

# TOUCH IT, FEEL IT

A study on the influence of package texture on the evaluation of body care products



MASTER THESIS

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# THE INFLUENCE OF PACKAGE TEXTURE ON THE EVALUATION OF BODY CARE PRODUCTS

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## **ABSTRACT**

Tactile package properties are an important factor in product packaging. Several studies in the food industry have found that tactile stimuli influence consumers' product evaluation. However, little is known about the influence of tactile product properties in personal care products. This should be researched. Furthermore, studies in the food industry have shown that congruence between product type and tactile stimuli can lead to more favorable attitudes towards products. Also the congruence between the framing of the product, using different advertising slogans, and the product type should be taken into consideration. In this research, package texture, is manipulated, to receive more insight in the influence of package texture on the evaluation of body care products. The study uses a 2 (smooth vs. rough texture) x 2 (body crème vs body scrub) x 2 (hedonic frame vs utilitarian fame) experimental design. Package texture is studied for two different body care products: rough (body scrub) and smooth (body crème). The dependent variables in this study were tactile product experience, product associations and product evaluation. Based on the existing knowledge in the food industry, it was suggested that a smooth package texture leads to more favorable product evaluations than a rough package texture. A three dimensional printer was used to create a smooth product package and a rough product package. A pre-study was conducted to find the best fitting advertising slogans for the product packages and body care products, which results in a hedonic frame and a utilitarian frame. Results have shown that product type was an important factor in the influence of texture on tactile product experience and product associations. Furthermore, congruent pairings of package texture and product type resulted in more favorable outcomes for product associations. Also framing is of great importance. These findings provide value starting points for marketers to use package texture as a sensory cue to create better product associations and a more intense tactile product experience.

*Keywords: Package design, body care, tactile stimuli, tactile product experience, product associations, product evaluation*

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# 1. INTRODUCTION

In the modern society, the range of body care products has increased enormously. Stores are filled with body care products which consist of different types of materials, shapes, sizes and colors. For consumers it is difficult: which body care product fulfill their needs? Many researchers have already proved that visual aspects of product packaging such as color, size and shape influence consumers' evaluation of products. Therefore, these packaging characteristics are already used by many brands to create more favorable evaluations. For a brand, to ensure that their product is evaluated more positively as products of competitors, it is important to be distinctive. Other aspects of product packaging may be able to provide a better evaluation of body care products.

Yamato & Lambert (1994) suggested that also tactile input influence the evaluation of products. Tactile input is the experience of a product package that is created by psychical contact with the product. Different package textures are able to create an unconscious feeling when consumers touch the product package. It is a part of sensory marketing and therefore corresponds to the definition of sensory marketing. Krishna (2012) defines sensory marketing as follows: "marketing that engages the consumers' senses and affects their perception, judgment and behavior". Furthermore, Schifferstein & Cleiren (2005) also underline the relevance of tactile input because they determined that sensory input is the most important input alongside visual input. Therefore, it is necessary to examine the influence of tactile input to create more favorable product evaluations.

Several studies in the literature have already examined influence of tactile stimuli on product evaluation. Most of these studies were conducted in the food industry. For example, Piqueras-Fiszman & Spence (2012) found that there is a relationship between package texture and taste perception. The results demonstrate that biscuits in a rough package scored higher in hardness and crispness than biscuits in a smooth package (Piqueras-Fiszman & Spence, 2012). However, in personal care, little is known about the influence of package texture on body care products. So, now is questioned whether the same relationship exists between the package texture of body care products and the tactile product experience. Beside the tactile product experience, researchers also suggested that the symbolic meaning of products can be changed by using different package textures. Consumers are able to associate the meaning of a product or brand with elements of the physical product package. These associations can influence how products are understood and evaluated (Govers & Schoormans, 2005).

Although, it is suggested that tactile stimuli can influence consumers' product evaluation, tactile product experience and product associations, the type of body care product should be taken into consideration. Arnolds & Reynolds (2003) suggest that the use of a specific package texture is

not at every product type effective to obtain positive evaluations. Body care products can be categorized in utilitarian product and hedonic products. Utilitarian products are mainly purchased for their functional features and hedonic products are more purchased for pleasure. With this knowledge, it is plausible to use different body care products. In this, also a balance should be existent. With other words, consumers have a certain need for congruence (van Rompay & Pruyn, 2011). Hekkert (2006) has shown in his research that it is important that the message of the senses is appropriate for the product type. So, it seems important that the experience of consumers, when touching the product package, corresponds with the tactile product experience on their skin.

In addition, also the framing seems an important factor. Shen & Chen (2007) found that the context of an advertisement can create more favorable product evaluations. They found that when the context of an advertisement and the advertised brand were congruent, positive attitudes towards the brand and advertisement appeared (Shen & Chen, 2007). Thus, also congruence between the framing and product type seems to be important. This suggests that framing a hedonic body care product and a utilitarian body care product with a matching advertising slogan positively influence consumer's evaluation of body care products.

As mentioned, the influence of package texture on consumers' evaluation of body care products isn't well explored (Segwick, Henson & Barnes, 2003). Because brands in personal have to be distinctive, it's essential to examine how tactile stimuli can affect consumer tactile product experience and evaluation of body care products. The main research question of this study is as follows:

*“To what extent package texture affects consumer's evaluation of body care products?”*

Due to the limited research that has been done in this field of tactile stimuli and their influence on the evaluation of body care products, this study adds value to the existing theoretical knowledge. The results may provide valuable insights to marketers and retailers on how package texture can commit body care products. This is relevant for the positioning of body care brands because the literature study have shown that little is known about the use of package texture in body care products. In this, it can be suggested that a package texture that is congruent with the body care products lead to favorable changes in consumers' product evaluation.

## 2. PACKAGING AS A MARKETING TOOL

### 2.1 Package design

Researchers suggest that the product design can influence the evaluation of a product (Marlow & Jansson-Boyd, 2011). A positive evaluation of a package design may result in a positive evaluation of a product (Marlow & Jansson-Boyd, 2011). Therefore, researchers suggest that the design of a product package is an important determinant in the product evaluation. The basic elements that designers have at their proposal to design packaging can be divided into graphic and structural components (Ampuero & Vila, 2006). The combination of these components ensures that the product package can communicate and create an image of a certain product. Based on this, consumer can create an impression about the content of the package, both conscious and unconscious, which creates an evaluation of the product (Meyers & Lubliner, 1998). Graphic elements consist of brand logo, typography, images and color (Koopmans, 2001). Structural elements or tactile stimuli are mainly shapes, materials and textures of a packaging. This study focuses on the structural element texture which can possibly influence the evaluation of a product.

#### *2.1.1 Tactile stimuli and tactile product experience*

Tactile stimuli have a strong impact on consumer's perception of a product (Koopmans, 2001). It's the information of a product package that is obtained by psychical contact with the product. Each material provides a different texture and feeling when touching a package. Even though the consumer is not usually aware of this influence, texture communicates strongly. Schmitt and Simonson (1997) cite texture of a package as powerful sources of sensation. They create a sense to a product. Several researchers have shown that the product packaging may influence the general perception of a product. This is an implicit process in which consumers focus on one characteristic of a product when they make assumptions about a second property (Becker, van Rompay, Schifferstein & Galetzka (2011). This implicit process occurs mainly when the product properties are experienced in a short time. Especially, tactile properties seem influential and are therefore the most important sensory input. For example, Schifferstein (2009) examined the effect of package material on the experience of consuming its content. This study showed that in most cases the consumption experience (drinking a beverage) followed the experience of the empty container (holding an empty container). This suggests that consumers transfer the package experience aspects directly to its content. Krishna and Morrin (2008) found in their research that psychical contact with a thin cup decrease the perceived quality of the water presented in this cup by a number of participants.



Besides influencing the overall evaluation of products, tactile stimuli can also influence the tactile product experience of food (Piqueras-Fiszman & Spence, 2012; Ngo, Misra and Spence, 2011; Krishna and Morrin, 2008; Spence, Harrar, & Piqueras-Fiszman, 2012). Product or tactile product experience is in the literature defined as: “the awareness of the psychological effects elicited by the interaction with a product, including the degree to which all our senses are stimulated, the meanings and values we attach to the product, and the feelings and emotions that are elicited” (Hekkert & Schifferstein, 2008; Fenko, Schifferstein & Hekkert, 2009). Peck & Childers (2003) have found that the product experience of consumers can be influenced by the sensory characteristics of product packaging. They suggest that when consumers are given the opportunity to touch the product, the tactile product experience change. For example, Piqueras-Fiszman & Spence (2012) has been proven that there is a relationship between tactile stimuli and the taste perception of the product. This study has examined the tactile influence on eating biscuits in which biscuits (fresh and stale) were presented in a rough and smooth package. The results demonstrate that both fresh and stale biscuits in the rough package scored higher in hardness and crispness than the biscuits packed in a smooth package (Piqueras-Fiszman & Spence, 2012). Thus, in this research is determined that rough packages can be associated with hardness and crispness while a smooth package can be associated with softness and smoothness (Piqueras-Fiszman & Spence, 2012). It is also shown that information that is obtained through physical contact with the product influences the perception of the product texture that consumers eat (Piqueras-Fiszman & Spence, 2012). Another study on the influence of tactile stimuli on taste perception was the study of Ngo, Misra and Spence (2011). They manipulated the shapes of product packaging. In this study was found that the bitterness of products is often linked to angular shapes either hard shapes or structures. More specifically, the bitter chocolate was linked to angular shapes and the sweet chocolate was linked to round shapes. This is in line with the study by Zhang, Price and Feick (2006) who found that angular shapes leads to strong associations and round shapes leads to mild associations.

So the tactile product experience of a product can be affected by the use of certain materials or shapes. Schifferstein & Spence (2008) called this in their study the cross-modal correspondence. This includes the influence of one sensory stimulus on other tactile product experience. The definition of cross modal correspondence states as follows: “compatibility effects between attributes or dimensions of a stimulus in different sensory modalities” (Spence, 2012; Chrisinel, Jacquier, Deroy & Spence, 2013). Different cross-modal correspondences are already found in the food industry. For example, in the study of Spence (2012), a cross-modal correspondence was found between visual shapes and olfactory properties of food or in the study of Spence, Ngo, Percival and Smith (2003) who found a cross modal correspondence between shapes and oral-somatosensory properties of cheese. However, cross modal correspondence with tactile surfaces are not been studied in the food

industry and even less in body care products. In addition to that, as stated earlier, little is known about the influence of package texture on the tactile product experience of body care products. So, this underlines the importance of the present study in which the influences of package texture on body care products and the cross modal correspondence between package texture and tactile product experience on consumer's skin were examined. This study is an extension of the existing research.

## **2.2 The role of packaging**

The packaging of a product is a marketing tool which always communicates with the consumer and become an important marketing tool in recent years. A product package provides initial contact between consumer and product when decisions are taken in store (Rundh, 2005). Therefore, product packaging can instruct, inform and persuade consumers at the point of purchase. In relation to product packaging, Creusen and Schoormans (2005) distinguish six roles of product appearance that influences the consumers' evaluation and product choice. First of all, product package attracts the attention of the consumer. The second role of product packaging is the communication of functional characteristics. It can clarify the utilitarian functions of products as well as raising awareness for less accessible product attributes. The third role of product packaging is the contribution in constituting a quality impression. The physical appearance of a product is an important quality signal to consumers. Furthermore, the fourth role of is communicating a certain aesthetic value. The aesthetic value means the pleasure that arises from watching the product without consideration to use. When alternative products have the same features and sales price, consumer can select the product that appeals the most to the consumer aesthetically. The symbolic value of product packaging is an important determinant in the selection process of consumers. The selection of a particular product can contribute to the type of person you are of want to be; consumers use products in order to express themselves (Belk, 1988). Finally, product packaging can affect the ease of the categorization of products. When the categorization of the product based on the appearance is difficult, consumers will not considering a possible purchase. Creusen and Schoormans (2005) have shown in their research that the aesthetic value and symbolism are the most compelling factors that affect the decision making process and product evaluation of consumers. This research focuses on the symbolic meaning of product packaging.

### *2.2.1 Symbolic value*

Consumer products communicate a certain symbolic meaning (McCracken, 1986). Some researchers claim that the symbolic value of a product can even be the key determinant in product choice and

evaluation (Hirschman and Holbrook, 1982). It communicates messages about the product to the consumer.

Symbolic meanings of products occur through the constitution of different associations. Consumers are able to associate the meaning of a product or brand with elements of the physical product package. An association can be described as a memory element which is connected to another memory element (Franzen & Bouwman, 1999). These are elements in the mind of consumers which are related to a particular brand or product (Franzen & Bouwman, 1999). The associations will be activated when a consumer get in touch with one of the two connected elements. In this, the symbolic meaning can transfer to different kinds of products. Therefore, many organizations use consistently the same design elements such as color, a distinctive form element of style.

Symbolic associations influence how products are understood and evaluated (Govers & Schoormans, 2005). It provides products a personality and character (Akker, 1997; Govers & Schoormans, 2005). Consumers not only purchase products due to its functional value, but also because of the image they emit (Govers & Schoormans, 2005). For example, consumers not only use body care products for physical care and hygiene but also for well-being and self-confidence (Baltus, 2012). Consumers associate body care products mostly with a tidy appearance, self-confidence and beauty (Baltus, 2012). Furthermore, Zu & Wang (2009) suggested that body care products as hedonic products are mainly used to obtain a feeling of femininity or are used when consumers are stressed and need a feeling of relaxing. Utilitarian body care products are more purchased for functional features and therefore, they suggested that these products obtain more a feeling of hydrating, nourishing or vitality (Zhu & Wang, 2009).

This symbolic meaning, which is carried by the appearance of products, can constitute consumers' attitude regarding the product (Bloch, 1995). This product appearance consists of certain product elements such as typology, color, shape and label that provide associations or emotions among consumers (Demirbilek & Sener, 2003). Designers make also decisions in package texture in order to influence consumers' product associations. In the study of Batra and Ahtola (1991) the hedonic and utilitarian sources of consumer attitudes were measured. They found that smoothness mainly results in hedonic associations such as pleasantness and roughness mainly results in utilitarian associations. The difference between smoothness and roughness and the different associations can be further researched in this study.

### **2.3 Framing and product type**

The use of a specific package texture is not at every product type effective to obtain positive evaluations (Arnold & Reynolds, 2003). Therefore, product type may influence the effect of package

texture on the evaluation of body care products (Arnold & Reynolds, 2003). Body care products can be categorized in utilitarian and hedonic products (Arnold & Reynolds, 2003; Babin et al., 1994). Utilitarian products are purchased for their functional features and are purchased from a mission of a task. In utilitarian products is more need for obvious information because the product serves only in fulfilling consumers' needs. An example of a utilitarian product is a body scrub of Vichy. This product is all about functionality. Thereby, a lot of practical information is displayed on the product package. Hedonic products are purchased with the aim of entertainment, enjoyment and pleasure and ensure that consumers enjoy shopping. Hedonic products need less obvious information because the product provides pleasure and more luxury. It does not involve completing a mission (Babin et al., 1994; Batra & Ahtola, 1991). An example of a hedonic product is a body crème of Rituals. Rituals packaging does not include information about skin type or information about using the crème. The smell that body care products distribute and the feeling that arises when you smell it are the most important product properties of Rituals products. With this knowledge of utilitarian products and hedonic products and the researchers' suggestions that the influence of package texture depends on the product type, it is plausible to use different body care products. In addition, also advertisements seem an important factor in the influence of package texture on body care products. In advertisements, Shen & Chen (2007) founded that when the context of an advertisement and the advertised brand were congruent, positive attitudes towards the brand and advertisement appeared. This suggests that framing the hedonic dimension and utilitarian dimension with an advertising slogan influence consumer's evaluation of body care products. So, in this study two different advertisements were added to frame the different product types and to examine whether this framing positively influence the effect of package texture.

## **2.4 Congruence**

Congruence between product properties is an important factor. However, congruence refers not only to the product packaging and the product itself. For a more favorable assessment of products, congruence between environmental attributes and the product type and between the product type and package texture is also important. In the following two sections these two forms of congruence are discussed.

### *2.4.1 Congruence between framing and product type*

Consumers are influenced in their decision making process through congruency between product and the environment (Vernooij, 2007). In addition, it also appears that congruence between the product and the environment positively influences the product judgements of consumers (Vernooij, 2007). This may due to the way consumers' process information. The easier an object can be

processed, the more positive the judgement of the consumer (Lee & Labroo, 2004; Reber, Schwarz & Winkielman, 2004). In advertisements it is founded that when the context of an advertisement and the advertised brand were congruent, positive attitudes towards the brand and advertisement appeared (Shen & Chen, 2007). This also resulted in positive purchase intentions (Shen & Chen, 2007). When an advertisement for a laptop is surrounded by advertisements of computers, more positive judgments appeared than when the advertisement was surrounded by advertisements of televisions (Shen & Chen, 2007). Also, the priming of perceptual and conceptual conditions can be influential. This has been studied in the study by Lee and Labroo (2004). The research showed that an object with a matching context (a beer bottle in an advertisement in which a man enters a bar) or when an object was primed with a related construct (an image of ketchup, followed by an advertisement of mayonnaise), the processing of the object was facilitated. When this is translated into the influence of congruence, it can be argued that congruence between environmental aspects and product attributes ensures that consumers process the product easier and therefore will have more positive evaluations than when incongruity consists.

#### *2.4.2 Congruence between package texture and product type*

Beside congruence between environmental aspects and product attributes, also congruence between package texture and product type can affect the assessment of products. Consumers use different senses to obtain information about products and evaluate them. For example, a body care product is seen at first, thereafter is being felt and possibly even smelled. Hekkert (2006) has shown in his research that it is important that the message of the senses is appropriate for the product type. So, it is important that the tactile product experience corresponds with the tactile product experience on their skin. In the study of Piqueras-Fizman and Spence (2012) has recently been found that the product information that is physically obtained by consumers' hands can influence the perception of the food texture. Therefore, it is important that the feeling that arises, when consumers touching the product package corresponds with how the product is experienced on the skin. In their study, participants had to try pieces of biscuit and yoghurt while participants holding a rough or smooth product package in their hands (Piqueras-Fizman & Spence, 2010). After testing the product, the respondents had to assess the yoghurt on creaminess, thickness and granularity and assess the biscuit on crunchiness, freshness and hardness. In this, the congruence between package texture of the jar and the product texture that was experienced in participants' mouth, was manipulated. The results showed that the evaluations of the participants was only influenced by the tactile product experience in their mouth and the tactile product experience in their hands when the textual attributes of the jar are congruent with the textual attributes of the food.

## 2.5 Hypotheses

The influence of package texture on the consumers' perception of body care products isn't well explored (Segwick, Henson & Barnes, 2003). Because brands in personal have to be distinctive, it's essential to examine how tactile stimuli can affect consumer tactile product experience and evaluation of body care products. The main research question of this study is as follows: *"To what extent package texture affects consumer's evaluation of body care products?"*

Based on the literature, mentioned in the previous sections, a number of hypotheses could be prepared. To examine these hypotheses, texture was manipulated in this study.

The food industry has shown a relationship between the package texture and the taste perception of the product. Now, it is questioned whether the same relationship exists between the package texture of body care products and the tactile product experience. In this study was expected that a smooth package texture lead consumers to experience body care products as softer than body care products with a rough package texture. The following hypotheses were formulated:

**H1a:** *A smooth package texture leads to a softer tactile product experience than a rough package texture*

**H1b:** *A rough package texture leads to a rougher tactile product experience than a smooth package texture*

In this study was expected that body care products with a smooth package texture were associated more with hedonic product associations and body care products with a rough package texture with utilitarian product associations. In this, the following hypotheses were formulated:

**H2a:** *A smooth package texture lead consumers to associate body care products more with hedonic product associations.*

**H2b:** *A rough package texture lead consumers to associate body care products more with utilitarian product associations.*

When consumers have the opportunity to touch, it can affect the appreciation of products (Schifferstein, 2009). A smooth feeling is more positively experienced than a rough feeling (Piqueras-Fizman & Spence, 2012). It was expected that the use of a smooth package texture, as opposed to a rough package texture, provides a more positive evaluation of the product. The following hypothesis was formulated:

**H3:** *A smooth, as opposed to rough, package texture will lead consumers to evaluate body care products more positively.*

Arnold & Reynolds (2003) suggest that women focus more on hedonic values than men. They also suggest that women have stronger hedonic shopping motives. In this study, it was expected that an interaction effect exist between package texture and framing. In other words, it was suggested that the influence of package texture on product associations, tactile product experience and product evaluation was more pronounced for products in the hedonic frame, in contrast to package texture for product in the utilitarian frame. Furthermore, an interaction effect between package texture and product type was also expected. It was expected that the influence of package texture on product associations, tactile product experience and product evaluation was more pronounced for the hedonic product, body crème, as opposed to the utilitarian product, body scrub. This in order to that it was expected that body scrub was more purchased for their functional features and body crème more for their physical appearance. The following hypotheses were formulated:

**H4:** *The effect of package texture on product associations, tactile product experience and product evaluation is more pronounced for the hedonic frame, in contrast to the effect of package texture for the utilitarian frame.*

**H5:** *The effect of package texture on product associations, tactile product experience and product evaluation is more pronounced for body crèmes, in contrast to the effect of package texture for body scrubs.*

In this study was expected that congruence between the framing of the advertisement (hedonic advertising slogan or utilitarian advertising slogan) and the product type (body scrub or body crème) creates a more positive evaluation of the product. Also, it was expected that when package texture was congruent to the product type, consumer evaluate the product more positively. The following hypotheses were formulated:

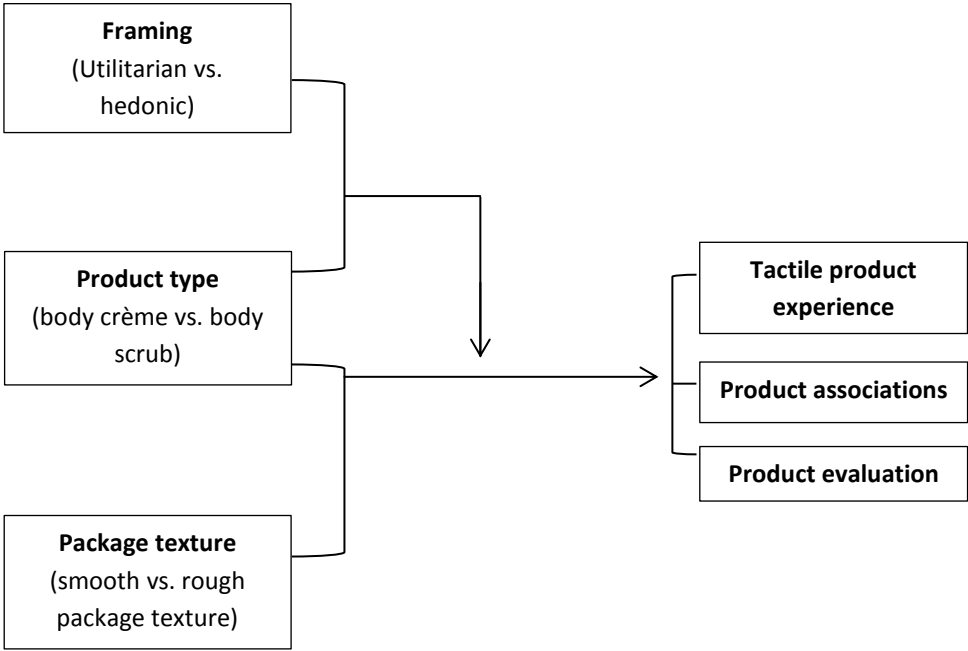
**H6a:** *Congruence as opposed to incongruence between product type and framing positively influences the effect of package texture on consumers' tactile product experience, product associations and product evaluation.*

**H6b:** *Congruence as opposed to incongruence between package texture and product type positively influences the effect of package texture on consumer's tactile product experience, product associations and product evaluation.*

**2.6 Research design**

In order to examine whether the package texture influences the overall product evaluation of body care products, three different dependent variables should be considered: tactile product experience, product associations and product evaluation. The influence of tactile stimuli was measured for all of these variables. The product type and framing may influence the effect of package texture on the evaluation of body care products and might be moderators in this research. The research model associated with the hypotheses has been charted below.

*Figure 1: Researchmodel variables*





### **3. METHOD SECTION PRE-STUDY**

A pre-study was necessary to examine whether the product packages were appropriate for the main study. At the same time, it was important to examine the associations that existed when people thought about body care products and what they considered as a hedonic product and what as a utilitarian product. Three pre-studies were designed to gain insight into these variables.

#### **3.1 Package design**

In a view of the reliability of the main study, the purpose of the first pre-test was to investigate the realism of the product packages that was created by a three dimensional printer. If the packages were judged as highly implausible or unrealistic, it could affect the reciprocation of other questions. In addition, important was to examine whether the smooth texture actually was rated as smooth and the rough texture actually was rated as rough.

##### *3.1.1 Method*

To examine the realism of the product packages and the assessment of the package textures, the participants observed two different jars that would be used in the main study. The jars differ in texture: a jar with a smooth texture and a jar with a rough texture. By means of a questionnaire, the realism of the packaging and the assessment of the texture were measured.

A total of 15 participants were participated in this pretest. Merely woman have participated in the pre-study with a view to the target group of the main study. Het procedure proceeded as follows: The questionnaire started with a brief introduction of the pre-test. After this short introduction, the realism of the product packages was measured by means of four items: "To what extent do you believe this package fit with the product type?," "To what extent do you believe this product package is realistic?," "To what extent do you believe this package is credible?," "To what extent this package is reliable to you?". Furthermore, the evaluation of the package texture was measured by four psycho-physical word combinations that have been developed based on the semantic differential technique by Osgood, Suci and Tanenbaum (1957). In this way, the tactile experience of the package was measured. Finally, all questions were answered on a five-point Likert scale. This pretest is provided in appendix 1.

##### *3.1.2. Results*

The average score and standard deviation are computed to discover whether the two product packages are reliable and credible. The averages show the degree of reliability and credibility on a 5 point Likert scale. Enclosed, answer possibility '1' meant totally not and answer possibility '5' meant

very much. The items that are used for this object provides a reliable scale and were all positively formulated in the pre-study. Table 1 shows the average scores of the realism of the two jars. From this table can be concluded that product package 1 has a high average score (M=3.8, SD=0.61). This means that the participants judge product package 1 as real and reliable. However, the average score of product package two (M=2.4, SD=0.93) were significantly lower. Consequently, participants judge this product package as less realistic for a body care product. This is probably related to the package texture that does not exist in contemporary body care products. However, the score is substantially a neutral score (M=2.8, SD = 0.93) and thereby high enough to use in the main study.

*Table 1: Average Score Realism Product Packages*

| <b>Variables*</b>         | <b>N</b> | <b>N- items</b> | <b><math>\alpha</math></b> | <b>Average score</b> | <b>SD</b> |
|---------------------------|----------|-----------------|----------------------------|----------------------|-----------|
| Realism Product package 1 | 15       | 4               | 0.84                       | 3.8                  | 0.61      |
| Realism Product package 2 | 15       | 4               | 0.78                       | 2.7                  | 0.56      |

\*All scales were measured with a 5-points Likert scale

Table 2 shows the average scores on the assessment of the package texture. The four items that are used to measure the tactile experience of the package provides a reliable scale. The lower the score, the smoother the package texture was assessed. The higher the score, the rougher the package texture was experienced. Product package 1 provided a softer and smoother experience (M=1.9, SD=0.77) and product package 2 provided a rougher experience (M=4.7, SD=0.35). So, in the main study, package 1 serves for the smooth package texture and package 2 serves for the rough texture.

*Table 2: Average Score Texture Product Packages*

| <b>Variables*</b>         | <b>N</b> | <b>N- items</b> | <b><math>\alpha</math></b> | <b>Average score</b> | <b>SD</b> |
|---------------------------|----------|-----------------|----------------------------|----------------------|-----------|
| Texture Product package 1 | 15       | 4               | 0.89                       | 1.9                  | 0.77      |
| Texture Product package 2 | 15       | 4               | 0.63                       | 4.7                  | 0.35      |

\* All scales were measured with a 5-points Likert scale

### **3.2 Product associations**

In order to ensure that all possible associations that are related to body care products were taken into account, a second pre-study carried out.

#### *3.2.1 Method*

In this pre-study participants were asked to write down all associations body care products evoked. The participants were allowed to write down five associations, in order of what came to mind first. In

this pre-test only salient associations appeared (Chen, 2001). The ideas of the participants were not helmed because this could affect the investigation.

A total of 15 participants were participated in this pretest. Merely woman have participated in the pre-study with a view to the target group of the main study. The produce proceeded as follows: the pre-test started with a brief introduction with instruction about the questionnaire. The duration of the questionnaire were also mentioned in this introduction. On the second page, the intention was briefly explained again and then the respondents had to written down the five associations.

### 3.2.2. Results

The associations that are emerged during this pre-study are presented in Table 3. These associations are subsequently incorporated into the questionnaire for the main study. This pretest is provided in appendix 2.

*Table 3: Product Associations*

|                    | <b>Product associations</b> |                      |
|--------------------|-----------------------------|----------------------|
| Soft               | (not) Greasy                | Reinforcing          |
| Caring             | Functional                  | Convalescent         |
| Effective          | Restful                     | Nourishing           |
| Pleasant fragrance | Hydrating                   | Fresh                |
| Relaxing           | Being well                  | Beautiful appearance |
| Protective         | Liquid                      | Attractive           |

### 3.3 Product type

The purpose of the third pre-study was to determine a suitable advertising slogan that represents a hedonic body care product and an appropriate advertising slogan which represents a utilitarian product.

#### 3.3.1. Method

To achieve an appropriate advertising slogan for the two different product types, four advertisements which differ in slogan were tested on appreciation. Two advertising slogans were aimed for hedonic body care products and two slogans for utilitarian body care products. By means of a questionnaire, the advertising slogans were tested. The pretest is provided in appendix 3.

A total of 15 female participants were participated in this pretest. Het procedure proceeded as follows: The questionnaire started with a brief introduction of the pre-test. After this short introduction, the four different advertising slogans were shown one by one. Then, the hedonic and utilitarian values of body care products were measured on a bipolar 5-point Likert scale. These items are based on the hedonic and utilitarian scale of Voss, Spangenberg and Grohmann (2003) which provides a reliable scale. Examples of the items are the necessity and functionality of body care products.

### 3.3.2 Results

In order to figure out which advertising slogan should have been used to indicate a utilitarian product and hedonic product, the average scores and standard deviation were computed by each advertising slogan. Table 4 shows the average scores on the utilitarian value of the advertising slogans. Therefrom can be concluded that advertising slogan 4 (M=4.30, SD=0.55) ranks highest in utilitarian value. Therefore, advertising slogan 4 is used to indicate the utilitarian product in the main study.

*Table 4: Average Score Advertising Slogan Utilitarian Product*

| <b>Variables*</b>                | <b>N</b> | <b>N- items</b> | <b><math>\alpha</math></b> | <b>Average score</b> | <b>SD</b> |
|----------------------------------|----------|-----------------|----------------------------|----------------------|-----------|
| Advertising Slogan 1 Utilitarian | 15       | 5               | 0.86                       | 3.97                 | 0.62      |
| Advertising Slogan 2 Utilitarian | 15       | 5               | 0.92                       | 3.29                 | 1.04      |
| Advertising Slogan 3 Utilitarian | 15       | 5               | 0.84                       | 3.56                 | 0.78      |
| Advertising Slogan 4 Utilitarian | 15       | 5               | 0.80                       | 4.30                 | 0.55      |

\*All scales were measured with a 5-points Likert scale

The average scores on the utilitarian value were slightly higher than the average scores on the hedonic values. While the difference is less obvious than in the utilitarian value, Table 5 shows that advertising slogan 3 has the highest average score on the hedonic value (M=3.36, SD=0.78). So, advertising slogan 3 is used in the main study to indicate the hedonic body care product. Figure 2 shows the two advertising slogans that were selected for the main study.

*Table 5: Average Score Advertising Slogan Hedonic Product*

| <b>Variables*</b>            | <b>N</b> | <b>N- items</b> | <b><math>\alpha</math></b> | <b>Average score</b> | <b>SD</b> |
|------------------------------|----------|-----------------|----------------------------|----------------------|-----------|
| Advertising Slogan 1 Hedonic | 15       | 5               | 0.67                       | 2.94                 | 0.56      |
| Advertising Slogan 2 Hedonic | 15       | 5               | 0.75                       | 3.28                 | 0.76      |
| Advertising Slogan 3 Hedonic | 15       | 5               | 0.81                       | 3.36                 | 0.78      |

---

|                              |    |   |      |      |      |
|------------------------------|----|---|------|------|------|
| Advertising Slogan 4 Hedonic | 15 | 5 | 0.77 | 3.08 | 0.66 |
|------------------------------|----|---|------|------|------|

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\* All scales were measured with a 5-points Likert scale

Figure 2: Pre-selection Advertising Slogan



## 4. METHOD SECTION MAIN STUDY

### 4.1 Experimental design

The starting point of this research was a product package. In this case, a product package was meant as a jar which is suitable for body care products. To examine the hypotheses that are composed, a 2 (*soft vs. rough texture*) x 2 (*body crème vs. body scrub*) x 2 (*utilitarian vs. hedonic frame*) experimental design were prepared. The package texture was the independent variable and the dependent variables were tactile product experience, product associations and product evaluation. In this, the product type (body crème or body scrub) and the framing (utilitarian or hedonic framing) were the moderators of this research.

For the creation of the stimulus material, either the jars that differ in texture, a three dimensional printer was used. This printer has developed a jar with a smooth texture and a jar with a rough texture. These textures have been chosen because they are regularly used as packaging material for body care products. The distinction in framing was created through advertising slogans. For the creation of these advertisements a fictitious brand of body care product called Lomare was developed. Within this utilitarian and hedonic frame four different conditions had been developed. The research conditions of both frames are shown in Table 6 and Table 7. Appendix 4 included the stimuli of the eight research conditions.

Table 6: *Experimental Design Utilitarian Framing*

|                      | <b>Body crème</b> | <b>Body scrub</b> |
|----------------------|-------------------|-------------------|
| <b>Soft texture</b>  | Condition 1       | Condition 2       |
| <b>Rough texture</b> | Condition 3       | Condition 4       |

Table 7: *Experimental Design Hedonic Framing*

|                      | <b>Body crème</b> | <b>Body scrub</b> |
|----------------------|-------------------|-------------------|
| <b>Soft texture</b>  | Condition 5       | Condition 6       |
| <b>Rough texture</b> | Condition 7       | Condition 8       |

Then, the influence of the package texture on the evaluation of body care products were examined by means of an experiment. The experiment consisted of making physical contact with the package and subsequently, depending on the assigned condition, testing the body crème or body scrub on the skin.

## 4.2 Participants

The sample consisted of female consumers that already purchased body care products in the past or have the attention to purchase body care products. These were female consumers in the age of 18 till 60. This category of ages is chosen because all kind of female consumers were measured now. It included consumers that purchase body care products for hedonic reasons, for example young female consumers that enjoy shopping and it included female consumers that purchase body care products for functional features, for example anti age body crèmes.

The total number of respondents who had participated in the experiment was 160 women. The average was 34.7 (SD =13.13). The distribution in ages is shown in Table 8.

*Table 8: Demographics of Participants*

| Conditie | N  | Age   |       |
|----------|----|-------|-------|
|          |    | M     | SD    |
| 1        | 20 | 35,10 | 10,55 |
| 2        | 20 | 36,90 | 13,32 |
| 3        | 20 | 31,90 | 11,21 |
| 4        | 20 | 34,70 | 14,61 |
| 5        | 20 | 35,35 | 15,59 |
| 6        | 20 | 35,30 | 11,67 |
| 7        | 20 | 31,55 | 14,49 |
| 8        | 20 | 36,80 | 14,02 |

All conditions had an equal number of respondents. Condition 2 had the highest average in ages (M=36.9; SD=13.32) and condition 7 had the lowest average in ages (M=31.55; SD=14.49). No significant differences were found in the ages of the participants between the eight conditions. Furthermore, participants were asked to what extent they buy body care products. This could be answered on a five point Likert scale. The results show that participants buy body care products regularly (M=3.4; SD=.91). Lastly, no other significant differences were found between the participants because all respondents had the same gender.

## 4.3 Procedure

Participants were approached and asked to participate in an examination on body care products in a shopping mall in the center of Apeldoorn. When approaching, the participants were asked if they were allergic for certain body care products. If they had an allergy, they were excluded from the study. The procedure was as follows: First, the participants gained information from a brief

introduction about the purpose of the examination. In this, also the anonymity and voluntariness of the survey were mentioned. After agreeing with the survey, the participants received a jar containing a body care product. What kind of jar (with a smooth or rough texture) and which body care product was inside was depended on the condition the participant was assigned. The participants were randomly assigned to one of the existing conditions. They were asked to touch the jar and test the substance on their skin. Next, the participants received a questionnaire, with a 5 point Likert answer scale, that indicated their experience while they tried the body care product. Completing this questionnaire had taken approximately 5 minutes of their time. After completing the questionnaire, the questionnaires were returned to the researcher. Finally, the participants were thanked for their participation.

#### **4.4 Measures**

The questionnaire aimed to measure the effect of the independent variable (package texture) and the moderators (product type and framing) on the dependent variable 'product evaluation'. Also the other dependent variables were measured exploratory where package texture may had an influence on. Appendix 5 included the questionnaire.

##### *4.4.1 Tactile product experience*

To capture consumers' experience of products, respondents had to assess sensory aspects. These were prepared based on the semantic differential technique designed by Osgood, Suci and Tannenbaum (1957). The tactile product experience was measured with six psycho-physical words: smooth-rough, flat-bumpy, warm-cold, soft-hard, absorbent-not absorbent and calming-pungent. Several words were used in basic sensory experience experiments concerning touch (Hollins, Faldowski, Rao & Young, 1993).

##### *4.4.2 Product associations*

Questions regarding the product associations were composed based on the informed association method of Timmermans (2002). This method informs respondents about the existence of all possible attributes that they could associate with the brand (Timmermans, 2002). In the pretest, the respondents had to indicate to what extent they thought different associations fit with body care products. After the establishment of the associations, the associations were divided into hedonic and utilitarian product associations. In this way, the associations were presented to the respondents. Utilitarian product associations were about the functionality of body care products. The hedonic product associations were more about the feeling that arises when you use or smell the product. For example a feeling of relaxing. The presented associations are found in Table 9.



Table 9: Utilitarian and hedonic associations

| <b>Utilitarian product associations</b> |              |
|---|--------------|
| Restful                                 | (not) Greasy |
| Reinforcing                             | Functional   |
| Effective                               | Hydrating    |
| Nourishing                              | Convalescent |
| <b>Hedonic product associations</b>     |              |
| Pleasant fragrance                      | Caring       |
| Relaxing                                | Being well   |
| Soft                                    | Fresh        |
| Beautiful appearance                    | Attractive   |

#### 4.4.3 Product evaluation

The attitude in relation to the product was measured by using five items. Questions such as “I have a good feeling about this product” and “This product has a positive effect on my skin” were measuring the construct product evaluation. The items could be answered on a five point Likert scale, where 1 meant ‘totally disagree’ and 5 meant ‘totally agree’. Based on these questions, it could be determined whether the participants had a positive or a negative attitude towards body care product.

#### 4.4.4 Reliability and validity

This research has used a Cronbach’s Alpha of 0.70 as a threshold for a reliable scale in which all items were measuring the same concept (Pallant, 2013). Table 10 shows the Cronbach’s Alpha of all dependent variables.

Table 10: Cronbach’s Alpha Dependent Variables

| <b>Variables</b>                        | <b><math>\alpha</math></b> | <b>N-items</b> | <b>Deleted items</b> |
|---|----------------------------|----------------|----------------------|
| Tactile product experience              | 0.720                      | 6              | 2                    |
| Product associations                    | 0.859                      | 15             | 1                    |
| <i>Hedonic product associations</i>     | 0.824                      | 8              | 0                    |
| <i>Utilitarian product associations</i> | 0.740                      | 7              | 1                    |
| Product evaluation                      | 0.899                      | 5              | 0                    |

## 5. RESULTS

This section elaborates the relevant outcomes of the experiment. It gives more information about the identified main and interaction effects. In this, an ANOVA was conducted for each dependent variable and independent variable. In table 11, the results of the ANOVA's were shown.

*Table 11: Results of ANOVA*

| <b>Independent variable</b>            | <b>Dependent variable</b>        | <b>F</b> | <b>p</b> |
|--|----------------------------------|----------|----------|
| Package texture                        | Smooth/rough experience          | 26.038   | .000     |
| Framing                                | Smooth/rough experience          | 10.360   | .002     |
| Package texture x product type         | Smooth/rough experience          | 5.922    | .016     |
| Package texture x framing              | Smooth/rough experience          | 16.030   | .000     |
| Product type x framing                 | Smooth/rough experience          | 16.030   | .000     |
| Package texture                        | Tactile product experience       | .090     | .764     |
| Package texture x product type         | Tactile product experience       | 6.905    | .009     |
| Package texture x framing              | Tactile product experience       | 1.929    | .167     |
| Package texture x product type x frame | Tactile product experience       | 3.665    | .057     |
| Product type x framing                 | Tactile product experience       | 1.629    | .204     |
| Package texture                        | Hedonic product associations     | 2.409    | .123     |
| Product type                           | Hedonic product associations     | 4.409    | .037     |
| Package texture x product type         | Hedonic product associations     | .182     | .671     |
| Package texture x framing              | Hedonic product associations     | 1.009    | .317     |
| Product type x framing                 | Hedonic product associations     | .579     | .448     |
| Package texture                        | Utilitarian product associations | .519     | .472     |
| Package texture x product type         | Utilitarian product associations | 3.442    | .065     |
| Package texture x framing              | Utilitarian product associations | 4.670    | .032     |
| Package texture x product type x frame | Utilitarian product associations | 4.483    | .036     |
| Product type x framing                 | Utilitarian product associations | .252     | .616     |
| Package texture                        | Product evaluation               | 1.173    | .281     |
| Product type                           | Product evaluation               | 5.627    | .019     |
| Package texture x product type         | Product evaluation               | .960     | .329     |
| Package texture x framing              | Product evaluation               | .043     | .837     |
| Product type x framing                 | Product evaluation               | 1.173    | .281     |

### 5.1 Tactile product experience

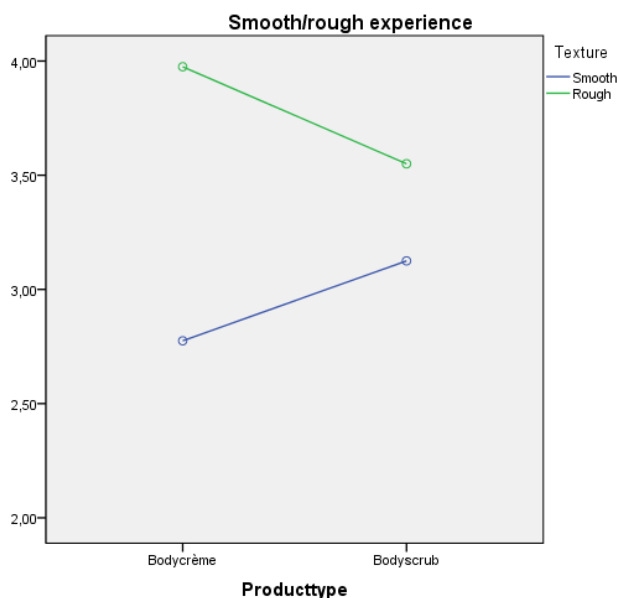
#### 5.1.1 Smooth/rough experience

An ANOVA was conducted for one specific item of the complete scale: the smooth/rough experience.

With this analysis was examined whether package texture significantly affect the smooth/rough

experience of body care product on consumers' skin. The ANOVA revealed that package texture has a significant main effect on the smooth/rough experience ( $F(1,152) = 26.038, p < 0.05$ , partial  $\eta^2 = .146$ ). Body care products with a smooth package texture ( $M = 2.95$ ;  $SD = 1.30$ ) provides a softer experience than body care products with a rough package texture ( $M = 3.76$ ;  $SD = .94$ ). This is in line with the predictions. In addition to the package texture, also a main effect was found for framing on the smooth/rough experience ( $F(1,152) = 10.360, p < .05$ , partial  $\eta^2 = .064$ ). A body care product in a hedonic frame ( $M = 3.10$ ;  $SD = 1.23$ ) provides a softer experience than a body care product in a utilitarian frame ( $M = 3.61$ ;  $SD = 1.11$ ). Beside these main effects, also three interaction effects were found.

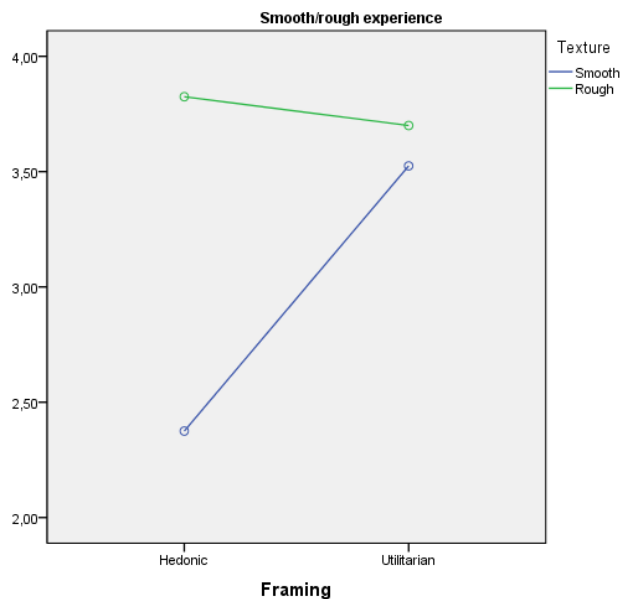
An interaction effect between package texture and product type on smooth/rough experience was found ( $F(1,152) = 5.922, p < .05$ , partial  $\eta^2 = .038$ ). In graph 1 can be seen that a body crème is smoother experienced in a smooth package texture ( $M = 2.77$ ;  $SD = 1.42$ ) in contrast to a rough package texture ( $M = 3.97$ ;  $SD = .89$ ). This difference between a smooth package texture and a rough package texture is significant in the body crème condition ( $p < .05$ ). The body scrub provides a rougher experience in a rough package texture ( $M = 3.55$ ;  $SD = .95$ ) in contrast to a smooth package texture ( $M = 3.12$ ;  $SD = 1.15$ ). In conclusion, the effect of package is more pronounced for body crèmes in contrast to the effect of package texture for body scrubs. This is in contrast to the analysis for the complete scale but in line with the predictions.



*Graph 1: Interaction effect package texture and product type for smooth/rough experience*

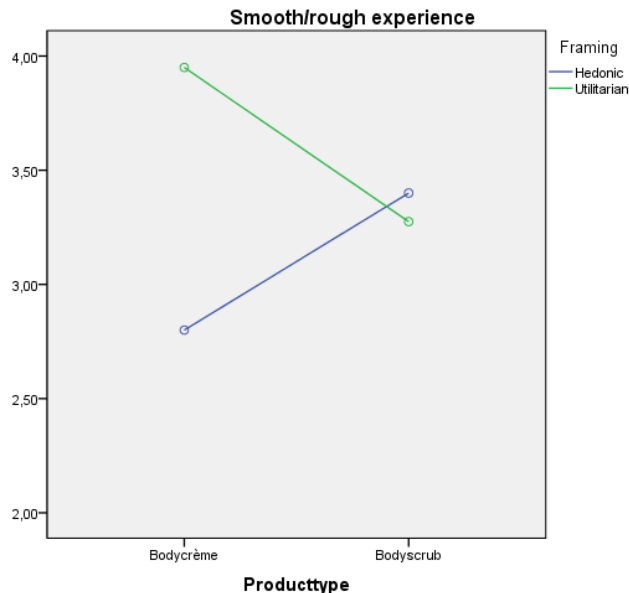
Furthermore, an interaction-effect was found between package texture and framing on the smooth/rough experience on the skin ( $F(1,152) = 16.030, p < .05$ , partial  $\eta^2 = .095$ ). Graph 2 shows the

outcomes. Graph 2 shows that in the hedonic frame, a body care product with a smooth package texture (M=2.37; SD=1.12) provides a smoother experience than body care product with a rough package texture (M=3.82; SD=.87). In the utilitarian frame emerged the same. However, the difference between a smooth package texture and a rough package texture is significant for the hedonic frame ( $p < .05$ ). So, the effect of package texture is more pronounced for the hedonic frame in contrast to the effect of package texture for the utilitarian frame. This is in line with the predictions.



*Graph 2: Interaction effect package texture and framing for smooth/rough experience*

Finally, an interaction effect between framing and product type on the dependent variable smooth/rough experience was found ( $F(1,152) = 16.030, p < .05, \text{partial } \eta^2 = .095$ ). In graph 3 on the next page can be seen that a body crème provides a smoother experience in a hedonic frame (M=2.80; SD=1.34) in contrast to the utilitarian frame (M=3.9; SD=1.03). This is in line with the predictions. However, the body scrub provides a rougher experience in a hedonic frame (M=3.40; SD=1.05) in contrast to a package with a utilitarian frame (M=3.27; SD=1.10). This difference between a hedonic frame and a utilitarian frame texture is significant in the body crème condition ( $p < .05$ ).

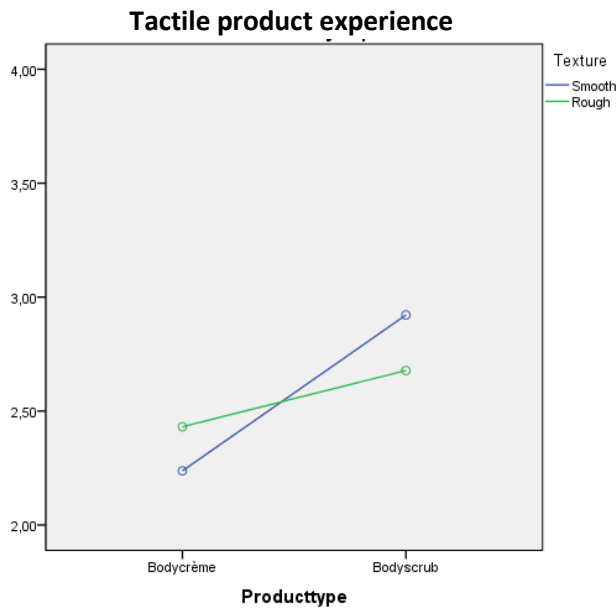


*Graph 3: Interaction effect product type and framing for smooth/rough experience*

### 5.1.2 General analysis

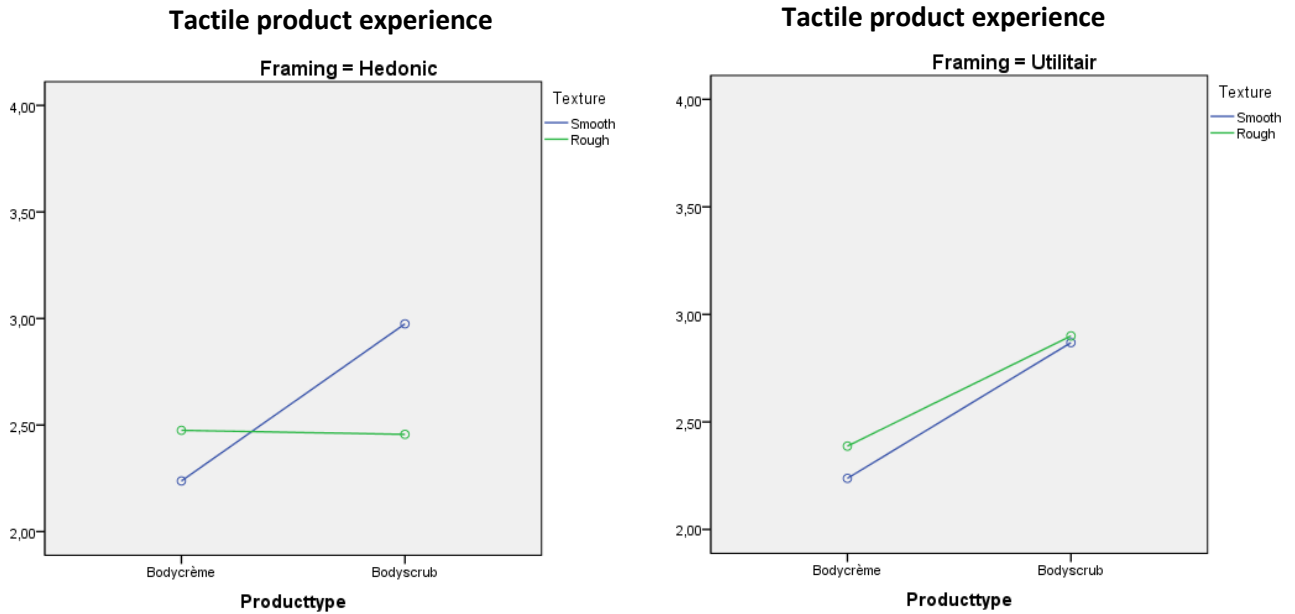
When the influence of package texture on the tactile product experience was analyzed, there are three significant results found. The ANOVA shows that package texture has no significant main effect on the dependent variable tactile product experience ( $F(1,152) = .090, p = .764, \text{partial } \eta^2 = .001$ ). However, the product type does have a significant main effect on the tactile product experience ( $F(1,152) = 31.28, p < 0.05, \text{partial } \eta^2 = .171$ ). The body scrub ( $M = 2.8; SD = .59$ ) provides a rougher experience and the body crème a smoother experience ( $M = 2.33; SD = .48$ ). This applies that, the lower the average, the smoother the tactile product experience.

In addition to the main effect on product type, an interaction effect between package texture and product type on the dependent variable tactile product experience was found ( $F(1,152) = 6.905, p < .05, \text{partial } \eta^2 = .043$ ). In graph 4 on the next page can be seen that a body provides a smoother experience in a smooth package texture ( $M = 2.23; SD = .36$ ) in contrast to a rough package texture ( $M = 2.43; SD = .56$ ). This is in line with the predictions. However, the body scrub was rougher experienced in a smooth package texture ( $M = 2.92; SD = .61$ ) in contrast to a package with a rough package texture ( $M = 2.67; SD = .54$ ). This difference between a smooth package texture and a rough package texture is significant in the body scrub condition ( $p < .05$ ). So, the effect of package is more pronounced in the body scrub condition in contrast to the effect of package texture for body crèmes. This is in contrast with the predictions.



*Graph 4: Interaction effect package texture and product type for tactile product experience*

Furthermore, an interaction-effect was found between texture, product type and framing on the dependent variable tactile product experience ( $F(1,152) = 3.665, p = 0.05, \text{partial } \eta^2 = .024$ ). In the hedonic frame, the influence of package texture is higher in the body scrub condition and in the utilitarian frame; the influence of package texture is higher in the body crème condition. In the hedonic frame a smooth package texture ( $M = 2.23; SD = .29$ ) provides a softer experience on the skin than a rough package texture ( $M = 2.47; SD = .68$ ) in the body crème condition. This is in line with the predictions. The difference between the hedonic and utilitarian frame are displayed in graph 5 and 6 on the next page. In the body scrub condition a smooth package texture provides a rougher experience on the skin ( $M = 2.97; SD = .74$ ) than a rough package texture ( $M = 2.45; SD = .63$ ). In the hedonic frame, this difference between a smooth package texture and a rough package texture is significant in the body scrub condition ( $p < .05$ ). Also in the utilitarian framing provides a smooth package texture ( $M = 2.2; SD = .43$ ) a softer experience on the skin than a rough package texture ( $M = 2.38; SD = .42$ ) in the body crème condition. In the body scrub condition a rough package texture ( $M = 2.90; SD = .32$ ) provides a rougher experience on the skin than a smooth package texture ( $M = 2.86; SD = .46$ ). This is in line with the predictions. Furthermore, no interaction effect was found between package texture and framing on the dependent variable tactile product experience.



Graph 5 and 6: Interaction effect package texture and product type with a hedonic and utilitarian frame for tactile product experience

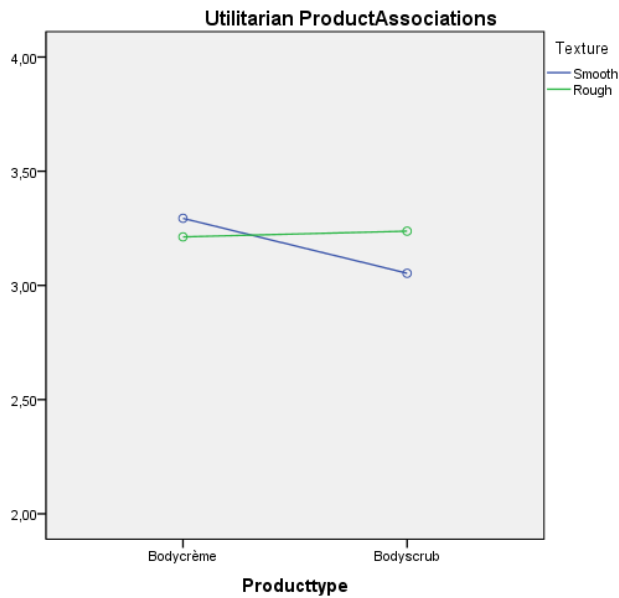
## 5.2 Product associations

### 5.2.1 Hedonic product associations

An ANOVA is conducted for the dependent variable hedonic product associations. This univariate analysis of variance resulted in no significant main effect for package texture on the dependent variable hedonic product associations ( $F(1,152) = 2.409, p=.123$ , partial  $\eta^2=.016$ ). However, the product type does have a significant main effect on this dependent variable ( $F(1,152) = 4.409, p<.05$ , partial  $\eta^2=.028$ ). Body crèmes ( $M=3.47; SD=.59$ ) are more associated with hedonic product associations than body scrubs ( $M=3.26; SD=.70$ ). Furthermore, no interaction effects were found on the dependent variable hedonic product associations.

### 5.2.1 Utilitarian product associations

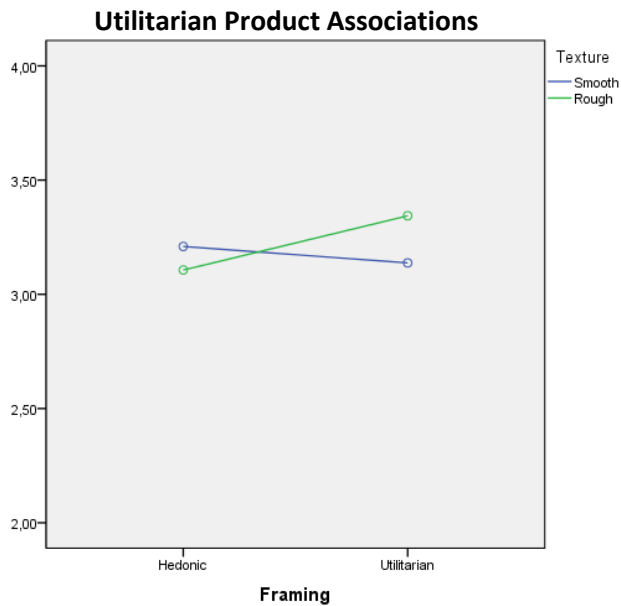
For the dependent variable utilitarian product associations, the ANOVA shows that package texture has no significant main effect on this variable ( $F(1,152) = .519, p=.472$ , partial  $\eta^2=.003$ ). Also the product type has no main effect on utilitarian product associations ( $F(1,152) = 2.268, p=.134$ , partial  $\eta^2=.015$ ). Furthermore, three interaction effects were found. First of all, a marginal interaction effect exist between package texture and product type on the dependent variable ( $F(1,152) = 3.442, p<.10$ , partial  $\eta^2=.022$ ).



*Graph 7: Interaction effect package texture and product type for utilitarian product associations*

Graph 7 shows that body crèmes in a smooth package texture are more associated with utilitarian product associations ( $M=3.29$ ;  $SD=.33$ ) than body crèmes in a rough package texture ( $M=3.21$ ;  $SD=.58$ ). In the body scrub condition, the opposite exists. Body scrubs in a rough package texture were more associated with utilitarian product associations ( $M=3.23$ ;  $SD=.43$ ) than body scrubs in a smooth package texture ( $M=3.05$ ;  $SD=.47$ ). Also, it can be seen that the effect of package texture is more pronounced for body scrubs than the effect of package texture for body crèmes. This difference between a smooth package texture and a rough package texture is marginal in the body scrub condition ( $p<.10$ ). Furthermore, an interaction-effect is found between package texture and framing on the dependent variable utilitarian product associations ( $F(1,152) = 4.670$ ,  $p<.05$ , partial  $\eta^2=.030$ ). Graph 8 on the next page shows the outcomes.

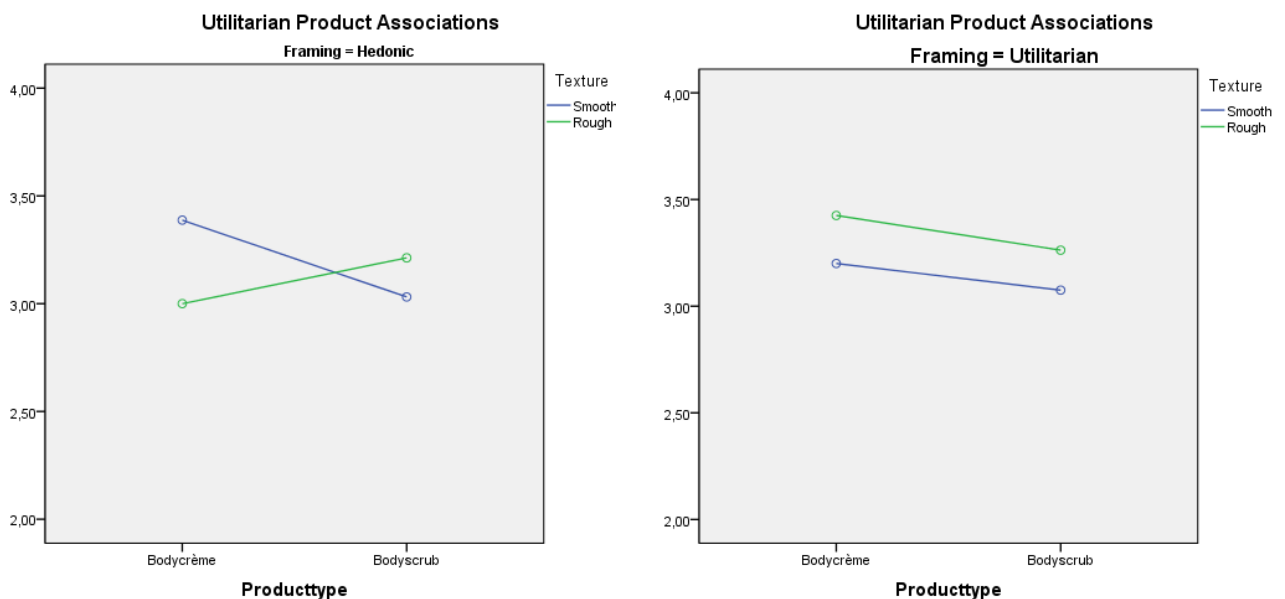




*Graph 8: Interaction effect package texture and framing for utilitarian product associations*

Graph 8 shows that in the hedonic frame a smooth package texture (M=3.20; SD=.48) evokes more utilitarian product associations than a rough package texture (M=3.10; SD=.48). In the utilitarian frame a rough package texture (M=3.34; SD=.50) provides more utilitarian product associations in contrast to a smooth package texture (M=3.13; SD=.35). Also, it can be seen that the effect of package texture is more pronounced for the utilitarian frame in contrast to the effect of package texture for the hedonic frame. This difference between a smooth package texture and a rough package texture is significant for the utilitarian frame ( $p < .05$ ). This is in line with the predictions.

Finally, an interaction effect was found between package texture, framing and product type on the dependent variable utilitarian product associations ( $F(1,152) = 4.483, p < .05, \text{partial } \eta^2 = .029$ ).



*Graph 9 and 10: Interaction effect package texture and product type with a hedonic and utilitarian frame for utilitarian product associations*

The graphs shows that in the hedonic frame the influence of package texture on the utilitarian product associations was higher in the body crème condition than in the body scrub condition. In the utilitarian frame, no interesting effects were found. For the hedonic frame, the highest results were found for the body crème and smooth package texture ( $M=3.38$ ;  $SD=.21$ ), whereas the rough package texture scored the lowest for the same body care product ( $M=3.12$ ;  $SD=.52$ ). This difference between a smooth package texture and a rough package texture on utilitarian product associations are significant for a body crème in a hedonic frame ( $p<.05$ ).The difference between rough package texture and smooth package texture was less striking for body scrub. In the utilitarian frame, the highest results were found for the body crème and a rough package texture ( $M=3.42$ ;  $SD=.55$ ), whereas the smooth package texture scored the lowest for the body scrub condition ( $M=3.31$ ;  $SD=.49$ )

### **5.3 Product evaluation**

When it comes to the dependent variable product evaluation, package texture has no main effect ( $F(1,152) = 1.173$ ,  $p=.281$ , partial  $\eta^2=.008$ ). However, the ANOVA found that product type does have a main effect on product evaluation ( $F(1,152) = 5.627$ ,  $p <.05$ , partial  $\eta^2=.036$ ). A body crème ( $M=3.4$ ;  $SD=.63$ ) was evaluated more positively than a body scrub ( $M=3.11$ ;  $SD=.86$ ). This was the only significant result for the dependent variable product evaluation. No other interaction effects were found.

## 6. DISCUSSION

### 6.1 Discussion of the results

The aim of this research was to identify the effect of package texture on consumer's tactile product experience, product associations and product evaluation of body care products. The findings combined with the conclusions are discussed by variable.

#### 6.1.1 Tactile product experience

The results of the complete scale and the results of the smooth/rough experience demonstrate interesting outcomes regarding the effect of package texture on consumer's tactile product experience. For the smooth/rough experience, a direct effect of package texture was found. The results showed that by using different package textures, the smooth/rough experience of a body care product can be changed. This finding underlines the previous study of Peck & Childers (2003), who have found that the product experience of consumers can be influenced by the sensory characteristics of product packaging.

Although, the results showed no main effect of package texture on tactile product experience, interesting interaction effects were found. The results demonstrate that the product type positively influence the effect of package texture on tactile product experience. More specifically, the use of package texture positively influences the tactile product experience in the body scrub condition. Body scrubs with a smooth package texture provides a rougher experience than body scrubs with a rough package texture. Moreover, congruence is not an important factor regarding package texture and product types. A possible explanation for this is the habituation of using body scrubs in a smooth package texture in daily life. When the results are specifically analyzed for the smooth/rough experience, it can be suggested that congruence does have an important role regarding package texture a product type. The results demonstrate larger differences for package texture when a body crème was used. A body crème with a smooth package texture provides a smoother experience than rough package texture. An explanation for this is that the complete scales measure more general items and not only measure smoothness. However, the findings for the smooth/rough experience underline the previous study of Schifferstein (2009) who found that tactile stimuli can influence the taste perception of drinks when these stimuli correspond. This correspondence does not exist in body care products, which makes this finding an extension.

In addition to the interaction effect between package texture and product type, also framing is an important factor in the effect of package texture but only on the smooth/rough experience. The results showed that the use of package texture positively influences the smooth/rough experience in

a hedonic frame. More specifically, in a hedonic frame, body care products with a smooth package texture provides a smoother experience than body care products with a rough package texture. This finding underlines the previous study of Lee and Labroo (2004) who found that when an object was framed with a related construct, the processing of the object was facilitated.

Finally, the results demonstrate an interaction effect between package texture, product type and framing on tactile product experience. The results demonstrate in a hedonic frame, larger differences between a rough and smooth package texture when a body scrub was used. Furthermore, it seems that congruence is not an important factor in tactile product experience.

### *6.1.2 Product associations*

When the results are specifically analyzed for utilitarian product associations, interesting effects were found. The results demonstrate that the product type and framing positively influence the effect of package texture on utilitarian product associations. In other words, the use of package texture positively influences the utilitarian product associations in the body scrub condition. Body scrubs with a rough package texture are more associated with utilitarian product associations than body scrubs with a smooth package texture. A possible explanation for this specific conclusion is that body crèmes are hedonic products and are mostly used for hedonic reasons (Zhu & Wang, 2009) Moreover, it was confirmed that congruence is an important factor regarding package texture and product types. When the package texture of a jar was congruent with the product type it was served in, outcomes for utilitarian product associations were higher. Thus, matching a rough package texture with a body scrub, results in more utilitarian product associations. These findings underline the previous study of Piqueras-Fiszman and Spence (2012) who found that the information that is obtained by physical contact with the product can influence the perception on the texture of food when these stimuli correspond. This correspondence does not exist in body care products, which makes this finding an extension.

In addition to the interaction effect between package texture and product type, also framing is an important factor in the effect of package texture on utilitarian product associations. The results indicate that the use of package texture positively influences the utilitarian product associations in a utilitarian frame. More specifically, in a utilitarian frame, body care products with a rough package texture are more associated with utilitarian products than body care products with a smooth package texture. In addition, congruence is an important factor regarding package texture and framing. Matching a rough package texture with a utilitarian frame, results in utilitarian product associations. More specifically, a body care product with a rough package texture is more associated with utilitarian product associations when similar utilitarian product associations appear in the advertisement slogan. This interesting result is an extension of previous research. The field of

congruence has been studied, but the congruence between tactile stimuli and framing has not been studied before.

Finally, the results demonstrate an interaction effect between package texture, product type and framing. It was found that a hedonic frame lead to larger differences for package texture when a body crème was used. A body crème in a smooth package texture is more associated with utilitarian product associations than a rough package texture. In this, also congruence is an important factor. It can be assumed that a hedonic frame lead to the consumer associating the congruent body care product (body crème) more with utilitarian product associations than a body care product that are not congruent with the hedonic frame.

### *6.1.3 Product Evaluation*

When the dependent variable product evaluation is analyzed, it can be found that package texture has no main effect on the evaluation of body care products. Furthermore, it does not make sense which product type or framing were used. No significant effects are found for this dependent variable.

## **6.2 Implications**

In this section, theoretical and practical implications of this study are discussed. First, the theoretical implications are appointed, followed by a number of practical implications.

### *6.2.1 Theoretical implications*

This study resulted in interesting insights regarding the use of package texture and their influences on consumer's tactile product experience, product associations and product evaluation. Due to the limited research in the field of tactile stimuli and their influence on the evaluation of body care products, this study adds value to the existing theoretical knowledge. The presented study is especially based on suggestions and findings from studies in the food industry. Here, results clearly demonstrated that the package texture of food positively influence the flavor perception and complete assessment of food (Piqueras-Fiszman and Spence, 2012). It was expected that these results also would appear in body care products. However, this research found no such obvious effects of package texture for body care products as the effects of package texture in the food industry. The effect of package texture depends on the type of body care product and the framing of advertising slogans. Thus, package texture certainly has an influence on the tactile product experience and associations that body care products evoke. With this study, there is a start of tactile stimuli and their effects on body care products. More research will lead to more specific outcomes within the personal care.

### *6.2.2 Practical implications*

The results of this research can be used to give some suggestions about the use of package texture for body care products. It was found that a rough package texture in combination with a body scrub increases the utilitarian product associations and a smooth package texture increase the tactile product experience of body scrubs. Thus, when designing a product packaging for a body scrub a rough package texture should be considered worth trying for enhancing utilitarian product associations and a smooth package texture for enhancing the tactile product experience. Moreover, when the item smooth/rough experience was analyzed, it also seemed that a smooth package texture in combination with a body crème increases the smooth experience of body crèmes. So, when designing a product packaging for a body crème, marketers can experiment with the smoothness of package textures. It depends on the intrinsic value of the marketer which package texture they should use.

When marketers are intended to improve the associations of body scrubs, practical implications are that framing should be used to underline a body scrub. For example, a body care product is less purchased because it provides not the desired effect. Consumers assess the body scrub as ineffective and not nourishing. These utilitarian product associations can be enhanced by the use of the right package texture, but only if the framing is congruent. More specifically, if a frame is not congruent with the package texture, the use of package texture might result in unfavorable attitudes toward the product due to its incongruence.

When marketers have the intention to improve the tactile product experience of body scrubs, they have to use a smooth package texture and a hedonic frame. A smooth package provides a rougher experience of the body scrub than the rough package texture. For tactile product experience, congruency between product type and framing is not important. When marketers are intended to improve the smooth experience of body crèmes, practical implications are that framing should be used to underline a crème. The smooth experience can be enhanced by the use of a smooth package texture and a hedonic frame. For example, a body crème is less purchased, because consumers are not satisfied with its caring and softening experience. This smooth experience can be enhanced by the use of a congruent package texture either a smooth package texture. In this also the advertising slogan should be congruent with the product type.

Finally, this research is an extension to the existing knowledge in the field of tactile stimuli in product packages. The knowledge is extended to a new branch. The results provide valuable insights to marketers and retailers on how package texture can be committed body care products, especially by body scrubs. This is relevant for the positioning of body scrub brands because the literature study have shown that little is known about the use of package texture in body care products. It can be

assumed that a package texture that is congruent with the body scrub lead to favorable changes in consumers' utilitarian product associations and tactile product experience.

### **6.3 Limitations and suggestion for future research**

The strengths of this research especially lay in the design of the body care products. The combination of package texture and body care products makes it a unique design. With the help of a three-dimensional printer, the jars were designed of high quality. However, this study has also several limitations. One of the limitations is that a distinction is made in gender. For this study, only women were asked with the notion that women generally buy more body care products than men. It is possible that the influence of package texture on tactile product experience, product associations and product evaluation differ in gender. So, the same type of study can be performed for men.

During the sessions it seemed that some items were not clear for every participant. Some participants have problems with assessing the body care product on humidity and oiliness. A factor analysis was conducted to create a new variable for tactile product experience, leaving the humidity and oiliness item. This increases the Cronbach's Alpha of the dependent variable. However, the items should have been more distinct in order to avoid confusions among the participants. For example, it could have changed the perception of the participants which could have affected the results of the research.

Furthermore, the participants were able to see the product package in this study. Therefore, visual aspects of the product package could have influenced the perception of the body care product (Koopmans, 2001; Meyers & Lubliner, 1998, Veryzer, 1993). Thus, there is a possibility that the visual aspects of the product package affected the outcomes of this study. For future research, this could be meant that the participants should be blindfolded while conducting the experiment. In this way only the tactile stimulus that is experienced by physical contact will be used. The exposure to the visual aspects of the product packaging may also be an explanation why package texture not affects consumers' product evaluation. A product evaluation is formed by several factors (Veryzer, 1993). In this, visual aspects are an important factor (Veryzer, 1993). Because this study was conducted in a real setting, the sample of the product packaging that was used could influence consumer's product evaluation negatively. Possibly, consumers expected an attractive package instead of a sample. When the study was conducted in a laboratory setting, visual aspects were possibly less important. Therefore, the same research can be performed with a real product package including attractive visual aspects in future research.

In addition, two types of package texture were used in this study, a rough package texture and a smooth package texture. Also two types of body care products were examined. Future research should consider more varieties of package texture with different body care products (anti

age/dry skin etc.) to provide more insights in consumer responses toward package texture. Moreover, in this study a body scrub is used as utilitarian body care product and a body crème is used as a hedonic body care product. During completing the experiment, it became clearer that many consumers never use body scrubs, which possibly makes this body care product a more exclusive product. Possibly, the outcomes of this research were affected through this observation. So, future research should use another body crème that operates as utilitarian body care products to improve the examination of the influence of package texture on hedonic and utilitarian product types.

Finally, a combination can be made between different structural elements of packaging in future research. For example package texture can be combined with difference shapes or materials. For example, the use of rough materials and smooth materials for product packaging can be studied in combination with rough and smooth package textures (Peck & Schilders, 2003). In this, congruence could have a great importance (Peck & Schilders, 2003). Another suggestion for future research is to examine the influence of temperature of product packaging on the evaluation of body care products (Schmitt & Simonson, 1997). For example, organic materials are perceived as warm (Schmitt & Simonson (1997). Consumers can transfer the tactile package experience directly to its content. This is an interesting research area when it comes to body products that are created for muscle care. Certain personal care products are warmth lubricants in order to prevent aching muscles. Using a material that creates warmth may be able to increase the warmth feeling on consumer's skin. The same applies to personal care products which has a cooling effect for muscles. The coldness can possibly be enhanced by using cool packaging. Furthermore, the weight of the product package might also play an important role in the evaluation of body care products (Peck & Childers, 2003). For example luxe body care products might be especially attractive when they are presented in heavy packages in contrast to light product packaging which can associated with cheap.

Through the use of 3D printers, various kinds of products can be developed with different types of materials. Therefore, the influence of the flexibility of package materials on the evaluation of body care products may also be examined. It can influence the flexibility of the product on consumer's skin. For example, a product packaging of glass is less flexible than a product packaging of plastic.

But not only structural elements could be added to this research; also a combination can be made with graphic elements. For example different colors can be combined with different package textures. Thus, there are many opportunities for future research to expand the knowledge regarding the influence of tactile stimuli on body care products.



## 6.4 Conclusion

With the help of the findings mentioned earlier, it is possible to answer the main research question. The main research question was as follows:

*“To what extent package texture affects consumer’s evaluation of body care products?”*

The findings indicate that package texture has a positive influence for body scrubs on the dependent variable utilitarian product associations and tactile product experience. In this study is found that there are especially interaction effects of package texture for the body scrubs on these variables. These interaction effects have shown that a rough package texture provides more utilitarian product associations and a smooth package texture provides a rougher tactile product experience. For utilitarian product associations, the interaction effect show that congruence is of great importance. With other words, congruent combinations of package texture and product type resulted in more utilitarian product associations. For the tactile product experience, congruence between package texture and product type just have a negative influence. A difference in effects of package texture was found on tactile product experience and smooth/rough experience. It can be suggested that package texture has a great influence on the smooth/rough experience of body care products. The interaction effects show that a smooth package texture leads to a smoother experience for body crèmes. Furthermore, package texture has no influence on the evaluation of body care products. No difference is found in consumers’ judgments when using different package textures. Finally, framing is of great importance. On utilitarian product associations, a utilitarian frame leads to more utilitarian product associations and in tactile product experience, a hedonic frame positively influence the rough experience of body scrubs. For smooth/rough experience, also the hedonic frame leads to a smoother tactile product experience.

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## APPENDIX 1: PRE-STUDY PACKAGE DESIGN

### Verpakking 1

Neem de verpakking in uw handen en bekijk de verpakking goed.

Beantwoord nu onderstaande vragen:

1. In hoeverre vindt u de verpakking bij het type product passen?

|                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Totaal niet           | Niet                  | Neutraal              | Goed                  | Heel goed             |

2. In hoeverre vindt u de verpakking van dit product realistisch?

|                              |                       |                       |                       |                       |
|------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/>        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Helemaal niet<br>realistisch | Niet<br>realistisch   | Neutraal              | Realistisch           | Zeer realistisch      |

3. In hoeverre vindt u de verpakking van dit product geloofwaardig?

|                                |                         |                       |                       |                       |
|--------------------------------|-------------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/>          | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Helemaal niet<br>geloofwaardig | Niet geloof-<br>waardig | Neutraal              | Geloofwaardig         | Zeer<br>geloofwaardig |

4. In hoeverre komt de verpakking betrouwbaar op u over?

|                              |                       |                       |                       |                       |
|------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/>        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Helemaal niet<br>betrouwbaar | Niet<br>betrouwbaar   | Neutraal              | Betrouwbaar           | Zeer<br>betrouwbaar   |

5. In hoeverre beoordeelt u deze verpakking als:

|       |                          |                          |                          |                          |                          |            |
|-------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------|
| Glad  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Ruw        |
| Vlak  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Hobbelig   |
| Zacht | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Hard       |
| Egaal | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Prikkelend |

## Verpakking 2

Neem de verpakking in uw handen en bekijk de verpakking goed.

Beantwoord nu onderstaande vragen:

6. In hoeverre vindt u de verpakking bij het type product passen?

- 
- Totaal niet      Niet      Neutraal      Goed      Heel goed

7. In hoeverre vindt u de verpakking van dit product realistisch?

- 
- Helemaal niet      Niet      Neutraal      Realistisch      Zeer realistisch  
realistisch      realistisch

8. In hoeverre vindt u de verpakking van dit product geloofwaardig?

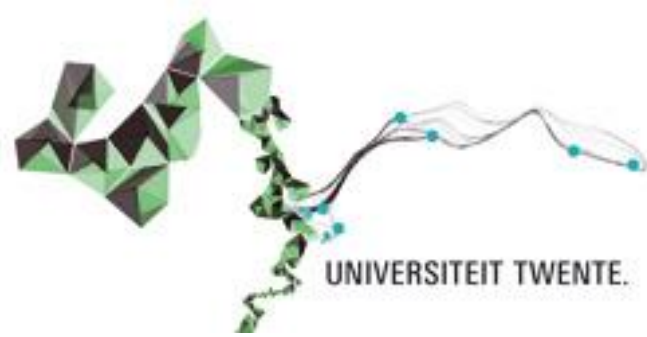
- 
- Helemaal niet      Niet geloof-      Neutraal      Geloofwaardig      Zeer  
geloofwaardig      waardig      geloofwaardig      geloofwaardig

9. In hoeverre komt de verpakking betrouwbaar op u over?

- 
- Helemaal niet      Niet      Neutraal      Betrouwbaar      Zeer  
betrouwbaar      betrouwbaar      betrouwbaar      betrouwbaar

10. In hoeverre beoordeelt u deze verpakking als:

- |       |                          |                          |                          |                          |                          |            |
|-------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------|
| Glad  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Ruw        |
| Vlak  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Hobbelig   |
| Zacht | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Hard       |
| Egaal | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Prikkelend |



## APPENDIX 2: PRE-STUDY PRODUCT ASSOCIATIONS

Welke associaties roept lichaamsverzorgingsproducten bij je op? Schrijf alle associaties die in je opkomen hier op papier. Je mag maximaal vijf dingen opschrijven. Het woord dat als eerste in je opkomt schrijf je achter nummer 1.

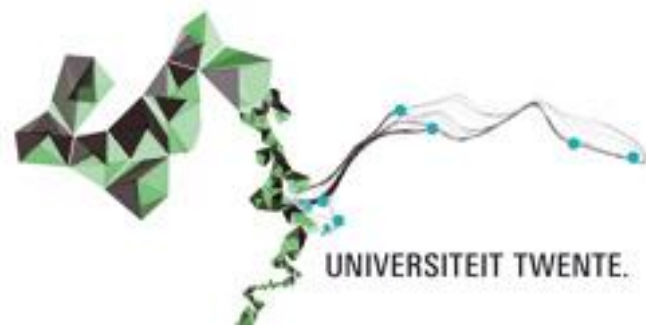
1.

2.

3.

4.

5.



## APPENDIX 3: PRE-STUDY HEDONIC VS. UTILITARIAN FRAMING

### Advertentie 1

Stelt u zich voor dat u het lichaamsverzorgingsproduct heeft gekocht die door deze advertentie wordt gepromoot. Geef doormiddel van onderstaande eigenschappen aan wat uw verwachting is ten opzichte van het lichaamsverzorgingsproduct:

|                   |                          |                          |                          |                          |                          |              |
|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| Niet effectief    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Effectief    |
| Nutteloos         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Nuttig       |
| Niet functioneel  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Functioneel  |
| Niet noodzakelijk | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Noodzakelijk |
| Onpraktisch       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Praktisch    |
| Niet leuk         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Leuk         |
| Saai              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Opwindend    |
| Onaangenaam       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Aangenaam    |
| Niet spannend     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Spannend     |
| Niet betoverend   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Betoverend   |

### Advertentie 2

Stelt u zich voor dat u het lichaamsverzorgingsproduct heeft gekocht die door deze advertentie wordt gepromoot. Geef doormiddel van onderstaande eigenschappen aan wat uw verwachting is ten opzichte van het lichaamsverzorgingsproduct:

|                   |                          |                          |                          |                          |                          |              |
|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| Niet effectief    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Effectief    |
| Nutteloos         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Nuttig       |
| Niet functioneel  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Functioneel  |
| Niet noodzakelijk | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Noodzakelijk |
| Onpraktisch       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Praktisch    |
| Niet leuk         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Leuk         |
| Saai              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Opwindend    |
| Onaangenaam       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Aangenaam    |
| Niet spannend     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Spannend     |
| Niet betoverend   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Betoverend   |



### Advertentie 3

Stelt u zich voor dat u het lichaamsverzorgingsproduct heeft gekocht die door deze advertentie wordt gepromoot. Geef doormiddel van onderstaande eigenschappen aan wat uw verwachting is ten opzichte van het lichaamsverzorgingsproduct:

|                   |                          |                          |                          |                          |                          |              |
|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| Niet effectief    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Effectief    |
| Nutteloos         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Nuttig       |
| Niet functioneel  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Functioneel  |
| Niet noodzakelijk | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Noodzakelijk |
| Onpraktisch       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Praktisch    |
|                   |                          |                          |                          |                          |                          |              |
| Niet leuk         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Leuk         |
| Saai              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Opwindend    |
| Onaangenaam       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Aangenaam    |
| Niet spannend     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Spannend     |
| Niet betoverend   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Betoverend   |

### Advertentie 4

Stelt u zich voor dat u het lichaamsverzorgingsproduct heeft gekocht die door deze advertentie wordt gepromoot. Geef doormiddel van onderstaande eigenschappen aan wat uw verwachting is ten opzichte van het lichaamsverzorgingsproduct:

|                   |                          |                          |                          |                          |                          |              |
|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| Niet effectief    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Effectief    |
| Nutteloos         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Nuttig       |
| Niet functioneel  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Functioneel  |
| Niet noodzakelijk | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Noodzakelijk |
| Onpraktisch       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Praktisch    |
| Niet leuk         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Leuk         |
| Saai              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Opwindend    |
| Onaangenaam       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Aangenaam    |
| Niet spannend     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Spannend     |
| Niet betoverend   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Betoverend   |

## APPENDIX 4: STIMULI RESEARCH CONDITIONS

### Utilitarian frame

Condition 1

Body crème



Condition 2

Body scrub



Condition 3

Body crème



Condition 4

Body scrub



**Hedonic frame**

Condition 5

Body crème



Condition 6

Body scrub



Condition 7

Body crème



Condition 8

Body scrub



## APPENDIX 5: QUESTIONNAIRE MAIN STUDY

### Introductie

*U hebt een verpakking van een lichaamsverzorgingsproduct voor u staan. Achter deze verpakking bevindt zich een advertentie die dit lichaamsverzorgingsproduct promoot. Neem de verpakking in uw handen en probeer het lichaamsverzorgingsproduct uit op uw huid (bijvoorbeeld uw hand).*

*Beantwoord na het testen van het lichaamsverzorgingsproduct de volgende vragen:*

### Vraag 1

In hoeverre beoordeelt u het product op uw huid als:

|                  |                          |                          |                          |                          |                          |             |
|------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------|
| Glad             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Ruw         |
| Vlak             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Hobbelig    |
| Zacht            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Hard        |
| Warm             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Koud        |
| Niet Absorberend | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Absorberend |
| Niet Vettig      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Vettig      |
| Droog            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Vochtig     |
| Rustgevend       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Prikkelend  |

### Vraag 2

U ziet een aantal eigenschappen wat lichaamsverzorgingsproducten kunnen hebben. Geef aan in hoeverre u het eens bent met de volgende stellingen.

|                                       | Helemaal mee<br>oneens   | Mee oneens               | Neutraal                 | Mee eens                 | Helemaal<br>mee eens     |
|---------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Dit product geeft een<br>zacht gevoel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Dit product is<br>verzorgend          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Dit product heeft een<br>lekkere geur | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Dit product zorgt voor  
ontspanning

Dit product geeft een  
prettig gevoel

Dit product geeft een  
mooie uitstraling

Dit product maakt mij  
aantrekkelijk

Dit product zorgt voor  
een fris gevoel

|                          |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

### Vraag 3

U ziet een aantal eigenschappen wat lichaamsverzorgingsproducten kunnen hebben. Geef aan in hoeverre u het eens bent met de volgende stellingen:

|                                  | Helemaal mee<br>oneens   | Mee oneens               | Neutraal                 | Mee eens                 | Helemaal<br>mee eens     |
|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Dit product is effectief         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Dit product is<br>functioneel    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Dit product is vettig            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Dit product geeft mij<br>energie | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Dit product is<br>verstevigend   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Dit product is<br>herstellend    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Dit product is voedend           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Dit product is<br>kalmerend      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

#### Vraag 4

U hebt het lichaamsverzorgingsproduct in uw handen gehad en getest op uw huid. Geef aan in hoeverre u het eens bent met de volgende stellingen:

|   | Helemaal<br>mee oneens   | Mee<br>oneens            | Neutraal                 | Mee<br>eens              | Helemaal<br>mee eens     |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 3.1 Ik heb een goed gevoel over dit lichaamsverzorgingsproduct              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.2 Dit lichaamsverzorgingsproduct heeft een positief effect op mijn huid   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.3 Dit lichaamsverzorgingsproduct spreekt mij aan                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.4 Dit lichaamsverzorgingsproduct past bij mijn wensen                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.5 Dit lichaamsverzorgingsproduct laat op mij een positieve indruk achter. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

#### Vraag 5

Tot slot volgen er nog twee algemene vragen.

Leeftijd:.....

Hoe vaak koopt u over het algemeen lichaamsverzorgingsproducten?

- Nooit
- Zelden
- Regelmatig
- Vaak
- Heel vaak

**Bedankt voor uw tijd en het invullen van uw vragenlijst. U heeft mij erg geholpen.**