

# Old is the new gold

*A study into the best way to communicate about home adjustment products to different senior segments*

A.S. Visser (S1232541)  
Master Thesis Marketing Communication  
07-07-2017  
University of Twente

Graduation committee  
Dr. M. Galetzka  
Dr. C. Bode

## **Abstract**

Seniors are obtaining an increasingly important segment in marketing, as this group keeps getting larger and have a lot of money to spend. On the other hand, seniors have to keep living at their own home for as long as possible due to a recently implemented Dutch law regarding healthcare for seniors. This offers opportunities for businesses to start selling home adjustment products. However, still numerous issues within the field of senior marketing have to be overcome. The purpose of this study was to examine whether active seniors would show different consumer responses than less active seniors when seeing a flyer about different types of products and when reading different texts. The Construal Level Theory has been used to develop two different types of texts, and two different types of home adjustment products were chosen, resulting in four different flyers which were differing on the type of construal used in the text (high or low) and differing on the type of product described (small or large). Each of the 119 participants evaluated two flyers in an online questionnaire, randomly being distributed in one of the four conditions. It was expected that seniors who were active on the level of wanting and being able to, would respond more positively towards communication about a small product written on a high construal level. It was expected that seniors who were not very active on the level of wanting and being able, would respond more positively towards communication about a large product written on a low construal level. Results indicated that there was a significant difference in response on the text between the type of seniors, with active seniors having a more positive attitude when the high construal text was used in the advertisement, and less active seniors having a more positive attitude when the low construal text was used in the advertisement. No difference in response between the two types of seniors was discovered after seeing the different products, both type of seniors preferred the large home adjustment. Lastly, this study did not find an interaction effect between the type of product and the type of text, on any of the consumer responses. In conclusion, businesses targeting the senior segment should adjust their message according to the senior they want to communicate to, with using a text written on a high construal level for active seniors, and a text written on a low construal level for less active seniors.

**Keywords:** consumer response, senior marketing, Life-Stage Model, Construal Level Theory, cognitive age, senior segments, home adjustment products, The Netherlands.

## **Table of content**

1. Introduction	4
1.1 Problem setting	5
1.2 Goal of the research	6
1.3 Research question	6
2. Theoretical framework	7
2.1 The senior market	7
2.1.1 Definition of a senior	8
2.2 Segmenting the senior market	8
2.2.1 Life-Stage Model	8
2.2.2 Demographics	11
2.2.3 Cognitive age	11
2.2.4 Life-Stage Model groups and their cognitive age	12
2.2.5 Conclusion	13
2.3 Communication towards seniors	14
2.3.1 Time perception and emotional information	14
2.3.2 Construal Level Theory	15
2.3.3 Senior segments and their construal level	17
2.3.4 Conclusion	17
2.4 Type of home adjustment	18
2.4.1 Living needs seniors	18
2.4.2 Conclusion	19
2.5 Consumer responses of seniors	20
2.5.1 Cognitive response: processing information	20
2.5.2 Affective response: attitudes	21
2.5.3 Behavioural response: purchase intention	21
2.5.4 Conclusion	22
2.6 Hypothesis	22
3. Research design and method	25
3.1 Research design	25
3.2 Stimuli	26
3.3. Pretest	27
3.4 Procedure	27
3.5 Measurements	29

3.5.1. Descriptive variables	29
3.5.2 Dependent variables	29
3.5.3 Moderating variables	30
3.5.4 Analyses	32
3.6 Participants	32
3.6.1 Cognitive age	34
4. Results	36
4.1 Cognitive age	36
4.2 Attitude towards communication	37
4.3 Attitude towards product	40
4.4 Purchase intention	43
4.5 Confirming the hypothesis	46
5. Discussion	47
5.1 Main findings	47
5.2 Discussion of cognitive age	48
5.3 Discussion of type of text	49
5.4 Discussion of type of product	51
5.5 Discussion of interaction between type of text and type of product	52
5.6 Practical implications	53
5.7 Limitations and future research	54
6. Conclusions	56
7. References	57
Appendix A	63
Stimuli 1: Small adjustment low-construal	63
Stimuli 2: Small adjustment high-construal	64
Stimuli 3: Large adjustment low-construal	65
Stimuli 4: Large adjustment high-construal	66
Appendix B	67
Example 1: Text on a low construal level	67
Example 2: Text on a high level construal	68
Appendix C	69
Questionnaire	69
Appendix D	70
Operationalizing of constructs and items	70

# 1. Introduction

Senior consumers represent an expanding segment of our population, due to the aging of Baby Boomers, increasing life expectancy and declining birth rates (North & Fiske, 2012; Rowe & Kahn, 1998). It is predicted that in 2025 the number of people in the Netherlands over the age of fifty will rise to seven million, making them 43% of the total Dutch population. Globally the total number of citizens over sixty years are expected to double by 2050, being an estimated two billion people and accounting for 22 percent of the world's population (Magnus, 2009). Because of this shift, the number of senior citizens will outnumber the number of children for the very first time in history (Gale, 2010; United Nations, 2009).

The growth of the senior segment puts a big strain on our economy, care system and government and has policy makers worried. Each senior citizen has to be provided with suited housing and healthcare, resulting in high costs for the government. If appropriate measures are implemented in time, population aging does not inevitably have to lead to significantly higher health expenditure (Rechel, Doyle, Grundy & McKee, 2009). Providing seniors with care at home has been seen as a cost-effective way of caring for people with health problems and it can prevent or delay seniors being institutionalized. Therefore, the Dutch government had to take measures and on the 1th of January 2015 they adopted new laws that have changed the organization of living and healthcare for seniors drastically. The criteria to apply for a retirement home are sharpened, informal care by relatives is going to play a larger role and professional care will take place in the home of seniors. Consequently, seniors have to live independently in their own home, as long as possible.

The percentage of both, independent living seniors who live together and independent living seniors who live alone, are already increasing (CBS, 2016). Ninety-five percent of the seniors above the age of 65 live at home, as for sixty-eight percent of the seniors above the age of 80 (CBS, 2011). Seniors like to keep living at the comfort of their own home because of familiarity with the neighbourhood and being close to their social contacts (Trottier, Martel, Houle, Berthelot, & Légaré, 2000). However, disability or even less severe limitations seniors experience - such as walking up the stairs or doing heavy chores around the house - makes it difficult for them to keep living independently, and can lead to a lower quality of life (Netuveli, Wiggins, Hildon, Montgomery & Blane, 2006). One solution to this issue can be the adjustment of the homes of seniors in such a way that it suits their needs and facilitates them to keep living independently longer. Ways to adjust homes of seniors are for instance removing doorsteps in and around the house, or installing a stair lift that enables seniors to keep using their bedroom upstairs. Home adjustments are products or services designed to make homes easily adjusted

for handling any healthcare issue people might have. These home adjustments can be a proactive measure, already preparing for a time of less mobility and making sure the surrounding is safe, or reactive measure, after someone's mobility has become less and adjustments need to be made.

## 1.1 Problem setting

As a consequence of the recent change in the Dutch law regarding healthcare seniors will have to keep living at their own home as long as possible. It is important to adjust the houses of seniors to changes happening in their life, or to already anticipate on future changes. A supportive environment and well-designed living conditions are important factors that facilitate the ability of seniors to remain healthy and independent. Remaining in a familiar, sustainable and well-designed home is crucial for ensuring autonomy in older age (Schaie, Wahl, Mollenkopf, & Oswald, 2003). Given the important long-term implications of our aging population, this is a relevant issue in our society and can also create a new market for businesses in home adjustment products for seniors. Therefore, it is of great importance to communicate the benefits and options regarding making home adjustments to seniors. However, finding the right way to communicate with this audience can be difficult, and there are still numerous issues within the field of senior marketing. The foremost problem is that marketers treat all consumers over a certain age as one segment while seniors are a heterogenic group, making communication towards or about seniors generalizing or stigmatizing (Moschis, 2003; Schiffman & Sherman, 1991; Silvers, 1997). However, "the senior" does not exist, there is a big difference in what seniors need, like and their life-style. The senior market needs to be subdivided (Moschis, Lee & Mathur, 1997; Myers & Lumbers, 2008). Besides, not much is known about how to communicate about home adjustments to different seniors, in a way that they find appealing and makes them interested in the product.

An effective way to segment the heterogeneous senior market into smaller more homogeneous groups is with the Life-Stage Model (Moschis, 1996). This segmentation model groups the senior market on four dimensions, the biological, psychological and social aging processes and lastly life events and circumstances. Four different types of seniors arise, each representing a different stage in later life, experiencing different life circumstances and aging factors. There can be a great difference between these seniors regarding their needs, preferences, behaviour and life-style (Gerardsen & Koopman, 2015). When taking these differences into account in the context of home adjustments, it is likely that each group will need and prefer different home adjustments, and also will respond differently towards

communication regarding these home adjustments. It will be interesting to see how different seniors will respond to communication regarding home adjustments.

The Construal Level Theory may provide implications for communication about home adjustments. It suggests that when people place an event in the distant future, they are more likely to think about it in abstract aspects, and when people place an event in the near future, they are more likely to think about it on a concrete level (Trope & Liberman, 2010). For instance, when you need a product in the distant future, you would look for abstract information, about the “why”: why should you buy the product, and what are the values of using it. On the other, when you need a product in the near future, you are more likely to look for concrete information, about the “how” of the product: how can I use the product in my daily routine, how fast can I get the product, etcetera. Also, besides the type of communication, the type of product might be of importance on the response of seniors. It is to be expected that different seniors will need different types of home adjustments at different times.

## **1.2 Goal of the research**

This paper seeks to investigate the senior consumer market, examining the various market segments within the context of home adjustments. In this way, we hope to answer the questions to whether seniors want home adjustments and which communication is most appealing to them. The results of this research will have considerable relevance to the disciplines of social gerontology and marketing, improving our understanding of the behaviour of the senior consumers and maintaining greater consumer satisfaction. Also, integrating insights from the Construal Level Theory will provide new insights in relation to senior preferences. This study will provide recommendations for the senior market in such a way that businesses who have seniors as their core customers can fit their products, communication and marketing strategies to their varying needs.

## **1.3 Research question**

With the goal and the context of this research regarding senior marketing in mind, the following research question can be formulated:

*What is the best way to communicate about home adjustment products to different segments of seniors?*

## **2. Theoretical framework**

A literature review will explore different ways to segment the senior market, needs regarding home adjustments, effects of construal levels on communication according to the Construal Level Theory, and the perception of home adjustments. Hypotheses will be formulated based on the gaps identified in the theoretical framework. Through the development of the hypotheses, a conceptual model will be identified.

### **2.1 The senior market**

For a long time, youth-centred marketing was the norm as our society used to focus on young consumers (Stroud, 2005). After all, they are the future, right? Consequently, senior consumers were invisible, existing far away from our conventional media, marketing, and culture (Niestadt, 2012; Szmigin & Carrigan, 2006; Thompson & Thompson, 2009). This stated the irrelevance of seniors to consumer behaviour and our society (Peterson, 1995; Zhou & Chen, 1992). However, this is now changing. Businesses, the government and researchers are increasingly interested in the senior consumer market due to new opportunities (Yoon et al., 2005; Maas, 2012; Sikkel, 2016). They recognize that the senior segment is substantial, identifiable and accessible, important requirements for selecting target segments (Yoon, Cole & Lee, 2009). There is even a shift happening in media, advertising and public minds. The traditional stereotypes of aging – decline and dependency - are replaced by a positive outlook on aging in terms of activity, autonomy, mobility, choice and well-being (Katz, 2001). This all can be explained by shifts in the sociostructural age dynamics (North & Fiske, 2012). The senior group is becoming an increasingly bigger group within our society. Also, they will hold the biggest share of consumer spending with no less than 80% of the total spending power (Niestadt, 2012). Newly pensioned seniors will have a level of wealth and income that is unlikely to be repeated in future generations (Stroud, 2005). In this perspective, it is logical that the mature consumer market is becoming at least as important as the younger consumers (Simcock, Sudbury & Wright, 2006). Some businesses are already successfully reaching seniors and responding to their needs by developing new products or modifying existing ones (Moschis, Lee, & Mathur, 1997; Myers & Lumbers, 2008; Niestadt, 2012). It can be stated that who can anticipate on the senior consumers effectively holds the future.



### 2.1.1 Definition of a senior

Since the '90's research into the senior market has grown. However, there is still limited research in quite some areas (Yoon et. Al., 2005). For instance, there is no agreement about at which age someone is considered a senior. A lot of different age boundaries are used. In colloquial language, seniors are moreover described as pensioners. The pensionable age used to be 65, however since 2014 this was changed to 67 in The Netherlands. In literature, there are varieties of the lower bound used for segmentation on age, for instance 50, 55, 60 or 65. Most researchers draw the line for seniors at the age of 55 and above. Differences in preferences and motives can be clearly seen between the age group under 55 years and those of 55 and older (Moschis, Lee, Mathur, & Strautman, 2000). The upper bound for age in the senior group is rarely used and unnecessary (Kasper, Nelissen & de Groof, 2009).

Thus, people above 55 are considered to belong to the more mature market known as the senior market. But what is the best way to address this group? Many of different labels are used for the older consumer, such as 'elderly', 'senior', '50-plusser', 'retired' and 'being in a third life phase'. Labels like 'third life phase', 'golden years', 'retirement' and 'elderly' evoke negative associations with seniors and make them resistant towards advertisements that use such labels in its communication (Marrs, 1984; Weijters & Geuens, 2006). Labels like '50-plusser' and 'senior' are generally found to evoke positive associations (Weijters & Geuens, 2006).

## 2.2 Segmenting the senior market

Marketers are starting to understand the opportunities lying with the older consumer (Stroud, 2005). But how can seniors be successfully targeted? The senior market must be divided in sub segments of seniors (Moschis, Lee & Mathur, 1997). By defining different smaller groups of seniors, it is clearer what their consumer characteristics and preferences are, what motivates them and how to adjust your marketing strategy to match them.

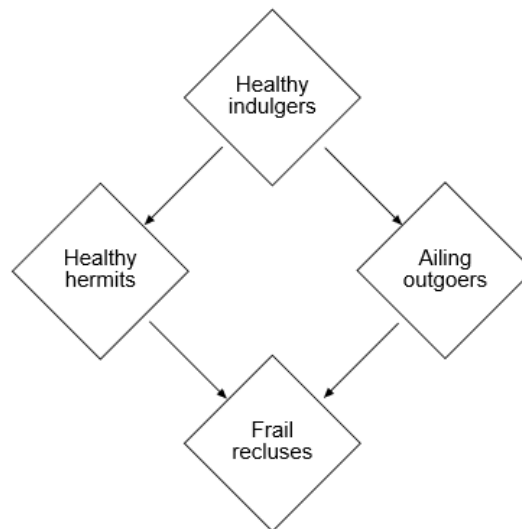
### 2.2.1 Life-Stage Model

A universal way to segment the heterogeneous senior market into smaller more homogeneous groups is with the Life-Stage Model (Moschis, 1996). Moschis developed this model from the approach that he named *gerontographics*. Gerontographics is a segmentation approach based on the premise that the factors that make senior consumers more or less appealed to marketing stimuli are directly related to their needs and lifestyles, which are influenced by

changing life conditions such as the aging process and life-changing events (Moschis, 1996; 2003; 2012; Moschis, Bellenger, & Curasi, 2003). In this way, the model explains that seniors can differ in their consumer response and behaviour because they all experience different live events and ageing processes. The approach acknowledges individual differences in aging processes as well as differences in type of aging dimension that occur in late life (Moschis, 1996). For instance, an important event in someone's life such as becoming a grandparent may have a significant and psychological effect on the aging factors they may experience – feeling older suddenly. Years of research has proven the superiority of this segmentation model over the segmentation models based on demographic factors such as age (Moschis & Mathur, 1993).

The Life-Stage Model divides the senior market on four dimensions: the biological, psychological and social aging processes and live events and circumstances. The first three dimensions include aging processes, however aging is also influenced by key life events. Through these dimensions, senior can be grouped into four segments: the Healthy indulgers, the Healthy hermits, the Ailing outgoers and the Frail recluses (see Figure 1). When looking at the model, each of these groups of seniors are at a different life-phase in later life. Based on the ageing processes they experience, they can shift to other life-stages. For instance, many Frail recluses may have gone through the intermediate life-stages experienced by Healthy Hermits and Ailing outgoers. The arrows to the left represent psychosocial ageing and the arrows to the right represent biophysical ageing (Moschis, 1996). The arrows do not necessary indicate the flow through which seniors age. Although changes in life-phase may occur over time and may be abrupt, for instance a senior having a stroke or retiring, the processes of this model are relatively age-irrelevant. They may begin at any age in life, or never be experienced at all (Moschis, Lee, & Mathur, 1997). This segmentation-model provides good insight in different segments of seniors. By understanding different needs and life-phases, implications how to communicate effectively and more targeted with the senior audience can be made.

Figure 1: Life-Stage Model segments by Moschis (1996)



*Healthy indulgers* resemble the younger consumer. They are experiencing the least symptoms of the aging process, they do not feel old in any way, and are extremely active, both socially and physically. They are focused on enjoying life and new experiences, feeling young. They are most open towards new technologies, products and services. A lot of the Baby Boomers generation fall in this segment and they can be closely compared with the new-age seniors from Schiffman and Sherman (1991). They are financially better off and are settled career wise.

*Healthy hermits* are in good health and are physically capable of many activities, but are more socially withdrawn and secluded. They prefer stability, security and routine and are therefore reluctant in trying out new products, services or technologies. Healthy Hermits are concerned with day-to-day tasks and are likely to deny their “old age” status. They have a relatively high income.

*Ailing outgoers* are in a relatively bad health and have experienced many life-changing events. Despite that, they are still active and likely to maintain high self-esteem. They are aware of their limitations and frailties but try to make the best out of life. They are open for experiencing new things, such as products, services and new technologies. Also, they are preoccupied with their physical and financial independence and wellbeing and in general have the smallest income out of these four groups.

*Frail recluses* have the most signs of aging. They are mainly in social isolation and show low activity due to health problems. They typically see themselves as “old persons.” This type of seniors is the opposite of Healthy indulgers. They do not feel cognitively younger, or may even feel older than their chronological age because of the limitations they experience. They have an average income. Of the four Life-Stage Model segments, this group is the least open to new products and services. Also, they are less likely to embrace new technologies and adjust to changes. Many of the Frail Recluses may have gone through the intermediate life-stages experienced by Healthy Hermits and Ailing Outgoers.

### 2.2.2 Demographics

Each senior can have different needs, attitudes and behaviour than the other. It can be said that each senior differs by family status, marital status, ethnicity, geography, education, social class, age, personality, generation and lifestyle, just like any other group. It is always relevant to check if differences in demographics can account for (a part of) consumer response. However, most research cannot find significant differences in these demographics such as gender, marital status or household size only (Teller, Gittenberger & Schnedlitz, 2013). In particular, these demographics as a single factor can solely explain no more than 5 percent of the consumer responses, making them weak explanations of actual consumer behaviour (Moschis, 1996; Moschis, 2012). Therefore, demographics is not a good way to segment the senior market.

### 2.2.3 Cognitive age

As discussed earlier, a distinction in age has to be made to set apart seniors from other age groups. For a long time, chronological age was the descriptive on which seniors were differentiated. Chronological age is defined as *the number of years a person has lived* (Hendricks & Hendricks 1976; Barak & Gould, 1985). However, chronological age appears not to be useful as a predicting variable (Barak & Schiffman, 1981). Chronological age comes short due to not taking into account that people frequently perceive themselves to be younger than their chronological age (Kotler, 1976; Sherman et al., 2001). When seniors feel younger, they will not feel spoken to when marketers talk about ‘elderly’ in their marketing and communication (Koopman, 2008). It is all about how old you *feel*, and not how old you *are*. People can feel up to 15 years younger than their chronological age (Kasper, Nelissen & de Graaf, 2009; Tréguer, 2002; Mathur & Moschis, 2005). Aging is an individual event as no two persons age the same way at the same time (Schewe, 1989). Therefore, it can be concluded that it is inappropriate to segment this group by chronological age and assume the same physiological and psychological changes have taken place (Iyer, Reisenwitz & Eastman, 2008).

Barak and Schiffman (1981) were the first to introduce the concept of cognitive age in a marketing context. Cognitive age refers to '*the age one perceives oneself to be*' (Barak, 1987). Cognitive age originally consists of four age dimensions: the feel age, look age, do age and interest age (Barak and Schiffman, 1981; Iyer, Reisenwitz & Eastman, 2008). Clark, Long, and Schiffman (1999) extended the concept and added the dimensions of health age and think age. Since the introduction of the concept, cognitive age is seen to be a more accurate reflection of changes related to age and aging than chronological age and has become a significant influence in research (Teller, Gittenberger & Schnedlitz, 2013). Johnson (1996) even stated that those marketers who should include cognitive age as a variable, but do not, may actually alienate older consumers. Gwinner and Stephens (2001) state that cognitive age may explain some consumer behaviours as well, or better, than more commonly used variables, such as income, education, health, attitude toward seniors, and social contacts. However, it should not be seen as a construct to replace or complement demographic information, but more as a lens to look at the senior segment and try to understand their behaviour.

The literature has covered various aspects of senior consumer's behaviour and attitude in relation to cognitive age. Cognitive age can impact, as well as be impacted by, the attitudes and activities of senior citizens (Iyer, Reisenwitz and Eastman, 2008). There are a variety of activities, interests, and products that are embraced by those who feel younger than their chronological age (Reid, 2006). People who feel cognitively younger, have a better perception of health, have a greater overall life satisfaction, take part in more activities and are socially more involved. On the opposite, a higher level of activity (such as general activity, social activities, enthusiasm and work), life satisfaction and health leads to a younger cognitive age (Chua et al., 1990). Additionally, cognitively younger seniors were less anxious and concerned about aging and they feel more satisfied with aging (Van Auken & Barry 2004). Seniors who feel cognitively young expressed more willingness to try new brands and switch brands, seek information, are more likely to be an opinion leader, and are self-confident about their consumer decision-making skills (Sillers, 1997; Barak & Gould, 1985). Seniors who do not feel cognitively younger than their chronological age, have a poorer perceived health and show more signs of aging (Chua et al., 1990).

#### **2.2.4 Life-Stage Model groups and their cognitive age**

When we look at the literature, there are similarities in the aspect of the Life-Stage Model groups and cognitive age. Firstly, both how old a senior feels and which type of senior someone is, is influenced by ageing processes and life-events (Mathur & Moschis, 2005; Moschis, 1996).

Also, both concepts may explain differences in the consumer response of seniors (Gwinner & Stephens, 2001; Moschis, 1996). Healthy indulgers are able and want to be very active in their everyday life, are open to try new things and do not feel like a senior. Cognitively young seniors can be characterized by the same things. Also, Healthy indulgers have more in common with younger consumers and feel younger than they are, thus making them likely to be cognitively young seniors. Frail recluses are the opposite type of seniors to Healthy indulgers. They are not able and do not want to be socially active, showing many signs of the aging process, are less open to new things and typically feeling like an older person. They do not feel much younger than their chronological age.

Since the cognitively young seniors have much in common with Healthy indulgers and the cognitively less young with Frail recluses, it will be interesting to include in this research if Healthy indulgers indeed feel significantly younger than Frail recluses. Combining both the Life-Stage Model groups and cognitive age as a variable for explaining different consumer responses has not previously been researched and therefore can provide unique insights.

### 2.2.5 Conclusion

Both the Life-Stage Model as cognitive age appear to be important concepts in understanding and explaining differences between senior consumers. As shown, the Life-Stage Model provides a way to distinguish four groups of seniors. The most interesting groups are Healthy indulgers and Frail recluses. These are groups who have proven to be on the opposing spectrum of aging, with Healthy indulgers being very socially and physically active, not experiencing much limitations yet, and still feeling young, and with Frail recluses being less able and willing to be active, showing many signs of the aging process and typically feeling like a senior person. This study will focus on these groups, as it is expected that they differ greatly in their preferences and consumer behaviour.

The implications of cognitive age seem to intertwine with the Life Stage Model groups. Cognitive age is not a main contributor to explaining differences in attitude and behaviour within seniors, however it is expected to interact with the senior segments. Therefore, this research will take the concept of cognitive age in addition to the demographic information, and also will research if Healthy indulgers indeed feel significantly cognitively younger than Frail recluses.

The Life-Stage Model does not provide implications about how to communicate towards different types of seniors. However, considering the two different Life-Stage groups, it can be expected that they respond differently to communication due to differences in life-style, activity,

interests and attitudes between these groups. Therefore, the next chapter will discuss what the best way is to communicate to these two totally different types of seniors regarding home adjustments.

## 2.3 Communication towards seniors

The way of communicating towards seniors is important and should not be generalizing, but should focus on individual consumer characteristics as this is a more effective marketing strategy (Moschis, 1996). After all, when communicating to seniors in an appealing way that fits their Life-Stage Model segment, their response will be more positive.

### 2.3.1 Time perception and emotional information

When seniors age, their perception of time changes, which influences the type of information and goals they seek out (Williams & Drolet, 2005). The *socio-emotional selectivity theory* argues that when people perceive their remaining time - for instance the years they will be alive - as limited, they prioritize to reach emotionally meaningful goals over those that are more knowledge-related (Carstensen et al., 1999). This can be explained due to the fact that when people age, they will have a decreasing amount of time left and will focus more on the present instead of the future, such as emotionally meaningful goals and messages that can be realized in the short-term and will optimize their well-being (Carstensen, 1992; 2006). An example of this behaviour is the fact that seniors will be more likely to eat the good food first – and thus prefer having the good experience first - while teenagers will save the best for last (Koopman, 2008). In contrast, when someone is feeling young and they perceive time as infinite instead of limited, they will focus more on goals that are likely to need preparation, focus and the gathering information. These goals need more planning ahead. It is important to be aware of this theory, as senior consumers are more likely to remember and to be persuaded by messages that are more relevant to their goal (Blaney, 1986; Clary et al., 1994; Williams & Drolet, 2005).

The perception of limited time also can increase the importance of prevention-related goals over promotion-goals (Pennington & Roese, 2003). According to the *regulatory focus theory*, having a promotion focus involves pursuing gains and ideals, for instance improving your health as a senior (Avnet & Higgins, 2006). Whereas having a prevention focus involves avoiding losses, for instance staying healthy (Ebner et al. 2006). Researchers expect that senior consumer would be more prevention-focused and less promotion-focused compared to younger consumers, especially in domains in which older consumers expect or experience losses, such as cognitive abilities, mental and physical health.

Looking at the socio-emotional selectivity theory and the regulatory focus theory, seniors most often focus on losses or maintenance of goals, rather than acquiring new goals in life. Also, seniors can be more receptive of emotional goals than for knowledge goals, and have a more positive attitude towards emotional communication. (Cole et al., 2008; Heckhausen, 1997). However, these implications can be debated. These results look at seniors as one segment, divided on chronological age. As discussed previously, it is not preferred to segment on chronological age. There are many differences in ageing processes, attitude and behaviour within the senior market and according to the Life-Stage Model each type of senior has different outlooks on life. It is unlikely, maybe even impossible, that there are no differences in time perceptions between the senior segments.

### 2.3.2 Construal Level Theory

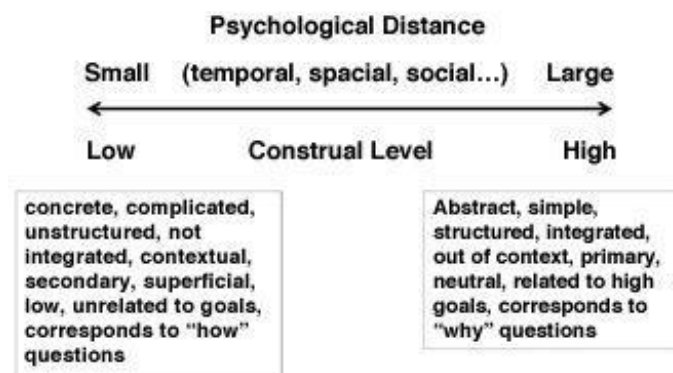
The Construal Level Theory (CLT) discusses the placement of objects, events or action in the future, and looks at this from a personal perspective that can differ for each person and thus does not specifically apply to senior age-groups. The theory states a relationship between psychological distance and the extent to which people think about objects or events at an abstract or concrete level. Psychological distance is a subjective experience that something is close or far away from yourself at this time of moment. The basic assumption is that the more distant an object or an event is from the now (direct experience), the higher and more abstract you will think about it. When an object or event will be in the close future, the more people will think about it on a lower and more concrete level (see figure 2).

An example of the Construal Level effect is that when planning a vacation in the distant future (you are going in one year) a person will focus on *abstract features* that are not in context, such as wanting to have fun and relax. This is more about *the 'why'*: why should I go on vacation, what do I gain by having a nice holiday. When planning the same vacation, but now the event is in the near future, people will focus on more *concrete features*, such as which activities to do during the vacation or where to eat. This is more about the *'how'* of the event: how do I book a nice holiday, and also make sure I will see all the places I want to visit.

Events, objects or actions can be psychologically distant on four dimensions: temporal, spatial, social and hypothetical distance. When someone makes a prediction, or has behavioural intentions towards events that are in the distant future, they are increasingly based on central, abstract features of the situation rather than peripheral, concrete features.



Figure 2. Difference in construal level with high and low psychological distance



In contrast to the two theories regarding time perception discussed above, this theory does not assume a general time perception of a person and applies that to every situation. The CLT begins with a specific object, event or action, which is construed in the mind of consumers as being in the near future or in the distant future, for instance in the context of time.

In the context of home adjustments this can be an estimation of seniors when to use or buy a home adjustment, in the near or distant future. For instance, when placing buying a home adjustment (this is the event) with the distant future in mind, thoughts will be in a more abstract, structured, high-level manner than near future events. Fewer dimensions are necessary to explain the same amount of variance in distant future preferences than in near future preferences, indicating that distant future representations were characterized by a simpler underlying structure than were near future representations (Wakslak, Nussbaum, Liberman & Trope, 2006). Besides, people who think about events in the distant future, are more likely to choose the abstract aspect of the activity (Vallacher & Wegner, 1987). In this way, the psychological distance from an event in a person's mind influences their choices. Their choice will be the option that matches their mental representation of the distance of the event the best.

Therefore, it is important to adjust communication about these events to the level on which consumers are thinking. Specifically, when marketing a home adjustments to someone that is placing "using it" in the distant future, communication should be abstract and about the "why" aspect: why should he buy such a product and what are the values of using it? When marketing a home adjustment to someone who will place "using it" in the near future, communication should be concrete and about the "how" aspect: which steps needs to be undertaken to use the home adjustment? It is hypothesized that seniors who see marketing stimuli communicating on the same level as on which they think about home adjustments, will make

them prefer the communication more, they will have a better attitude towards the product and therefore are more likely to purchase the product.

### **2.3.3 Senior segments and their construal level**

When looking at the interaction between the segments of the Life-Stage Model and the implications the Construal Level Theory provides regarding communication, we expect that Healthy indulgers will prefer communication on the “why”-level. This is because Healthy indulgers are feeling and acting younger. They do not feel like a senior and are in good health. It is very possible to think that Healthy indulgers view their future as expansive instead of limited. Also, they do not need home adjustments yet and therefore are likely to place “using it” in the distant future. They are, however, open to trying out new things and we expect that they will be more interested in finding out the abstract information about home adjustments.

Frail recluses are quite the opposite. They feel like a senior, can have health issues and are not motivated to be very active. They will need home adjustments rather sooner than later, they might even need them already. That is why we expect that they will place “using home adjustments” in the near future and that they will prefer communication on the “how”-level. It will be interesting for them to know how more practical things, such as how long it takes to install home adjustments.

### **2.3.4 Conclusion**

Regarding the topic home adjustments, the Construal Level Theory can make implications about communication towards seniors and can provide two different types of communication style. When seniors view the event of purchasing or using home adjustments in the temporal distant future, they think on an abstract level, related to goals, communication should also be on this same level. When a persuasive message is related to the goal of the senior, they are more likely to be persuaded by it and remember it. Regarding the consumer response, it is more likely that the information will be processed via the central route, leading to positive attitude, which will lead to a positive purchase intention.

However, considering the two different Life-Stage groups, it can be expected that they respond differently to communication due to differences in life-style, activity, interests and attitudes between these groups. In this way, segments have a direct influence on consumer response.

## 2.4 Type of home adjustment

When looking at consumer responses of seniors on communication about home adjustment products, it is also important to look at the implications the product itself can have for communication. The living environment embodies the place where seniors spend their time and experience their aging, and is in this sense important for the way people age. Therefore, it can be stated that optimizing the living arrangement of seniors by making home adjustments can contribute on a large level to the ability of seniors to live at the comfort of their own home as long as possible. However, no senior is the same. Therefore, the question arises, what are the needs of different seniors regarding their home and making adjustments? Unfortunately, little research is done on the topic of adjusting current homes of seniors. However, with the research done on living situations of seniors makes it possible to develop a hypothesis about what kind of adjustments seniors will need and when they might need them.

### 2.4.1 Living needs seniors

Moschis, Lee and Mathur (1997) linked the segments of the Life-Stage Model to various types of products and services and made marketing strategies for them. Regarding Healthy indulgers, they propose to position the theme 'locational convenience and security' regarding housing. They advise to emphasize proximity to retail facilities and services, and personal contact is important. This group is not risk-averse as they like to try new stuff (Kasper, Nelissen & de Groof, 2009). Regarding home needs, Luijkx et. al. (2004; 2005; 2006) found that these seniors barely need special adjustments. These seniors are educated, have a high income, live active lives, are healthy and feel young. However, this senior is also future-oriented and likes to try new things. They are well-aware of ageing and not scared of it, and take it into consideration that there will be limitations in the future. Healthy indulgers see themselves as experienced shoppers who seek quality and service (Myers & Lumbers, 2008). For this relatively healthy and capable "young-old" seniors the living environment will be seen primarily as a stimulating function (Schaie, Wahl, Mollenkopf, & Oswald, 2003). So, it can be assumed that they like to make little adjustments in their home already, so that their lives will be even more comfortable. Regarding more complex options involved with a lot of information, such as decisions related to the home or healthcare, Healthy indulgers are expected to be option oriented (Mather, Knight & McCaffrey, 2005).

Regarding *Frail recluses*, Moschis, Lee and Mathur (1997) propose to position accessibility to medical, personal and home-care services as a theme. They are the least active and able senior. For them products such as single-family houses and home remodelling products and

services are relevant. This type of senior may avoid effort and risk regarding housing (Kasper, Nelissen & de Groof, 2009). They like to rent and prefer a balcony over a garden or terrace. Regarding healthcare, frail recluses are in need of adjustments in their home, help with household tasks and healthcare (Luijkx et. al., 2004, 2005, 2006). This is because they have a bad physical and psychosocial health, and they are not mobile enough to do everything in the household on their own. For this frail “old-old” senior their living arrangements are more functioning in a supportive way (Schaie, Wahl, Mollenkopf, & Oswald, 2003).

They need larger adjustments in their home to support their decreasing mobility in the house. Moschis, Lee and Mathur (1997) propose to position the theme ‘convenience’, making adjustments as less bothering as possible because this group generally does not like to be confronted with ageing. Products as home-health-care, exercise equipment and self-diagnostics will be relevant. With this group, it is important to avoid stereotyping in advertisements. Regarding relatively complex choices involving different information, such as decisions related to their home or health care, older adults have been found to be more oriented on benefits of the features that the options have (Mather, Knight & McCaffrey, 2005). This senior can be more involved in issues concerning health and well-being, because they feel the need to regain their health (Deshpande, Menon, PERRI III & Zinkhan, 2004).

#### 2.4.2 Conclusion

Taking all this knowledge about home adjustments and living for the two chosen segments into consideration, several conclusions can be drawn. It can be said that Healthy indulgers need very different home adjustment products than Frail recluses. Healthy indulgers do not need home adjustments in the situation they are in. Still, they like to try new things and want to be prepared for the future. They will be interested in adjustments that will make their lives even easier. Thus, even small adjustments to enlarge their independence and comfort will be suitable. Frail recluses are less willing to pay home and healthcare, so they will need to see the relevance of the home adjustment and extra life quality that it will contribute to their homes. Regarding their situation, this group needs large adjustments that enables them to keep doing their daily routine and to stay mobile. In contrast to Healthy indulgers, the home adjustments will be there to maintain their comfort and not to enlarge it.

It is to be expected that Healthy indulgers prefer communication about small adjustments as it suits their circumstances, and Frail recluses prefer communication about large adjustments. This will result to a more positive attitude towards this product and a more favourable purchase

intention. However, when the type of communication fits the senior segment perfectly, but the type of product does not match their needs, there still could be a negative effect on consumer response. In this way, the effect of the senior segment and the communication regarding home adjustments on consumer response can be mediated by the type of product.

## 2.5 Consumer responses of seniors

The Life-Stage Model discussed earlier explains why seniors not all experience the same symptoms of the aging process. Each senior can experience different life-events and go through different life-phases, which can explain the differences within the senior market in terms of behaviour, attitudes and needs (Cole et al., 2008; Moschis, 1996; 2003; 2012) It is likely that different types of seniors are attracted to different kinds of communication. However, what is the best way to measure the reaction of seniors towards communication?

### 2.5.1 Cognitive response: processing information

An important model which provides a good overview and prediction of all the consumer response processes is the Hierarchy of Effects Model (Lavidge & Steiner, 1961; Yoo, Kim & Stout, 2004). The *cognitive stage* of the Hierarchy of Effects Model consists of a person's mental images, understanding, and interpretations of a person, object, or issue. For instance, the consumer becomes aware of the product and gathers information about it. Thus, cognition is the mental processing that occurs when people are exposed to information. It is quite clear that the information processing skills of people can differ greatly. For example, the Elaboration Likelihood Model (ELM) states that information is being processed via two routes: the central and the peripheral route. The chosen route is a function of both the motivation, ability and willingness to process a certain message (Petty & Cacioppo, 1986). When a consumer does not have the motivation, ability or willingness to process the information, the processing route will be peripheral, which means the information will be processed unconsciously and the attitude obtained by the persuasive information will not last. The other route is central, the information will be processed consciously. When an attitude is formed after seeing the information, this is a more lasting attitude and this can be a good predictor of intentional behaviour (Decock, 2010).

### 2.5.2 Affective response: attitudes

The *affective stage* represents feeling and experiencing. In this stage, the consumer can for instance start to like the product (or brand) and believe in what it stands for after seeing an advertisement. Affect is seen as feelings and emotions which have some physiological component and are often operationalized in academic research as attitude (Yoo, Kim & Stout, 2004). The ELM states that lasting attitudes are formed when information is processed through the central route.

A construct that could measure the effects of advertising and communication on consumers is Attitude towards the advertisement, also known as *Aad* (Yoo, Kim & Stout, 2004). *Aad* has been studied extensively within the consumer and advertising discipline. It has a strong and direct impact on attitude toward to brand (*Ab*), which in turn tends to have a strong positive effect on purchase intention – thus have an effect on the behavioural level. The attitude towards the brand reflects on the way people perceive the product or service that the advertisement is promoting. This can be a brand, but in the case of home adjustments it evolves about the attitude towards product. Attitude towards the brand thus could be replaced by attitude towards the product. After all, the appropriate outcome of an ideal product is it's ability to evoke positive beliefs, positive emotions and approach responses among the target group (Bloch, 1995). Good advertising can help to get the message to the right people and get the right response.

### 2.5.3 Behavioural response: purchase intention

The *behavioural stage* represents undertaking action or doing something. It is an individual's intention, action, or behaviour. This could for instance be buying the product. Regarding the Hierarchy of Effects Model, through the hierarchical processes it should be able to predict behaviour as it is the outcome of the consumer response processes: the action. However, measuring people's actual behaviour proves to be difficult as it is unsure how much time will be between seeing an advertisement and purchasing this product – if there will be a purchase at all. Therefore, it is necessary to predict the consumer's behaviour. A good way to do this, is to directly ask the consumer what they intent to do because of the intention-behaviour relationship. The more people have a favourable attitude and perceived control, the stronger a person's intention is to perform a certain behaviour (Fishbein & Yzer; 2003). A way to measure intended behaviour is purchase intention, which measures if the target audience has the intention to buy a certain product. A positive attitude towards a product – the affective response – will lead to a greater change of purchase intention (Spears & Singh, 2004). Purchase intention influences future behaviour and thus indicates if a consumer will use the

product (Ajzen & Fishbein, 1980). Since the ideal action of advertising a product is to not only get the target audience to have a good attitude towards the advertisement and the product, but to make them want to buy the product, it will be relevant to ask them about their purchase intention.

#### 2.5.4 Conclusion

Seniors experience different ageing processes and differ in consumer response. After looking at the basis of consumer responses we know on which levels seniors can differ in their response and which aspects are important to this research. Obtaining knowledge about what the senior consumer is thinking will be difficult, but it is possible and most relevant to measure the affective and behavioural response of seniors. In this way, the dependent variables in this research will be attitude towards advertising, attitude towards the product and purchase intention. Thus, this research will focus on these outcomes to test communication stimuli about home adjustment products.

### 2.6 Hypothesis

This paper will research the best way to communicate about home adjustments towards different segments of seniors. To do this, different stimuli will be tested between two different segments of seniors, namely between those who are Healthy Indulgers and Frail recluses. This will be tested by showing two different home modification products and two different types of communication about these products and testing which has the best consumer response from seniors. Below, each hypothesis, derived from the theoretical framework, is described. Below the hypothesis the assumption the hypothesis is made upon is shortly stated.

**Hypothesis 1:** Healthy indulgers are more likely to feel cognitively young than Frail recluses.

*Healthy indulgers want and are more able to do active things and feel younger than their chronological age. Frail recluses do not want to be or are not able to be very active in their daily life and do not feel younger than their chronological age. They typically feel like an “old person”.*

**Hypothesis 2:** Healthy indulgers respond more positively to communication about home adjustments in the high construal level (“why”) than Frail recluses. Frail recluses will react more positive to communication in the low construal level (“how”) than Healthy indulgers on the following levels of consumer response:

- Attitude towards the communication
- Attitude towards the product
- Purchase intention

*Because these segments experience different ageing processes and life-events, it can be hypothesized that the senior segmentation can have influence on their response to communication and what they find appealing. The consumer response depends on the senior segment and on the type of communication.*

**Hypothesis 3:** Healthy indulgers will respond more positively to communication about small home adjustments and Frail recluses will react more positively to communication about large home adjustments on the following levels of consumer response:

- Attitude towards the communication
- Attitude towards the product
- Purchase intention

*Healthy indulgers prefer a small home adjustment more than a large home adjustment. Frail recluses will prefer large home adjustments more. The consumer response of seniors depends on the type of product and the senior segment.*

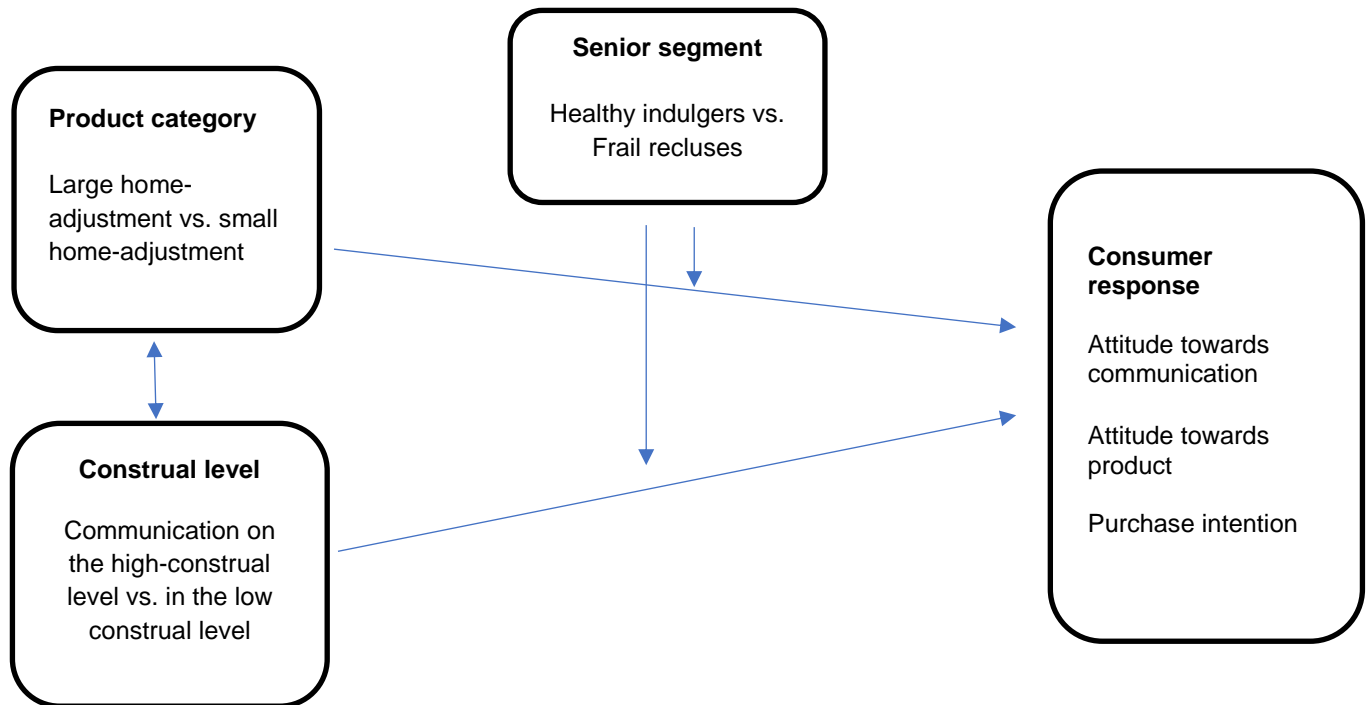
**Hypothesis 4:** Healthy indulgers will respond more positively to communication about small home adjustments, formulated in high construal level. Frail recluses will react more positively to communication about large home adjustments, formulated in low construal level on the following levels of response:

- Attitude towards the communication
- Attitude towards the product
- Purchase intention

Below in figure 3 the conceptual model is portrayed and each hypothesis is represented in this model by the corresponding number added to the arrows in the model, which illustrate the interactions between the variables.



Figure 3. Conceptual model



### 3. Research design and method

Below, the outline of the research is described. It will be explained which research design will be used, how the research was conducted, which manipulations were done, which constructs were implemented, which stimuli were used and how respondents were selected.

#### 3.1 Research design

The experiment in this study had a 2x2x2 design. The first independent variable – the type of text used in the stimuli – was manipulated by distinguishing between high (abstract, on a “why” level) versus low (concrete, on a “how” level) construal. This variable was the within-factor, as each participant got to see two stimuli of the same product, with each a different text. The other independent variable was the type of home adjustment – a small, easy home adjustment (removing doorsteps in the house) – and a more impactful; large home adjustment (building a bedroom downstairs). This variable was the between-factor in the design, meaning there was a difference between the participants whether they evaluated stimuli about a large or small home adjustment. The third independent variable, the two Life-Stage Model groups, was not manipulated. Participants were categorized in groups by their answers on the segmentation items. After conducting the research their score was calculated and it was determined which type of senior each participant was (more on this in ‘segmentation’ under 3.5.3). The two most contradicting type of seniors from the Life-Stage Model were compared to each other in terms of the dependent variables. The research was carried out through an online questionnaire, developed in Qualtrics.

*Table 1. The research design*

		Within-factor:		
		Type of text		
			Low-construal	High-construal
<b>Between-factor:</b>	<b>Large</b>	<i>Building bedroom downstairs</i>	Condition 1	Condition 2
	<b>Small</b>	<i>Removing doorsteps</i>	Condition 3	Condition 4
<b>Type of home adjustment product</b>				

## 3.2 Stimuli

The stimuli presented to participants of this study were flyers with communication about home adjustments. Four different stimuli were developed: a flyer about a large home adjustment with either a high- or low construal text, and a small home adjustment with either a high- or low construal text. Each participant saw two assigned stimuli of the same home adjustment product, but with the two different types of text (see table 2). In this way, there were two responses per participant. On the flyer a promotional and describing text about the home adjustment product was shown. Besides, an image of the product was shown so that participants had a clear image about what the product looked like. Besides, the image made the flyer look credible (see Appendix A)

The large adjustment is the building of an extra bedroom downstairs and the small adjustment is the removal of doorsteps. These home adjustments were chosen because they both derive from the same physical limitation of not being able to lift up the feet. No technical products were chosen, as for some senior people might be reluctant towards using a new technology in their daily lives. Both type of products were an adjustment to the home, an improvement, and thus on the same level.

The two different types of text were developed to describe the products and differ in the level of construal. The first text was written in a high construal level, which meant focusing on abstract features and emphasizing the “why” of the action. When the text for the stimuli was developed, the high-level version was described in more abstract features, such as preparing for the future, growing older and emphasizes more on the “why would you do home adjustments”. Communication is more abstract by, amongst other things, using more general words such as ‘people’, instead of directly addressing them with ‘you’. Abstract words were characterized by having several meanings. The second type of communication was written in a low construal level, focusing on concrete features of the product and describing the “how” of the action. For instance, how will the home adjustments be installed. It also described in concrete words what will happen when making this specific home adjustment, for instance how long it will take, so that seniors can easily imagine what a home adjustment can mean to them. How to install the adjustments and which steps need to be undertaken. Communication is made more concrete by using more direct words and sentences, such as ‘you would like to live at home as long as possible’ and words like ‘now’ and ‘easily’ to emphasize the easiness of the adjustment. In Appendix B, the differences in the usage of high and low construal words are shown as highlighted in the text.

*Table 2. Overview of research conditions*

Conditions	Type of product nr. 1	Type of text nr. 1	Type of product nr. 2	Type of text nr. 2
1	Large	Low construal	Large	High construal
2	Small	High construal	Small	Low construal
3	Large	Low construal	Large	High construal
4	Small	High construal	Small	Low construal

### 3.3. Pretest

The stimuli is pretested to check whether respondents will see the text of the stimuli as low- or high- construal level. They were shown two different stimuli, and after reading each flyer the following questions were asked:

- Do you feel this text is more generalizing or personalizing the situation for you?
- Do you feel this text is written in a more abstract/distant way or a concrete way?
- Do you feel like this adjustment could provide you with benefits right now, or more in the future?
- Would you do this adjustment in the near future, or maybe in the distant future?
- Do you feel this text is mainly describing the 'how' of doing adjustments, or the 'why' of doing adjustments?

10 participants were interviewed for this pretest, their age ranging for 55 to 75 years old. The pretest provided enough proof that the text was reliable to use as high- and low construal communication.

### 3.4 Procedure

Participants were partially collected via the internet, as the group of active seniors are skilled with the computer and are active on the internet almost every day (Eastman & Iyer, 2005). To reach the senior group who were less active, the internet was not the right way. Therefore, neighbourhoods and apartment blocks where seniors were still living (partially) dependently, but who are less mobile than younger seniors, were visited. This was the group we needed as looking for Frail recluses. Seniors were asked if they would like to participate in the study. The participants can fill in the survey online. For the seniors that will be asked to participate in person, the researcher will take a tablet with her on which the seniors can fill in the survey.

The researcher will help the participants with filling in the survey on the tablet if necessarily, when they do not have the knowledge about how the tablet works.

Upon opening the online questionnaire, prior information about the research was given (see Appendix C). In this introduction, it will not directly be mentioned what the main focus of the research is about. It will be told the attitude towards home adjustment products will be investigated. In this way subjects were not affected to possible socially acceptable and correct answers. Here the structure of the questionnaire will also be explained, and that the data is anonymous, that participation in the study is voluntary and that participants could always withdraw their participation in the study.

Firstly, participants were randomly assigned into one of the four conditions (see table 2). They will see a flyer about either a large or small home adjustment product and will see both a high-construal text or a low-construal text of the same adjustment. After reading the description participants have to answer questions about their attitude towards the communication, attitude towards the product and their purchase intention. Also, they will be asked if they think they will be using the product in the near or distant future, or will not be expected to use it at all. Then, a second flyer will be shown about the same product, but with a different text. Participants were asked to answer the same questions as mentioned above. After having answered the questions about the stimuli, the questions regarding their prediction of using the home adjustment product in general will be asked. Subsequently, the items of the senior segment and cognitive age constructs were shown. Lastly, participants were asked several demographic questions.

Completing the questionnaire will take about five to ten minutes. The context in which subjects filled out the questionnaire was at home at the computer.

The survey was distributed via social media, through the professional and private network of the researcher and through the network of Keijzer. Also, organizations who had senior citizens as a target group were approached and requested to share the survey link. In the description on social media, a brief description will be given that the study aims at seniors and is about being able to live longer at home and to evaluate home adjustments products. Besides, to also find more older seniors, the researcher visited senior caring homes where seniors still live independently, but in groups, to ask people if they would participate in the research via a tablet.

## 3.5 Measurements

The constructs described in the theoretical framework will be operationalized. Concepts from the theory can be measured by items belonging to the construct. See Appendix D for the complete overview of all constructs and items.

### 3.5.1. Descriptive variables

#### **Demographics**

The questions which give insights in the demographics of participants and the corresponding answers have been compiled by the researcher. They measure, amongst other things, the sex and age of participants, but also give information about the marital status and living arrangements. Two items were open questions, and four items were multiple choice questions.

- What is your gender?
- What is your living situation?

### 3.5.2 Dependent variables

#### **Attitude towards communication**

These nine items who form the scale to measure the attitude towards the communication were based on the seven-item scale of Muehling and Laczniak (1998) about the attitude towards advertisement and the five-item scale about brand attitude from Spears and Singh (2004). These scales have been merged together. The scale were statements which can be answered with a 5-point Likert scale. The items looked like the following:

- This flyer is attractive
- This webpage is boring (-)

The Cronbach's Alpha of this construct was 0.90, meaning the items of this construct were trustworthy as a scale.

#### **Attitude towards home adjustment**

These eight items who form the scale to measure the attitude towards the communication and were based on the scale of Muehling and Laczniak (1998) and the scale from Spears and Singh (2004), similar to the construct above. However, in this scale, the participants were asked about their attitude towards the home modification product that was shown in the stimuli. Besides, the item '...is boring' has been left out, since it will not be an appropriate item to

measure attitude towards the product. The scale were statements which can be answered with a 5-point Likert scale. The items looked like the following:

- X is a bad home adjustment
- I think X is a great home adjustment

The Cronbach's Alpha of this construct was 0.92, proving the items of this construct to be trustworthy as a scale.

### **Purchase intention**

Based on the five items of Spears and Singh (2004) that measure purchase intention, four items have been developed. This construct measures the purchase intention of participants after seeing the stimuli. Two items were looking very similar and were therefore melted together. Besides, bipolar items have been converted to a 5-point Likert scale. The items looked like the following:

- I probably would purchase X
- I would never buy X

The Cronbach's Alpha of this construct was 0.94, proving the items of this construct to be trustworthy as a scale.

### **3.5.3 Moderating variables**

#### **Life-Stage segmentation**

Eleven items, developed by Gerards (2015), were used to describe seniors. The original construct of Moschis (1996) consisted of 136 items, linked to biological, situational, psychological and social aging dimensions. Because there were too many items to test, the selected items of Gerards were used. Gerard has proven in his research that these items were able to segment the target group. Besides, the items of the biological and situational dimensions were merged into one: the level in which seniors are able to do things. The social and psychological dimensions were merged into the level in which seniors are wanting to do things. The eleven bipolar items were 6-point Likert-scale.

Level of being able to:

- I am dependent of others to leave my house (-)
- Generally, I feel fit
- I have to watch what I spend (-)

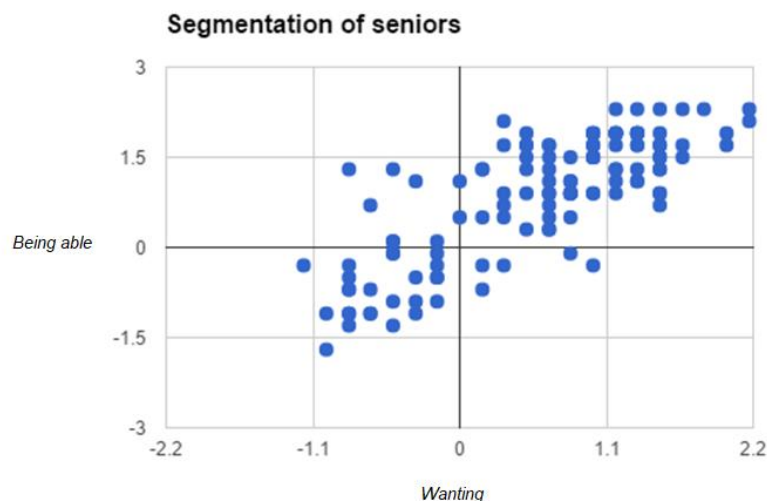
Level of wanting:

- I like to undertake activities with others
- I like being alone (-)
- I would like to change my current life-style (-)

By plotting the scores on the level of “wanting” and “being able to” of each participant on the x-axis and y-axis, with the average score of 3.5 on the Likert scale to serve as the zero coordinate, each participant will be assigned to one of the four Life-Stage groups. However, due to the discovery that most of the participants in this study were quite to very active seniors (see Figure 4), it was chosen not to plot the Healthy indulgers, the active groups of seniors (77.4%), against the less active group (22.6%).

Instead, participants will be divided in two groups on the level of wanting and being able to by doing a median split. For the level of wanting this was a median score of 4.17 ( $SD=0.83$ ), which divided the participants into two groups: people with a score on wanting higher than the median (high wanters) and people with a score lower than the median (low wanters). For the level of “being able to” the median score was 4.60 ( $SD=1.02$ ), which divided the participants into the following two groups: people with a score on being able to higher than the median (high ablers) and people with a score lower than the median (low ablers). Thus, each participant was falling in the category of either a high or low wanter, and being a high or low abler. In this way, it could still be researched whether the level of wanting and being able to of seniors had an intermediating influence on the effect of type of text and product on the attitude of seniors.

*Figure 4. Gerontographic ratios of this research' senior groups*





The Cronbach's Alpha of these constructs were 0.86 and 0.89, showing the items of this construct to be trustworthy as a scale

#### 3.5.4 Analyses

The filled in questionnaires was imported in SPSS. The data file was checked for errors and missing files, and will be organized and labelled. Also, the trustworthiness of the scales of the constructs were measured by calculating the Cronbach's Alpha. After this, analyses were done on the datafile. Within- and between-group analysis were done in SPSS to test the hypothesis. In this way, significant differences in response between the senior segment groups were measured, but it was also tested if within a certain senior segment, the type of products or communication were evaluated differently. Based on these results, conclusions regarding the study were made.

### 3.6 Participants

An important selection criteria for participants of this research was that they had to be seniors, thus 55 years old or above. Further, no distinction was made in gender on any other demographics. A total of 181 responses were gathered, from which 122 people finished the whole questionnaire. From these 122 responses, 3 people were under the age limitation of 55 years, and therefore were not included in this research. From these 119 participants, 58.7% was female and 40.3% was male. The average age of participants was 63.66, with a minimum age of 55 and a maximum age of 96. This meant there was quite a big range in chronological age of the participants. Also, participants were mainly educated on a higher education level or higher, such as HBO or University, followed by secondary vocational education and preparatory vocational education.

Most of the participants were working or doing volunteer work (63%), following being with (early) retirement (33.6%). A small number of participants was receiving sickness benefits (2.5%) or unemployed (0.8%) Their households consisted mainly of the participant together with their partner, without kids living with them or having moved out of their parental home (56.3%). Secondly, they lived alone without kids (21.8%) and thirdly together with his partner and kids (16.8%). With 68.1% most of the participants live in a house with multiple floors, secondly 16.8% lives in a one-level home in a flat, and thirdly 10.1% lives in a one-level home on the ground floor. Only a small group of the participants lived in assisted living home (2.5%).

*Table 3. Descriptive information participants (N=119)*

		Mean	SD	Minimum	Maximum	N (number people)	%
<b>Gender</b>	Male					48	40,3
	Female					71	59,7
	Total					119	100
<b>Age</b>		63.66	9.13	55	96	119	-
<b>Education</b>	Primary education					9	7.6
	Higher education (HBO, HTS)					39	32.8
	Preparatory vocational education (MULO, huishoudschool)					17	14.3
	Secondary preparatory education (MMS, HAVO)					9	7.6
	Secondary vocational education (MTS, MBO)					34	28.6
	University					11	9.2
	Total					119	100

Table 4. Working status and living situation (N=119)

		N (number people)	%
<b>Working status</b>	Working / doing volunteer work	75	63.0
	Unemployed / seeking work	1	0.8
	Retired	40	33.6
	Receiving sickness benefits	3	2.5
<b>Consistency household</b>	Alone, without kids	26	21.8
	Alone, with kids	6	5.0
	Together/ married without kids	67	56.3
	Together/ married with kids	20	16.8
<b>Type of residence</b>	House with multiple floors	81	68.1
	One-level home on ground floor	12	10.1
	One-level home in flat	20	16.8
	Assisted living	3	2.5
	Other	3	2.5
	Total	119	100

### 3.6.1 Cognitive age

Cognitive age will be measured as the last construct in the questionnaire. This scale is based upon the scale of Barak and Schiffman (1981), to which two additional dimensions from Clark, Long and Schiffman (1999) were added. Participants answered these six items by moving the bar and selecting the age they were feeling, in numbers ranging between 20 and 100. Example of the items are:

- I feel like I am in my ...
- I do things that someone does in his/her ...

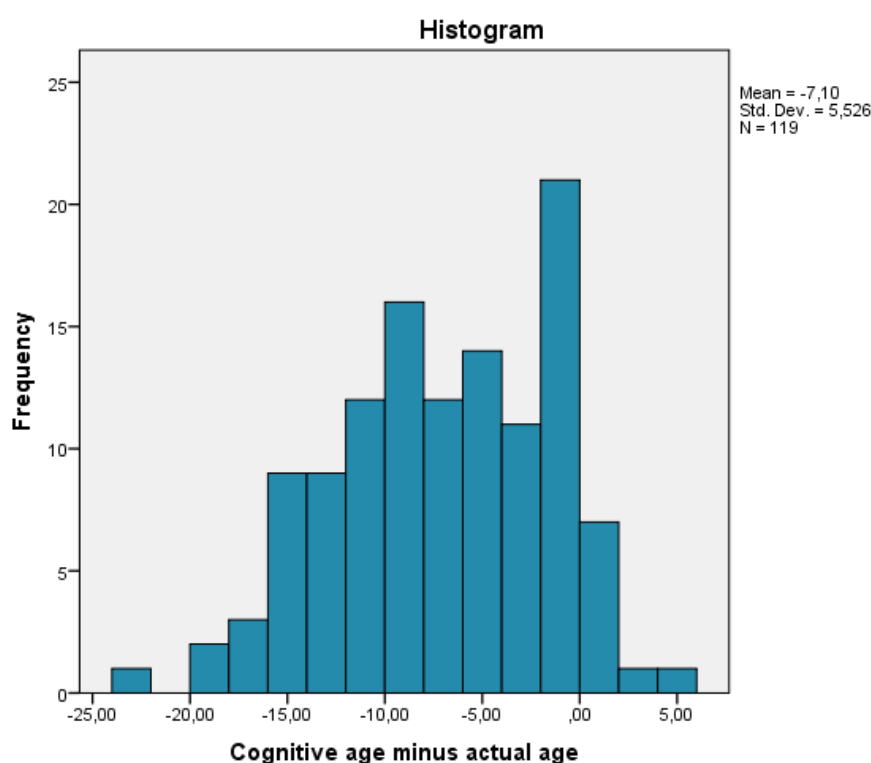
The Cronbach's Alpha of this construct was 0.97, showing the items of this construct to be trustworthy as a scale. Hypothesis one, regarding cognitive age, was tested one-sided, with a confidence interval of 95%, for the hypothesis suggested that a high level of wanting and being able is likely to have a positive impact on cognitive age difference.

The age of participants ranged from 55 to 96 years old, with a mean of 63.66 years ( $SD = 9.1$ ). Their cognitive age, the age the participants felt they were, was lower than their actual age, with a minimum of 37.33 and a maximum of 83.67. On average, participants felt as if they were 56.56 years old ( $SD = 11.55$ ). When calculating the difference between cognitive age and their actual age, calling this number the cognitive age difference, it became clear that on average people felt 7.1 years younger than their actual age ( $M = -7.1$ ,  $SD = 5.52$ ). When looking at the descriptive statistics of cognitive age and chronological age of participants, it is clear that most of the participants feel cognitively younger than their actual age. Figure 5 shows the distribution of the cognitive age difference and illustrates that almost none of the respondents felt older than their actual age.

*Table 5 Cognitive age, actual age and age difference*

	N	Minimum	Maximum	Mean	SD
Cognitive age	119	37.33	83.67	56.56	11.55
Actual age	119	55	96	63.66	9.1
Cognitive age difference	119	-24	5.3	-7.1	5.52

*Figure 5. Histogram of the distribution of the cognitive age difference.*



## 4. Results

### 4.1 Cognitive age

A two-way between-groups analysis of variance (ANOVA) was conducted to explore the impact of the level of wanting and being able to, as measured by the cognitive age difference. There was a statistically significant main effect for level of wanting ( $F(1, 115) = 13.72, p < .001$  (one-sided), partial  $\eta^2 = .11$ ). An independent-samples t-test indicated that the mean score for the high wanters ( $M = -9.65, SD = 5.09$ ) was significantly different from the low wanters ( $M = -4.7, SD = 4.87$ ). This meant that participants who wanted to live an active life felt significantly more cognitively young than participants who were less wanting to live an active life. There was also a statistically significant main effect for level of being able ( $F(1, 115) = 4.04, p < .02$ , eta squared = .03). An independent-samples t-test indicated that the mean score of high ablers ( $M = -8.98, SD = 5.30$ ) was significantly different from the low ablers ( $M = -5.06, SD = 5.05$ ). This meant that participants who were more able to live an active life relative to the median felt significantly younger than they are. The interaction effect between the level of wanting and being able to on cognitive age difference did not reach statistical significance ( $F(1,115) = .15, p < .34$ ).

The first hypothesis contained expectations for the level of wanting and being able to having a positive impact on cognitive age. To specify this more, it was expected that participants who scored high on these to scales, were likely to feel more cognitively younger than participants who scored low on these scales. Taking the above results in regard, it is concluded that this effect was found and this hypothesis can be confirmed. Participants who scored high on either wanting or being able felt significantly younger than participants who scored low on these scales. However, the size of this effect was quite small. This indicated that the segmentation model explains only a part of the variance in cognitive age.

*Table 6 Cognitive age as a function of the level of wanting*

Level of wanting	N	Mean	SD	Minimum	Maximum
Low wanters	62	-4.76	4.87	-6.01	-3.51
High wanters	57	-9.65	5.09	-10.95	-8.34
Total	119	-7,10	5.53		

*Table 7 Cognitive age as a function of the level of being able*

Level of being able	N	Mean	SD	Minimum	Maximum
Low wanters	57	-5.06	5.05	-6.42	-3.70
High wanters	62	-8.98	5.30	-10.29	-7,68
Total	119	-7,10	5.53		

*Table 8 Effects of the level of wanting and being able, and the interaction between these constructs, on the cognitive age*

Source	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Wanting	333.55	1	333.55	13.72	0.0002	0.11
Being able to	98.31	1	98.31	4.04	0.02	0.034
Wanting*Being able to	4.10	1	4.10	.17	0.34	0.001

## 4.2 Attitude towards communication

A 2 by 2 mixed model ANOVA was used to investigate the impact of the type of product, comparing a small home adjustment product (the removal of doorsteps) with a large product (building a room on the lower floor of the house), and the impact of type of text, comparing a high construal text (abstract, emphasizing on the “why” of an action) with a low construal text (concrete, emphasizing on the “how”). Thus, there was a between-subjects variable of type of product and a within-subjects variable of type of text. The Shapiro-Wilk and *F*max test statistics were used to test the assumptions of normality and homogeneity of variance. The assumptions for a mixed model ANOVA were not violated.

A significant main effect for type of product was observed,  $F(1, 117) = 18.70, p < .001$ , illustrating that those who received the communication about the large home adjustment ( $M = 3.38, SD = 0.08$ ) had significantly more favourable attitudes towards the communication than those who received communication about the small home adjustment ( $M = 2.92, SD = 0.08$ ). The effect size was large ( $\eta_p^2 = .14$ ). However, a significant main effect for type of text was not found  $F(1, 117) = .957, p < .33, \eta_p^2 = .008$ . Besides, a significant interaction between type of product and type of text was not reported,  $F(1, 117) = .623, p < .43, \eta_p^2 = .005$ .

Besides testing for the main effect of type of text and type of product on the attitude towards communication, it was also tested if differences on the segmentation level had a moderating

influence on these effects. Therefore, a 2 by 2 mixed model analysis of variance (ANOVA) was conducted with the scores on the segmentation levels wanting and being able as between-factors. No interaction effect was found between the level of wanting and type of product,  $F(1, 115) = 0.48, p < .49, \eta_p^2 = .004$ , or between the level of being able and type of product,  $F(1, 115) = 2.79, p < .10, \eta_p^2 = .02$ . However, this test had found an interaction effect between the level of wanting and the type of text,  $F(1, 115) = 5.50, p < .02$  (see figure 5), illustrating that those who were low wanters had a more favourable attitude towards communication when having received communication with a low construal text ( $M = 3.17, SD = 0.09$ ) than a high construal text ( $M = 3.12, SD = 0.08$ ), and the high wanters had a significantly more favourable attitude towards communication when having received communication with a high construal text ( $M = 3.23, SD = 0.08$ ) than a low construal text ( $M = 3.05, SD = 0.09$ ). The size of this effect was medium ( $\eta_p^2 = .05$ ). This same interaction effect was also found between the level of being able and the type of text,  $F(1, 115) = 4.09, p < .05$  (see figure 6), with the attitude towards communication from low ablers being higher for the low construal text ( $M = 3.22, SD = 0.09$ ) than the high construal text ( $M = 3.16, SD = 0.08$ ), and from high ablers being higher for the high construal text ( $M = 3.20, SD = 0.08$ ) than for the low construal text ( $M = 3.06, SD = 0.08$ ). This effect size was small ( $\eta_p^2 = .03$ ).

It was expected that participants who scored high on the segmentation scales would prefer large home adjustments and texts written on a high construal level, and seniors who scored low would prefer small home adjustments and texts written on a low construal level. The results first of all illustrated that the type of product influences the attitude towards communication. To specify this, participants had a significantly more positive attitude about the communication when they saw communication about the construction of a new bedroom on the ground floor (large home adjustment product), than about that of the removal of doorsteps in the house (small home adjustment product). The effect size for this effect was large, revealing that the type of product can explain a large part of the variance in attitude towards communication. However, the levels of segmentation did not play any role in this effect. This indicated that independently from the Life-Stage segments, participants preferred the large home adjustment. Also, it was found that the level of wanting and being able of participants was of influence on the effect of the type of text. To elaborate on this, participants who were high wanters or ablers had a more positive attitude towards communication of the text that was written in high construal. Participants who were low wanters or ablers had a more positive attitude towards communication of the text written in low construal. These results suggest that the level of wanting and being able to of participants was of influence on the effect of the text. Concretely, this means that the effect of the type of text on the attitude towards communication of seniors is being mediated by the Life-Stage segmentation.

Lastly, there was no interaction effect between type of product and type of text, which means that there was no significant difference across senior segments as to a specific type of product in combination with a specific type of text they preferred, when having looked at the attitude towards the communication.

*Table 9. Effects of the type of product and type of text on the attitude towards communication.*

Source	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Type of product	12.78	1	12.78	18.70	.00003	.140
Type of text	.14	1	.14	.96	.33	.008
Type of text * type of product	.089	1	.089	.62	.43	.005

*Table 10. Attitude towards communication in the conditions of a small or large product.*

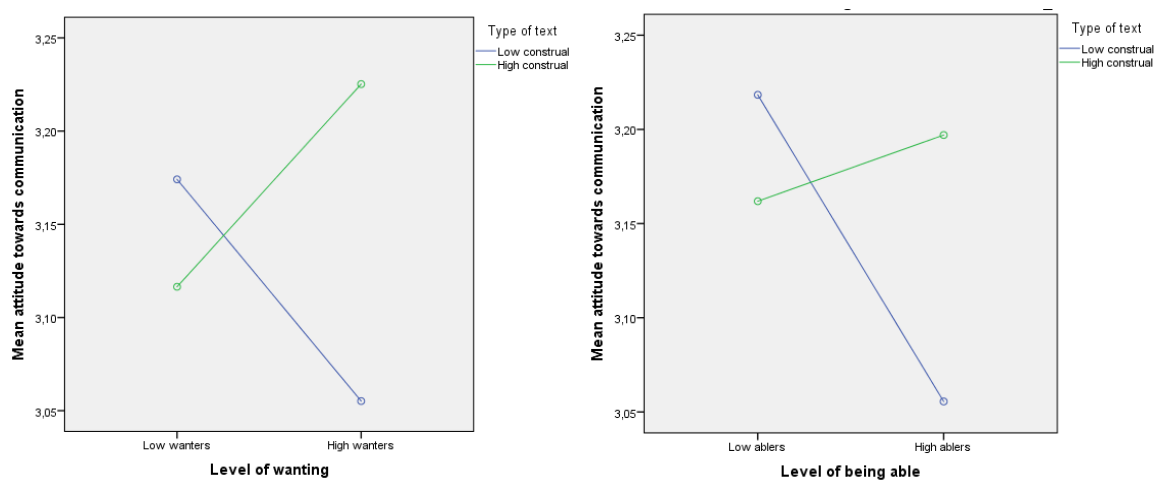
Type of product	Mean	SD	Minimum	Maximum
Small	2.91	0.08	2.77	3.07
Large	3.38	0.08	3.23	3.53

*Table 11. Interaction effects between the type of product and the level of wanting and being able*

Source	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Type of product * wanting	.33	1	.33	.48	.49	.004
Type of product * being able	1.89	1	1.89	2.79	.10	.024



Figure 6. Attitude towards communication as a function of the level of wanting and being able, per type of text



### 4.3 Attitude towards product

A 2 by 2 mixed model analysis of variance (ANOVA) was used to investigate the impact of the type of product (between-subjects variable: small vs. large) and the type of text (within-subjects variable: high vs. low construal) on the attitude towards home adjustments. In this study 119 seniors were asked to rate their attitude towards the home adjustment product using a 5-point rating scale. The rating scale was administered after having watched each of the two different flyers about the same product. The Shapiro-Wilk and  $F_{max}$  test statistics were used to test the assumptions of normality and homogeneity of variance. The assumptions for a mixed model ANOVA were not violated.

A significant main effect for type of product was found,  $F(1, 117) = 7.284, p < .008$ , illustrating that those who received the communication about the large home adjustment ( $M = 3.48, SD = 0.09$ ) had a significantly more favourable attitude towards the product than those who received communication about the small home adjustment ( $M = 3.16, SD = 0.09$ ). This effect size was medium ( $\eta_p^2 = .06$ ). However, a significant main effect for type of text was not found,  $F(1, 117) = .319, p < .573, \eta_p^2 = .003$ . Besides, this test did not find a significant interaction between type of product and type of text,  $F(1, 117) = 3.01, p < .09, \eta_p^2 = .025$ .

Using a 2 by 2 mixed model ANOVA with the levels of wanting and being able as between-factors, it was also tested if differences on the segmentation level had a moderating influence on the main effects of type of product and type of text. No interaction effect was found between the level of wanting and type of product,  $F(1, 115) = 0.94, p < .34, \eta_p^2 = .008$ , or between the level of being able and type of product,  $F(1, 115) = 2.83, p < .10, \eta_p^2 = .02$  (see table 12). Also, no interaction effect between the level of being able to and the type of text was found,  $F(1,$

115) = 1.66,  $p < .20$ ,  $\eta_p^2 = .01$ . However, an interaction effect between the level of wanting and the type of text was found,  $F(1, 115) = 3.94$ ,  $p < .05$  (see figure 7), which illustrated that those who were low wanters had a more favourable attitude towards the product when having seen communication in a low construal text ( $M = 3.37$ ,  $SD = 0.08$ ) than a high construal text ( $M = 3.33$ ,  $SD = 0.09$ ), and that high wanters had a more favourable attitude towards the product when having seen communication in a high construal text ( $M = 3.31$ ,  $SD = 0.09$ ) than a low construal text ( $M = 3.24$ ,  $SD = 0.06$ ). This effect size was small ( $\eta_p^2 = .03$ ).

It was expected that participants who scored high on the segmentation scales would prefer large home adjustments and texts written on a high construal level, and seniors who scored low would prefer small home adjustments and texts written on a low construal level. Firstly, it was found that the type of product influenced the attitude towards the product. Participants had a significantly more positive attitude about the product when they saw communication about the large home adjustment product (construction of a bedroom on the ground floor) than when they saw communication about the small home adjustment product (the removal of doorsteps in the house). This effect size was medium, which indicated that the type of product can explain a part of the variance in attitude towards product. However, the levels of segmentation did not play any role in this effect. This indicated that independently from the Life-Stage segments, participants preferred the large home adjustment.

Secondly, it was found that the type of text also had an influence on attitude towards product, but this effect only occurred when controlling for the level of wanting. The level of being able did not have a moderating effect. Specifically, when participants were high wanters, they had a more positive attitude towards the product when reading the high construal text. People who were low wanters had a more positive attitude towards the product when reading the low construal text. Concretely, this means that the effect of the type of text on seniors' attitude towards home adjustments depends on their level of wanting.

Lastly, there was no interaction effect between type of product and type of text, which meant that there was significant difference across senior segments as to a specific type of product in combination with a specific type of text they preferred, when having looked at the attitude towards the product.

*Table 12. Effects of the type of product and type of text on the attitude towards product.*

Source	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Type of product	6.30	1	6.30	7.28	.008	.06
Type of text	.014	1	.014	.32	.57	.003
Type of product * type of text	.13	1	.13	3.01	.09	.025

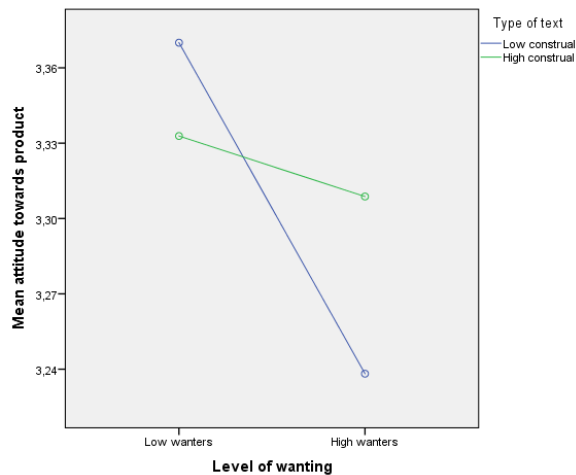
*Table 13. Attitude towards product in the conditions of a small or large product.*

Type of product	Mean	SD	Minimum	Maximum
Small	3.16	0.09	2.99	3.32
Large	3.48	0.09	3.31	3.65

*Table 14. Interaction effects between type of product or type of text and the levels of wanting and being able*

Source	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Type of product * level of wanting	.82	1	.82	.94	.34	.008
Type of product * being able	2.39	1	2.39	2.83	.10	.02
Type of text * being able	.07	1	.07	1.66	.20	.01

Figure 7 Attitude towards product as a function of the level of wanting and the type of text



#### 4.4 Purchase intention

A 2 by 2 mixed model analysis of variance (ANOVA) was used to investigate the impact of the type of product (between-subjects variable: small vs. large) and the type of text (within-subjects variable: high vs. low construal) on the purchase intention. The Shapiro-Wilk and  $F_{max}$  test statistics were used to test the assumptions of normality and homogeneity of variance. The assumptions for a mixed model ANOVA were not violated.

No significant main effect for type of product,  $F(1, 117) = 0.005$ ,  $p < .95$ ,  $\eta_p^2 = .00004$ , type of text,  $F(1, 117) = 2.38$ ,  $p < .13$ ,  $\eta_p^2 = .02$ , or significant interaction between type of product and type of text,  $F(1, 117) = 0.97$ ,  $p < .33$ ,  $\eta_p^2 = .008$ , was found.

A 2 by 2 mixed model ANOVA was conducted with the scores on the segmentation levels wanting and being able to as between-factors, to control for individual differences of seniors. An interaction effect was found between the level of wanting and type of product,  $F(1, 115) = 4.07$ ,  $p < .046$ ,  $\eta_p^2 = .034$  (see figure 8), which illustrated that those who were low wanters had a more favourable purchase intention toward the small product ( $M = 3.16$ ,  $SD = 0.17$ ) than a large product ( $M = 2.80$ ,  $SD = 0.19$ ), and that high wanters had a more favourable purchase intention towards the large product ( $M = 3.15$ ,  $SD = 0.17$ ) than a small product ( $M = 2.78$ ,  $SD = 0.20$ ). This effect size was small ( $\eta_p^2 = .03$ ). Also, an interaction effect was found between the level of being able to and the type of product,  $F(1, 115) = 10.39$ ,  $p < .002$ , which illustrated that those who were low ablers had a more favourable purchase intention toward the small product ( $M = 3.36$ ,  $SD = 0.19$ ) than toward the large product ( $M = 2.75$ ,  $SD = 0.17$ ), and those who were high ablers had a more favourable purchase intention toward the large product ( $M$

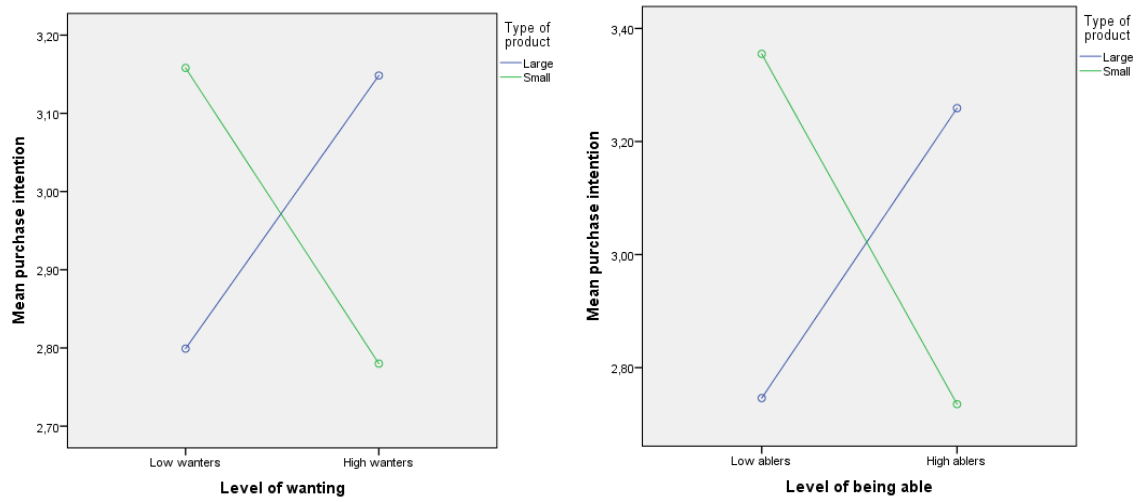
= 3.26,  $SD = 0.18$ ) than towards the small product ( $M = 2.74$ ,  $SD = 0.16$ ). This effect size was medium ( $\eta_p^2 = .08$ ). No interaction effects between the type of text and the level of wanting,  $F(1, 115) = 0.42$ ,  $p < .52$ ,  $\eta_p^2 = .004$ , or the level of being able,  $F(1, 115) = 1.33$ ,  $p < .25$ ,  $\eta_p^2 = .01$ , were found.

It was expected that participants who scored high on the segmentation scales would be more likely to have a positive purchase intention towards small home adjustments and prefer it when the text was written on a high construal level. Seniors who scored low would be more likely to purchase large home adjustments and prefer it when the text is written on a low construal level. It was found that the type of product significantly influenced the purchase intention, when controlling for the levels of segmentation. Specifically, participants who were highly able or wanted to be active had a more positive purchase intention towards the large home adjustment product, and participants who were less able to or wanted to be active had a more positive purchase intention towards the small home adjustment product. Thus, the opposite of the hypothesis appeared to be true. Besides, no statistically significant evidence was found for the effect of type of text on the purchase intention, not even when controlling for the segmentation levels. Also, no interaction effect was found between type of product and type of text.

*Table 15. Interaction effects between the type of text and the level of wanting and being able*

Source	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Type of text * level of wanting	0.036	1	0.036	0.42	.52	.004
Type of text * being able	0.12	1	0.12	1.33	.25	.011

Figure 8. Purchase intention as a function of the level of wanting and being able, and the type of product



## 4.5 Confirming the hypothesis

The research question was answered based on four formulated hypotheses. With these hypotheses, it was tested what the effects of a type of text, a type of product and the Life-Stage segmentation were on the consumer response of seniors. Based on the results of this study the hypotheses will now be confirmed or rejected below.

*Table 16. Confirming the hypotheses*

Hypothesis nr.	Hypothesis	Confirmed (V) or rejected (X)
1	High wanters and high ablers feel more cognitively younger than low wanters or low ablers.	V
2	High wanters and high ablers think more positively about a type of text written in the high construal level, and low wanters and ablers think more positively about a type of text written in the low construal. This effect can be seen on the following levels: <ul style="list-style-type: none"> <li>- Attitude towards communication</li> <li>- Attitude towards product</li> <li>- Purchase intention</li> </ul>	V V X
3	High wanters and ablers think more positively about small home adjustments products, and low wanters and ablers think more positively about large home adjustment product. This effect can be seen on the following levels: <ul style="list-style-type: none"> <li>- Attitude towards communication</li> <li>- Attitude towards product</li> <li>- Purchase intention</li> </ul>	X X X
4	High wanters and high ablers think more positively about communication about small home adjustments written in a high construal level. Low wanters and low ablers think more positively about communication about large adjustments written in a low construal way. This effect can be seen on the following levels: <ul style="list-style-type: none"> <li>- Attitude towards communication</li> <li>- Attitude towards product</li> <li>- Purchase intention</li> </ul>	X X X

## 5. Discussion

In this research, the effects were examined of the type of product, which was either a small home adjustment or a large one, and type of text, which was written on either a low construal level or a high construal level, on consumer response (attitude towards communication, attitude towards the product and purchase intention), and the interaction effect between type of product and type of text. Also, the intermediating effect of senior segments, as defined by the Life-Stage Model, was investigated. The goal of the research was to discover the best way to communicate about home adjustment products to different segments of seniors. In this chapter, an overview of the main findings will be given, the hypotheses will be extensively discussed, limitations, future research and practical implications will be addressed and lastly, the research question will be answered.

### 5.1 Main findings

The first main finding of this study was that segmentation influenced the cognitive age of seniors, with seniors who scored high on the level of wanting (high wanters) or the level of being able (high ablers) feeling significantly cognitively younger than seniors who scored low on these segmentation levels (low wanters and low ablers).

Secondly, this study found that the type of text appeared to have no significant main effect on the consumer response of seniors. However, after taking the Life-Stage segmentation levels into account, it became clear that on most of the consumer response, different senior segments favour different type of texts. High wanters and ablers appear to have a significantly higher attitude towards communication when the text is written on a high construal level, and low wanters and ablers when the text is written on a low construal level. Besides, high wanters had a significantly higher attitude towards the product when having seen the text on a high construal level, and low wanters when having seen the text on a low construal level. No evidence was found for the effect of type of text on the purchase intention, not even when controlling for the segmentation levels.

The third finding was that type of product had a main effect on most of the consumer response of seniors. Seniors had a more favourable attitude towards the communication and attitude towards the product when having seen the advertisement about a large product in comparison to the small product. The Life-Stage segmentation levels did not play a role in this effect, meaning that different group of seniors did not respond differently to the home adjustment products. However, when looking at the purchase intention of seniors, it was found that the



type of product only had an effect when taking the segmentation levels in account. High wanters and ablers had a significantly more positive purchase intention towards the large product, and low wanters and ablers had a more positive purchase intention toward the small product.

Lastly, this study has found no interaction effect between the type of product and the type of text, on any of the consumer responses; attitude towards the communication, attitude towards the product and purchase intention.

## 5.2 Discussion of cognitive age

The results of this study have indicated that the first hypothesis could be confirmed, as both segmentation levels of the Life-Stage Model (wanting and being able) had a positive effect on the cognitive age of seniors. In summary, this means that seniors who were high wanters and high ablers felt significantly younger than seniors who were low wanters and low ablers. This shows that the way in which the Life-Stage Model divides seniors - and thus creates four different groups of seniors - can be seen as legitimate, since the difference in cognitive age between these groups is significantly, meaning that segmenting the senior population is the correct option, instead of generalising seniors and viewing them as one group.

The difference in cognitive age between the Life-Stage groups can be explained by the assumption that the Life-Stage groups and the cognitive age are concepts that are intertwined. In the theoretical framework, it was found that the concepts shared many similarities, for instance that both how old a senior feels and which type of senior someone is, is influenced by ageing processes and life-events (Mathur & Moschis, 2005; Moschis, 1996). Also, both concepts may explain differences in the consumer response of seniors (Gwinner & Stephens, 2001; Moschis, 1996). Besides, Healthy indulgers - the Life-Stage group that is both a high wanter and a high abler - are very active in their everyday life, they feel like they do not have much in common with seniors and feel younger than they are, therefore it was thought that they were likely to be cognitively young seniors. Frail recluses – the Life-Stage group that is both a low wanter and a low abler - are not able and do not want to be active, they show signs of the aging process, are less open to new things and typically feeling like a senior person. Therefore, it was thought that they do not feel much younger than their chronological age.

The connection between cognitive age and the Life-Stage groups has not been established before within the senior marketing field, as far as known. Now that there is proof that the combination is legitimate, it will be interesting to further investigate how these constructs can explain differences in consumer response of seniors.

Besides, when considering the characteristics of the participants of this study, these findings are notable. The participants were a very active group of seniors, with almost 72% of them belonging to the Healthy indulgers segment, and on average felt 7.10 years younger than their chronological age. With a group of respondents this active, it could be assumed that a significant difference in cognitive age would be difficult to find. However, this was not the case. After dividing the group into two groups on each segmentation level, one above the median and one below, there was a significant difference in cognitive age between high ablers and high wanters, and low ablers and low wanters. The normal segmentation of seniors in our society will likely be more equally distributed across each of the four groups than in this study. When putting the findings in this context it can be argued that the differences will be even greater between segments, because the differences between the Life-Stage groups will be greater.

### 5.3 Discussion of type of text

The second hypothesis of this study was confirmed on two out of three sub-hypotheses. First of all, the results showed that the type of text had an effect on attitude towards communication when controlling for the segmentation levels of wanting and being able. To elaborate on this, high wanters and high ablers had a more positive attitude towards the communication when the text was written on a high construal level, and low wanters and low ablers had a more positive attitude towards the communication when the text was written on a low construal level.

Secondly, the type of text had an effect on attitude towards the product when controlling for level of wanting. This meant that high wanters had a more favourable attitude towards the product when the text was written on a high construal level, and low wanters had a more favourable attitude towards product when the text was on a low construal level. However, the level of being able did not appear to have a moderating influence on the effect of type of text on attitude towards the product, which meant that there was no significant difference between high and low ablers in this case.

These findings can be explained by the Construal Level Theory, which implicated that the distance from an event people experience in their minds influences their preferences, because they will choose the option that matches their mental representation of the distance of the event best (Vallacher & Wegner, 1987). To be more specific, it stated that when people think about events in the distant future, they are more likely to prefer a high construal level text because that describes the event in an abstract way, emphasizing on the “why” of the action. That type of text fits the mental representation of the distance best. When people think about

events in the near future, they are more likely to prefer a text written in a low construal level way; describing the event in a concrete way, emphasizing on the “how” of the action. Considering this, it was likely that seniors who scored high on the level of wanting and being able preferred the high construal level text because they feel young, are in good health and are likely to place doing home adjustments in the distant future. Why seniors who scored low on these segmentation levels preferred the low construal level text can be explained by the characteristics of this group; they generally feel like a senior, have health issues and are not very active. They will need home adjustments rather sooner than later, therefore are likely to place using them in the near future.

When looking at these two sub-hypotheses, it can be concluded that it is inappropriate to segment the seniors group by chronological age and assume the same physiological and psychological changes have taken place (Iyer, Reisenwitz & Eastman, 2008). It has been proven that individual differences between the Life-Stage groups can lead to different attitudes and preferences, and that it is of great important to adjust the communication in advertisement – specifically the type of text – to fit a specific segment of senior. After all, when a message is relating to the life of the senior, it is more likely that the senior will be persuaded by it.

The third sub-hypothesis did not find an effect of the type of text on purchase intention, not even when controlling for the level of wanting and being able. The purchase intention had not proven to be a good construct to measure the consumer response, as this is the only dependent variable that did not confirm that the response on the type of text differed between the Life-Stage groups. An explanation can be the attitude-behavioural intention gap, which is the lack of correspondence between the formed attitude and behavioural intentions to purchase (Ajzen, 2001; Kraus, 1995). Seniors appear to form their own attitudes about different type of texts about home adjustments, so they are thinking about the topic of home adjustments, but they do not seem to translate this into behaviour by forming a clear purchase intention towards one of the two types of text. In contrast to what was expected from the theory of reasoned action from Ajzen and Fishbein (1974), not necessarily all positive attitudes are followed by positive intentions. The attitude-behavioural intentions gap is complex and cannot be solved easily, however some of the factors that might explain the gap in this situation can be price, brand, convenience and perceived benefits, durability, impact on the product and individual and situational characteristics (Vermeir & Verbeke, 2006). It is important that future research into the Life-Stage groups takes this attitude-behavioural intention gap into account, and instead of using purchase intention as a way to predict the intention of seniors, finds a different way to predict behaviour.

## 5.4 Discussion of type of product

The third hypothesis could not be confirmed on all three of the sub-hypotheses. No evidence was found that different types of seniors will prefer different types of home adjustment products when looking at their attitude towards the communication and the product. This indicates that the Life-Stage segmentation levels did not have a moderating influence on the effect of the type of product. A main effect of type of product was however found, with seniors having a significantly higher attitude towards communication and attitude towards the product when having seen the large home adjustment product, than when having seen the small product. This means that most seniors preferred the product in which a bedroom will be built on the ground level of the house.

Trying to find an explanation for the absence of the moderating effect of the Life-Stage segmentation levels is difficult, because little research has been done into home adjustment products and their effects on seniors. However, the characteristics of the Life-Stage Model groups might provide more insight. It was expected that the Healthy indulgers would prefer small home adjustments as they are still feeling young and are in good health, they barely need adjustments (Luijkx et. al., 2006). However, this senior is also future-oriented and likes to try new things. These characteristics of the active senior, together with the fact that they generally have a higher income and seek quality and service (Myers & Lumbers, 2008) could lead to them preferring the large home adjustment product over the small one. Besides, since the participants in this study largely appeared to be active seniors, a comparison between Healthy indulgers and Frail recluses could not been made. Participants were therefore divided based on a median split, so that there was still a group that scored high on the level of wanting and being able, and low. However, this does implicate that the differences between these groups are likely to be smaller than when Healthy indulgers would be compared to Frail recluses, which may have led to no significant different attitude towards communication and attitude towards the product between the groups. Also, the living situation of the participants could have been of influence. From all participants in this study, 29.4% in this study stated they lived in a one-level home, either on the ground floor of an apartment building, in a flat, or in an assisted living residence. It is possible that in this type of homes, most of the doorsteps are already removed or were never even there, making this small product less attractive and perhaps even uninteresting for these seniors.

Another explanation for the absence of the moderating effect of the Life-Stage segmentation levels might be found in the choice of the products itself. When looking at the characteristics of the products used in this study, they do respond to the same kind of problem, namely a physical limitation that limits seniors in moving around the house. However, the small home

adjustment product – the removal of doorsteps in and around the home - is a reactive measure. This means that it can be something you would perhaps only adjust when it is necessary, for instance when being in a wheel chair. If a senior is not yet experiencing trouble with the doorsteps, they could not feel the need to do anything about it. Besides, it is an adjustment that is easy to make, and therefore might be seen as unnecessary. Some seniors might even remove them themselves and will not need to hire a company to do that. The large home adjustment product - building a bedroom on the ground floor of your home - might be something that is a more impactful adjustment and will cost more, but this could be seen as something that adds value to your home and is not easily done yourself. Also, this product is more able to facilitate seniors to live longer at their own home, which is important for ensuring autonomy in older age and therefore might be more interesting for all types of seniors (Schaie, Wahl, Mollenkopf & Oswald, 2003). Besides, it is a proactive measure, something that can give you extra comfort, whereas the removal of doorsteps is a measure that gives a part of the comfort back.

When looking at the third sub-hypothesis – the purchase intention of seniors – a significant effect between type of product was found when controlling for the Life-Stage segmentation levels. Seniors who were high wanters or high ablers were more positive about purchasing the large home adjustment, and low wanters or ablers were more positive about purchasing the small home adjustment. This is notable, as the purchase intention did not appear to differ between senior segments on any of the other hypotheses. Besides, this effect goes against the hypothesis. Purchase intention already appeared to be an untrustworthy construct to measure the consumer response, which may be explained by the attitude-behavioural intention gap.

## **5.5 Discussion of interaction between type of text and type of product**

The last hypothesis combined the effect of the type of text and type of product, stating and interaction effect between them. It was thought that seniors who scored high on the two levels of the segmentation model would think more positive about an advertisement about small home adjustments in a high construal level written text. Seniors who score low on the levels of segmentation were expected to think more positive about an advertisement about large adjustments in a low construal way. This hypothesis could not be confirmed. The main cause for the absence of this interaction effect was most likely the fact that hypothesis 3 was not confirmed, what meant that there was no significant effect of type of product when controlling for individual differences of seniors on the segment levels.

## 5.6 Practical implications

Derived from the results of this study, a couple of implications can be made. Firstly, the senior market is very large and definitely not homogeneous. Businesses and marketers focussing on the senior segment cannot just make a distinction in chronological age anymore, and treat each senior the same, without taking any individual differences into account. This will lead to stigmatization of seniors and a miss-fit between the message being communicated and the needs of seniors. Therefore, it is important that a subdivision within the senior market will be made. Without doing so, the chances of marketers reaching the right senior, with the right message at the right moment is a long shot. It is recommended to segment the senior market by using the Life-Stage Model, as this has proven to be an effective way to segment seniors in this study. Four different type of seniors can be distinguished, each with different behaviours, lifestyles, preferences, consumer response, ageing processes and cognitive age. Besides, it can be recommended to look at the cognitive age – the age seniors *feel* instead of are – as active seniors appear to feel significantly younger than seniors who are not very active.

It can be recommended that businesses who are targeting seniors always should adjust their communication and marketing strategy accordingly to the Life-Stage Model groups, to have the best possible fit between what your company wants to sell or tell, and what seniors want and need that fits their lifestyle. More specifically, it is important to adjust the type of text to your target audience. It can be recommended that the text of an advertisement focused on seniors who want to be and are able to be active, should emphasize on abstract features of a product, about the “why” of getting this product, and future benefits. When focusing on seniors who are not very able to be active, or do not want to be active, it can be recommended that the text of an advertisement should focus on the concrete features of the product, describing the “how” of getting the product, and the benefits that can immediately be experienced.

Whereas this study did indicate that different type of seniors prefers different types of text, it did not succeed in proving that different types of seniors will prefer different types of home adjustment products. It was found that seniors had a more favourable attitude towards a large home adjustment product than towards a small home adjustment product. However, considering the significant differences between type of seniors, it can be expected that some products will have a better fit with active seniors, and some products can be better targeted on the less active senior. Future research is recommended to assess how marketers can best target their products to different type of seniors.

## 5.7 Limitations and future research

This study provided interesting results and implications, but it also has some limitations that could have influenced the outcomes of this research and should be kept in mind for future research. Firstly, due to methodological choices made in this study there are several limitations that refer to shortcomings in this method. For instance, choosing a questionnaire to conduct this study may limit the results. The respondent's own evaluation of the attitude towards communication, attitude towards the product and their purchase intention is measured through questionnaires and will be only reported by themselves. Self-reports are known to be sensitive to bias and giving socially desired answers. Besides, respondents have to think back on their feelings and attitude when reading the advertisement. Respondents might not remember correctly or be influenced by other information from their environment. Another important limitation is that there were no questions that controlled whether participants recognized the construal level that was used in the text of the flyers. It might be possible that the high and low construal level cues in the text were not identified by respondents. Lastly, the design of this study, in particular the choice for the within-between factors, comes along with some limitations. In this study, the within-factor was the type of text, and the between-factor was the type of product. Since each participant got to see two advertisements, they saw the same product twice, but then with a different text describing the product, the first being in a high construal level and the second being in a low construal level or vice versa. Even though it was clearly stated in the questionnaire that the second advertisement contained a different text than the first advertisement when people arrived at the second advertisement, this could have caused confusion. Future research with a similar design should rather take the type of text as a between-factor, and the type of product as a within-factor. In this way, if the choice will be made to let participants review multiple advertisements, they will get to see two advertisements with the same type of text (high or low construal level), but with two different products. It is likely that it will be clearer to the participant that he or she is reviewing a different advertisement when arriving at the second one.

Other limitations lie within prior experience of participants with the home adjustments. This could have had an influence on the findings of this study. For instance, when a participant has already done the specific home adjustment described in the flyer or when he has oriented on this product and already chosen not to do this, his attitude and purchase intention could be low, while this has nothing to do with the independent variables.

Lastly, the results of this study cannot be directly generalized for the whole senior population, because participants in this study were moreover active seniors. It is to be expected that results in the same line with this study will be found within a group with a greater or more equal number of more passive seniors according to the segmentation model, however this cannot be assumed without further investigating this. Future research should therefore look in to a more equal distribution of the senior segments within the study.

Another aspect that will be interesting for future research to investigate deeper, is how seniors place using home adjustments. The Construal Level Theory made implications about how to communicate to different type of seniors, which were based on the assumption that seniors who were high ablers and wanters, would place using home adjustments in the far future, and seniors who were low ablers and wanters, would place using home adjustments in the near future. However, this research did not include questions about the placement of home adjustment products, so this assumption that has not been proven. It is recommended that future research will further explore this.

This study found no difference in preference of a certain product across the senior segments. However, this does not mean that, when using other product categories, also no difference in preferences for a certain product across type of seniors will be found. Therefore, it is important that future research will explore more product categories. For instance, it will be interesting to research which technological products are suited for which type of seniors. Domotica could be a real help for seniors who feel lonely, or who need help reminding them to take their medicine. But even the more active senior could use the help of technological products in their home to provide extra comfort, for instance by installing automatically opening windows.



## 6. Conclusions

The results of this study have been discussed in depth and the practical implications, limitations and suggestions for future research have been considered. This leaves us at answering the central research question of this study:

*What is the best way to communicate about home adjustment products to different segments of seniors?*

Across different segments of seniors, there is no difference in the way they think about a specific home adjustment product, except for their purchase intention. When looking at how seniors think about the different types of text, it can be clearly stated that the active seniors in this study have a positive attitude towards text that emphasizes on abstract features of the product, the “why” of doing home adjustments and the future benefits. Seniors who are less active prefer text that focuses on the concrete features of the product, describing the “how” of doing home adjustments and the benefits that can immediately be experienced. Therefore, it can be concluded that communicating in a high construal level will be the best way for active seniors, and communicating in a low construal level will be best for more passive seniors.

## 7. References

- Agrawal N, Trope Y, Liberman N. Kellogg School of Management, Northwestern University; Unpublished manuscript, 2006. Value from highlighting time-appropriate. outcomes.
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.), *Action-control: From cognition to behavior* (pp. 11-39). Heidelberg: Springer.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Ajzen, I. (2001). Nature and Operation of Attitudes. *Annual Review of Psychology*, 52, 27-58.
- Barak,B.(1987). Cognitive Age: a new Multidimensional approach to measuring age identity. *International Journal of Aging and Human Development*, 25(2), 109-125.
- Barak, B., & Schiffman, L. G. (1981). Cognitive age: A nonchronological age variable. *NA-Advances in Consumer Research*, 8, 602-608.
- Barak,,B., & Gould,,S. (1985). Alternative Age Measures: A Research Agenda. *Advances in Consumer Research*, 12, 53-58.
- Barry, T. E. (2002). In Defense of the Hierarchy of Effects: A Rejoinder to Weilbacher. *Journal of Advertising Research*, 42(3), 44- 47.
- Barry, T. E., & Howard, D. J. (1990). A Review and Critique of the Hierarchy of Effects in Advertising. *International Journal of Advertising*, 9(2), 121-135.
- Béland F. (1984). The decision of elderly persons to leave their homes. *Gerontologist*, 24(2), 179-185.
- Bloch, P. H. (1995). Seeking the ideal form: Product design and consumer response. *The Journal of Marketing*, 59(3), 16-29.
- Bronner, A.E. et al. (red.), *Ontwikkelingen in het marktonderzoek: Jaarboek MarktOnderzoekAssociatie*, dl. 41, 2016. Haarlem: SpaarenHout.
- Carstensen, L. (1992). Social and emotional patterns in adulthood: support for socioemotional selectivity theory. *Psychology and Aging*, 7(3), 331-338.
- Carstensen, L. L. (2006). The influence of a sense of time on human development. *Science*, 312(5782), 1913-1915.
- CBS (2015). Beperkingen in dagelijkse handelingen bij ouderen. Retrieved on 9th august 2016 via: <https://www.cbs.nl/nl-nl/achtergrond/2015/18/beperkingen-in-dagelijkse-handelingen-bij-ouderen>
- CBS (2011). *Bevolkingstrends: Statistisch kwartaalblad over de demografie van Nederland*. Retrieved on 9 august 2016 via: <https://www.cbs.nl/nl-nl/nieuws/2011/28/ouderen-wonen-steeds-langer-zelfstandig>

- CBS (2016). *Bevolkingstrends: Huishoudensprognose 2015–2060: jongeren en ouderen langer thuis*. Retrieved on 10 august 2016 via: <https://www.cbs.nl/nl-nl/achtergrond/2016/24/huishoudensprognose-jongeren-en-ouderen-langer-thuis>
- Chew-Graham, C.A. & Ray, M. (2016). *Mental Health and Older People: A Guide for Primary Care Practitioners*. Cham, Switzerland: Springer.
- Cloutoday, 29<sup>th</sup> februari 2016. Retrieved from: <https://www.cloutoday.nl/onderzoek-market-research/2561-forever-young-65-plusser-voelt-zich-10-jaar-jonger-dan-hij-is>
- Cole, C., Laurent, G., Drolet, A., Ebert, J., Gutchess, A., Lambert-Pandraud, R., ... & Peters, E. (2008). Decision making and brand choice by older consumers. *Marketing Letters*, 19(3-4), 355-365.
- Deshpande, A., Menon, A., PERRI III, M. A. T. T. H. E. W., & Zinkhan, G. (2004). Direct-to-consumer advertising and its utility in health care decision making: a consumer perspective. *Journal of health communication*, 9(6), 499-513.
- Doyle, Y., McKee, M., Rechel, B., & Grundy, E. (2009). Meeting the challenge of population aging. *BMJ*, 339, b3926.
- Fennis, B. M., Adriaanse, M. A., Stroebe, W., & Pol, B. (2011). Bridging the intention–behavior gap: Inducing implementation intentions through persuasive appeals. *Journal of Consumer Psychology*, 21(3), 302-311.
- Fishbein, M. & Yzer, M.C. (2003). Using theory to design effective health behavior interventions. *Communication Theory*, 14(2), 164-183.
- Fried, T. R., Bradley, E. H., Williams, C. S., & Tinetti, M. E. (2001). Functional disability and health care expenditures for older persons. *Archives of internal medicine*, 161(21), 2602-2607.
- Gale, J. (2010, January 11). Elderly to outnumber children for first time in 2045, UN says. Bloomberg News. Retrieved from <http://www.bloomberg.com>
- Gerards, V. (2015). Marktsegmentatie in het openbaar vervoer: Naar een effectieve online communicatiestrategie richting 55-plussers. Masterscriptie Universiteit Utrecht, Utrecht.
- Gerardsen, V. & Koopman, B. (2015). De 50-plusser kent geen leeftijd.
- Gomes, B., Calanzani, N., Gysels, M., Hall, S., & Higginson, I. J. (2013). Heterogeneity and changes in preferences for dying at home: a systematic review. *BMC palliative care*, 12(1), 1.
- Gregoire, Y. (2003). The impact of aging on consumer responses: What do we know? *Advances in Consumer Research*, 30, 19-26.
- Gwinner, K.P. & Stephens, N. (2001) Testing the implied mediational role of cognitive age. *Psychology and Marketing*, 18, 1031–1048

- Iyer, R. A. J. E. S. H., Reisenwitz, T. H., & Eastman, J. K. (2008). The impact of cognitive age on seniors' lifestyles. *Marketing Management Journal*, 18(2), 106-118.
- Kasper, H., Nelissen, W., & de Groof, M. (2009). Op weg naar een nieuwe typologie van ouderen. In A. E. Bronner et al. (eds.), *Ontwikkelingen in het marktonderzoek: Jaarboek MarktOnderzoekAssociatie*. Haarlem: SpaarenHout.
- Katz, S. (2001). Growing older without aging? Positive aging, anti-ageism, and anti-aging. *Generations*, 25(4), 27.
- Kraus, S. J. (1995). Attitudes and the Prediction of Behavior – a Meta-Analysis of the Empirical Literature. *Personality and Social Psychology Bulletin*, 21(1), 58–75.
- Kotler, P. (1976). *Marketing Management: Analysis, Planning, and Control*-3/E.
- Lambert-Pandraud, R., Laurent, G., & Lapersonne, E. (2005). Repeat purchasing of new automobiles by older consumers: empirical evidence and interpretations. *Journal of Marketing*, 69(2), 97-113.
- Maas, W. (2012) . Senioren vormen onontdekte groeibriljant. Jaargang 32. 10 februari 2015. Marketing tribune. Retrieved from: [http://www.marketingtribune.nl/algemeen/nieuws/2015/04/interview-senioren-vormen-onontdekte-groeibriljant31\\_0/index.xml](http://www.marketingtribune.nl/algemeen/nieuws/2015/04/interview-senioren-vormen-onontdekte-groeibriljant31_0/index.xml)
- MarketingTribune (2015). senioren vormen onontdekte groeibriljant. 32(03).
- Marrs, C. H. (1984). Developing a Profitable Program for the Senior Market. *Journal of Retail Banking*, 6, 26-38.
- Mather, M., Knight, M., & McCaffrey, M. (2005). The allure of the alignable: younger and older adults' false memories of choice features. *Journal of Experimental Psychology: General*, 134(1), 38.
- Moschis, G. P. (1996). *Gerontographics: Life-stage segmentation for marketing strategy development*. Greenwood Publishing Group.
- Moschis, G. P. (2003). Marketing to older adults: An updated overview of present knowledge and practice. *Journal of Consumer Marketing*, 20(6), 57-75.
- Moschis, G. P. (2012). Consumer behavior in later life: Current knowledge, issues, and new directions for research. *Psychology & Marketing*, 29(2), 57-75.
- Moschis, G. P., Bellenger, D., & Curasi, C. F. (2003, January). Housing preferences of older consumers. In *10th Annual Conference of the Pacific Rim Real Estate Society, Bangkok, Thailand*.
- Moschis, G. P., Lee, E., & Mathur, A. (1997). Targeting the mature market: opportunities and challenges. *Journal of Consumer Marketing*, 14(4), 282-293.
- Moschis, G.P., Lee E., Mathur, A. & Strautman, J. (2000). *The Maturing Marketplace: Buying Habits of Baby Boomers and Their Parents*. Westport, CT: Greenwood Publishing group.

- Myers, H., & Lumbers, M. (2008). Understanding older shoppers: a phenomenological investigation. *Journal of Consumer Marketing*, 25(5), 294-301
- Netuveli, G., Wiggins, R. D., Hildon, Z., Montgomery, S. M., & Blane, D. (2006). Quality of life at older ages: evidence from the English longitudinal study of aging (wave 1). *Journal of Epidemiology and Community Health*, 60(4), 357-363.
- Niestadt, M. (2012). Do's en don'ts op de seniorenmarkt. Retrieved from <http://www.mt.nl/1/63638/home/do-s-en-don-ts-op-de-seniorenmarkt.html>
- Peters, E., Finucane, M. L., MacGregor, D. G., & Slovic, P. (2000). The bearable lightness of aging: Judgment and decision processes in older adults. *The aging mind: Opportunities in cognitive research*, 144-165.
- Polder, J. J., Bonneux, L., Meerdering, W. J., & Van Der Maas, P. J. (2002). Age-specific increases in health care costs. *The European Journal of Public Health*, 12(1), 57-62.
- Rechel, B., Doyle, Y., Grundy, E., & McKee, M. (2009). How can health systems respond to population aging? *European Observatory on Health Systems and Policies, Policy Brief 10*.
- North, M. S. & Fiske, S. (2012). An Inconvenienced Youth? Ageism and Its Potential Intergenerational Roots. *Psychological Bulletin*, 138(5), 982-997.
- Schaie, K. W. (2003). *Aging independently: Living arrangements and mobility*. Springer Publishing Company.
- Schiffman, L. G., & Sherman, E. (1991). Value orientations of new-age elderly: The coming of an ageless market. *Journal of business research*, 22(2), 187-194.
- Sheeran, P., Orbell, S., & Trafimow, D. (1999). Does the temporal stability of behavioral intentions moderate intention-behavior and past behavior-future behavior relations? *Personality and Social Psychology Bulletin*, 25, 721-730.
- Sherman, E., Schiffman, L. G., & Mathur, A. (2001). The influence of gender on the new-age elderly's consumption orientation. *Psychology & Marketing*, 18(10), 1073-1089
- Sikkel, D. (2016). Niet meedoen maar ertoe doen: evolutiepsychologie en vijftigplusmarketing. Hoofdstuk 7 . Ontwikkelingen in het marktonderzoek Jaarboek 2016 . MarktOnderzoekAssociatie onder red. van A.E. Bronner [et al.] . - Haarlem: Spaar en Hout, 2016 . - p. 105-118
- Silvers, C. (1997). Smashing old stereotypes of 50-plus America. *Journal of Consumer Marketing*, 14(4), 303-309
- Simcock, P., Sudbury, L. & Wright, G. (2006). Age, Perceived Risk and Satisfaction in Consumer Decision Making: A Review and Extension. *Journal of Marketing Management*, 22(3), 355-377.
- Sood, S., Lau-Gesk, L., & Drolet, A. (2006). Understanding our behavior as we age: effects of memory and time horizons on beliefs, preferences and choices. *Advances in Consumer Research*, 33, 150-153.

- Spijker, J., & MacInnes, J. (2013). Population aging: the timebomb that isn't. *BMJ*, 347(6598), 1-5.
- Stroud, D. (2005). *The 50 plus market: why the future is age-neutral when it comes to marketing and branding strategies*. Kogan Page Publishers.
- Szmigin, I., & Carrigan, M. (2000). The older consumer as innovator: does cognitive age hold the key? *Journal of Marketing Management*, 16(5), 505-527.
- Szmigin, I., & Carrigan, M. (2001). Learning to love the older consumer. *Journal of Consumer Behaviour*, 1(1), 22-34.
- Szmigin, I., & Carrigan, M. (2001). Time, consumption, and the older consumer: An interpretive study of the cognitively young. *Psychology & Marketing*, 18(10), 1091-1116.
- Teller, C., Gittenberger, E., & Schnedlitz, P. (2013). Cognitive age and grocery-store patronage by elderly shoppers. *Journal of Marketing Management*, 29(3-4), 317-337.
- Tepper, K. (1994). The role of labeling processes in elderly consumers' responses to age segmentation cues. *Journal of Consumer Research*, 503-519.
- Thomas M, Chandran S, Trope Y. Cornell University; 2006. The effects of temporal distance on purchase construal. Unpublished manuscript.
- Tréguer, J. P. (2002). 50+ Marketing. Marketing, communicating and selling to the over 50s generations, Dunod, Parijs.
- Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological review*, 117(2), 440.
- Trottier, H., Martel, L., Houle, C., Berthelot, J. M., & Légaré, J. (2000). Living at home or in an institution: What makes the difference for seniors? *Health Reports-statistics Canada*, 11(4), 49-61.
- United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Aging 2013*. ST/ESA/SER.A/348
- United Nations. (2009). *World population aging 2009*. New York, NY: Department of Economic and Social Affairs, Population Division
- Vallacher RR, Wegner DM. What do people think they're doing? Action identification and human behavior. *Psychological Review*. 1987;94:3–15.
- Van Auken, S., Barry, T. E., & Bagozzi, R. P. (2006). A cross-country construct validation of cognitive age. *Journal of the Academy of Marketing Science*, 34(3), 439-455.
- Vermeir, I., & Verbeke, W. (2006). Sustainable food consumption: Exploring the consumer "attitude-behavioral intention" gap. *Journal of Agricultural and Environmental ethics*, 19(2), 169-194.

- Wakslak CJ, Nussbaum S, Liberman N, Trope Y. New York University; 2006. The effect of temporal distance on the structure of the self concept. Unpublished manuscript
- Weijters, B., & Geuens, M. (2006). Evaluation of Ae-Related Labels by Senior Citizens. *Psychology & Marketing*, 23(9), 783-798.
- Weilbacher, W. M. (2001). Point of View: Does Advertising Cause a "Hierarchy of Effects?". *Journal of Advertising Research*, 41(6), 19-26.
- Woods, M. D., Kirk, M. D., Agarwal, M. S., Annandale, E., Arthur, T., Harvey, J., & Riley, R. (2005). Vulnerable groups and access to health care: a critical interpretive review. National Coordinating Centre NHS Service Delivery Organ RD (NCCSDO) Retrieved August, 15, 2016.
- Yoo, C. Y., Kim, K., & Stout, P. A. (2004). Assessing the effects of animation in online banner advertising: Hierarchy of effects model. *Journal of interactive advertising*, 4(2), 49-60.
- Yoon, C., Laurent, G., Fung, H. H., Gonzalez, R., Gutches, A. H., Hedden, T., & Skurnik, I. (2005). Cognition, persuasion and decision making in older consumers. *Marketing Letters*, 16(3-4), 429-441.
- Yoon, C., & Cole, C. A. (2008). Aging and consumer behavior. In Haugtvedt, Kardes, and Herr (Eds.), *The Handbook of Consumer Psychology*. New York: Lawrence Erlbaum Associates, pp 247–272.
- Yoon, C., Cole, C. A., & Lee, M. P. (2009). Consumer decision making and aging: Current knowledge and future directions. *Journal of Consumer Psychology*, 19(1), 2-16.

## Appendix A

### Stimuli 1: Small adjustment low-construal



#### Langer thuis wonen begint vandaag



*Door drempels te verwijderen wordt het huis gemakkelijk begaanbaar*

#### DREMPELS VERWIJDEREN

Denkt u wel eens na over uw woonsituatie? U wordt ouder en daarmee veranderen ook uw wensen en behoeften. U wilt toch ook zo lang mogelijk zelfstandig en comfortabel kunnen blijven wonen in uw eigen huis. Door nu de juiste aanpassingen te doen kunt u snel en gemakkelijk uw huis op uw wensen aanpassen.

Zo kan het verwijderen van hoge drempels de ideale oplossing zijn om uw huis goed bereikbaar te houden. Hoge drempels kunnen een obstakel voor u zijn omdat ze uitsteken, wat de kans dat u struikelt vergroot. Drempels in bijvoorbeeld de badkamer of bij de voordeur worden verwijderd of vervangen door gebruiksvriendelijke aluminium drempels. Dit wordt altijd gedaan door onze experts en dit kost slechts een middag van uw tijd. Met deze gemakkelijke aanpassing is uw huis meteen beter begaanbaar.

Wilt u prettig en zelfstandig thuis blijven wonen? Onze adviseur denkt graag met u mee welke mogelijkheden er zijn. Zo kunt u uw huis snel en gemakkelijk aanpassen op uw behoeftes.

Neem direct contact met ons op door te bellen met 800 555 0199 of te mailen naar [mijnthuis@woondiensten.nl](mailto:mijnthuis@woondiensten.nl).



## Stimuli 2: Small adjustment high-construal



### Toekomstbestendig wonen



*Door drempels te verwijderen voorbereid op een comfortabele toekomst*

#### DREMPELS VERWIJDEREN

Heeft u wel eens nagedacht hoe uw woonsituatie er later uit zal zien? Mensen worden steeds ouder en daarmee veranderen wensen en behoeften. Zo lang mogelijk zelfstandig en comfortabel blijven wonen is de wens van de meeste mensen. Door alvast de juiste aanpassingen in uw woning te doen zult u goed voorbereid zijn.

Zo kan het verwijderen van hoge drempels in huis uw wooncomfort naar een hoger niveau tillen. Hoge drempels kunnen een obstakel worden omdat ze uitsteken, wat de kans op struikelen vergroot en zorgt voor een minder begaanbare woning. Drempels in uw woning worden verwijderd of vervangen door gebruiksvriendelijke aluminium drempels. Het verwijderen van hoge drempels past bij elke persoonlijke woon- en leefstijl. Hiermee bent u goed voorbereid op de toekomst en heeft u alles in huis om te kunnen blijven genieten.

Wilt u prettig en zelfstandig thuis blijven wonen? Onze adviseur denkt graag met u mee welke mogelijkheden er zijn. Zo bent u goed voorbereid op de toekomst.

Neem vrijblijvend contact met ons op door te bellen met 800 555 0199 of te mailen naar [mijnthuis@woondiensten.nl](mailto:mijnthuis@woondiensten.nl).

### Stimuli 3: Large adjustment low-construal



#### Langer thuis wonen begint vandaag



*Met een aanbouw is de slaapkamer gemakkelijk te bereiken*

#### AANBOUW

Denkt u wel eens na over uw woonsituatie? U wordt ouder en daarmee veranderen ook uw wensen en behoeften. U wilt toch ook zo lang mogelijk zelfstandig en comfortabel kunnen blijven wonen in uw eigen huis. Door nu de juiste aanpassingen te doen kunt u snel en gemakkelijk uw huis op uw wensen aanpassen.

Zo kan een aanbouw de ideale oplossing zijn om gemakkelijk de slaapkamer te blijven bereiken. Met deze aanbouw wordt er op de begane grond een extra slaapkamer en badkamer gebouwd. De aanbouw wordt aan of in uw huis gebouwd en is aan te passen naar uw wens. De bouw wordt in overleg met u gepland en wordt door onze experts uitgevoerd. Hierbij zorgen we ervoor dat u zo min mogelijk overlast ervaart, door bijvoorbeeld stofschotten te plaatsen. Na een week is uw huis meteen beter begaanbaar.

Wilt u prettig en zelfstandig thuis blijven wonen? Onze adviseur denkt graag met u mee welke mogelijkheden er zijn. Zo kunt u uw huis snel en gemakkelijk aanpassen op uw behoeftes.

Neem direct contact met ons op door te bellen met 800 555 0199 of te mailen naar [mijnthuis@woondiensten.nl](mailto:mijnthuis@woondiensten.nl).



## Stimuli 4: Large adjustment high construal



### Toekomstbestendig wonen



*Met een aanbouw voorbereid op een comfortabele toekomst*

#### AANBOUW

Heeft u wel eens nagedacht hoe uw woonsituatie er later uit zal zien? Mensen worden steeds ouder en daarmee veranderen wensen en behoeften. Zo lang mogelijk zelfstandig en comfortabel blijven wonen is de wens van de meeste mensen. Door alvast de juiste aanpassingen in uw woning te doen zult u goed voorbereid zijn.

Zo kan een aanbouw uw wooncomfort naar een hoger niveau tillen. Met deze aanbouw wordt er op de begane grond een extra slaapkamer en badkamer gebouwd. De aanbouw wordt in of aan de woning gebouwd en past bij elke persoonlijke woon- en leefstijl. Met een gemakkelijk bereikbare slaapkamer bent u goed voorbereid op de toekomst en heeft u alles in huis om te kunnen blijven genieten.

Wilt u prettig en zelfstandig thuis blijven wonen? Onze adviseur denkt graag met u mee welke mogelijkheden er zijn. Zo bent u goed voorbereid op de toekomst.

Neem vrijblijvend contact met ons op door te bellen met 800 555 0199 of te mailen naar [mijnthuis@woondiensten.nl](mailto:mijnthuis@woondiensten.nl).

## Appendix B

### Example 1: Text on a low construal level



#### Langer thuis wonen begint vandaag



*Door drempels te verwijderen wordt het huis gemakkelijk begaanbaar*

#### DREMPELS VERWIJDEREN

Denkt u wel eens na over uw woonsituatie? U wordt ouder en daarmee veranderen ook uw wensen en behoeften. U wilt toch ook zo lang mogelijk zelfstandig en comfortabel kunnen blijven wonen in uw eigen huis. Door nu de juiste aanpassingen te doen kunt u snel en gemakkelijk uw huis op uw wensen aanpassen.

Zo kan het verwijderen van hoge drempels de ideale oplossing zijn om uw huis goed bereikbaar te houden. Hoge drempels kunnen een obstakel voor u zijn omdat ze uitsteken, wat de kans dat u struikelt vergroot. Drempels in bijvoorbeeld de badkamer of bij de voordeur worden verwijderd of vervangen door gebruiksvriendelijke aluminium drempels. Dit wordt altijd gedaan door onze experts en dit kost slechts een middag van uw tijd. Met deze gemakkelijke aanpassing is uw huis meteen beter begaanbaar.

Wilt u prettig en zelfstandig thuis blijven wonen? Onze adviseur denkt graag met u mee welke mogelijkheden er zijn. Zo kunt u uw huis snel en gemakkelijk aanpassen op uw behoeftes.

Neem direct contact met ons op door te bellen met 800 555 0199 of te mailen naar [mijnthuis@woondiensten.nl](mailto:mijnthuis@woondiensten.nl).



## Example 2: Text on a high level construal



### Toekomstbestendig wonen



*Door drempels te verwijderen voorbereid op een comfortabele toekomst*

#### DREMPELS VERWIJDEREN

Heeft u wel eens nagedacht hoe uw woonsituatie er later uit zal zien? Mensen worden steeds ouder en daarmee veranderen wensen en behoeften. Zo lang mogelijk zelfstandig en comfortabel blijven wonen is de wens van de meeste mensen. Door alvast de juiste aanpassingen in uw woning te doen zult u goed voorbereid zijn.

Zo kan het verwijderen van hoge drempels in huis uw wooncomfort naar een hoger niveau tillen. Hoge drempels kunnen een obstakel worden omdat ze uitsteken, wat de kans op struikelen vergroot en zorgt voor een minder begaanbare woning. Drempels in uw woning worden verwijderd of vervangen door gebruiksvriendelijke aluminium drempels. Het verwijderen van hoge drempels past bij elke persoonlijke woon- en leefstijl. Hiermee bent u goed voorbereid op de toekomst en heeft u alles in huis om te kunnen blijven genieten.

Wilt u prettig en zelfstandig thuis blijven wonen? Onze adviseur denkt graag met u mee welke mogelijkheden er zijn. Zo bent u goed voorbereid op de toekomst.

Neem vrijblijvend contact met ons op door te bellen met 800 555 0199 of te mailen naar [mijnthuis@woondiensten.nl](mailto:mijnthuis@woondiensten.nl).

## Appendix C

### Questionnaire introduction

Beste deelnemer,

Dit onderzoek wordt uitgevoerd als onderdeel van de master Marketingcommunicatie aan de Universiteit Twente, in samenwerking met communicatiebureau Keijzer.

Het onderzoek gaat over langer zelfstandig thuis wonen en de mogelijkheden die er zijn om een huis comfortabeler en veiliger te maken. U krijgt zo twee fictieve flyers te zien waarin aanpassingen in huis worden beschreven. U wordt gevraagd deze te beoordelen aan de hand van stellingen. Het invullen van de vragenlijst duurt ongeveer 5 tot 10 minuten. Uw antwoorden zijn anoniem. Ook zal er vertrouwelijk worden omgegaan met de antwoorden; deze zullen nooit worden verstrekt aan derden. Deelname aan dit onderzoek is vrijwillig en u kunt op ieder moment het onderzoek stopzetten.

Als blijk van waardering wordt er een cadeaubon t.w.v. € 50 verloot onder de deelnemers. Om hiervoor in aanmerking te komen kunt u uw e-mailadres achterlaten aan het einde van de vragenlijst.

Bedankt voor uw deelname!

Vriendelijke groet,

Anna Visser

a.s.visser@student.utwente.nl

## Appendix D

### Operationalizing of constructs and items

No.	Construct	Dimension	+/ -	Questions	Type of response
	<i>Attitude towards communication</i>			<i>Onderstaande vragen gaan over de flyer die u zojuist heeft bekeken.</i>  <i>In welke mate bent u het eens of oneens met de volgende stellingen?</i>	5-point scale: Helemaal mee oneens; Mee oneens; Niet mee oneens/ niet mee eens; Mee eens; Helemaal mee eens.
1			+	De flyer is interessant	5-point scale: Helemaal mee oneens - Helemaal mee eens.
2			-	De flyer vind ik slecht	5-point scale: Helemaal mee oneens - Helemaal mee eens.
3			+	De flyer vind ik aantrekkelijk	5-point scale: Helemaal mee oneens - Helemaal mee eens.
4			+	De flyer is aangenaam	5-point scale: Helemaal mee oneens - Helemaal mee eens.
5			-	De flyer is saai	5-point scale: Helemaal mee oneens - Helemaal mee eens.
6			+	De flyer vind ik positief	5-point scale: Helemaal mee oneens - Helemaal mee eens.
7			+	De flyer is verfrissend	5-point scale: Helemaal mee oneens - Helemaal mee eens.
8			-	De flyer vind ik onplezierig	5-point scale: Helemaal mee oneens - Helemaal mee eens.
9			+	De flyer is leuk	5-point scale: Helemaal mee oneens - Helemaal mee eens.
	<i>Attitude towards home adjustment product</i>			<i>Onderstaande vragen gaan over [product X] beschreven in de flyer.</i>  <i>In welke mate bent u het eens of oneens met de volgende stellingen?</i>	
10			+	[Product X] vind ik een aantrekkelijke aanpassing	5-point scale: Helemaal mee oneens - Helemaal mee eens.
11			-	[Product X] vind ik een slechte aanpassing	5-point scale: Helemaal mee oneens - Helemaal mee eens.
12			+	[Product X] vind ik interessant	5-point scale: Helemaal mee oneens - Helemaal mee eens.
13			+	[Product X] vind ik een aangename aanpassing	5-point scale: Helemaal mee oneens - Helemaal mee eens.
14			+	[Product X] vind ik verfrissend	5-point scale: Helemaal mee oneens - Helemaal mee eens.
15			-	[Product X] is onplezierig	5-point scale: Helemaal mee oneens - Helemaal mee eens.
16			+	[Product X] vind ik positief	5-point scale: Helemaal mee oneens - Helemaal mee eens.
17			+	[Product X] vind ik leuk	5-point scale: Helemaal mee oneens - Helemaal mee eens.

Purchase intention		Geef aan in hoeverre u het eens bent met onderstaande stellingen:		
18		+	Ik zou waarschijnlijk wel [product X] willen kopen	5-point scale: Helemaal mee oneens - Helemaal mee eens.
19		-	Ik heb weinig belangstelling in [product X]	5-point scale: Helemaal mee oneens - Helemaal mee eens.
20		+	Ik ben zeker van plan om [product X] aan te schaffen	5-point scale: Helemaal mee oneens - Helemaal mee eens.
21		-	Ik zou nooit [product X] aanschaffen	5-point scale: Helemaal mee oneens - Helemaal mee eens.
Segmentation seniors		In hoeverre zijn de volgende stellingen op u van toepassing?		
22	Social (wanting)	+	Ik wil graag veel tijd in familie en vrienden steken.	6-point scale: Zeer mee oneens; Mee oneens; Enigszins mee oneens; Enigszins mee eens; Mee eens; Zeer mee eens.
23		+	Ik onderneem het liefst activiteiten met anderen.	
24		-	Ik vind het fijn om alleen te zijn.	
25	Psychological (wanting)	+	Ik heb een sterke behoefte om mijn grenzen te verleggen.	
26		+	Ik vind het belangrijk om nieuwe dingen te leren.	
27		-	Ik zou mijn huidige leefstijl willen veranderen.	
28	Biological (being able)	+	Ik voel me doorgaans fit.	
29		-	Ik heb regelmatig last van gezondheids-problemen.	
30		-	Ik ben afhankelijk van anderen om de deur uit te gaan.	
31	Situational (being able)	-	Ik moet op de centen letten.	
32		-	Ik ben genoodzaakt mijn vrije tijd thuis door te brengen.	
Cognitive age		Beantwoord de volgende vragen door het balkje te verslepen:		
33	Feel age		Ik voel me alsof ik ... ben	Draggable sliders: response can be age 20 up to age 100.
34	Look age		Ik zie er uit alsof ik ... ben	Draggable sliders: response can be age 20 up to age 100.
35	Do age		Mijn interesses zijn die van iemand van ...	Draggable sliders: response can be age 20 up to age 100.
36	Act age		Ik doe dingen die iemand van ... doet	Draggable sliders: response can be age 20 up to age 100.
37	Health age		Ik heb de gezondheid van iemand die ... is	Draggable sliders: response can be age 20 up to age 100.
38	Think age		Ik denk zoals iemand van ...	Draggable sliders: response can be age 20 up to age 100.



<i>Demographic variables</i>	<i>Als laatste volgen enkele vragen over uzelf:</i>	
39	Wat is uw geslacht?	Meerkeuze: Man; Vrouw.
40	Wat is uw leeftijd?	Open: numeriek.
41	Wat is uw hoogst afgeronde opleiding?	Meerkeuze: primair onderwijs (basisonderwijs, e.d.); Voorbereidend beroepsonderwijs (LTS, LHNO, LAO, LMO, LEAO, MAVO, MULO, Huishoudschool, e.d.); Middelbaar voorbereidend onderwijs (MMS, HBS, HAVO, VWO, e.d.); Middelbaar beroepsonderwijs (MTS, MBO e.d.); Hoger onderwijs (HTS, HBO e.d.); Universitair onderwijs.
42	Wat is uw huidige beroepsstatus?	Werkend/vrijwilliger; Werkzoekend/werkeloos; (Vervroegd) gepensioneerd; In de ziektewet.
43	Wat is uw woonsituatie?	Multiple choice; Alleenstaand, zonder kinderen (of kinderen zijn het huis uit); Alleenstaand, met kinderen; Samenwonend/gehuwd zonder kinderen (of kinderen zijn het huis uit); Samenwonend/gehuwd met kinderen.
44	In wat voor type woning woont u?	Multiple choice; Woning met meerdere verdiepingen; Gelijkvloerse woning op de begane grond; Gelijkvloerse woning in een flat; Verzorgingstehuis/seniorencomplex ; Aanleunwoning; Anders, namelijk ..