic questions.

### 3.2.3 Measures

The questionnaire, that was developed to examine five elements of to-be manipulated advertisement in the main study, is shown in Appendix A. The language employed in the questionnaire is Dutch, as it is the mother tongue of the respondents and it will therefore make it easier to fill out. The translated items were checked by two translators, who were Dutch native speakers, but fluent in English as well.

#### *Femininity construct*

As discussed in the literature, a lot is known about what stereotypical feminine shapes and colours are. Women prefer redish-purple colours and pink is considered a feminine colour, which is why girls often wear pink. In a pilot study by Koller (2008), 169 male and female respondents, age ranging between 17 and 96, filled out an explorative questionnaire to obtain knowledge about colour associations, in particular of the colour pink. Results of this questionnaire indicated that 76.3% of the respondents associated pink with femininity and 56.3% of the respondents linked pink to romance. Different shades of pink generated very diverse, and sometimes contrasting associations among women: 58.1% of the women relates pink to cheekiness, 57.3% to sweetness, 55.3% to allure and amusement and 42.7% to innocence. On the other hand, 17.9% of the women associated pink with stupidity.

Additionally, round shapes are thought to be feminine, as round shapes are associated with stereotypical feminine traits like harmony and friendliness. In this pre-test, it is checked if these assumptions, which stem from scientific literature, are confirmed in a sample of young women. The femininity construct has been developed to measure the extent to which certain script types, shapes of bottles and colours are assessed as typically feminine. The construct is measured by two questions, which are discussed more elaborately below.

#### ◦ Script type

Based on the literature reviewed in the theoretical framework, it is known that round script types are thought to be more feminine, while angular scripts are considered to be more masculine: Pan and Schmitt (1996) found that the curvy font with round shapes, 'Script', was considered a feminine script and the block lettered, angular script, Helvetica, was considered masculine. A sample of three relatively round scripts (Script, Cezanne and Vivaldi) and three relatively angular scripts (Helvetica, Zachery, Bell Gothic Standard) were selected (see Figure 2). From the Pan and Schmitt (1996) study, two of the three items, which the authors created for the participants to rate the different scripts, were selected for the questionnaire of the current pre-test.

The two items, measured on a 7-point scales, are: "I think that the following writing style is.. (masculine = 1, feminine = 7)"; "I think the following writing style is suitable for brands used by.. (women = 1, men =7)". To adjust the item to the purpose of the current pre-test, the word 'brands' has been replaced with 'product'. In order to keep the scales of the two items the same, the last question has been adjusted in such a way that the scale is identical to the first, resulting in the following items: "This writing style is.. (masculine = 1, feminine = 7)" and "This writing style is suitable for a product that can be classified as.. (masculine = 1, feminine = 7)".

**Figure 2 – Overview of selected types of script**

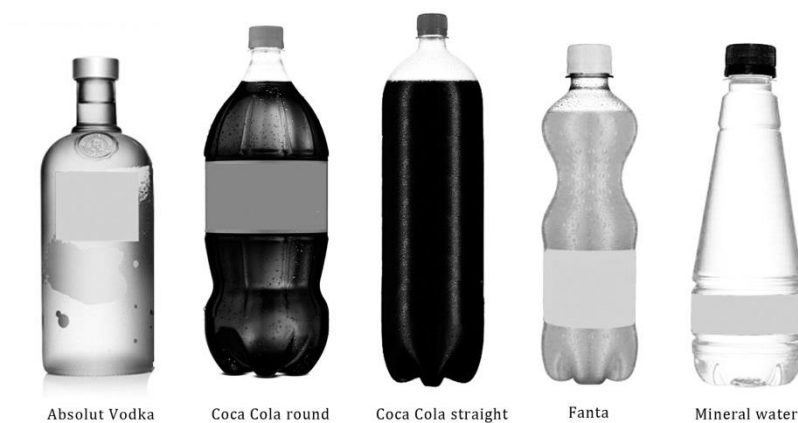


#### ◦ Shapes

The findings in literature that indicate that round forms are perceived as feminine and angular forms are perceived to be masculine also apply to the shape of the product. Five differently shaped bottles were sought out, so that the participants can decide whether the shape is particularly feminine or not. These bottles belonged to the brands Fanta, Coca Cola (a rounded and a straight bottle), Absolut Vodka and a private mineral water label. The pictures were edited in Adobe Photoshop CS to change the coloured images into grey-scale and to adjust the label so that the brand became unreadable (see Figure 3). For the assessment of the shapes of the bottles, the same items were used as for the assessment of the femininity of scripture, but the words 'writing style' were replaced with 'shape of this bottle', resulting in the following items: : "The shape of this bottle is.. (masculine = 1, feminine = 7)" and "The shape of this bottle is suitable for a product that can be classified as.. (masculine = 1, feminine = 7)".



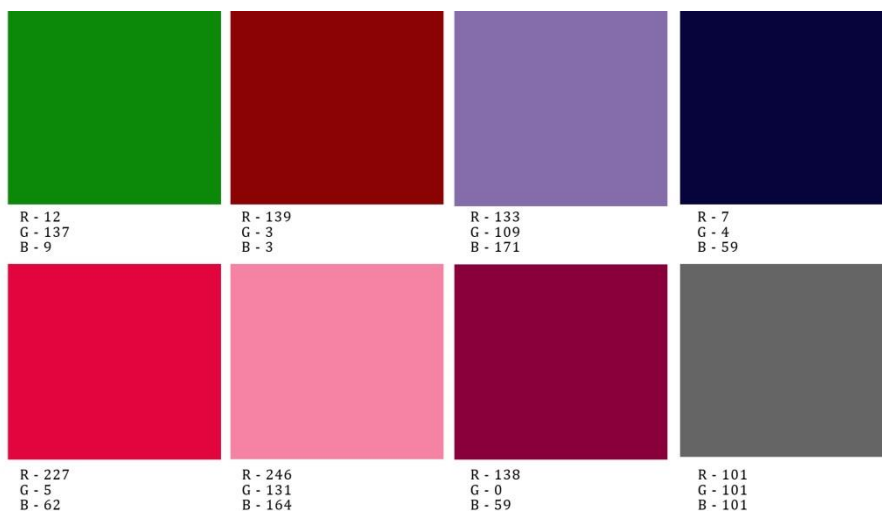
**Figure 3 – Overview of selected types of bottle shapes**



#### ◦ Colours

Based on the reviewed literature, it appears that different shades of pink can have different connotations. The colour pink has, for example, become a symbol for homosexuality, but also for breast cancer awareness (Koller, 2008). In order to gain more insight in which colours are perceived to be feminine, three different shades of pink have been chosen, to be rated by the participants. The study by Hurlbert and Ling (2007) found that women prefer reddish-purple colours while men prefer blue-green colours. That is why different shades of red, blue and lavender were selected, but also green and grey as more masculine colours. These colours were presented in rectangles of the desired colour (see Figure 4). Once more, the two adapted items of Pan and Schmitt were used for the assessment of colour. The participants were asked to rate the colours on the basis of these items: “This colour is.. (masculine = 1, feminine = 7)” and “This colour is suitable for a product that can be classified as.. (masculine = 1, feminine = 7)”.

**Figure 4 – Overview of selected types of colour**



### *Independence & interdependence construct*

The independence construct and the interdependence construct were created to assess which scenario and slogan would elicit the most thoughts about the individual alone or the individual together with others. Each construct is measured by one single question, which have been selected from the study by Aaker and Lee (2001), who also primed independent and interdependent self-construal with scenarios and slogans.

#### ◦ Scenario

It is expected that certain advertisement scenarios will elicit a type of self-construal in women. It was discussed in the literature review that a prime, focusing on the individual, could activate independent self-construal and a prime, focusing on the self in a group, could elicit an interdependent self-construal. Several scenarios were developed and used to examine which scenario was most suitable to activate the different types of self-construal. In the pre-test, this scenario was described in a small paragraph of four or five lines of text, in order to find out which scenario is most suitable as prime. In the main study, this scenario will be depicted in the form of a photo. For the independent self-construal, a scenario needed to be developed where the thoughts of the respondent were centered on the self and where the respondent felt competitive and independent so that her uniqueness would be stressed. Two professional scenarios were created, both featuring a woman who holds an important position at work and entrusted with a responsible task. The other three scenarios can be classified as social. In those scenarios, a woman's participation in a group, as well as aspects like dependency of others and dedication to others had to be stressed. Two scenarios concerned woman and her family during a family activity, while the other focused on a woman, who was with her female friends at the gym (see Appendix B, Figure 5).

In order to check if a self-construal was elicited, two items were selected from the study by Aaker and Lee (2001). These authors used six items as manipulation check to see if their advertisement elicited the desired self-construal. To keep the questionnaire brief, two of the six items, on a seven-point scale (1 = not at all; 7 = a lot), were selected for the current pre-test. The original items of the Aaker and Lee study (2001) are: "While you were reading about Welch's Purple Grape Juice, please describe the extent to which you thought just about yourself and the extent that your thoughts about the message were focused on you and your family". The items have been adapted, so that they would fit in the context of the current pre-test: "While reading this scenario, my thoughts were focused on just myself" and "While reading this scenario, my thoughts about this scenario were focused on my friends/family and myself."

#### ◦ Slogan

In the study of Aaker and Lee (2001), but in the study of Ng and Houston (2006) as well, the combination of a picture and a slogan is used as stimulus material for self-construal. The slogan will serve as an extra prime in the advertisement of the main study for the respondents to activate either independent or interdependent self-construal. Five slogans were created that either related to the scenario of the woman at work or the woman in the family or friends situation (see Appendix C, Figure 6). In the slogan, the name of the soft drink, Splash, was mentioned. To check whether the desired self-construal type was indeed activated by reading the slogan, the two adapted items of Aaker and Lee (2001) were employed: “While reading this slogan, my thoughts were focused on just myself” and “While reading this slogan, my thoughts about this slogan were focused on my friends/family and myself.”

#### 3.2.4 Results of pre-test

A preliminary data-analysis was conducted, whereby the dataset was checked and total scores for shape, script and colour were calculated, by taking the mean of the total scores. Afterwards a repeated measures test was conducted, which allowed the analysis of the scenario and slogan that elicited the most independent and interdependent thoughts and the script, shape and colour that were considered as most feminine and gender neutral.

The scenario which scored highest on independence ( $M = 5.68$ ;  $SD = 1.249$ ) is the fourth scenario with the business woman at the airport. The scenario which scored highest on interdependence ( $M = 5.82$ ;  $SD = 1.090$ ) is the fifth scenario with the woman, who is in the park, playing with her husband and two children. The difference between the independent and interdependent scenarios was significant ( $p < 0.001$ ).

The slogan with highest scores on independence ( $M = 5.71$ ;  $SD = 1.630$ ) is the third slogan “Need control? With Splash you can make an excellent achievement!” (Dutch phrasing: “Need control? Met Splash lever jij een topprestatie!”). As for interdependence, the fourth slogan received the highest score ( $M = 5.46$ ;  $SD = 1.401$ ) “Complete a beautiful day with your family with the refreshment of Splash” (Maak een prachtige dag met je gezin compleet met de verfrissing van Splash!). The results indicate that the difference between the independent slogan and interdependent slogan was significant ( $p < 0.001$ ).

The script type Vivaldi was rated as the most stereotypical feminine script ( $M = 4.98$ ;  $SD = 0.877$ ), while the script Zachery was rated as the most gender-neutral script ( $M = 3.86$ ;  $SD = 0.961$ ).

A gender-neutral script (but also shape and colour), with means around the 4.00, was selected, as the purpose of the main study is to create, aside of a gender stereotypical product design, a gender-neutral product design. The difference between the two scripts was significant ( $p < 0.01$ ).

The bottle which scored highest on femininity ( $M = 5.48$ ;  $SD = 0.739$ ) is the bottle with the most rounded shapes, that belongs to the brand Fanta. The straight Coca Cola bottle scored highest on gender neutrality ( $M = 3.52$ ;  $SD = 0.986$ ). There was a highly significant difference between the two bottles ( $p < 0.001$ ).

Finally, the colour which was rated as the most feminine was baby pink ( $M = 6.54$ ;  $SD = 0.732$ ) and the colour which was considered to be most gender-neutral is green ( $M = 3.55$ ;  $SD = 0.985$ ). Another colour, lavender, also scored high on gender neutrality ( $M = 4.43$ ;  $SD = 1.275$ ), but was considered as a still too feminine colour by the researcher. Furthermore, the differences between the colours were significant ( $p < 0.001$ ). Table 1 and 2 give an overview of the means and standard deviations of the selected advertisement elements. In Appendix D, Table 3 shows the pairwise comparisons of the means.

**Table 1 – Mean and standard deviation for selected scenario and slogan**

	Scenario		Slogan	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Independent condition</i>	5.68 <sup>a</sup>	1.249	5.71 <sup>c</sup>	1.630
<i>Interdependent condition</i>	5.82 <sup>b</sup>	1.090	5.46 <sup>d</sup>	1.401

a Airport scenario

b Playing at the park scenario

c Need control slogan

d Maak een prachtige dag compleet slogan

**Table 2 – Mean and standard deviation for selected script, shape and colour**

	Script		Shape		Colour	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Gender stereotype condition</i>	4.98 <sup>a</sup>	0.877	5.48 <sup>c</sup>	0.739	6.54 <sup>e</sup>	0.732
<i>Gender-neutral condition</i>	3.86 <sup>b</sup>	0.961	3.52 <sup>d</sup>	0.986	3.55 <sup>f</sup>	0.985

a Vivaldi script

b Zachery script

c Fanta bottle

d Coca Cola bottle (straight)

e Baby pink

f Green

In this pre-test, different versions of scenarios and slogans have been presented to the respondents to select a slogan and scenario, that according to the respondents, elicited the most independent and interdependent thoughts about the self. Furthermore, several types of script, bottle shapes and colours were tested for gender stereotypicality and gender-neutrality. Directions about stereotypical scripts, shapes and colours have been obtained from previous research, but had to be confirmed in this pre-test. The selected elements from the pre-test will be used as stimulus material for the advertisement of the main test.

### **3.3 Main study**

For the main study, four advertisements have been created, based on the results of the pre-test. The advertisements differed in advertisement scenario and in product design of the product featured in the advertisement. Participants were assigned to one of these four advertisements to evaluate the advertisement on the basis of a questionnaire. It is expected that participants, who received an advertisement with a scenario that elicits a self-construal that is incongruent to the preferred type of product design (extent of stereotyping), will respond differently (and less favourably) to the advertisement and the product, than those who receive an advertisement scenario that elicits a self-construal which is congruent to the preferred type of product design.

#### *3.3.1 Design & participants*

The main study has a 2 (self-construal: independent vs. interdependent) x 2 (product design: gender stereotypical vs. gender-neutral) between-subject design. Every group (n=40) received a questionnaire with one of the four advertisements. Except for the different versions of the advertisements, the questionnaires were identical.

A total of 160 participants filled out the questionnaire (see *paragraph 3.3.6* for the omission of participants). All participants were of course women and their age ranged between 16 and 72. However, 28 women did not state their age, so their age remains unknown. The education level of the respondents varied from a secondary school degree to higher education: 21% of the respondents is currently enrolled in or finished Middelbaar Beroepsonderwijs (MBO), 45% of the respondents is currently enrolled in or finished Hoger Beroepsonderwijs (HBO) and 22% of the respondents is currently enrolled in or finished Wetenschappelijk Onderwijs (WO). In Table 4, an overview is presented of the respondent's age and education level across the different manipulation levels.

**Table 4 – Demographic information across manipulation levels**

		Independent - Stereotype	Interdependent - Stereotype	Independent – Gender-neutral	Interdependent – Gender-neutral
<b>Age</b>	<i>M</i> ;	29.4;	30.3;	29.9;	29.8;
	<i>SD</i>	13.734	14.995	12.288	13.695
	Nr of respondents*	34	32	35	31
<b>Education level</b>	VO	7.5%	12.5%	0%	7.5%
	MBO	17.5%	20%	32.5%	15%
	HBO	57.5%	47.5%	32.5%	50%
	WO	17.5%	17.5%	32.5%	25%
	Anders	0%	2.5%	2.5%	2.5%

\*A total of 28 respondents did not disclose their age

### 3.3.2 Stimulus material

#### *Product manipulations*

The results of the pre-test suggested which bottle shapes, types of script and colours were considered as most gender stereotypical and gender-neutral by the pre-test respondents. In Adobe Photoshop, the gender stereotypical and gender-neutral bottles were coloured with the corresponding colours, baby pink and green respectively. Finally, the Splash was written on the label in the Vivaldi script for the stereotypical bottle and the Zachery script was used for the gender-neutral bottles.

#### *Advertisement manipulations*

The results of the pre-test indicated that the scenario of a professional woman at the airport is suitable to elicit an independent self-construal, while the scenario of a family playing in the park can be used to elicit an interdependent self-construal. The website shutterstock.com was used to find the right stock photos for the advertisement scenarios. For the independent stimulus, certain conditions had to be met: the woman in the photo had to be a recognizable business woman in terms of her clothing and devices she used, like a mobile phone or a tablet computer. Furthermore the woman needed to be alone in the photo and it had to be clear that she was going on a business trip. For the interdependent stimulus, the stock photo also needed to meet several conditions. The stock photo needed to feature a family with a mother, a father and at least two children, playing in the park. The mother had to be clearly visible and the photo and preferably she had to carry or hold the hand of her child, to show dependency.

Two photos were selected and edited in Adobe Photoshop to remove the watermark and to enlarge the photo. Finally, one of the bottle manipulations was pasted in the photo as well as a slogan, that corresponded with the advertisement scenario to complete the advertisement. The slogan which was most effective in priming an independent self-construal (“Need control? With Splash you can make an excellent achievement!”) was added to the photo featuring the business woman on the airport. The slogan that was most effective in eliciting an interdependent self-construal (“Complete a beautiful day with your family with the refreshment of Splash”) was pasted in the photo with the family at the park. Slogans were written in the standard script Calibri. An overview of the research conditions is featured in Table 5 and the stimulus material can be found in Figure 7.

**Table 5 – Overview of research conditions**

Conditions	Self-construal	Product design
1	Independent	Gender stereotypical
2	Independent	Gender-neutral
3	Interdependent	Gender stereotypical
4	Interdependent	Gender-neutral

**Figure 7 – Stimulus material**



### 3.3.3 *Dependent measures*

The dependent variables consist of two different constructs, namely attitude towards the advertisement and the intention to buy the product. Furthermore, this questionnaire contained questions about gender identity, demographics and a manipulation check.

#### *Attitude towards advertisement*

Two scales were selected to capture the attitude toward advertisement. The first is the Attitude Toward the Ad Scale, which was used in the research of Holbrook and Batra (1987). These researchers reported a very high internal consistency for the scale ( $\alpha = 0.99$ ). Originally, the scale consisted of four bi-polar statements about the advertisement, which the respondents had to rate on a seven-point scale, like “The ad is good”/ “The ad is bad”. However, in order to keep the scale format common and in line with the rest of the scales, it was changed into separate statements, which had to be assessed on a seven-point scale (1 = strongly disagree, 7 = strongly agree). Additionally, one question (“I can empathise with the advertisement” ) was added to the Attitude Toward the Ad Scale as empathy is an important factor for this research that was not included in any existing scale concerning attitude to an advertisement.

Second, the Attitude Toward the Ad Scale used by Appiah (2001) was selected, because this scale offers insight in the evaluations of respondents on different dimensions of the advertisement. Not only will it become clear whether respondents like or do not like the advertisement, but also why they do or do not like it. The reported internal consistency of the scale is very high ( $\alpha = 0.96$ ). This semantic differential scale consisted of eleven adjectives, like “interesting”/ “boring”, which respondents had to rate on a seven-point scale (1 = very boring, 7 = very interesting).

#### *Intention to buy the product*

The intention to buy the product was measured by the Purchase Intention Scale used by Bower and Landreth (2001). The internal consistency of the scale reported by Bower and Landreth (2001) was high ( $\alpha = 0.90$ ). The Purchase Intention Scale was used in a study where respondents, among other things, had to assess beauty-related products. For the purpose of the current study, the third item (“ I am interested in seeing how the product looks on me” ) was changed in “I am interested in tasting the product”. The Purchase Intention Scale comprised six items, like for example “I intend to try this product”, which are rated on a seven-point scale (1 = I strongly disagree, 7= I strongly agree) (Bruner, Hensel & James, 2005).



### *Gender identity*

As already mentioned in the theoretical framework, the two most widely used measurement scales to measure gender identity are the Bem Sex Role Inventory and the Personal Attribute Questionnaire. These scales have also received a lot of theoretical and methodological criticism. However, little effort has been made to come up with alternative measurement scales (Gill et al., 1987). Palan et al. (1999) called for the development of a theoretically sound measurement tool for gender identity, that could be essential to consumer behaviour research, but to date there is no gender identity scale that has replaced the Sex Role Inventory of Bem. Therefore, the short version of the Bem Sex Role Inventory has been selected as measurement scale for gender identity. Compared to the original version (60 items), the short BSRI (30 items) has proven to be “purer and have construct validity in relation to the measurement of instrumentality and expressiveness” (Colley, Mulhern, Maltby & Wood, 2009, p. 384). In the short version of the BSRI (Bem, 1981), respondents are asked to rate whether the given characteristics described them on a seven-point scale (1 = never true, 7 = always true) (Brems & Johnsons, 1990). The scale consists of ten typically masculine traits like dominance and aggressiveness, ten typical feminine traits like tenderness and compassion and ten neutral items like jealousy and reliability.

### *Manipulation check*

In order to confirm that the manipulation of the advertisements primed the right type of self-construal, a manipulation check was inserted at the end of the questionnaire. The manipulation check questions which Aaker and Lee (2001) used in their study were selected and somewhat adapted to fit the purpose of this study. The authors reported a high internal consistency for the scale ( $\alpha = 0.90-0.92$ ). The scale consisted of six items: three items captured the extent to which the thoughts of the respondents were focused on themselves alone (e.g. “While you viewed the advertisement, please describe the extent to which you thought just about yourself”) and the extent to which the thoughts of the respondents were focused on their family and themselves (e.g. “While you viewed the advertisement, please describe the extent to which you thought about you and your family”). Respondents had to rate the items on a seven-point scale (1 = I strongly disagree, 7 = I strongly agree).

### *3.3.4 Questionnaire*

The questionnaire was translated from English to Dutch by back-translation method. In the instructions at the start of the questionnaire, the respondent was informed that the purpose of the questionnaire was to evaluate an advertisement for a fictional soft drink brand, called Splash.

In the instructions, it was guaranteed that the anonymity of the respondents would be safeguarded and that their responses would be handled in the utmost confidentiality and used for scientific purposes only. The complete questionnaire is featured in Appendix E.

It has been decided to use a paper questionnaire, that will be distributed in public places, instead of an online questionnaire. This is because of the approachability and the size of the target group for this questionnaire (women between 15 and 65 years old). Nulty (2008) reported in his research about online and paper surveys of teaching courses that paper surveys, especially if they were administered in a face-to-face setting, had a higher response rate than online surveys. Furthermore, the older segment of the target group might use the internet relatively less often than adolescents, which also gave the incentive to distribute the questionnaires in a face-to-face setting, so that these women could also be reached.

Finally, by choosing for a paper questionnaire, there were more liberties in designing the questionnaire. The advertisement, for example, could be placed on the page preceding the questions and if the respondent wishes to look at it again, she can simply flip a few pages back, whereas with an online questionnaire, this is often not possible and the advertisement needs to be placed on top of each page.

### *3.3.5 Procedure*

With regard to the location of distributing the questionnaire, public places were sought out where women spend enough time, preferably waiting, so that they would be inclined to fill out the questionnaire. Respondents were therefore recruited in the train on intercity routes, like Schiphol Airport – Vlissingen, Rotterdam – Leeuwarden, Enschede – Schiphol Airport, and Roosendaal - Zwolle. The train was a suitable place to distribute the questionnaires because of its large amount and wide diversity of passengers, who use the train to reach either business or pleasure destinations. Additionally, some respondents were also recruited at the station hall of Schiphol Airport, a few local primary schools in Enschede and through snowballing. Other more feminine locations, where mainly women can be approached such as the hairdressers or at a feminine event like the 'Libelle Zomerweek', were also considered but have the disadvantage that women might be in a more 'feminine' mood.

This research attempts to prime the respondent's self-construal and therefore women preferably need to be in a neutral state of mind, which would be the case when on the train. Participants received the questionnaire when they agreed to participate and the booklets were picked up later on. The questionnaires were randomly distributed, so the research conditions were randomly assigned to the participants.

After reading the instructions, participants were asked to look at the advertisement carefully, before answering questions to evaluate the advertisement, questions about the participant's personality, demographic questions and finally six questions, which served as manipulation check.

### *3.3.6 Preliminary data-analysis*

In the preliminary data-analysis in SPSS, respondents, who did not fill out the entire questionnaire, were eliminated from the dataset. A total of 172 questionnaires were returned. However, the sample was reduced to 160 participants, because twelve participants had forgotten to fill out a complete scale. Additionally, negatively worded items were reversed in order to calculate the total scale scores.

#### *Calculating total scale scores*

Total scale scores were calculated by reversing the negatively worded items and adding the items of the scale and taking the mean. Consequently, the total scores for Femininity were calculated by adding the scores of all feminine traits and taking the mean of these total scores. The total Masculinity scores were calculated in a similar fashion. Then the median of both the total Femininity and Masculinity scores were retrieved ( 5.60 and 4.80 respectively). The median was used as a reference to calculate the gender identity dimensions, using the guidelines provided by Bem (see Figure 8 for an overview). Altogether, according to this classification method, 24% of the women were considered to be "feminine", while 25% of the women were considered to be "masculine". Furthermore, 27% of the women were assigned to the "androgynous" gender identity and 24% of the women are classified as "undifferentiated".

In Appendix F, Table 6 can be found which features the implications of the different total scales.

#### *Reliability of scales*

The reliability of the scales were examined to assess whether the scale produced consistent results and if the scale measured the underlying constructs in an consistent way (Field, 2009). The Cronbach Alpha coefficient has been used, which is the most common measure for scale reliability (Field, 2009). As can be seen in Table 7, the Cronbach Alpha coefficient was for all scales relatively high.

**Figure 8 – Assignment method of Bem’s gender classifications**

		<b>Masculinity Score</b>	
		<i>Below Median</i>	<i>Above Median</i>
<b>Femininity Score</b>	<i>Below Median</i>	Undifferentiated	Masculine
	<i>Above Median</i>	Feminine	Androgynous

(Hogg & Garrow, 2003)

**Table 7 – Scale reliability**

<b>Construct</b>		<b>Cronbach’s Alpha ( <math>\alpha</math> )</b>	<b>Nr of items</b>	<b>Nr of items removed</b>
<i>Attitude towards advertisement</i>		0.942	16	0
<i>Intention to buy</i>		0.937	6	0
<i>Gender identity</i>	<i>Femininity</i>	0.788	10	0
	<i>Masculinity</i>	0.804	10	0
<i>Manipulation check</i>	<i>Self-thoughts</i>	0.917	3	0
	<i>Other thoughts</i>	0.974	3	0

### 3.3.7 Assumptions of multivariate analysis of variance

In the next chapter, the results of the main study will be reported. A two-way multivariate analysis of variance has been conducted. However, first it should be checked if all the assumptions for the multivariate analysis of variance are satisfied.

First, it is important that all observations from the main study were independent (Field, 2005). This can be guaranteed as the majority of the respondents was approached when they were on their own. Those who had been with others were told that the questionnaire had to be filled out independently and that discussion about the questionnaires was discouraged.

Furthermore, it was required that the questionnaires were randomly distributed, that each condition had equal sample sizes, and that the dependent variable is measured on at least an interval scale, which was the case for this study (Pallant, 2005).

Another important assumption for the multivariate analysis of variance is that of multivariate normality. According to Tabachnick and Fidell (2002), robustness of the test is ensured when there are 20 respondents per cell (as cited in Pallant, 2005). The current study has 40 respondents per cell. To test normality, a non-graphical test is preferable as with small or moderate sample sizes graphical tests, like normal probability plots, might not be conclusive (Stevens, 2002). The Kolmogorov-Smirnov test was executed, whereby a non-significant result indicates normality. Additionally, the skewness and kurtosis coefficients were calculated. The former refers to the symmetry of the distribution, while the latter provides information about the peakedness of the distribution (Tabachnick & Fidell, 1996). When the value for skewness or kurtosis falls within the range from minus twice the standard error for either skewness or kurtosis to plus twice the standard error for either skewness or kurtosis, the sample is normally distributed (University of New England, 2000). As can be seen in Table 8 (Appendix G), the attitude towards the advertisement can be considered as normally distributed. However, the result for Kolmogorov-Smirnov test for intention to buy was significant. Taking this into account that intention to buy does not fall into the standard error range of skewness, it can be concluded that intention to buy is positively skewed. But both Tabachnick and Fidell (1996) and Stevens (2002) argue that skewness has only a slight impact on the level of significance or power, because with a larger sample size the independent observations quickly approach normality. Therefore, it can be concluded that deviations from normality make no substantive difference for the results of the multivariate analysis of variance.

The assumption of homogeneity assumes that the variances of each condition is similar (Field, 2009). Levene's test for equality of variances was carried out to check this. An insignificant result indicates that the variances are indeed roughly equal (Field, 2005). The results from the Levene's test for each run of the multivariate analysis of variance were insignificant, which means that also this assumption was satisfied.

Another assumption, that has to be satisfied, is the absence of multivariate outliers. This is checked by examining the Mahalanobis distance, where the distance between a case and the means of all other variables is calculated (Tabachnick & Fidell, 1996). As there were no cases with a Mahalanobis distance that exceeded the critical value of 13.82, it can be concluded that no multivariate outliers are present (Pallant, 2005).

Then the assumption of linearity: there should be linear relationship between each pair of dependent variables. Scatterplots were created for the two dependent variables for every level of the independent variables and there was no evidence that proved non-linearity.

The next assumption assumes that multicollinearity and singularity are unwanted. According to Pallant (2005), the dependent variables should only be moderately correlated for the multivariate analyses of variance to work. Correlations between the attitude towards the advertisement and the intention to buy were calculated and reviewed using the Pearson product-moment correlation coefficient. There was a strong, positive correlation between the two dependent variables ( $r = 0.646$ ,  $N = 160$ ). However, Pallant (2005) notes that correlations over 0.8 are reason for concern for multicollinearity and the correlation is sufficiently different from zero to rule out singularity, so the fourth assumption is satisfied as well.

The final assumption is that of homogeneity of variance-covariance matrices. This is checked by Box's test of equality of covariance matrices. If the significance level is larger than 0.001 than this assumption is not violated (Pallant, 2005). The Box's test was checked for every run of the multivariate analysis of variance and in every case the significance level was larger than 0.001, indicating that this assumption was satisfied as well.

## **4. Results**

### **4.1 Manipulation check**

Six items have been used to check whether the scenario prime in the advertisement resulted in an elicited independent or interdependent self-construal. The results of the analysis of variance indicated that the advertisement scenario which had to elicit an independent self-construal resulted in significant higher scores on the Self-thoughts scale [ $F(1, 158) = 6.287, p < 0.05$ ] and that therefore respondents thought more about themselves alone ( $M = 4.13$ ) than about themselves together with their family ( $M = 3.46$ ) when exposed to the independent advertisement scenario. The same analyses was conducted for the advertisement scenario which was to activate an interdependent self-construal. Results show that for this advertisement scenario respondents scored higher on the Other-thoughts scale [ $F(1, 158) = 27.243, p < 0.001$ ]. After viewing this interdependent advertisement scenario, respondents thought significantly more about themselves with their family ( $M = 3.84$ ) than about themselves alone ( $M = 2.53$ ). It can therefore be concluded that the manipulation was successful and resulted in the desired thoughts to elicit one of the two types of self-construal.

### **4.2 Multivariate analysis of variance**

A multivariate analysis of variance was conducted with self-construal and type of product design as independent variables and attitude towards the product and intention to buy as dependent variables. Additionally, the multivariate analysis of variance was run again including other variables, like gender identity and age to check for moderating influences. The multivariate analysis of variance has some advantages over separate analyses of variance as it corrects for type 1 errors and that it provides insight in the interactions between the dependent variables (Tabachnick & Fidell, 1996; Field, 2005).

#### 4.2.1 Basic model

The multivariate analysis of variance was run for the basic model with self-construal and type of product design as fixed factors and attitude towards the advertisement and intention to buy as dependent variables. There are several multivariate test statistics of which Wilk's Lambda is most frequently used (Tabachnick & Fidell, 1996). However, if the independent variables have only two levels all test statistics are identical (Tabachnick & Fidell, 1996).

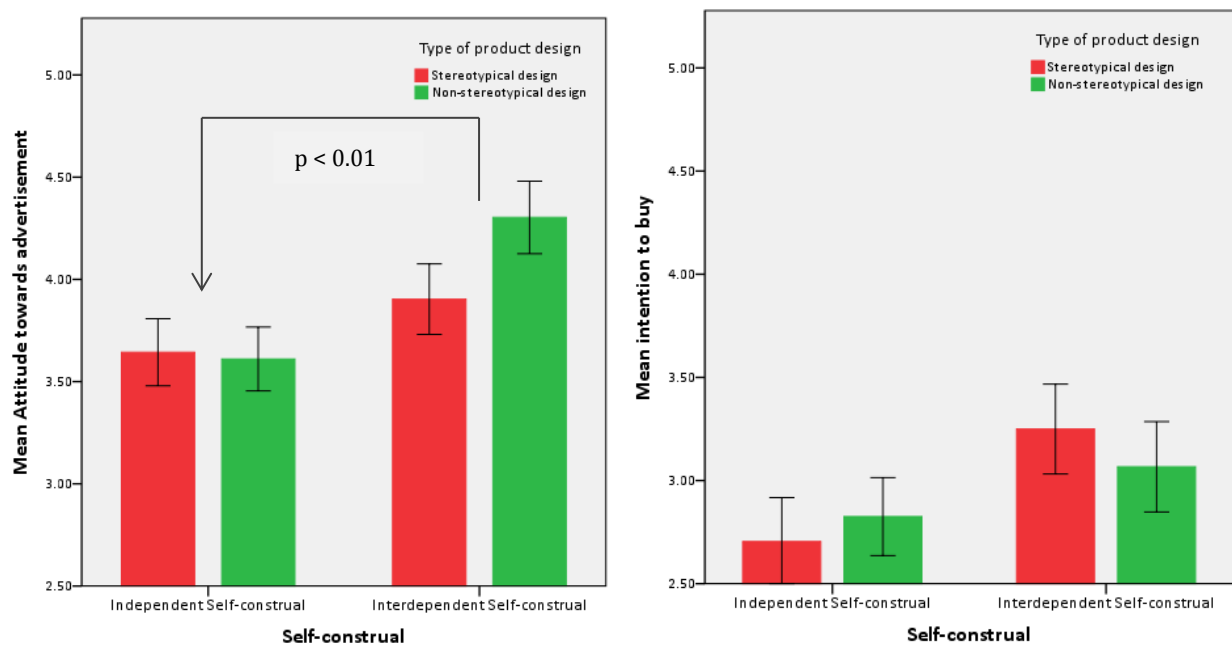
Results of the multivariate analysis of variance indicate that there is only a significant difference between the independent and interdependent self-construal conditions for the combined dependent variables [ $F(2, 155) = 3.999, p < 0.05$ , Wilk's Lambda = 0.951]. So no main effect for the type of product design [ $F(2, 155) = 1.230, ns$ , Wilk's Lambda = 0.984] or interaction effect [ $F(2, 155) = 2.924, ns$ , Wilk's Lambda = 0.964] was found.

As a significant effect was found for the multivariate test, one is permitted to look at the between-subjects effects. If there would not be a significant result for the multivariate test, but if one or more the between-subjects effects would be significant, these results would have to be ignored. This is because due to multiple testing the alpha level is inflated (Brown, Hendrix, Hedges & Smith, 2011). Because of this inflation an adjustment for type 1 error needs to be made for the alpha level (Tabachnick & Fidell, 1996). Tabachnick and Fidell recommend applying the Bonferroni adjustment, which basically involves dividing the alpha level by the number of dependent variables (Pallant, 2005). The new alpha level, which is used to assess whether the between-subjects effects are significant, is 0.025.

When assessing the between-subjects effects, there can be concluded that there was a significant difference between the respondent's mean attitude towards the advertisement in the different self-construal conditions [ $F(1, 156) = 8.048, p < 0.01$ ] (see Figure 9), whereas the mean differences for the intention to buy the product did not reach statistical significance [ $F(1, 156) = 3.516, ns$ ]. The respondents had a significantly more favourable attitude towards the advertisement in the interdependent self-construal condition ( $M = 4.10$ ) than in the independent self-construal condition ( $M = 3.63$ ). The proportion of variance in the attitude towards the advertisement that is associated with the level of self-construal is assessed by the effect size, which can be indicated with the eta squared statistics ( $\eta^2$ ) (Tabachnick & Fidell, 1996). According to Levine and Hullett (2002), the partial eta squared statistics, which is produced in the SPSS output for the multivariate analysis of variance, is often wrongly mistaken for the eta squared statistic, which leads to incorrect reports of the effect size and serious errors in the interpretation of research results. These authors note that eta squared is most often calculated by dividing the sums of squares for the effect of interest by the total sums of squares, which in the case of the current results leads to a very small effect size of 0.0035 (Levine & Hullett, 2002).



**Figure 9 – Mean values of dependent variables for independent conditions**



#### 4.2.2 Moderating influence of gender identity

According to Baron and Kenny (1986), if both the independent variable and the moderator variable are categorical variables, moderation is indicated by interaction. Therefore, in order to examine if gender identity could serve as a moderator in this model, gender identity was added as 'fixed factor' in the previous model. It should be noted that the group sizes for gender identity are not equal. After all, there were 40 masculine women, 39 feminine women, 43 androgynous women and 38 undifferentiated women. According to Tabachnick and Fidell (1996), this can pose a problem as the different sources of variability have overlapping variance, so that the variance cannot be attributed to one variable and therefore cause ambiguity in the results. One solution is to delete cases randomly until there are equal groups, however Tabachnick and Fidell (1996) note that sometimes this is undesirable, so the classic experimental approach is recommended by the authors as a method to deal with unequal sample sizes in research. This approach is used as default in SPSS in the multivariate analysis of variance (Tabachnick & Fidell, 1996).

Results indicated that there was a significant difference between the self-construal conditions for the combined dependent variables [ $F(2, 143) = 4.514, p < 0.05$ , Wilk's Lambda = 0.941]. However, no main effects were found for gender identity [ $F(6, 286) = 2.035, ns$ , Wilk's Lambda = 0.920] or for the type of product design [ $F(2, 143) = 1.484, ns$ , Wilk's Lambda = 0.980].

Furthermore, no interaction effect was found for type of product design and gender identity [ $F(6, 286) = 0.746$ , *ns*, Wilk's Lambda = 0.969], which leads to the conclusion that gender identity does not have a moderating influence.

To examine what the exact effect of the self-construal conditions is on attitude towards the advertisement and intention to buy separately, the between-subjects effects were assessed. After applying the Bonferroni adjustment the alpha level is 0.025. The respondent's mean attitude towards advertisement differed significantly for the self-construal conditions [ $F(1, 144) = 9.092$ ,  $p < 0.01$ ], but the mean differences for intention to buy did not reach the alpha level set by the Bonferroni adjustment [ $F(1, 144) = 4.077$ ,  $p < 0.05$ ] and therefore no significance. The attitude towards the advertisement was rated significantly higher for the interdependent condition ( $M = 4.14$ ) than for the independent condition ( $M = 3.62$ ) and this main effect was somewhat stronger compared to the main effect of the basic model ( $p = 0.003$  vs.  $p = 0.005$ ). But the effect size is still very small ( $\eta^2 = 0.004$ ).

#### 4.2.3 Moderating influence of age

The multivariate analysis of variance was also run to test for the moderating influences of age. Age has been split in three groups with every group containing roughly a third of the sample. Results for the multivariate test that included the respondent's age as fixed factors indicated that there was a significant difference between the means of the combined dependent variables for the different types of product design [ $F(2, 119) = 4.754$ ,  $p < 0.05$ , Wilk's Lambda = 0.926]. Additionally, a significant difference between the means of the combined dependent variables was found for the self-construal conditions [ $F(2, 119) = 5.934$ ,  $p < 0.01$ , Wilk's Lambda = 0.909]. Results also indicated evidence for an interaction effect between the self-construal conditions, the type of product design and the respondent's age [ $F(4, 238) = 4.916$ ,  $p < 0.01$ , Wilk's Lambda = 0.853]. To examine what the exact effect is on the different dependent variables separately, the between-subjects effects were assessed. After applying the Bonferroni adjustment once more the alpha level is 0.025.

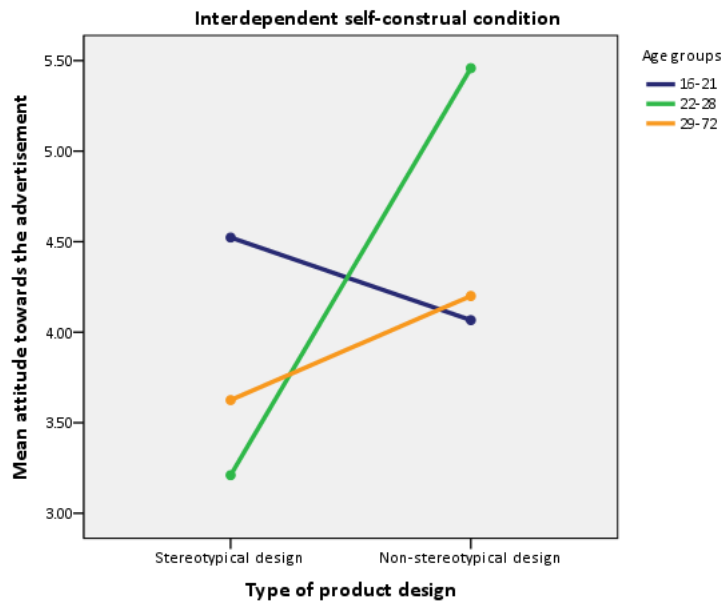
There is a significant difference between the respondent's mean attitudes towards the advertisement for the different types of product design [ $F(1, 120) = 8.020$ ,  $p < 0.01$ ]. Those who viewed the advertisement with the gender-neutral product design ( $M = 4.13$ ) had a significantly more favourable attitude towards the advertisement than those who viewed the advertisement with the gender stereotypical product design ( $M = 3.66$ ). The effect size was very small ( $\eta^2 = 0.0032$ ). There was no significant difference between the respondent's mean intention to buy for the different types of product designs [ $F(1, 120) = 0.824$ , *ns*].

Once again, there was only a significant main effect for self-construal for the dependent variable attitude towards the product [ $F(1, 120) = 11.467, p < 0.01$ ] and not for intention to buy the product [ $F(1, 120) = 2.832, ns$ ]. Those who were confronted with the advertisement that elicited the interdependent self-construal ( $M = 4.18$ ) had a more favourable attitude towards the advertisement than those who viewed the advertisement that elicited the independent self-construal ( $M = 3.62$ ). The effect size was very small ( $\eta^2 = 0.0046$ ). The interaction effect between self-construal, type of product design and the respondent's age was only found for attitude towards the advertisement [ $F(2, 120) = 9.543, p < 0.001, \eta^2 = 0.0077$ ]. After examining the pairwise comparisons table (see Table 9), it became clear that there is a significant difference in the mean attitude towards the advertisement for different age groups between the gender stereotypical and gender-neutral product design only in the interdependent self-construal condition. More specifically, the age group of 16 to 21 years old ( $M = 4.52$ ) had significantly more favourable attitudes towards the advertisement when viewing the gender stereotypical product design in the interdependent self-construal condition than the age group of 29 to 72 years old ( $M = 3.63$ ). An even greater difference in attitudes towards the advertisement was found when comparing the age group of 16 to 21 years old ( $M = 4.52$ ) with the age group 22 to 28 years old ( $M = 3.21$ ). Conversely, the age group of 22 to 28 years old ( $M = 5.46$ ) had significantly more favourable attitudes towards the advertisement featuring the gender-neutral product design in the interdependent condition than the age groups of 16 to 21 years old ( $M = 4.07$ ) and 29 to 72 years old ( $M = 4.20$ ). This interaction is featured in Figure 10.

**Table 9 –Means for attitudes towards advertisement for interdependent self-construal, type of product design and age groups**

Self-construal	Product design	Age group	Attitude towards advertisement		
			Mean	Std. Error	N
Interdependent Self-construal	Gender stereotypical design	16-21	4.52	0.278	11
		22-28	3.21	0.278	11
		29-72	3.63	0.291	10
	Gender-neutral design	16-21	4.07	0.238	15
		22-28	5.46	0.376	6
		29-72	4.20	0.291	10

**Figure 10 – Interaction effect between age groups and type of product design in the interdependent condition**



#### 4.2.4 Moderating influence of self-referencing

In the questionnaire, one item was added that concerned whether respondents were able to empathize with the advertisement. It seems probable that the larger the extent to which respondents can empathize with the advertisement, the more favourable their appraisal of the advertisement and product is. This effect is also called self-referencing (Morrison & Shaffer, 2003). The sample was split for this one item: all respondents who scored higher than 4.00 (neutral) on this scale were categorized as self-referencing and those who scored 4.00 or lower were categorized as not self-referencing. A multivariate analysis of variance was then run to check for the moderating influence of self-referencing. Results indicated that there was a significant difference between the means of the combined dependent variables for self-referencing [ $F(2, 151) = 46.151, p < 0.001$ , Wilk's Lambda = 0.621]. From the between-subjects effects, it could be concluded that those with self-referencing abilities ( $M = 4.78$ ) had more favourable attitudes towards the advertisement than those who did not have self-referencing abilities ( $M = 3.40$ ) [ $F(1, 152) = 91.235, p < 0.001$ ]. This same effect was found for intention to buy the product [ $F(1, 152) = 39.597, p < 0.001$ ]: those with self-referencing abilities ( $M = 3.82$ ) had significantly higher intentions to buy the product than those who did not have self-referencing abilities ( $M = 2.56$ ). The effect size is quite small ( $\eta^2 = 0.026; 0.022$ ).

Additionally, a significant difference between the self-construal conditions was found for the combined dependent variables [ $F(2, 151)=3.522, p < 0.05$ , Wilk's Lambda= 0.955]. Further inspection revealed that this effect was only present for attitude towards the advertisement, indicating that those who received the advertisement with the interdependent self-construal condition ( $M= 4.27$ ) had significantly more favourable attitudes towards the advertisement than those who received the advertisement with the independent self-construal condition ( $M= 3.90$ ) [ $F(1, 152)=6.604, p < 0.025$ ]. The effect size was again very small ( $\eta^2= 0.0019$ ). No significant interaction effect was found so self-referencing is not a moderating variable.

### **4.3 Discussion of the main study results**

Several multivariate analyses of variance were conducted and each test produced unique results, but what do these results actually mean?

The first hypothesis contained expectations for an interaction effect between self-construal and the type of product design. Specifically, it was expected that respondents who were confronted with the advertisement eliciting the independent self-construal and containing a type of product design that was congruent to their self-construal (gender-neutral product design) would have more favourable attitudes towards the advertisement and a higher intention to buy the product than respondents who were confronted with the advertisement eliciting the same self-construal and containing a type of product design that was incongruent to their independent self-construal (gender stereotypical product design). The same congruency effect was expected for the combination of the interdependent self-construal and the gender stereotypical product design. When assessing the results of *paragraph 4.2.1*, there can be concluded that no such interaction effect was present and that the first hypothesis cannot be accepted. A main effect, however, was found for self-construal for attitude towards the advertisement, meaning that the respondents that received the advertisement with the interdependent self-construal had significantly more favourable attitudes towards the advertisement compared to those who received that advertisement with the independent self-construal. The effect size for this effect was very small, revealing that self-construal explains only a small fraction of the variance in the attitudes towards the advertisement. The non-significant result for the intention to buy the product suggests that even though some respondents like the advertisement significantly better than other respondents, they still are not willing to buy the featured soft drink.

The second hypothesis supposes a moderating effect of the gender identity construct. It was expected that respondents with a traditional (feminine) gender identity who were confronted with the advertisement, featuring the product congruent to their gender identity (the stereotypical product design), would have more favourable attitudes towards the advertisement and product than when confronted with the advertisement showing the product that is incongruent to their gender identity (gender neutral product design). The same congruency effect was supposed for the non-traditional (androgynous, masculine and undifferentiated) gender identity and the gender-neutral product design. An interaction effect was therefore sought for gender identity and the type of product design. In *paragraph 4.2.2*, a multivariate analyses of variance was conducted to check for this effect. However, only a main effect for self-construal was found for attitudes towards the advertisement, indicating that with the inclusion of gender identity as fixed factor, respondents had significantly more favourable attitudes towards the advertisement when they received the advertisement with the interdependent self-construal condition than when they received the advertisement with the independent self-construal condition. As no interaction effect was present, it can be concluded that gender identity is not a moderator and that Hypothesis 2 cannot be accepted.

Furthermore, the age of the respondents was also checked as potential moderator. Age was split in three age groups, roughly representing a third of the sample. The multivariate analysis of variance revealed there was a difference in the respondent's mean attitude towards the advertisement when either receiving the advertisement with the gender-neutral or the genders stereotypical type of product design. When respondents received an advertisement with the gender-neutral product design, they expressed a more favourable attitude towards the advertisement than when they received an advertisement with the gender stereotypical product design. Once more, this difference was not found for the respondent's intention to buy the product, indicating that intention to buy a product is not as easily influenced by the manipulations as the attitude towards the advertisement. Additionally, there was a main effect for self-construal, only for attitudes towards the advertisement. This means that the respondent's attitude towards the advertisement was more favourable for those who were confronted with the advertisement with the interdependent self-construal condition compared to those who were confronted with the advertisement with the independent self-construal condition. An interaction effect was also present between age groups and the different types of product design, however only in the interdependent self-construal condition and for the attitudes towards the advertisement.

More specifically, the age group of 16 to 21 years old had significantly more favourable attitudes towards the advertisement that showed the gender stereotypical product design, compared to the age groups 22 to 28 years old and 29 to 71 years old. The age group 22 to 28 years old had the least favourable attitude towards the gender stereotypical product design in the interdependent self-construal condition. The same age group of 22 to 28 years old, however, had the most favourable attitudes regarding advertisement with the interdependent self-construal condition and the gender-neutral product design. The attitudes of this age group were significantly more favourable than for both other age groups. The age group of 16 to 21 years old had the least favourable attitudes for the advertisement with the gender-neutral product design. Due to this interaction effect, the mean age can be considered as a moderating variable.

Finally, a multivariate analysis of variance was run with self-referencing as potential moderator. A main effect was found for self-referencing for both attitude towards the advertisement and intention to buy the product, indicating that those respondents who had self-referencing abilities had significantly more favourable attitudes towards the advertisement and had a significantly higher intention to buy the product, compared to those who had no self-referencing abilities. Additionally, a main effect for self-construal was found only for attitude towards the advertisement: respondents in the interdependent self-construal condition had significantly more favourable attitudes towards the advertisement than those in the independent self-construal condition. No significant interaction effect was found, thus ruling self-referencing out as a moderator variable.

## 5. General discussion

In this research, the interaction was examined between self-construal, which was elicited by an advertisement scenario, and product design, which was either gender stereotyped or gender-neutral, and its effect on the attitude towards the advertisement and intention to buy the product. In the previous chapter, the hypotheses were tested and reported. In the next paragraph, first the hypotheses results, then the additional results, and implications of those results are discussed, followed by the research's practical implications and the limitations of this research.

### 5.1 Discussion of hypothesis 1

The results of the main study indicated that the first hypothesis could not be accepted, as there was no interaction effect between the elicited self-construal types and the (non)stereotypical product designs in the current study with these participants. The first step to find out why this interaction effect remained absent, while literature suggested otherwise, is to look at the manipulation. If the selected advertisement scenarios failed to activate an independent or interdependent self-construal in the respondents, it could be a likely cause for the unaccepted first hypothesis. However, it was concluded in *paragraph 4.1* that the manipulation successfully led to thoughts focusing only on the respondent's self or thoughts focusing on the respondent and her family. If the attitudes and traits corresponding to the different types of self-construal were also made more accessible is uncertain. It is unclear whether the respondent who was thinking about herself and her family, after viewing the advertisement, actually felt like adapting to group norms and expected gender roles and therefore felt more acceptant to stereotypes. However, it is assumed that by eliciting for example an interdependent self-construal, corresponding traits like collectivism are made accessible, as in the current study similar primes and items to measure the successfulness of the manipulation were used as in the studies of Ng and Houston (2006) and Aaker and Lee (2001), where this former assumption was made as well.

Another important aspect when examining the absence of an interaction effect is whether the product design was considered as gender stereotypical or gender-neutral by the respondents or if the product was only regarded as a pink or green bottle.



According to Vantomme et al. (2005), gender stereotypes that are featured in a complex advertisement including a product, slogan and product endorser might be too hard to process implicitly. However, no affective scale was included in the questionnaire to measure the respondent's feelings that were triggered by the product design. Therefore, it is difficult to conclude whether the two types of product design were perceived as stereotypical or not.

It could also be argued that the two advertisement scenarios, even though the pre-test showed them to be a suitable prime for self-construal, were perceived as (non) stereotypical gender portrayals. After all, the advertisement scenario with the professional woman at the airport could be considered as a modern gender role portrayal, while the woman who is at the park with her children could be considered as a stereotypical role portrayal, because a family context including the presence of a child is a typical element associated with a traditional woman (Zawisza & Cinnirella, 2010). The stereotype content model by Fiske, Cuddy, Glick and Xu (2002) proposes that different affective responses are provoked by the content of stereotypes: one dimension is the warmth of a stereotype and the other is competence (as cited in Zawisza & Cinnirella, 2010). According to this theory, the housewife gender stereotype is a paternalistic stereotype and can be rated as low in competence but high in warmth, triggering liking but not respect. The business woman can be classified as an envious stereotype (high on competence and low on warmth), which evokes envy and respect, but not liking (Zawisza & Cinnirella, 2010). This same study by Zawisza and Cinnirella (2010) showed that paternalistic stereotypes resulted in more favourable cognitive and affective reactions to the advertisement containing that stereotype, as result of the warm content. This way of viewing gender stereotypes in advertisements could explain the finding of the main effect for self-construal, whereby the advertisement scenario with the woman at the park was met with more favourable attitudes than the scenario with the business woman. The advertisement scenario with the woman and her family at the park is not exactly a housewife portrayal, but it could be considered as a stereotype with warmth as content, whereas the business woman at the airport could have been considered as a cold stereotype, which is not liked.

The aforementioned attempts explain the absence of the hypothesized interaction effect by looking into the manipulations of the current study. Another explanation why no congruency effect, or rather no effect at all, was found between self-construal and the type of product design is that these advertisements have been processed on a completely different level than expected. In this study, it was expected that women would recognize the design of the bottle as gender stereotypical or gender-neutral and that the advertisement scenarios functioned as a sub-conscious trigger for thoughts about the self and the gender stereotype.

For this careful scrutiny of the advertisement is necessary, or what according to Petty and Cacioppo would be called the central route to high elaboration. In their Elaboration Likelihood Model, they propose that in order for elaborate scrutiny of the advertisement (or central processing) to take place some conditions have to be met: first the respondent had to be motivated to engage in paying attention to the advertisement and processing the information given (De Pelsmacker, Geuens & Van den Bergh, 2010). For the current study, the motivation of respondents is assumed to be low as they might not have the actual need or have the goal at that moment to buy a soft drink. Additionally, a soft drink can be considered as a low involvement product (in comparison to for example a car), which means that consumers do not think as much about the buying decision compared to high involvement products (De Pelsmacker et al., 2010). This could also have caused the respondent's motivation to be lower, as they might be used not to think too elaborately about low involvement products like soft drinks. Additionally, for successful central processing the respondents need to have resources for elaborate processing (De Pelsmacker et al., 2010). This condition seems to be satisfied as respondents had sufficient time and no need for specific knowledge to understand the advertisement. The final condition holds that a respondent needs opportunity to pay attention and process the advertisement (De Pelsmacker et al., 2010). It cannot be checked if the respondents were distracted after they received the questionnaire, however there was no additional product information given in the advertisement, which could have limited their opportunity to process information elaborately. If the motivation, ability and opportunity were all high for the respondents, then central processing can take place. Otherwise, respondents are expected to process information peripherally, which means that a simple evaluation is made on the base of peripheral cues like a good-looking endorser, humour etcetera (De Pelsacker et al., 2010). For this study, despite women's allegedly elaborate analysis of information (Darley & Smith, 1995; Putrevu, 2004), it is expected that the motivation of the respondents was low and that therefore peripheral processing occurred. The expected congruence between the self-construal, elicited by the advertisement scenario, and the type of product design could therefore have been ineffective if the respondents processed the advertisement peripherally.

The notion of peripheral processing in this study can be explained by a more simple kind of congruency: colour congruency. Respondents might have evaluated the advertisement on the base of peripheral cues like colour or the portrayed woman in the advertisement.

When looking at the two advertisements for which there was an interaction effect when the different age groups were included in the model: two of the three age groups had in general had more favourable attitudes towards the advertisement with the park scenario and the green bottle, compared to the advertisement with the park scenario and the pink bottle. It could therefore be plausible that the processing of the stereotypes was too elaborate for the respondents and that they simply judged the advertisement on the base of its nice congruent colours or a pleasant picture of a family at the park.

## **5.2 Discussion of hypothesis 2**

The results indicated that the second hypothesis could not be accepted either. This means that the congruency between the respondent's gender identity and the product design was not effective in triggering more favourable attitudes towards the advertisement or a higher intention to buy the product. An explanation for the absence of the interaction effect between gender identity and type of product design can be found in what was described above: it is not certain whether the gender stereotypes were recognizable for the respondents and too complex to process. Additionally, if the respondents processed the advertisement in a peripheral way and therefore did not process the product design as gender stereotypical or gender neutral, no interaction could take place. Furthermore, when gender identity was included in the multivariate analysis of variance, there were sixteen instead of four groups, with group sample sizes of less than fifteen participants. However, when the group sample sizes are small ( $n \leq 20$ ) then there is the chance of insufficient power (Stevens, 2002). Statistical power indicates the ability of a test to correctly identify a significant difference between groups (Pallant, 2005). This lack of statistical power caused by too small group sample sizes could have caused a type two error, whereby the null hypothesis is accepted when in fact it should be rejected.

## **5.3 Discussion of additional results**

The results indicated that if age was included in the model, that there was again a main effect for self-construal: the interdependent self-construal, represented by the advertisement scenario with the family at the park, resulted in more favourable attitudes towards the advertisement than the independent self-construal, represented by scenario with the business woman at the airport.

Furthermore, a main effect was found for the type of product design with the gender-neutral design bringing about more favourable attitudes towards the advertisement than the gender stereotypical design. What is even more interesting is that there were significant differences in the attitude towards the advertisement between the different age groups for the advertisement with the interdependent self-construal condition. The youngest age group (16 to 21 years old) reacted most favourably to the gender stereotypical design, namely the pink bottle (in the interdependent self-construal condition) while the median age group (22 to 28 years old) reacted most favourably to the gender-neutral product design, namely the green bottle (also in the interdependent self-construal condition). The eldest age group (29 to 72 years old) reacted more moderately compared to the other age groups. It seems striking that younger women like the pink bottle advertisement, while conversely women who are hardly ten years older express their explicit liking for the green bottle advertisement.

Koller (2008) concludes in her article that pink might be redefined as the colour of fun and amusement, signifying independence and self-confidence. Additionally, Koller (2008) found in her pilot study that pink was often associated with cheekiness. These connotations of pink might be appealing to the younger age group. Conversely, this 'girlish' image of pink might repel the older age group of 22 to 28 years old. This is the age group of women who are about to start or just started their career (43% of this sample was either part-time, full-time or otherwise employed). According to Heilman and Eagly, gender stereotypes is one of the reasons why women are underrepresented at the higher levels of the organisational ladder (Women and Public Policy Program, 2009). This is supported by Perschel and Perdue (2012), who asked 235 senior level business women what they had experienced as a barrier in their achievement of power. About 30% of the barriers that were encountered concerned gender stereotypes and male-oriented practices and culture in organisations (Perschel & Perdue, 2012). The authors conclude their report with recommendations for women to be more confident and assertive in order to gain organisational power. On the other hand, research has shown that women, who display too masculine traits that are associated with a typical successful manager are often economically or socially sanctioned for such behaviour (O'Neill & O'Reilly III, 2011). Recall that in the stereotype content model, the business woman stereotype is met with respect but not liking. However, those women, who possess both masculine traits and high self-monitoring skills, received more promotions compared to women with masculine traits and low self-monitoring skills (O'Neill & O'Reilly III, 2011). It seems clear that ambitious women have to go out of their way to adapt their behaviour in order for them to move up the organisational ladder. They have to be flexible by displaying stereotypical masculine traits like assertiveness and dominance -but not to a too large extent- at one moment and at the other moment restraining those masculine traits. All the while gender stereotypes still hinder their professional advancements.

It is very probably that for this reason women in the age group of 22 to 28 years old might be more prone to dislike the advertisement with the gender stereotyped product-design, whether it is just because pink is such a stereotypical feminine colour or because of the stereotypical connotations of the design. However, future research needs to look into these differences between age groups to gain more insight in what age groups appreciate about these advertisements and specifically these colours.

Results indicated that the ability to self-reference did lead to a better evaluation of the advertisement and a higher intention to buy the product. Self-referencing therefore seems an important factor for the appraisal of advertisements and products. Morrison and Shaffer (2003) found in their study that by encouraging participants to self-reference, participants evaluated advertisements (either containing traditional or non-traditional gender role portrayals) incongruent to their gender-role orientation more favourably than if this encouragement was left out. So if respondents would be encouraged to self-reference, it might lead to a greater acceptance of stereotypes and even those which do not fit with a person's belief system.

Conclusively, it should be noted that there was no significant result in any analysis for intention to buy, except for the last one, which included self-referencing. It can be concluded that the manipulations that were carried out in the current study did influence the respondent's attitude towards the advertisement. However, intention to buy the product was not significantly different for any manipulated condition and in general the intention to buy the product remained quite low. The attitude towards the advertisement might be more easily influenced, indicating that extensive measures might be necessary to create purchase intentions, like for example a completely congruent advertisement design, enhancing processing fluency, or persuasive appeals.

## **5.4 Practical implications**

As result of the current study, several practical implications can be derived. The first and foremost implication is that for the current study, contrary to what was expected, the congruence between self-construal and the (non)stereotypical product design had no effect, as possibly respondents might not have perceived the design of the bottle as gender stereotypical or gender-neutral and did not engage in attitudes associated with the elicited self-construal. Even though the advertisement scenario successfully primed the desired type of self-construal, it is not clear whether the associated attitudes were elicited as well.

The sub-conscious mechanism that allows for situational rejection or acceptance of gender stereotypes has therefore not been identified in this study. One cause of this could be the way that the gender stereotype has been presented in the advertisement. Had there been an overt stereotypical depiction of the woman in the form of a role portrayal in the advertisement, the stereotype might have been more recognisable and resulted in extremer responses. Had the product endorsed in the advertisement been a car, which was presented on the basis of pictures and additional product information describing the stereotypical features, respondents might have been more involved with the product and therefore contemplated elaborately about the advertisement. What has become clear is that the age of the person viewing the advertisement is of considerable influence for the appraisal of the advertisement. Marketers would do well to research the preferences of their target group properly, as the results of this study showed that there can be quite a large difference in the appraisal of a product design between two successive age groups.

This study illustrated that consumers are not always motivated to evaluate advertisements elaborately, but instead assess it on a peripheral level and fail to recognise the deeper meaning of the advertisement. Marketers should keep this interaction of styles of processing information in mind when designing their advertisements. If consumers need to process and be persuaded by claims or product information, consumers' motivation, ability and opportunity to process this information should be optimized. Otherwise, marketers should take care that the advertisement is easily processed by enhancing processing fluency through congruence between elements of the advertisement, like colour or product endorser.

On the basis of this study, no success recipe can be provided for the use of gender stereotypes. However, considering that women have become an increasingly important target group for companies and that their earnings are increasing and based on literature but also practise, which indicated that women usually do not appreciate such stereotypes, marketers are recommended to be careful with using over-the-top gender stereotypes. Future research is recommended to assess if and how marketers can use gender stereotypes to their advantage by employing congruence in advertisements or encouraging viewers to self-reference.

## 5.5 Limitations & future research

Naturally, this study has its limitations that influenced the outcomes of this study and which should be kept in mind for future research. The majority of the limitations refer to methodological shortcomings. The first set of limitations can be associated with the choice for using questionnaires and the development of the questionnaire. The choice to measure the respondent's evaluation of the advertisement and intention to buy the product through questionnaires and thus self-reports may pose a problem. Vantomme et al. (2005) note that self-reports may be prone to a social desirability bias and that, more importantly, self-reports only capture a part of the respondent's advertisement evaluation. When answering the questions in the questionnaire, respondents have to think back on how they felt about the advertisement. Because the primary affective response has to be recalled, the self-report might be influenced by other information (Vantomme et al., 2005). So when assessing the current results, it is important to realize that self-reports might not give insight in a person's entire evaluation of the advertisement and product. Vantomme et al. (2005) discuss that often advertisement messages and product information are processed automatically and implicitly and that measuring implicit attitudes therefore solves the shortcomings of self-reports. Additionally, the choice of using the Bem Sex Role Inventory might be criticized as it is said that the questionnaire lacks theoretical foundation and has methodological deficiencies. Especially the notion of some authors that the BSRI only captures narrow traits of the self-concept that are related to instrumental and expressiveness traits, instead of more global masculine and feminine traits, should be considered when assessing the results (Colley et al., 2009). Also, an important limitation of this study is that no questions were asked about whether respondents thought that the advertisement contained a gender stereotype, in order to consider if respondents recognised the gender stereotyped product design. No insights can now be provided if the pink and green bottles were successfully identified as stereotypical and gender-neutral, respectively.

Other limitations concern the development of the advertisement. While developing the advertisement, certain decisions have been made with regard to different elements of the advertisement, which could be optimized to create an advertisement which is even more suitable as test material. First, a soft drink has been chosen as featured product in the advertisement as it was believed not to be a typical masculine or feminine product and due to the often colourful product designs of soft drinks, it was possible to realistically manipulate the product design for this study. However, it can be argued that bottled mineral water is an even more gender-neutral product, as bottled water is neutral in taste and does not contain sugars. Additionally, it should be noted that in the pre-test, the colours were depicted in rectangles; a masculine shape.

This could sub-consciously have influenced the colour preference of the respondents. However, despite the rectangular shape in which the colours were depicted, baby pink was still selected as most feminine colour. Also, the slogans that were created and selected for the main study may have contained different connotations than expected on forehand. From the slogan “Need control? With Splash you can make an excellent achievement!”, the respondents could have derived an energizing meaning. While the other slogan “Complete a beautiful day with your family with the refreshment of Splash” could be explained as more refreshing. Apart from facilitating the self-construal prime, these slogans might have contained different connotations for the respondents, resulting in different slogan claims. It is therefore not certain how these different slogan claims have influenced the respondents in their appraisal of the advertisement and product.

Future research should test, when the test material and questionnaire have been optimized, if a sub-conscious mechanism for the acceptance and rejection of gender stereotypes can be identified by priming a person’s independent or interdependent self-construal. The focus of future research should be on the ability of self-construal to influence the appraisal of gender stereotypes and therefore indirectly the appraisal of gender stereotypical messages and advertisement, as this study is indecisive on that score. Furthermore, future research should look into the way gender stereotypes are recognised and processed and whether elaborate processing of advertisement elements should precede this. This seems likely when recalling the responses to unappreciated stereotypes in *chapter 1*. A deeper insight should be acquired in which types of stereotypes are easy to process and to what extent the congruence between elements of the product or advertisement could influence this. Additionally, it is important to understand if there is a difference in the appraisal of gender stereotypes in its different forms between age groups, as was suggested by the current study. More practically, future research could look into the appraisal of gender stereotypes in general by women to get a general overview of which stereotypes, in which forms and for which products, might be accepted or rejected. This research also showed that self-referencing might be an important factor for the appraisal of advertisements and products and literature suggested that self-referencing might enhance the acceptance of gender stereotypes in advertisements. More knowledge of the exact influence of self-referencing on (the different types of) gender stereotypes might be required.



## 5.6 Conclusions

As the results of this study have been discussed in depth and the practical implications, limitations and suggestions for future research have been considered, nothing remains but to answer the central research question of this study.

*“What is the effect of congruence between self-construal and a (non)stereotypical product design in an advertisement in terms of the appraisal of the advertisement and product?”*

No congruence effect between self-construal and a (non)stereotypical product design was found in this study. Whether the absence of this effect could be caused by methodological limitations, or alternative theoretical explanations should be examined by future research. Gender identity did not appear to be of influence on the aforementioned expected relationship, but the age of the respondent did seem to affect gender stereotype appraisal. This study lays the foundation for research concerning the appraisal of gender stereotypes in advertisements, elicited by self-construal types, and set up an experiment to test for the congruence effect. It is up to future research to follow this study up and examine whether self-construal can affect the appraisal of gender stereotypes.

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## Appendices

### A – Pre-test questionnaire

Beste respondent,

Hartelijk dank voor uw medewerking aan het vooronderzoek voor mijn afstudeeropdracht voor de Master Marketing Communication aan de Universiteit Twente. In dit vooronderzoek zullen er verschillende elementen van een advertentie, zoals scenario's, slogans, vorm, lettertype en kleur, worden geëvalueerd. Deze evaluatie zal bijdragen aan het ontwerp van een nieuwe frisdrank advertentie.

Deze enquête duurt ongeveer 10 minuten.

Nogmaals bedankt!

Met vriendelijke groet,

Willemijn Drost

**Lees de scenario's aandachtig en beantwoord de volgende vragen.**

*Het is 9 uur en je bent op kantoor. Je bent je laptop aan het opstarten om over een paar minuten een belangrijke presentatie te geven aan je manager, de directeur van het bedrijf waar je werkt en een paar externe klanten. Dit is jouw project, je hebt tijden hiernaar toegewerkt en van deze presentatie hangt veel af.*

	Helemaal niet						Heel erg
	1	2	3	4	5	6	7
01. Tijdens het lezen van dit scenario waren mijn gedachten alleen op mezelf geconcentreerd.	0	0	0	0	0	0	0
02. Tijdens het lezen van dit scenario waren mijn gedachten over dit scenario geconcentreerd op mijn vrienden/familie en mezelf.	0	0	0	0	0	0	0
	Helemaal niet onafhankelijk						Heel erg onafhankelijk
	1	2	3	4	5	6	7
03. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0

	Helemaal niet competitief					Heel erg competitief	
	1	2	3	4	5	6	7
04. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0
	Helemaal niet de neiging om me toe te wijden aan anderen					Heel erg de neiging om me toe te wijden aan anderen	
	1	2	3	4	5	6	7
05. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0

*Het is zondag en je bent samen met je gezin aan het picknicken. Gezellig met z'n allen lunchen in de buitenlucht. Je hebt alles geregeld van broodjes tot beleg. Dit is een van die momenten dat je je tijd en aandacht volledig op je gezin kan richten en dat pak je graag aan.*

	Helemaal niet					Heel erg	
	1	2	3	4	5	6	7
06. Tijdens het lezen van dit scenario waren mijn gedachten alleen op mezelf geconcentreerd.	0	0	0	0	0	0	0
07. Tijdens het lezen van dit scenario waren mijn gedachten over dit scenario geconcentreerd op mijn vrienden/familie en mezelf.	0	0	0	0	0	0	0
	Helemaal niet onafhankelijk					Heel erg onafhankelijk	
	1	2	3	4	5	6	7
08. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0
	Helemaal niet competitief					Heel erg competitief	
	1	2	3	4	5	6	7
09. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0
	Helemaal niet de neiging om me toe te wijden aan anderen					Heel erg de neiging om me toe te wijden aan anderen	
	1	2	3	4	5	6	7
10. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0

*Het is nog vroeg maar jouw fiets staat al geparkeerd bij de sportschool. Je bent met je vriendinnen bij de reguliere Pilates-les, waar jullie altijd gezamenlijk heen gaan. De oefeningen zijn lastig, maar het gezelschap van je vriendinnen motiveert je en je gaat er toch tegenaan.*

	Helemaal niet						Heel erg
	1	2	3	4	5	6	7
11. Tijdens het lezen van dit scenario waren mijn gedachten alleen op mezelf geconcentreerd.	0	0	0	0	0	0	0
12. Tijdens het lezen van dit scenario waren mijn gedachten over dit scenario geconcentreerd op mijn vrienden/familie en mezelf.	0	0	0	0	0	0	0

	Helemaal niet onafhankelijk						Heel erg onafhankelijk
	1	2	3	4	5	6	7
13. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0

	Helemaal niet competitief						Heel erg competitief
	1	2	3	4	5	6	7
14. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0

	Helemaal niet de neiging om me toe te wijden aan anderen						Heel erg de neiging om me toe te wijden aan anderen
	1	2	3	4	5	6	7
15. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0

*Je zit in de boarding ruimte op het vliegveld. Naast je staat je reiskoffer, die prima geschikt is voor deze korte zakenreis. Je hebt nog even tijd voor het boarden, dus blader je snel je papieren nog een keertje door. Het is aan jou om deze potentiële grote klant binnen te halen voor je bedrijf, maar je bent zeker van je zaak. Dit gaat jou wel lukken.*

	Helemaal niet						Heel erg
	1	2	3	4	5	6	7
16. Tijdens het lezen van dit scenario waren mijn gedachten alleen op mezelf geconcentreerd.	0	0	0	0	0	0	0
17. Tijdens het lezen van dit scenario waren mijn gedachten over dit scenario geconcentreerd op mijn vrienden/familie en mezelf.	0	0	0	0	0	0	0

	Helemaal niet onafhankelijk						Heel erg onafhankelijk
	1	2	3	4	5	6	7
18. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0

	Helemaal niet competitief						Heel erg competitief
	1	2	3	4	5	6	7
19. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0

	Helemaal niet de neiging om me toe te wijden aan anderen						Heel erg de neiging om me toe te wijden aan anderen
	1	2	3	4	5	6	7
20. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0

*Het is prachtig weer buiten. Je bent in het park samen met je man en twee kinderen. Je oudste zoon is aan het voetballen met zijn vader. Je jongste zoon trekt aan je arm en rent naar de schommels. Samen met de familie er op uit om leuke dingen te doen is iets waar je echt van geniet.*

	Helemaal niet						Heel erg
	1	2	3	4	5	6	7
21. Tijdens het lezen van dit scenario waren mijn gedachten alleen op mezelf geconcentreerd.	0	0	0	0	0	0	0
22. Tijdens het lezen van dit scenario waren mijn gedachten over dit scenario geconcentreerd op mijn vrienden/familie en mezelf.		0	0	0	0	0	0

	Helemaal niet onafhankelijk						Heel erg onafhankelijk
	1	2	3	4	5	6	7
23. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0

	Helemaal niet competitief						Heel erg competitief
	1	2	3	4	5	6	7
24. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0

	Helemaal niet de neiging om me toe te wijden aan anderen					Heel erg de neiging om me toe te wijden aan anderen	
	1	2	3	4	5	6	7
25. Tijdens het lezen van dit scenario voelde ik me	0	0	0	0	0	0	0

Lees de slogans aandachtig en beantwoord de volgende vragen.

**'Take a break en verfris je gezin en jezelf met Splash.'**

	Helemaal niet					Heel erg	
	1	2	3	4	5	6	7
26. Tijdens het lezen van deze slogan waren mijn gedachten alleen op mezelf geconcentreerd.	0	0	0	0	0	0	0
27. Tijdens het lezen van deze slogan waren mijn gedachten over deze slogan geconcentreerd op mijn vrienden/familie en mezelf.	0	0	0	0	0	0	0

**'Een drukke dag op het werk? Vind je innerlijke kracht met Splash.'**

	Helemaal niet					Heel erg	
	1	2	3	4	5	6	7
28. Tijdens het lezen van deze slogan waren mijn gedachten alleen op mezelf geconcentreerd.	0	0	0	0	0	0	0
29. Tijdens het lezen van deze slogan waren mijn gedachten over deze slogan geconcentreerd op mijn vrienden/familie en mezelf.	0	0	0	0	0	0	0

**'Need control? Met Splash lever jij een topprestatie!'**

	Helemaal niet					Heel erg	
	1	2	3	4	5	6	7
30. Tijdens het lezen van deze slogan waren mijn gedachten alleen op mezelf geconcentreerd.	0	0	0	0	0	0	0
31. Tijdens het lezen van deze slogan waren mijn gedachten over deze slogan geconcentreerd op mijn vrienden/familie en mezelf.	0	0	0	0	0	0	0

**'Maak een prachtige dag met je gezin compleet met de verfrissing van Splash!'**

	Helemaal niet						Heel erg
	1	2	3	4	5	6	7
32. Tijdens het lezen van deze slogan waren mijn gedachten alleen op mezelf geconcentreerd.	0	0	0	0	0	0	0
33. Tijdens het lezen van deze slogan waren mijn gedachten over deze slogan geconcentreerd op mijn vrienden/familie en mezelf.	0	0	0	0	0	0	0

**'Splash, hét ingrediënt voor een energieke dag op je werk.'**

	Helemaal niet						Heel erg
	1	2	3	4	5	6	7
34. Tijdens het lezen van deze slogan waren mijn gedachten alleen op mezelf geconcentreerd.	0	0	0	0	0	0	0
35. Tijdens het lezen van deze slogan waren mijn gedachten over deze slogan geconcentreerd op mijn vrienden/familie en mezelf.	0	0	0	0	0	0	0

**Bekijk de afbeeldingen aandachtig en beantwoord de volgende vragen.**



	Masculien						Feminien
	1	2	3	4	5	6	7
36. De vorm van deze fles is	0	0	0	0	0	0	0
37. De vorm van deze fles is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0



	Masculien						Feminien
	1	2	3	4	5	6	7
38. De vorm van deze fles is	0	0	0	0	0	0	0
39. De vorm van deze fles is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0



	Masculien						Feminien
	1	2	3	4	5	6	7
40. De vorm van deze fles is	0	0	0	0	0	0	0
41. De vorm van deze fles is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0



	Masculien						Feminien
	1	2	3	4	5	6	7
42. De vorm van deze fles is	0	0	0	0	0	0	0
43. De vorm van deze fles is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0



	Masculien						Feminien
	1	2	3	4	5	6	7
44. De vorm van deze fles is	0	0	0	0	0	0	0
45. De vorm van deze fles is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0

Bekijk de lettertypes aandachtig en beantwoord de volgende vragen.

# Frisdrank

	Masculien						Feminien
	1	2	3	4	5	6	7
46. Dit lettertype is	0	0	0	0	0	0	0
47. Dit lettertype is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0



# Frisdrank

	Masculien						Feminien
	1	2	3	4	5	6	7
48. Dit lettertype is	0	0	0	0	0	0	0
49. Dit lettertype is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0

# FrisDrank

	Masculien						Feminien
	1	2	3	4	5	6	7
50. Dit lettertype is	0	0	0	0	0	0	0
51. Dit lettertype is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0

# Frisdrank

	Masculien						Feminien
	1	2	3	4	5	6	7
52. Dit lettertype is	0	0	0	0	0	0	0
53. Dit lettertype is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0

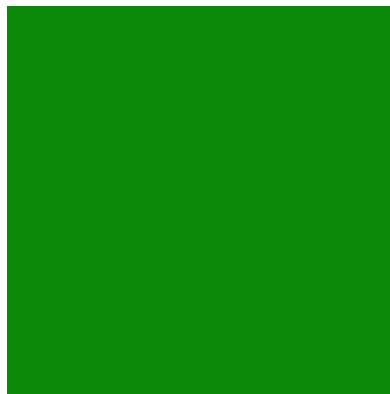
# Frisdrank

	Masculien						Feminien
	1	2	3	4	5	6	7
54. Dit lettertype is	0	0	0	0	0	0	0
55. Dit lettertype is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0

*frisdrank*

	Masculien						Feminien
	1	2	3	4	5	6	7
56. Dit lettertype is	0	0	0	0	0	0	0
57. Dit lettertype is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0

Bekijk de kleuren aandachtig en beantwoord de volgende vragen.



	Masculien						Feminien
	1	2	3	4	5	6	7
58. Deze kleur is	0	0	0	0	0	0	0
59. Deze kleur is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0



	Masculien						Feminien
	1	2	3	4	5	6	7
60. Deze kleur is	0	0	0	0	0	0	0
61. Deze kleur is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0



	Masculien						Feminien
	1	2	3	4	5	6	7
62. Deze kleur is	0	0	0	0	0	0	0
63. Deze kleur is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0



	Masculien						Feminien
	1	2	3	4	5	6	7
64. Deze kleur is	0	0	0	0	0	0	0
65. Deze kleur is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0



	Masculien				Feminien		
	1	2	3	4	5	6	7
66. Deze kleur is	0	0	0	0	0	0	0
67. Deze kleur is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0



	Masculien				Feminien		
	1	2	3	4	5	6	7
68. Deze kleur is	0	0	0	0	0	0	0
69. Deze kleur is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0



	Masculien				Feminien		
	1	2	3	4	5	6	7
70. Deze kleur is	0	0	0	0	0	0	0
71. Deze kleur is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0



	Masculien						Feminien
	1	2	3	4	5	6	7
72. Deze kleur is	0	0	0	0	0	0	0
73. Deze kleur is geschikt voor een product dat kan worden getypeerd als	0	0	0	0	0	0	0

**74. Ik heb**

- 0      Geen kinderen
- 0      1 kind
- 0      2 kinderen
- 0      3 kinderen
- 0      4 of meer kinderen

**75. Wat is uw leeftijd?**

- 0      15-24
- 0      25-34
- 0      35-44
- 0      45-54
- 0      55-64

**76. Wat is uw huidige of hoogst genoten opleiding?**

- 0      Middelbaar onderwijs
- 0      Middelbaar Beroepsonderwijs
- 0      Hoger Beroepsonderwijs
- 0      Wetenschappelijk onderwijs
- 0      Anders, namelijk

## **B – Figure 5 –Overview of selected advertisement scenarios**

- *Het is 9 uur en je bent op kantoor. Je bent je laptop aan het opstarten om over een paar minuten een belangrijke presentatie te geven aan je manager, de directeur van het bedrijf waar je werkt en een paar externe klanten. Dit is jouw project, je hebt tijden hiernaar toegewerkt en van deze presentatie hangt veel af.*
- *Het is zondag en je bent samen met je gezin aan het picknicken. Gezellig met z'n allen lunchen in de buitenlucht. Je hebt alles geregeld van broodjes tot beleg. Dit is een van die momenten dat je je tijd en aandacht volledig op je gezin kan richten en dat pak je graag aan.*
- *Het is nog vroeg maar jouw fiets staat al geparkeerd bij de sportschool. Je bent met je vriendinnen bij de reguliere Pilates-les, waar jullie altijd gezamenlijk heen gaan. De oefeningen zijn lastig, maar het gezelschap van je vriendinnen motiveert je en je gaat er toch tegenaan.*
- *Je zit in de boarding ruimte op het vliegveld. Naast je staat je reiskoffer, die prima geschikt is voor deze korte zakenreis. Je hebt nog even tijd voor het boarden, dus blader je snel je papieren nog een keertje door. Het is aan jou om deze potentiële grote klant binnen te halen voor je bedrijf, maar je bent zeker van je zaak. Dit gaat jou wel lukken.*
- *Het is prachtig weer buiten. Je bent in het park samen met je man en twee kinderen. Je oudste zoon is aan het voetballen met zijn vader. Je jongste zoon trekt aan je arm en rent naar de schommels. Samen met de familie er op uit om leuke dingen te doen is iets waar je echt van geniet.*

## **C – Figure 6– Overview of selected slogans**

- 'Take a break en verfris je gezin en jezelf met Splash.'
- 'Een drukke dag op het werk? Vind je innerlijke kracht met Splash.'
- 'Need control? Met Splash lever jij een topprestatie!'
- 'Maak een prachtige dag met je gezin compleet met de verfrissing van Splash!'
- 'Splash, hét ingrediënt voor een energieke dag op je werk.'

**D – Table 3 – Pairwise comparisons of means**

	I	J	Mean Difference (I-J)	Std. Error	p
<b>Scenario</b>	Independent	Independent	3.214 ***	0.383	0.000
	Interdependent	Interdependent	3.536 ***	0.323	0.000
<b>Slogan</b>	Independent	Independent	2.821 ***	0.395	0.000
	Interdependent	Interdependent	3.036 ***	0.335	0.000
<b>Script</b>	Gender stereotype	Gender-neutral	1.125 **	0.272	0.005
<b>Shape</b>	Gender stereotype	Gender-neutral	1.964 ***	0.247	0.000
<b>Colour</b>	Gender stereotype	Gender-neutral	2.982 ***	0.232	0.000

The mean difference is significant at the .05 level (\*), .01 level (\*\*), .001 level (\*\*\*).

## E – Main study questionnaire

Beste respondent,

Hartelijk dank voor uw deelname aan deze vragenlijst voor mijn master scriptie. Het onderzoek wat ik uitvoer, als onderdeel van mijn Master Marketing Communication aan de Universiteit Twente, is gericht op de evaluatie van een advertentie van een fictief frisdrankmerk, Splash.

### Instructies

Deze vragenlijst bestaat uit meerdere blokken van meerkeuze vragen. Op de eerste pagina staat de advertentie, die u zal evalueren. Bekijk de advertentie aandachtig en beantwoord vervolgens de vragen. Probeer de vragen zo eerlijk mogelijk te beantwoorden. Er zijn geen goede of slechte antwoorden in deze vragenlijst. U kunt maar één antwoord kiezen. Mocht u uw antwoord willen veranderen, doet u dat dan op de onderstaande manier.

Uw ingevulde vragenlijst zal anoniem en in strikt vertrouwen worden behandeld. De resultaten worden alleen voor wetenschappelijke doeleinden gebruikt. Het invullen van de vragenlijst duurt ongeveer 10 minuten.

Let u goed op dat u alle vragen beantwoordt! Incomplete vragenlijsten zijn helaas niet bruikbaar voor het onderzoek.

Met vriendelijke groet,  
Willemijn Drost

Invullen: 0 ● 0

Verbeteren: ● ✕ 0





## Deel 1: De evaluatie

Lees de volgende stellingen over de advertentie en kruis het antwoord aan dat het beste bij u past.

	Sterk mee Oneens 1	Mee Oneens 2	Beetje mee oneens 3	Neutraal 4	Beetje mee eens 5	Mee eens 6	Sterk mee eens 7
01. Ik vind de advertentie leuk.	0	0	0	0	0	0	0
02. Ik reageer ongunstig op deze advertentie.	0	0	0	0	0	0	0
03. Ik heb een positief gevoel over deze advertentie.	0	0	0	0	0	0	0
04. Deze advertentie is goed.	0	0	0	0	0	0	0
05. Ik kan me goed inleven in deze advertentie.	0	0	0	0	0	0	0

Geef aan in hoeverre u de advertentie bij de onderstaande omschrijvingen vindt passen.

	1	2	3	4	5	6	7	
01. Slecht	0	0	0	0	0	0	0	Goed
02. Saai	0	0	0	0	0	0	0	Interessant
03. Niet aansprekend	0	0	0	0	0	0	0	Aansprekend
04. Onaantrekkelijk	0	0	0	0	0	0	0	Aantrekkelijk
05. Onaangenaam	0	0	0	0	0	0	0	Aangenaam
06. Niet waardevol	0	0	0	0	0	0	0	Waardevol
07. Negatief	0	0	0	0	0	0	0	Positief
08. Niet nuttig	0	0	0	0	0	0	0	Nuttig
09. Ondermaats	0	0	0	0	0	0	0	Uitstekend
10. Niet voor mij	0	0	0	0	0	0	0	Voor mij
11. Zwak	0	0	0	0	0	0	0	Sterk

## Deel 1: De evaluatie

Lees de volgende stellingen over het product en kruis het antwoord aan dat het beste bij u past.

	Sterk mee oneens 1	Mee Oneens 2	Beetje mee oneens 3	Neutraal 4	Beetje mee eens 5	Mee eens 6	Sterk mee eens 7
01. Ik verlang ernaar om dit product te testen vanwege deze advertentie.	0	0	0	0	0	0	0
02. Ik heb de intentie om dit product te proberen.	0	0	0	0	0	0	0
03. Ik ben erin geïnteresseerd om dit product te proeven.	0	0	0	0	0	0	0
04. Ik heb het plan om dit product te kopen.	0	0	0	0	0	0	0
05. Het is waarschijnlijk dat ik dit product zal kopen wanneer het beschikbaar is.	0	0	0	0	0	0	0
06. Ik zou overwegen dit product te kopen.	0	0	0	0	0	0	0

## Deel 2: Uw persoonlijkheid

Geef aan in hoeverre de onderstaande eigenschappen bij u passen.

	<b>Nooit waar</b>	<b>Meestal niet waar</b>	<b>Soms niet waar</b>	<b>Neutraal</b>	<b>Soms waar</b>	<b>Meestal waar</b>	<b>Altijd waar</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
01. Liefhebbend	0	0	0	0	0	0	0
02. Komt op voor eigen mening	0	0	0	0	0	0	0
03. Goed aanpassingsvermogen	0	0	0	0	0	0	0
04. Gevoelig voor de behoeftes van anderen	0	0	0	0	0	0	0
05. Bezit leiderschapscapaciteiten	0	0	0	0	0	0	0
06. Stiekem	0	0	0	0	0	0	0
07. Snel geneigd om anderen te troosten	0	0	0	0	0	0	0
08. Begrijpend	0	0	0	0	0	0	0
09. Onafhankelijk	0	0	0	0	0	0	0
10. Warm	0	0	0	0	0	0	0
11. Sympathiek	0	0	0	0	0	0	0
12. Bereid om een standpunt in te nemen	0	0	0	0	0	0	0
13. Verwaand	0	0	0	0	0	0	0
14. Bereid om risico's te nemen	0	0	0	0	0	0	0
15. Secuur	0	0	0	0	0	0	0
16. Zachtaardig	0	0	0	0	0	0	0

## Deel 2: Uw persoonlijkheid

	<b>Nooit waar</b>	<b>Meestal niet waar</b>	<b>Soms niet waar</b>	<b>Neutraal</b>	<b>Soms waar</b>	<b>Meestal waar</b>	<b>Altijd waar</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
17. Krachtig	0	0	0	0	0	0	0
18. Eerlijk	0	0	0	0	0	0	0
19. Agressief	0	0	0	0	0	0	0
20. Dominant	0	0	0	0	0	0	0
21. Houdt van kinderen	0	0	0	0	0	0	0
22. Sterke persoonlijkheid	0	0	0	0	0	0	0
23. Betrouwbaar	0	0	0	0	0	0	0
24. Jaloers	0	0	0	0	0	0	0
25. Onvoorspelbaar	0	0	0	0	0	0	0
26. Mededogend	0	0	0	0	0	0	0
27. Teder	0	0	0	0	0	0	0
28. Assertief	0	0	0	0	0	0	0
29. Tactvol	0	0	0	0	0	0	0
30. Conventioneel	0	0	0	0	0	0	0

### Deel 3: Demografische vragen

#### 01. Wat is uw leeftijd?

---

#### 02. Wat is uw huidige of hoogst genoten opleiding?

- ☐ Middelbaar onderwijs
- ☐ Middelbaar Beroepsonderwijs
- ☐ Hoger Beroepsonderwijs
- ☐ Wetenschappelijk onderwijs
- ☐ Anders, namelijk

#### 03. Wat is uw huidige beroepssituatie?

- ☐ Ik ben werkloos
- ☐ Ik werk part-time
- ☐ Ik werk full-time
- ☐ Ik ben werkzaam in mijn eigen huishouden
- ☐ Ik ben student
- ☐ Ik ben gepensioneerd
- ☐ Anders, namelijk

#### 04. Wat is uw burgerlijke staat?

- ☐ Alleenstaand
- ☐ Gehuwd (wettig gehuwd of geregistreerd partnerschap)
- ☐ Gescheiden
- ☐ Verweduwd

### **Deel 3: Demografische vragen**

#### **05. Wat is de samenstelling van uw huishouden?**

- 0 Eenpersoonshuishouden
- 0 Meerpersoonshuishouden: eenouderhuishouden
- 0 Meerpersoonshuishouden: echtpaar met kinderen
- 0 Meerpersoonshuishouden: echtpaar zonder kinderen
- 0 Overig

#### **06. Ik heb**

- 0 Geen kinderen
- 0 1 kind
- 0 2 kinderen
- 0 3 kinderen
- 0 4 of meer kinderen

#### **07. Hoe vaak drinkt u frisdrank?**

- 0 Nooit
- 0 Soms
- 0 Regelmatig
- 0 Altijd

#### **08. Ik ben hier**

- 0 Alleen
- 0 Met partner
- 0 Met familie
- 0 Met vrienden
- 0 Met collega's

#### Deel 4: Tot slot

Geef aan in hoeverre u, tijdens het bekijken van de advertentie over de frisdrank Splash, aan de volgende zaken dacht.

	<b>Sterk mee oneens</b>	<b>Mee Oneens</b>	<b>Beetje mee oneens</b>	<b>Neutraal</b>	<b>Beetje mee eens</b>	<b>Mee eens</b>	<b>Sterk mee eens</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
01. Tijdens het bekijken van deze advertentie dacht u alleen aan uzelf.	0	0	0	0	0	0	0
02. Tijdens het bekijken van deze advertentie waren uw gedachten over de boodschap geconcentreerd op alleen uzelf.	0	0	0	0	0	0	0
03. Tijdens het bekijken van deze advertentie waren uw gedachten geconcentreerd op alleen uzelf.	0	0	0	0	0	0	0
04. Tijdens het bekijken van deze advertentie dacht u aan uw familie en uzelf.	0	0	0	0	0	0	0
05. Tijdens het bekijken van deze advertentie waren uw gedachten over de boodschap geconcentreerd op uw familie en uzelf.	0	0	0	0	0	0	0
06. Tijdens het bekijken van deze advertentie waren uw gedachten geconcentreerd op uw familie en uzelf.	0	0	0	0	0	0	0



**F – Table 6– Implications of total scales**

Construct		Score	Meaning
Effectiveness of advertisement		1	Respondent dislikes the advertisement and has a low intention to buy the product
		7	Respondent likes the advertisement and has a high intention to buy the product
Gender identity	Femininity*	1	Respondent scores low on feminine traits
		7	Respondent scores high on feminine traits
	Masculinity	1	Respondent scores low on masculine traits
		7	Respondent scores high on masculine traits
Manipulation check		1	Respondent does not think just about herself while viewing the advertisement
		7	Respondent does think just about herself while viewing the advertisement

*\*On the basis of the total scale scores of the Femininity and Masculinity subscales, classifications of Femininity, Masculinity, Androgyny and Undifferentiation were assigned.*

**G – Table 8– Skewness and kurtosis coefficients for dependent variables**

Construct	Skewness	Twice range of std. error	Kurtosis	Twice range of std. error
<i>Attitude towards advertisement</i>	0.063	- 0.384 - 0.384	- 0.725	- 0.762 - 0.762
<i>Intention to buy</i>	0.443	- 0.384 - 0.384	- 0.689	- 0.762 - 0.762