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Working Together?
Occupational Gender Role and Age Stereotypes

A quantitative study of ad and social effects of non-stereotypical advertising portrayals

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Abstract: Stereotypes are often used in advertising and research shows that it frequently occurs on the dimensions of occupational gender role and age, consequently giving rise to a variety of negative effects. A recent stream of studies has hence investigated whether the use of non-stereotypical portrayals can lead to positive ad and social effects, benefiting both consumers and marketers. The studies confirm that such positive effects indeed can be generated. Research on the consumer responses to non-stereotypical portrayal of occupational gender role and age respectively is however scarce. Even more so are the effects arising from combing the two stereotypes, despite previous research showing that these two stereotypes are often touched upon simultaneously. The purpose of this thesis is therefore to study consumer responses to non-stereotypical portrayal of occupational gender role, age, and the two combined, focusing on the ad and social effects generated from exposure to such portrayals. We conduct a study based on an experimental design in the form of a quantitative online survey, that was answered by 201 Swedish respondents. The male-stereotyped occupation truck driver serves as the study context. The results show that non-stereotypical portrayal of age leads to higher ad picture attitude and higher perceived sender effort, and that among female respondents, non-stereotyped portrayal of occupational gender role leads to higher social connectedness. The study hence contributes to the growing field of research on consumer responses to non-stereotypical portrayal of occupational gender roles and age respectively. It also starts a conversation about the effects generated by the combination of these stereotypes and shows why the fields should be studied jointly.

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Definitions

Ad picture attitude

The favorable or unfavorable way in which a consumer responds to a certain advertisement stimulus (Lutz, 1985, as cited in MacKenzie, Lutz, & Belch, 1986), applied to one ad element; the ad picture (Pieters & Wedel, 2004).

Age stereotypes

The stereotyping of people based on their age (Berg & Liljedal, 2020).

Intersectionality

Helps understanding how multiple categorizations and social identities, such as race, gender, age, or sexuality, combined result in a new form of discrimination that cannot simply be assessed through understanding each aspect individually, but must be studied jointly (Castree, Kitchin, & Rogers, 2013, as cited in Oxford Reference, 2020; Crenshaw, 1989; Hankivsky & Cormier, 2009).

Non-stereotypical portrayal

Portrayal of people in a context where they usually are not included (Taylor & Stern, 1997).

Occupational gender role stereotypes

"Beliefs that certain attributes differentiate women and men (Ashmore & Del Boca, 1981)" (Eisend, 2010: 419), in an occupational context (Liljedal, Berg, & Dahlen, 2020).

Self-esteem

The "positive or negative attitude toward…the self" (Rosenberg, 1965: 30).

Sender effort

The effort the sender of the ad puts into creating it (Modig, Dahlen, & Colliander, 2014).

Social comparison

Evaluating opinions and abilities through comparison to other people (Festinger, 1954).

Social connectedness

The feeling of connectedness to other people (Hutcherson, Seppala, & Gross, 2008).

Stereotypes

"One group's generalized and widely accepted beliefs about the personal attributes of members of another group (Ashmore & Del Boca, 1981; Dates & Barlow, 1990)" (Taylor & Stern, 1997: 48).

1. Introduction

To make advertising effective and portray their message, marketers often use stereotyped images to positively influence consumers' attitudes and purchase intentions (D'Alessandro & Chitty, 2011). Stereotypes can function as an easy heuristic (Macrae, Milne, & Bodenhausen, 1994) to convey a message that usually is the same for all marketers; buy! A beautiful young woman is having the best time while her new vacuum cleaner is doing all the work for her, or an athletic young man is looking especially well trained because of his luxurious diving watch. We have all seen it; stereotyped images of thin models, seeming exceptionally beautiful, successful, happy, young…What is there not to like? Well, these images do not only influence what consumers think about the advertising, but also how they reflect on themselves (Richins, 1991).

To better understand the mechanisms for this, we provide some background. The word stereotype is defined as "one group's generalized and widely accepted beliefs about the personal attributes of members of another group (Ashmore & Del Boca, 1981; Dates & Barlow, 1990)" (Taylor & Stern, 1997: 48). Stereotyping can happen on a variety of dimensions, but the dimension of occupation is one of the most common kinds of gender stereotypes in advertising (Eisend, 2010). Rice & Barth (2016) explain that occupational gender role stereotyping is grounded in the different associations to feminine and masculine occupations respectively. Such associations generate a skewed gender distribution for various occupations when women and men get selected for jobs based on gender role stereotypes (Rice & Barth, 2016). Age stereotypes is another common advertising stereotype, implying that models portrayed in ads are predominantly young and that older people are almost invisible, as observed by studies in both tv and print advertising (e.g. Carrigan & Szmigin, 2003; Greco, 1988; Zhang, Harwood, Williams, Ylänne-McEwen, Wadleigh, & Thimm, 2006). Advertising is not only stereotyped with regard to age, but is also gendered within the older age segment in the sense that older men are shown in more successful jobs that require a higher education and have a higher social status than their female counterparts (Kessler, Rakoczy, & Staudinger, 2004).

Stereotypes can e.g. simplify the conveying of a marketing message (Windels, 2016). However, stereotyping can give rise to several negative consequences, including individuals being conceived in oversimplified ways (Eisend, 2010) and occupational gender role stereotyping can for example generate career disadvantages for women (Knoll, Eisend, & Steinhagen, 2011). This can restrict women from being selected from traditionally male associated jobs (Tosi & Einbender, 1985).

Stereotyping can also have negative effects on aspects such as self-esteem (Bessenoff, 2006; Gulas & McKeage, 2000), self-development (Knoll et al., 2011), self-evaluation (Irving, 1990), performance (Davies, Spencer, Quinn, & Gerhardstein, 2002), and professional aspirations (Davies, Steele, & Spencer, 2005).

Recently, researchers started looking into the field of how stereotypes in advertising impact consumer responses with the aim to prove that it sometimes is better to use non-stereotypical portrayals (e.g. Berg & Liljedal, 2020; Liljedal et al., 2020). Non-stereotypical portrayal in advertising means portraying people in a context where they usually are not included (Taylor & Stern, 1997). Researchers have shown that it is possible to reach positive ad, brand-related, or social effects when showing non-stereotypical portrayals of e.g. physical characteristics (Åkestam, Rosengren, & Dahlen, 2017a), body image (D'Alessandro & Chitty, 2011; Loken & Peck, 2005), sexuality (Åkestam, Rosengren, & Dahlen, 2017b), age (Berg & Liljedal, 2020), gender roles (Eisend, Plagemann, & Sollwedel, 2014), or occupational gender role (Liljedal et al., 2020).

1.1 Problematization

Research on consumer responses to non-stereotypical portrayals on the dimensions of occupational gender role or age is scarce and has, to the best of our knowledge, only been examined by Liljedal et al. (2020) and Åkestam et al. (2017a) as well as Berg and Liljedal (2020) respectively. Further, what has been neglected, not least due to the complexity of the subject, is the combination of multiple stereotypes working simultaneously, i.e. the so-called intersectionality (Crenshaw, 1989) of occupational gender roles and age stereotypes on consumer responses. So far, some studies have looked at the intersectionality of e.g. gender and ethnicity (e.g. Collins, 1990; Crenshaw, 1991), gender and sexuality (e.g. Bowleg, 2013), or gender and age in a workplace context (e.g. Cleveland, Huebner, & Hanscom, 2017; Jyrkinen & McKie, 2012). However, to the best of our knowledge, the effects of non-stereotypical portrayals of occupational gender role and age in a consumer response context have not yet been studied. This is an important field when considering that stereotyping on the basis of gender and age often occurs simultaneously in advertising (Edström, 2018; Kessler et al., 2004; Waters, 2005) and that people are categorized on the basis of the intersection of their sex and age (Sng, Williams, & Neuberg, 2020). Hence, gender and age are believed to be heavily intertwined and should be studied simultaneously (Choroszewicz & Adams, 2019a; Cleveland et al., 2017). The field of

intersectionality with regard to gender and age is however lacking research (Choroszewicz & Adams, 2019b), adding to the importance of studying these effects jointly.

Furthermore, whereas a lot of research has looked into advertising effects, only 1% of advertising research between 1980 and 2010 studied social effects (Kim, Hayes, Avant, & Reid, 2014). Social effects can be defined as effects on consumers that are not connected to the advertisement sender or aimed at being persuasive (Dahlen & Rosengren, 2016). According to Rosengren and Dahlen (2016), advertising needs to consider social effects to an increasing degree in order to maintain its importance and avoid negative effects from arising. Adding to this, Åkestam et al. (2017a) highlight the importance of simultaneously studying ad and social effects of non-stereotypical portrayals.

1.2 Purpose of the Study

The purpose of this thesis is to address the gaps within the fields of non-stereotypical portrayals of occupational gender role and age respectively but also connect the two fields through studying their intersectionality. We aim to understand some of the mechanisms behind stereotyping by studying whether non-stereotypical portrayals of occupational gender role, age, and the two combined can lead to positive ad and social effects. More specifically, we aim to investigate whether such non-stereotypical portrayal may positively influence ad picture attitude and perceived sender effort of consumers, and hence benefit advertisers. We further want to investigate whether they can also trigger effects that go beyond the advertisement context. We aim to explore whether such portrayals might also lead to higher social connectedness, lower social comparison and increase of consumers' self-esteem, thereby benefiting both marketers and consumers.

To summarize, the purpose of the thesis is to answer the following research question:

Can non-stereotypical advertising portrayals of occupational gender role, age, and occupational gender role and age combined lead to positive ad and social effects for consumers?

1.3 Expected Contribution

With this study, we expect to contribute to a developing field of research about consumer responses to stereotypes in advertising. We hope to provide additional insights for when non-stereotypical portrayals of occupational gender roles and age respectively lead to positive ad and social effects. This

thesis however also tries to start a new conversation about the intersectionality of the two stereotypes occupational gender role and age by aiming to answer the question of whether these combined can also lead to positive ad and social effects. The intention is to provide insights to marketers, academia, and consumers regarding the use of stereotypes in advertising. By presenting possible benefits of using non-stereotypical portrayals, we wish to contribute to influencing marketers to consider using non-stereotypical portrayals and hence motivate them to increase diversity in advertising. With this we hope to lower consumers' pressure to conform to images portrayed in media and contribute to both encouraging women to consider male dominated fields of work and increasing the visibility of older people in advertising.

1.4 Delimitations

This thesis has several delimitations. The scope is limited by the availability of data and time constraints. To get a deeper understanding of how people react to stereotypes and since this might differ across countries and cultures (Catalyst, 2006), the focus of this study is on Sweden only.

Further, the thesis is delimited to study occupational gender role stereotypes and age stereotypes. Although stereotyping occurs for both male- and female-stereotyped occupations (e.g. Schneider & Schneider, 1979; Wilbourn & Kee, 2010), we will test our hypotheses based on the male-stereotyped occupation truck driver only. This is expected to provide enough depth to get an understanding of how the mechanisms work. Since the study of age stereotypes takes place in an occupational context, the ages of the models used in the studies will be within an age span in which people are normally working. This also implies that the non-stereotyped portrayals used in this study can be considered more modest and less extreme than for examples portrayals of underwear models used in Åkestam et al. (2017a).

Furthermore, the thesis studies non-stereotypical portrayals in advertising in a static online context. The findings are hence expected to mainly be applicable within this context. More specifically, we only study the ad picture, which is considered an essential element when looking at magazine advertising (Rossiter & Percy, 1997, as cited in Pieters & Wedel, 2004). This was chosen to minimize confounds but we nevertheless believe the ad picture to give a good indicator for the overall perception and effects of an ad. The effects are expected to hold in the studied context since it is static as well. Last,

the thesis will be delimited to study certain concepts that can be connected to the ad and social effects of advertising and will hence not explicitly study other effects such as brand-related ones.

1.5 Research Outline

The thesis first gives an overview of the relevant stereotypes and intersectionality theory. This serves as the foundation to establish the current research gap to build the hypotheses around. The theoretical framework also covers various ad and social effects associated with the use of non-stereotypical portrayals in advertising. Consequently, hypotheses are generated based on this theory. In the methodology section, the main study and three pre-studies are presented and detailed info on the study design, respondents, data collection, and findings are provided. The thesis continues with the presentation and analysis of the results. Following this, the results are discussed and related to theory. The thesis ends with conclusions, theoretical contributions, and implications for marketers as well as consumers. Last, limitations of the study and suggestions for future research are presented.

2. Theory

This section presents theory about stereotypes in advertising and more specifically the use of occupational gender role and age stereotypes. It also explains how the concept of intersectionality can be used to show how these stereotypes interact. Based on the reviewed theory, a theoretical research gap is identified and hypotheses are generated.

2.1 Stereotypes in Advertising

Multiple studies show that most portrayals in advertising are stereotyped and thus a lot of research has been conducted within this field (e.g. Eisend, 2010; Greco, 1988; Zhang et al., 2006). Even though stereotypes can easily communicate an idea (Windels, 2016), they do not always portray the reality as it is (Taylor & Stern, 1997). Advertising hence often provides an alternative view in terms of e.g. attractiveness (Bissell & Rask, 2010), body shape (D'Alessandro & Chitty, 2011), and ethnicity (Taylor & Stern, 1997). The mechanisms behind this can be better understood by considering Grau & Zotos' (2016) description of the two different argumentations around the role of stereotyping in advertising, called the mirror and mold argument. The mirror argument implies that advertising mirrors values that already exist in society, whereas the mold argument can be explained by cultivation theory (Grau & Zotos, 2016). Cultivation theory suggests that media's stereotyped portrayals of what reality looks like instead shapes the reality in society (Cohen & Weimann, 2000). Even though advertising's use of stereotypes has diminished, it still exists, and critics say that advertising stereotypes effect values present in society (Eisend, 2010). Since advertising is repeated across different contexts and is persuasive by nature (Pollay, 1987), the importance of the mold argument as described by Grau and Zotos (2016) and Cohen and Weimann (2000) is evident. These facts hence show the relevance of examining the effects portrayals in advertising might have on consumers.

2.2 Gender Role Stereotypes

A common advertising stereotype relates to gender (e.g. Knoll et al., 2011). Gender role stereotypes can be defined as the "beliefs that certain attributes differentiate women and men (Ashmore & Del Boca, 1981)" (Eisend, 2010: 419). These attributes e.g. include physical appearance, traits, occupation, and role (Deaux & Lewis, 1984, as cited in Eisend, 2019) and are associated with women as well as men in different ways (Eisend, 2019). While more than 45% of ads show women care for physical appearance, less than 2% show career-oriented women (Plakoyiannaki & Zotos, 2009). Also, women are not only more likely than men are to be portrayed as young (Uray & Burnaz, 2003), but are also

shown as independent less frequently than men are (Gilly, 1988). In fact, an analysis of gender role research showed that women are shown as younger three times as often as men are, while men are three times more likely to be portrayed in authoritarian roles instead of as product users compared to women (Eisend, 2010).

Windels (2016) describes that the use of gender stereotypes might present consumers with less distraction and facilitate understanding of a marketing message. They do however become inappropriate when they reinforce perceptions like that women are worse than men at certain things (Windels, 2016). Gender stereotyping can also decrease women's academic performance (Davies et al., 2002) and leadership aspirations (Davies et al., 2005). These consequences show the importance of reducing the use of gender stereotypes in advertising, and to do so, more research related to the effects from using portrayals that are less stereotyped is needed (Liljedal et al., 2020). This thesis will therefore examine one of the most common gender stereotypes; occupational gender role (Eisend, 2010), in more depth.

2.3 Occupational Gender Role Stereotypes

A certain kind of gender stereotyping relates to occupation (e.g. Liljedal et al., 2020). The gender distribution of several occupations is heavily skewed when looking at Sweden; for example, the occupation pre-school teacher consists of 96% women (Statistiska Centralbyrån, 2018a) while the occupation truck driver consists of 93% men (Statistiska Centralbyrån, 2018b). This in confirmed by research showing that stereotypes exist for both male-stereotyped and female-stereotyped occupations (Schneider & Schneider, 1979), and that such stereotypes even are found among children (Wilbourn & Kee, 2010).

2.4 Age Stereotypes

There is a misrepresentation of the age distribution in advertising as the advertising and media industry is stereotyped as young, while older people are neglected (Carrigan & Szmigin, 2003; Greco, 1988; Prieler, Kohlbacher, Hagiwara, & Arima, 2017; Zhang et al., 2006). Studies in several countries show that older people are underrepresented in relation to the nation's population, and that there is a gender bias towards portraying more older men than older women (Carrigan & Szmigin, 1998; Zhang et al., 2006). This is also observed in e.g. German television programs, where the likelihood for women to be younger than men is four to seven times higher (Knoll et al., 2011). Differences between the

portrayal of gender has also been established in an occupational context, where older men are presented as holding more successful professions requiring a higher education and with a higher social status then their female counterparts (Kessler et al., 2004).

Multiple studies also observe and analyze in which particular way older people are depicted, i.e. in which occupational and social roles and in which contexts older people are portrayed in advertising and in media in general. Older people are usually portrayed as warm and in good financial situations, yet less vital, healthy, or competent than younger people (Kroon, van Selm, Hoeven, & Vliegenthart, 2018; Waters, 2005). In an occupational setting, older people are portrayed as less competent than their younger counterparts (Kroon et al., 2018). The earlier studies hence show that the concepts of age, gender, and occupation are connected to each other when it comes to advertising portrayal.

2.5 Intersectionality

In order to better understand how the fields of occupational gender role stereotypes and age stereotypes might overlap, the concept of intersectionality (Crenshaw, 1989) is presented. Crenshaw (1989) introduced intersectionality as dealing with the discrimination based on multiple aspects of a social being. With her research, Crenshaw created awareness about the double-jeopardy of being African-American and a woman, i.e. the interplay of race and gender (Crenshaw, 1989). Intersectionality has now developed into a broader term and helps the understanding of how multiple categorizations and social identities, such as race, gender, age, or sexuality combined result in a new form of discrimination that cannot be assessed through understanding each aspect individually, but must be studied jointly (Castree, Kitchin, & Rogers, 2013, as cited in Oxford Reference, 2020; Crenshaw, 1989; Hankivsky & Cormier, 2009). This is highly relevant in the context of stereotypes since stereotyping often occurs along categorizations such as gender (e.g. Eisend, 2010; Knoll et al., 2011) and age (e.g. Carrigan & Szmigin, 2003; Greco, 1988). Intersectionality is a highly complex paradigm and it is hence difficult to accurately predict whether the effects of age and gender are additive or interactive, where the latter implies that one moderates the other (Cleveland et al., 2017). Hence the outcome of the combination is highly uncertain, especially due to its context dependency (Gopaldas, Prasad, & Woodard, 2009), meaning that in one context, a certain combination of age and gender could be an advantage, whereas in others it is a disadvantage.

Much research establishes that women are stereotyped on the basis of gender in advertising (e.g. De Meulenaer, Dens, De Pelsmacker, & Eisend, 2019; Gilly, 1988; Grau & Zotos, 2016; Knoll et al., 2011), and that occupation is one of the most common dimensions of this (Eisend, 2010). Several studies also confirm the prevalence of age stereotyping in advertising (e.g. Carrigan & Szmigin, 2003; Greco, 1988; Zhang et al., 2006). Furthermore, research shows that stereotyping on the basis of gender and age often occurs simultaneously in advertising (Edström, 2018; Kessler et al., 2004; Waters, 2005) and that people are categorized on the basis of the intersection of their sex and age (Sng et al., 2020). As for the intersection of age and gender outside the context of marketing, Gander (2014) shows that young women are discriminated along the intersection of their age and gender in the workplace. Also, other researchers have studied the intersectionality of gender and age in a workplace or labor market context (e.g. Collins, Dumas, & Moyer, 2017; Jyrkinen & McKie, 2012; Stypinska & Gordo, 2018). These studies show the importance of the intersection of these fields.

2.6 Theoretical Research Gap

Based on the theory presented, we identify three research gaps around the use of non-stereotypical advertising portrayals of occupational gender roles, age, and the two combined.

First, even though some research has been conducted around gender role stereotypes (e.g. Eisend, 2010; De Meulenaer et al., 2019; Gilly, 1988; Grau & Zotos, 2016; Knoll et al., 2011; Zawisza, Luyt, Zawadzka, & Buczny, 2018) and the related positive effects of using non-stereotypical gender role portrayals in advertising (e.g. Eisend et al., 2014; Loken & Peck, 2005; Åkestam et al., 2017a; Åkestam et al., 2017b), to the best of our knowledge, only one study has been conducted on the effects of non-stereotypical portrayal of occupational gender role on consumer responses (Liljedal et al., 2020). Hence, there is a need for further research in this area.

Second, age stereotypes in advertising have been paid attention to by several scholars, however these have mostly focused on conducting observational studies (e.g. Carrigan & Szmigin, 2003; Greco, 1988; Zhang et al., 2006; Prieler et al., 2017). To the best of our knowledge, only Berg and Liljedal (2020) have looked at consumer responses to non-stereotypical portrayal of age in advertising. Hence, there is a lack of research regarding the consumer perspective and related effects of using non-stereotypical portrayal of age in advertising.

Third, as of the current state of research, there has not been any studies looking at the combined effects of using non-stereotypical portrayal of occupational gender roles and age simultaneously, i.e. the intersectionality of the two stereotypes, from a consumer perspective. Research has shown that stereotyping in advertising often occurs simultaneously based on gender and age (Edström, 2018; Kessler et al., 2004; Waters, 2005) and in an occupational context (e.g. Gander, 2014). Adding to this, some even argue that it is crucial to consider gender and age simultaneously or else important aspects can be missed (Choroszewicz & Adams, 2019a; Cleveland et al., 2017). Nonetheless, there is still a lack of research in the field of intersectionality of gender and age in general (Choroszewicz & Adams, 2019b) and specifically in the context of marketing and consumer responses. Examining consumer responses to the intersection of these two stereotypes is hence an important field to study.

The goal of this thesis is to address the above three gaps and investigate whether using non-stereotypical portrayals of occupational gender roles, age, and the two combined can lead to positive ad and social effects. The intention of this thesis is not only to study how marketers can benefit from using such non-stereotypical portrayals, but also to analyze the positive effects for consumers.
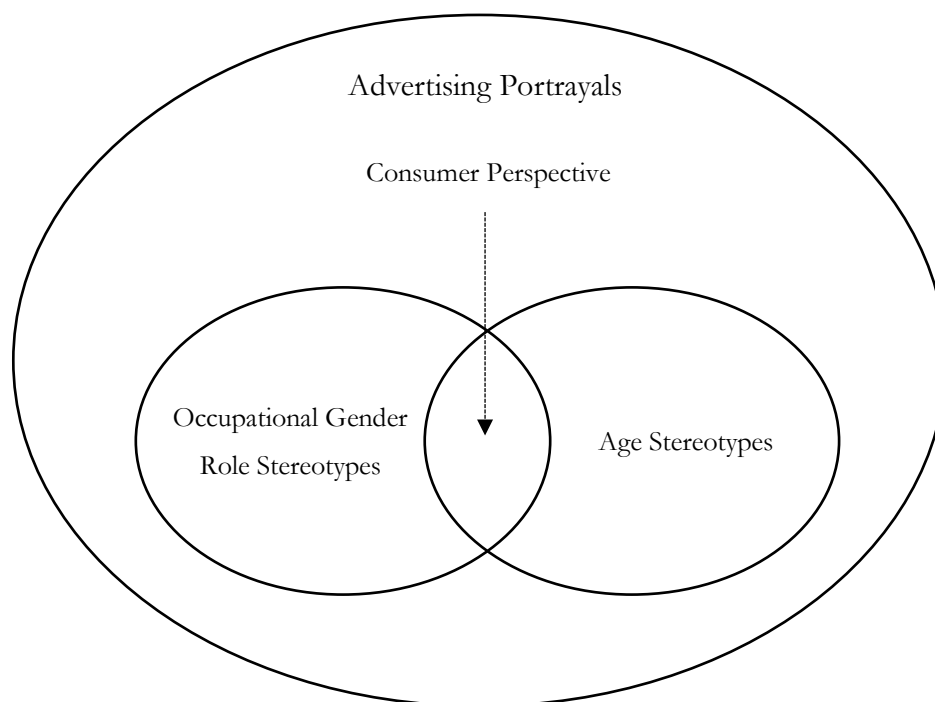

Figure 1 – Illustration of theoretical research gap

2.7 Theoretical Framework and Hypothesis Generation

In the following section, we present the theoretical framework and the hypotheses generation. The relationships between the concepts studied in this thesis are loosely inspired by the S-O-R framework, which is built on a model from Mehrabian and Russel (1974). Also, because intersectionality is a complex and understudied field within the context of consumer responses in advertising, we have little indication to how the combination of two stereotypes will affect the below presented concepts. However, to the best of our knowledge, no research has confirmed that the effect of the stereotypes of occupational gender role and age individually would diminish or decrease when combined. We therefore believe that if these two individual stereotypes lead to specific effects respectively, then these same two stereotypes combined will also lead to these effects.

2.7.1 Ad Effects

Sender Effort

The perceived effort put in by a marketer is evaluated based on factors such as money, time, and thought (Kirmani & Wright, 1989) and monetarily expensive advertising can for example signal brand quality (Ambler & Hollier, 2004). It can thus be said that advertisers use various observable signals to convey information about their service or products (Kirmani & Rao, 2000). Similarly, creative advertising can be used to signal brand ability and commitment (Dahlen, Rosengren, & Karsberg, 2018), sender effort (Modig, Dahlen, & Colliander, 2014), or marketing effort (Dahlen, Rosengren, & Törn, 2008). Also, non-stereotypical portrayals have been proven to signal higher effort on behalf of the brand in the context of occupational gender roles (Liljedal et al., 2020) and age (Berg & Liljedal, 2020). This is explained by the fact that non-stereotypical portrayals, alike creative advertising, stand out compared to traditional portrayals, thereby signaling an increased level of effort put into creating the ad (Berg & Liljedal, 2020). Effort communicated through creativity has been seen to lead to positive effects on e.g. brand interest (Modig et al., 2014), perceived brand ability (Dahlen et al., 2008), and perceived product quality (Dahlen et al., 2018). This can be better understood by the fact that consumers interpret effort as an indicator of the advertiser's product confidence, which consequently affects the quality consumers believe the product to have (Kirmani & Wright, 1989). Considering that stereotypical portrayals of occupational gender role (e.g. Eisend, 2010) and age (e.g. Carrigan & Szmigin, 2003) are common in advertising, such non-stereotypical portrayals are likely to be rare. As mentioned earlier, effort is evaluated in terms of factors such as money, time, and thought spent by

the advertiser (Kirmani & Wright, 1989), which is applicable to the context of non-stereotypical portrayals. Finding non-stereotypical models in e.g. stock image libraries, convincing an ad agency to use those pictures, and creating the ad as a whole, likely requires more time, thought, and hence money than what would be the case for stereotypical portrayals. This consequently positively influences the perceived effort. We therefore believe that using non-stereotypical portrayals, as opposed to stereotypical, will make consumers perceive the brand to have put more effort into creating the ad (Liljedal et al., 2020).

As the effect of increased effort has been seen both when explicitly asking about a brand's effort (e.g. Berg & Liljedal, 2020; Liljedal et al., 2020) but also when asking simply about the effort behind the ad (e.g. Modig et al., 2014), we believe the effect to persist no matter if the effort is related to a brand or a sender. Berg and Liljedal (2020) found that the brand effort only increased among female consumers upon seeing portrayals of older compared to younger women in fashion ads. We do however expect effects for both male and female respondents for two reasons. First, since we plan to not only use female but also male models, we have reason to suspect that the effects not necessarily only hold true for female respondents. Second, Liljedal et al. (2020) found a higher brand effort among both male and female respondents when exposed to non-stereotypical portrayals in an occupational role setting. We therefore have reason to believe that non-stereotypical portrayals in such a context might affect both male and female respondents. Since the effects were confirmed on both the dimensions of gender (Liljedal et al., 2020; Åkestam et al., 2017a) and age (Berg & Liljedal, 2020), we believe that portrayals that are non-stereotypical with regard to occupational gender roles and age combined trigger the same effects. We therefore hypothesize that:

H1: Non-stereotypical portrayal, compared to stereotypical portrayal, of

    a. Occupational gender role

    b. Age

    c. Occupational gender role and age combined

will lead to higher perceived sender effort.

Ad Picture Attitude

As cited in MacKenzie, Lutz, and Belch (1986), Lutz (1985) defines the concept of ad attitude as the favorable or unfavorable way in which a consumer responds to a certain advertisement stimulus. Several researchers have established that gender stereotyping affects ad attitude (e.g. Eisend et al., 2014; Huhmann & Limbu, 2016; Orth & Holancova, 2004). Research has also shown that progressive portrayals of women in advertising generate less irritation, are less insulting, and are perceived as more original than traditional ads (Whipple & Courtney, 1980), and that they cause more favorable feelings towards the ad (Jaffe & Berger, 1994). The connection between non-stereotypical portrayals and ad attitude has also been examined, where consumers' ad attitude increased upon being exposed to non-stereotypical portrayals of gender roles (Åkestam et al., 2017a), occupational gender roles (Liljedal et al., 2020), and age (Berg & Liljedal, 2020). This can be understood by the either positive or negative role-related thoughts that arise when exposed to ads, consequently affecting the ad attitude positively or negatively (Leigh, Rethans, & Whitney, 1987). Also, ad novelty, i.e. different and original ads, influence ad attitude (Sheinin, Varki, & Ashley, 2011). Furthermore, objects that are more salient have a higher likelihood of being noticed (Milosavljevic & Cerf, 2008), and attention has in turn been proved to predict ad attitude (Storme, Myszkowski, Davila, & Bournois, 2015). Since stereotypical portrayals of occupational gender role (e.g. Eisend, 2010) and age (e.g. Carrigan & Szmigin, 2003) are common in advertising, such non-stereotypical portrayals are likely more novel, salient and attention grabbing compared to stereotypical portrayals. This is hence expected to influence ad attitude in accordance with Sheinin et al. (2011).

Even though Berg and Liljedal (2020) only found the ad attitude to increase among female respondents, we apply the same reasoning as for sender effort with regard to respondents and therefore hypothesize the effect to hold true for both male and female respondents. The proven effect of non-stereotypical portrayals of occupational gender roles (Liljedal et al., 2020) and age (Berg & Liljedal, 2020) on ad attitude, leads us to believe that the effects also hold true when combined. Last, as mentioned earlier, we do not study the ad holistically but only the ad picture. Since the picture is an essential element of advertising in some contexts (Rossiter & Percy, 1997, as cited in Pieters & Wedel, 2004), we expect the above-mentioned effects to also hold true when considering only the ad picture. We therefore also believe the attitude towards the ad picture to be a good indicator for the attitude towards the ad overall. Hence, we hypothesize that:

H2: Non-stereotypical portrayal compared to stereotypical portrayal, of

    a. Occupational gender role

    b. Age

    c. Occupational gender role and age combined

will lead to higher ad picture attitude.

2.7.2 Social Effects

Social Connectedness

Social connectedness is one of the concepts associated with the social effects of advertising (Berg & Liljedal, 2020; Liljedal et al., 2020; Åkestam et al., 2017b). Social connectedness implies feeling connected to other people and is an inherent human need (Hutcherson, Seppala, & Gross, 2008). Grier and Brumbaugh (1999) establish that ads aimed at targeting unusual groups are more frequently noticed by consumers belonging to such groups, consequently affecting the meaning associated with the ad. Similarly, seeing creative advertising can e.g. increase consumers' perceived creativity (Rosengren, Dahlen, & Modig, 2013) and seeing portrayals of homosexuality can increase consumers' thoughts about themselves and other people (Åkestam et al., 2017b).

Some studies have confirmed the relationship between non-stereotypical portrayals in advertising and increased social connectedness, both in terms of occupational gender roles (Liljedal et al., 2020) and age (Berg & Liljedal, 2020). Even though Berg and Liljedal (2020) only found the social connectedness to increase among female respondents, we apply the same reasoning as for sender effort and ad picture attitude with regard to respondents and therefore hypothesize the effect to hold true for both male and female respondents. Considering that effects were seen for occupational gender roles (Liljedal et al., 2020), and age (Berg & Liljedal, 2020), we expect the effects to also hold when combining the two stereotypes. We therefore hypothesize that:

H3: Non-stereotypical portrayal, compared to stereotypical portrayal, of

   a. Occupational gender role

   b. Age

   c. Occupational gender role and age combined

will lead to higher social connectedness.

Brand effort and social connectedness have also been found to mediate the effect of non-stereotypical portrayals on ad attitude (Berg & Liljedal, 2020; Liljedal et al., 2020). This can be explained by the fact that being exposed to non-stereotypical portrayals makes consumers perceive the brand to have invested higher effort, and this generates higher social connectedness to the models portrayed in the ad, consequently increasing the attitude towards the ad (Berg & Liljedal, 2020; Liljedal et al., 2020). Remembering that the effect of increased effort has been seen both when explicitly asking about a brand's effort (e.g. Berg & Liljedal, 2020; Liljedal et al., 2020) and when asking simply about the effort behind the ad (e.g. Modig et al., 2014), we believe this effect to persist for the sender of the ad per se. Again, we believe these effects to hold true not only for the ad holistically but also for the ad picture only. We therefore hypothesize that:

H4: Sender effort and social connectedness will mediate the effects of non-stereotypical portrayal of

   a. Occupational gender role

   b. Age

   c. Occupational gender role and age combined

on ad picture attitude.

Self-Esteem and Social Comparison

Self-esteem is defined as the "positive or negative attitude toward…the self" (Rosenberg, 1965: 30). It includes several different dimensions, such as appearance, social, and performance self-esteem (Heatherton & Polivy, 1991). Self-esteem can be influenced by advertising images, as e.g. established through Gulas and McKeage's (2000) findings that idealized images of physical attractiveness and financial success negatively affected men's self-esteem. Also, Bessenoff (2006) showed that women's self-esteem decreased when seeing idealized, compared to non-idealized images of other women. This

was further supported by similar findings by Richins (1991). Idealized models or images can be understood as stereotyped, as shown by D'Alessandro and Chitty (2001), hence we connect the presented theory to the context of this thesis. Even though studies examining the positive effects of using non-idealized images have been limited, some findings of studies within the field suggest that such positive effects might exist (Åkestam, 2017). For example, Loken and Peck (2005) found that exposure to larger than average sized female models in ads, i.e. non-idealized images, increased women's self-esteem.

Since the previous findings are limited to the context of body image (Bessenoff, 2006; Bissell & Rask, 2010; D'Alessandro & Chitty, 2011), as well as physical attractiveness and financial success (Gulas & McKeage, 2000), we want to investigate whether the findings also hold outside of these contexts. More specifically, we want to test whether they hold in the context of occupational gender role and age stereotypes. Further, since only a few studies indicate positive effects of using non-idealized, hence non-stereotyped images, we want to test whether the presented findings about negative effects could be turned around so that non-stereotypical images in fact result in higher self-esteem. We therefore hypothesize that:

H5: Non-stereotypical portrayal, compared to stereotypical portrayal, of

    a. Occupational gender role

    b. Age

    c. Occupational gender role and age combined

will lead to higher self-esteem.

Research about social effects in advertising also includes the concept of social comparison (Dahlen & Rosengren, 2016). Humans have the need to evaluate their opinions and abilities through comparison to other people (Festinger, 1954). When comparing to others, people often do so to those that share similar traits (Irving, 1990) or to idealized models in ads (D'Alessandro & Chitty, 2011). Richins (1991) explains that the problem with social comparison is that if the difference between an ideal and actual attribute is big, it can lead to dissatisfaction. Dissatisfaction is closely related to self-esteem, following Rosenberg's (1965) definition. Hence the two fields social comparison and self-esteem are intertwined (Richins, 1991). Even though idealized models are used in advertising to effect purchases and influence consumer attitude (e.g. D'Alessandro & Chitty, 2011), they can trigger higher social comparison

(Tiggemann & McGill, 2004). Overall, studies show that both men and women compare themselves to idealized images in advertising in terms of e.g. body image (Bessenoff, 2006; Bissell & Rask, 2010; Richins, 1991), physical attractiveness, and financial success (Gulas & McKeage, 2000). Further, social comparison was found to mediate the effect of seeing idealized images on self-esteem (Bessenoff, 2006) and on body satisfaction (Tiggemann & McGill, 2004). Following the reasoning from above, we believe that social comparison will also be affected by non-stereotypical portrayal of occupational gender role, age, and the two combined and hence influence self-esteem. We therefore hypothesize that:

H6: Social comparison will mediate the effects of non-stereotypical portrayal of

    a. Occupational gender role

    b. Age

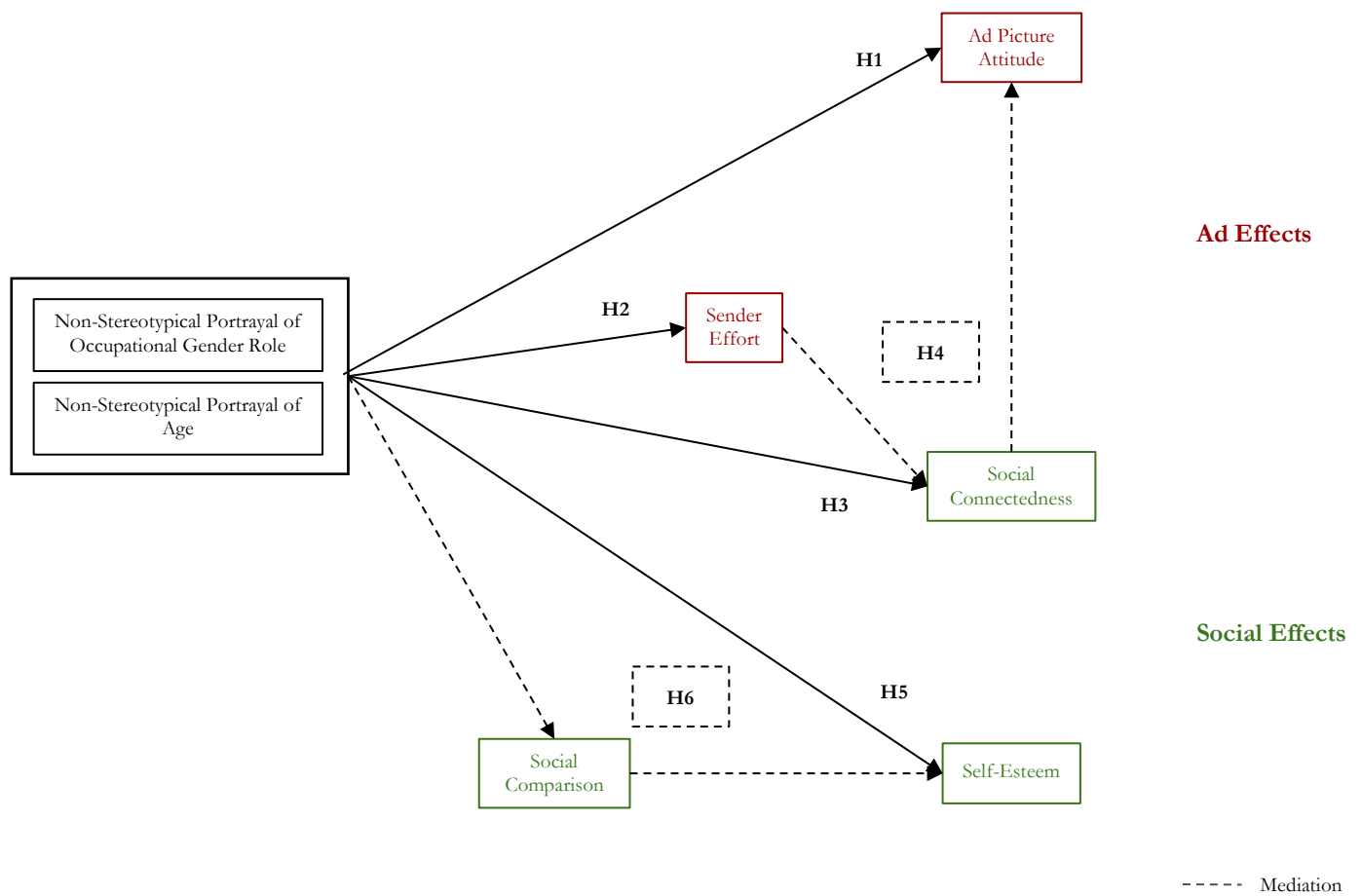   **c**. Occupational gender role and age combined

on self-esteem.

Figure 2 – Visual representation of conceptual model including the hypotheses

3. Methodology

This section presents the selected scientific research approach and contains a detailed description of the conduced pre-studies and main study. The methodological approach is motivated and the quality of the data is critically reviewed.

3.1 Scientific Approach

A deductive scientific approach was selected in this thesis, meaning that existing theory in relevant fields has been used to generate hypotheses (Bryman & Bell, 2011). An experimental design in the form of a quantitative survey was used for the study to compare one control group to three treatment groups that varied in being stereotypical or non-stereotypical in regard to occupational gender role, age, or the two combined. Each group hence used a different stimulus to which the respondents were randomly assigned, as will be explained in more details in section *3.3.1 Study Design*. A deductive approach was deemed suitable since the study aimed to investigate possible causal relationships between the independent and dependent variables (Bryman & Bell, 2011). Furthermore, as described by Malhotra (2010), many marketing decisions are based upon relationships assumed to be causal, why a deductive approach was considered appropriate. The chosen approach thus has potential to contribute to the evolving field of stereotypes use in advertising in a meaningful way. However, the intersectionality of occupational gender role stereotypes and age stereotypes in advertising is a new field without much earlier research, meaning that a more exploratory research approach could also have been considered (Edmondson & McManus, 2007). However, since research in nearby fields have used a deductive approach, this was considered the most appropriate way in which to conduct also this research.

3.2 Preparatory Work

The three conducted pre-studies are presented below. Although the questions and measures are presented in English, they were asked in Swedish as will be further explained in section *3.3.1 Study Design*. The studies were digital surveys set up in Qualtrics. The relevant questions from the surveys can be found in Appendix III. Pre-study 1 included only written questions, while pre-studies 2 and 3 showed versions of the four stimuli used for the main study. The respondents were not assigned to different groups, as was done for the main study, meaning all respondents answered all questions. The order of the stimuli and questions were however randomized where considered necessary to equal out priming effects. Convenience samples were used for each of the three studies (Bryman & Bell, 2011),

chosen amongst people in public cafes in Stockholm. Parts of the data were also collected on the Stockholm School of Economics premises. To fill out the survey, we provided the respondents with an iPad or laptop. All respondents filled out the surveys voluntarily and were not compensated for it.

3.2.1 Pre-Study 1: Choice of Male-Stereotyped Occupation

The purpose of pre-study 1 was to establish that the occupations used for the main study was male-stereotyped and that advertising in general was perceived as stereotypically young. We wanted our stimuli for the main studies to only be stereotyped on the dimensions occupational gender role, age, and the two combined, but not on an additional axis. It was therefore relevant to establish that the occupation itself was not stereotyped as either young or old, hence an internal reference range was set to 31-50 years old. The study consisted of a final of 21 respondents (52% male, 43% female, 5% other, aged 17-68, mean age = 36), after taking out six respondents due to question misunderstandings. The remaining respondents were all able to answer the attention question correctly. Questions around the occupations truck driver and electrician were asked, since both of them are male-dominated (Statistiska Centralbyrån, 2018b) with the aim to find the best fit for the main study. In part one, the respondents were asked to rate each occupation with the question "Where would you place the occupation truck driver (electrician) on the following scale?" on a 7-point bipolar scale: 1 = "Masculine" / 7 = "Feminine", adopted from White and White (2006). Further, the respondents were asked to state the average age of people holding each occupation on a ratio scale. The capability of people executing each occupation was established on both the dimensions gender and age, assessed by the question "I believe that both males and females are capable of executing the occupation truck driver (electrician)" answered on a 7-point bipolar scale: 1 = "Do not agree at all" / 7 = "Completely agree", and by answering which age groups they saw capable of executing each occupation on a ratio scale with multiple answer options. Lastly, the respondents rated the degree of age stereotyping in advertising on a ratio scale.

One Sample T-Tests showed that both the occupations truck driver and electrician were perceived as male-stereotyped ($t(20)_{TruckDriver}$ = -13.51, $M_{TruckDriver}$ = 1,86, $SD_{TruckDriver}$ = .73, $p_{TruckDriver}$ < .01, $t(20)_{Electrician}$ = -11.66, $M_{Electrician}$ = 1.95, $SD_{Electrician}$ = .81, $p_{Electrician}$ < .01) as the means were well below the midpoint of 4. A frequency table showed that the perceived age of people holding the occupations were neither stereotyped as young nor old, with most answers lying between the age 31-50, as shown in table 1.

Table 1 – Frequency Table: Average Age of Occupations

	Truck Driver		Electrician	
	Frequency	Percent	Frequency	Percent
Under 20	0	0%	0	0%
21-30	0	0%	3	14%
31-40	7	33%	13	62%
41-50	11	52%	3	14%
51-60	3	14%	2	10%
Over 60	0	0%	0	0%
Total	21	100%	21	100%

Neither gender nor age were found as limitations to execute either of the two occupations. One Sample T-Tests showed that for gender, the respondents agreed that both male and female were capable to execute either occupation ($t(20)_{Both} = 125$, $M_{TruckDriver} = 6.95$, $SD_{TruckDriver} = .22$, $M_{Electrician} = 6.95$, $SD_{Electrician} = .22$, $p_{Both} < .01$). A minimum of 76% of the respondents believed people within 20-60 years old were capable of executing both the occupations (see Table 2). Considering the factors above, both occupations were considered suitable for the main study. However, truck driver was chosen due to a better suited age range.

Table 2 – Frequency Table: Capability Regarding Age

	Truck Driver	Electrician
Under 21	10%	33%
21-30	76%	95%
31-40	95%	100%
41-50	100%	100%
51-60	86%	91%
Over 60	48%	71%
Total	100%	100%

Lastly, the respondents were asked to state the average age of people portrayed in advertising. A frequency table confirmed that 33% of the respondents thought the models to be below 25 years and 52% between 26-35 years, which supports previous literature that advertising is stereotyped as young (Carrigan & Szmigin, 1998; Carrigan & Szmigin, 2003; Hoppe, Tischer, Philippsen, & Hartmann-Tews, 2016; Zhang et al., 2006).

3.2.2 Pre-Study 2: Choice of Models

The purpose of pre-study 2 was to establish that the four models for the different scenarios of the main study were comparable and that the age difference between the younger and older age group was big enough. For this we collected answers from 23 respondents (52% male, 48% female, aged 20-75, mean age = 36) of which all were able to answer the attention question correctly. As stimuli, four pictures of people were selected from Shutterstock to serve as the models for the scenarios (See Appendix I). Each picture portrayed either a younger man, a younger woman, an older man, or an older woman in front of a white background. The pictures were selected based on the models' similarity in regard to skin color, posture, clothing, hair color, facial expression, charisma, and attractiveness level. To test whether the models were perceived similarly, the respondents were asked to rate the attitude towards each model with the question "What do you think about the person in this picture?" on a 7-point semantic differential scale: 1 = "Bad" / 7 = "Good", 1 = "Do not like" / 7 = "Like", 1 = "Negative impression" / 7 = "Positive impression" (Cronbach's α = .96), adapted from Liljedal et al. (2020). It was not relevant how high the attitude towards each model was but that the levels of attitudes were similar. Attractiveness, for example, was expected to be dissimilar between the models of different ages (McLellan & McKelvie, 1993) and thus attitude towards the models seemed like the best measure for comparison. Lastly, the respondents were asked to guess each model's age by writing down the respective age.

The results showed that the indexed attitudes towards all models were within a similar range ($M_{YoungerMan}$ = 5.99, $SD_{YoungerMan}$ = .98, $M_{YoungerWoman}$ = 5.87, $SD_{YoungerWoman}$ = .78, $M_{OlderMan}$ = 5.75, $SD_{OlderMan}$ = 1.11, $M_{OlderWoman}$ = 6.15, $SD_{OlderWoman}$ = .99). A one-way ANOVA and Tukey's Post Hoc test showed that all the attitudes were in fact similar with none of the combinations being statistically different (p > .54), meaning that the models were comparable. The perceived age for both younger models was around 30 ($M_{YoungerMan}$ = 31.09, $SD_{YoungerMan}$ = 4.34, $M_{YoungerWoman}$ = 30.65, $SD_{YoungerWoman}$ = 4.54), and for the older models around 59 years old ($M_{OlderMan}$ = 60.48, $SD_{OlderMan}$ = 5.22, $M_{OlderWoman}$ = 58.43, $SD_{OlderWoman}$ = 6.54), which made them different enough to divide them into two age groups but similar enough within each of the age groups. A Post Hoc test confirmed that the difference within the age groups were non-significant (p > .55), but the difference across the age groups was significant (p < .01). The results of the study therefore indicated that the chosen models could be used for pre-study 3 and the main study respectively.

Table 3 – Descriptive Statistics for Attitudes towards and Age of Models

	Attitude towards Models		Age of Models	
	Mean	SD	Mean	SD
Younger Man	5.99	.98	31.09	4.34
Younger Woman	5.87	.87	30.65	4.54
Older Man	5.75	1.11	60.48	5.22
Older Woman	6.15	.99	58.43	6.54

3.2.3 Pre-Study 3: Manipulation Check of Stimuli

The purpose of pre-study 3 was to establish whether the stimuli in the given context and with regard to occupational gender role and age would activate the respective stereotypes. 24 people were asked to fill out the survey, but three answers had to be deleted due to answering the attention question wrong or not understanding all questions correctly. Thus, the final number of respondents was 21 (52% male, 48% female, aged 22-79, mean age = 34). Each stimulus portrayed one of the previously mentioned models, but this time in a truck driver setting. The occupation was explicitly mentioned at the beginning of the survey and the models were photoshopped in front of the same background showing a truck, positioned at the same position to avoid the stimuli being different other than portraying different models. To establish whether the ad pictures were perceived as stereotyped in regard to gender, the respondents were asked to indicate on a 7-point bipolar scale how much they agreed (1 = "Do not agree at all" / 7 = "Completely agree") with two statements. Statement 1 said "This is a stereotypical portrayal of gender roles" adopted from Liljedal et al. (2020), and statement 2 said "I believe that other adults think this is a stereotypical portrayal of gender roles" adapted from Youn, Faber, and Shah (2000). To assess the age stereotype, three statements were used; statement 1 said "The portrayed person's age is stereotypical in advertising", statement 2 said "This is a stereotypical ad in regard to age" adapted from Berg and Liljedal (2020), and statement 3 said "I believe that other adults think this is a stereotypical portrayal of age in advertising", adapted from Youn et al. (2000). We asked about the perception of the ad, and not about the ad picture, as we believe the respondents are more familiar with this term, making the understanding of the statement easier. All three statements were asked on the same 7-point bipolar scale as described above. Since no established scale could be found with which to ask about the age stereotype and it had to be adapted from the statements related to gender stereotypes, it made sense to establish it with three items to potentially get better results.

Regarding the occupational gender role stereotyping, the results of the One-way ANOVA for statement 1 showed that both the younger man and the older man were perceived as stereotyped ($M_{S1YoungerMan}$ = 5.86, $SD_{S1YoungerMan}$ = 1.32, $M_{S1OlderMan}$ = 5.71, $SD_{S1OlderMan}$ = 1.19), having means above the midpoint of 4. Statement 2 confirmed these findings ($M_{S2YoungerMan}$ = 5.90, $SD_{S2YoungerMan}$ = 1.14, $M_{S2OlderMan}$ = 5.86, $SD_{S2OlderMan}$ = 1.24). Both the younger woman and the older woman were perceived as non-stereotyped in the occupation truck driver, as shown via statement 1 ($M_{S1YoungerWoman}$ = 1.95, $SD_{S1YoungerWoman}$ = .92, $M_{S1OlderWoman}$ = 2.29, $SD_{S1OlderWoman}$ = 1.42), and statement 2 ($M_{S2YoungerWoman}$ = 2.00, $SD_{S2YoungerWoman}$ = 1.45, $M_{S2OlderWoman}$ = 2.29, $SD_{S2OlderWoman}$ = 1.42), with means below the midpoint of 4. A Tukey' Post Hoc test showed that the groups were statistically different across gender ($p < .01$) but similar within the two gender groups ($p > .81$) for statement 1. Similar results were found for statement 2; the models were perceived different across gender ($p < .01$) and similar within the same gender ($p > .90$). However, since the results for what the respondents thought for themselves and what they thought others showed high correlation (Cronbach's $\alpha > .8$), only statement 1 was used for the main study.

Table 4 – Descriptive Statistics for Gender Role Stereotyping

	Statement 1		Statement 2	
	Mean	SD	Mean	SD
Younger Man	5.86	1.32	5.90	1.14
Younger Woman	1.95	.92	2.00	1.45
Older Man	5.71	1.19	5.86	1.24
Older Woman	2.29	1.42	2.29	1.42

For the three age statements, the results were not as clear when conducting a One-way ANOVA. Both younger models were perceived as age stereotyped with means above the midpoint of 4 for all three statements ($M_{S1YoungerMan}$ = 5.62, $SD_{S1YoungerMan}$ = 1.47, $M_{S2YoungerMan}$ = 5.14, $SD_{S2YoungerMan}$ = 1.68, $M_{S3YoungerMan}$ = 5.48, $SD_{S3YoungerMan}$ = 1.37, $M_{S1YoungerWoman}$ = 5.38, $SD_{S1YoungerWoman}$ = 1.86, $M_{S2YoungerWoman}$ = 5.29, $SD_{S2YoungerWoman}$ = 1.59, $M_{S3YoungerWoman}$ = 5.05, $SD_{S3YoungerWoman}$ = 1.88). The older woman was perceived as not stereotyped regarding her age with a mean below the midpoint of 4 for all three statements ($M_{S1OlderWoman}$ = 2.43, $SD_{S1OlderWoman}$ = 1.21, $M_{S2OlderWoman}$ = 2.48, $SD_{S2OlderWoman}$ = 1.03, $M_{S3OlderWoman}$ = 2.38, $SD_{S3OlderWoman}$ = 1.16). For the older man however, the means were only slightly below the midpoint for statement 1 and statement 2 ($M_{S1OlderMan}$ = 3.62, $SD_{S1OlderMan}$ = 1.72, $M_{S2OlderMan}$ = 3.71, $SD_{S2OlderMan}$ = 2.00), and exactly at 4 for statement 3 ($M_{S3OlderMan}$ = 4.00, $SD_{S3OlderMan}$ = 1.84). The Tukey's Post Hoc test

showed that the groups were perceived similar across gender ($p > .08$) but different across the age groups ($p < .05$) for all statements. The only exception was found for statement 3, where the older man was not significantly different from the younger woman ($p > .15$) but different from the older woman ($p < .01$). This was however not problematic since these scenarios are not directly compared.

Table 5 – Descriptive Statistics for Age Stereotyping

	Statement 1		Statement 2		Statement 3	
	Mean	SD	Mean	SD	Mean	SD
Younger Man	5.62	1.47	5.14	1.68	5.48	1.37
Younger Woman	5.38	1.86	5.29	1.59	5.05	1.88
Older Man	3.62	1.72	3.71	2.00	4.00	1.84
Older Woman	2.43	1.21	2.48	1.03	2.38	1.16

This is an interesting finding since even though advertising is perceived as age stereotyped as established in pre-study 1, and both older models were perceived as around 59 years old, which makes them "too old" to appear in advertising, the age stereotype was not activated for the older man for statement 3. An explanation for this might be that people might not be aware of age stereotypes in advertising, hence answering these questions might have been difficult since the respondents never thought explicitly about it in accordance with White and White (2006). Further, since statement 3 showed partially non-significant differences and the results between the three statements did not differ much (Cronbach's $\alpha > .9$), we included only one statement in the main study.

3.3 Main Study

The goal of the main study was to investigate whether non-stereotyped portrayals in regard to occupational gender role, age, and the two combined, would lead to positive ad and social effects for consumers. An experimental study was set up, constructed with four scenarios. Each scenario featured a different stimulus that was pre-tested via the pre-studies, and the respondents were randomly assigned to one of these scenarios (Bryman & Bell, 2011). The questions were constructed based on previous research in the field and partially adopted to fit this study's context.

3.3.1 Study Design

The survey was pilot tested on three people; 2 men and 1 woman, in order to ensure that the questions were easily understood. Bryman and Bell (2011) explain that this is appropriate for self-completion questionnaires in order to remove potential risks for confusion. All three found the survey comprehensive and it was therefore not adjusted further.

The study was set up as an online survey created in Qualtrics and consisted of an intro text, stimulus, and four blocks of questions. The relevant questions can be found in Appendix III. Since this study was limited to Sweden and we wanted to assure correct understanding of the questions, the study was set up in Swedish. The intro text stated that the respondents will see a fictive ad and answer a set of questions related to the ad. It also informed the respondents that the person shown in the ad had the occupation truck driver. After this, the respondents were randomly assigned (Bryman & Bell, 2011) to one of the four stimulus versions. Each version consisted of an ad picture, featuring a truck driver portrayed by a different model which was either stereotyped or non-stereotyped across the axis of occupational gender role, age, or the two combined. Hence, each scenario either portrayed a younger man, i.e. the control group, a younger woman, which was non-stereotyped regarding occupational gender role, an older man, which was non-stereotyped with respect to age, or an older woman which was non-stereotyped in both the dimensions occupational gender role and age. Immediately after being exposed to the stimulus, respondents were asked the same set of questions. We consistently asked about the ad, not the ad picture, as we believe the respondents are more familiar with the term, making the understanding easier.

Block one measured ad picture attitude, model attitude, and model attractiveness. It also measured sender effort and social connectedness. Each of these measures were preceded by a stimulus, as to make answering of the questions easier. Block two measured stereotypicality on a general level, and with regard to gender role and age respectively. These questions were also preceded by a stimulus. Furthermore, block two contained an attention question and questions about social comparison. Block three measured self-esteem, contained a question about how realistic the ad looked, and included a second attention question. Block four consisted of demographic questions regarding the respondents.

The questions about stereotypicality were placed rather late in the survey, as to not reveal the purpose of the survey too early and affect the respondents' answers.

3.3.2 Scales and Measures

The chosen measures were selected based on established use within the relevant fields. Although the survey was conducted in Swedish, the questions and measures will be presented in English in this section. See Appendix III for the Swedish version of the relevant questions that were used.

Model Perception

Pre-study 2 already indicated that the model attitude was equal for all four models, but we tested it again. It was measured with a 3-item measure on a 7-point semantic differential scale: 1 = "Bad" / 7 = "Good", 1 = "Do not like" / 7 = "Like", 1 = "Negative impression" / 7 = "Positive impression" with the question "What do you think about the person in this picture?", adapted from Liljedal et al. (2020). An index was created (Cronbach's α = .96).

Model attractiveness was measured on a 7-point semantic differential scale: 1 = "Very unattractive" / 7 = "Very attractive" with the question "How attractive do you think the person in the picture is?", adapted from Cunningham, Roberts, Barbee, Druen, and Wu (1995). As multiple scholars have measured model attractiveness using only one item (e.g. Buunk & Dijkstra, 2011; Cunningham et al., 1995; Patzer, 1994), the question was considered well-established and clear enough to be used in a similar manner in this study.

Manipulation Check

The assessment of the stereotypicality was used as a manipulation check. We reduced the amount of statements compared to pre-study 3, as explained earlier. We hence evaluated stereotypicality on a general level and on the dimensions gender roles and age respectively. All statements were measured on a 7-point Likert scale: 1 = "Do not agree at all" / 7 = "Completely agree". The evaluation on a general level was measured with "This ad is stereotyped", adopted from Berg and Liljedal (2020). The evaluation related to gender roles was measured with "This is a stereotypical portrayal of gender roles" and the stereotypicality with regard to age was measured with "The age of the portrayed person is stereotypical in advertising", both adapted from Liljedal et al. (2020).

Sender Effort

The measure for sender effort was a 3-item measure on a 7-point Likert scale: 1 = "Do not agree at all" / 7 = "Completely agree". The items included were "I feel that the sender has put a lot of time

behind the ad", "I feel that the sender has put a lot of effort behind the ad", and "I feel that the sender has put a lot of thought behind the ad", adapted from Liljedal et al. (2020), from which an index was created (Cronbach's α = .91).

Ad Picture Attitude

The measure for ad picture attitude was a 3-item measure on a 7-point semantic differential scale: 1 = "Bad" / 7 = "Good", 1 = "Do not like" / 7 = "Like", 1 = "Negative opinion" / 7 = "Positive opinion", adapted from ad attitude measures from Åkestam et al. (2017a) and Berg and Liljedal (2020), from which an index was created (Cronbach's α = .93).

Social Connectedness

The measure for social connectedness was a measured on a 7-point Likert scale: 1 = "Do not agree at all" / 7 = "Completely agree", with the item "I feel like I belong with the person in the ad", adapted from Liljedal et al. (2020). Only this item from the original a 3-item measure was selected because it was considered to measure the concept most accurately.

Social Comparison

The measure for social comparison was a 3-item measure on a 7-point Likert scale: 1 = "Not at all" / 7 = "To an extreme degree". The items included were "To what extent did you compare yourself to the person in the ad?", "When seeing this ad, to what extent were your thoughts related to aspects of gender roles?", and "When seeing this ad, to what extent were your thoughts related to aspects of age?", adapted from Bessenoff (2006). No index was created since the items measured different parts of a concept.

Self-Esteem

The measure for self-esteem were two 3-item measures on a 7-point Likert scale: 1 = "Do not agree at all" / 7 = "Agree completely". Self-esteem was measured through Heatherton and Polivy's (1991) self-esteem scale, as suggested by Bessenoff (2006). From the different options, social and performance self-esteem were considered the most relevant ones for this study. Three statements for each concept were selected based on how well they measured the given concept. The items for social self-esteem were "I feel self-conscious", "I am worried about what other people think of me", and "I am worried about looking foolish" using a reversed scale, adapted from Heatherton and Polivy (1991),

from which an index was created (Cronbach's α = .61). The items for performance self-esteem were "I feel confident about my abilities", "I feel as smart as others", and "I feel confident that I understand things", adapted from Heatherton and Polivy (1991), from which a second index was created (Cronbach's α = .76).

3.3.3 Data Collection

Due to the COVID-19 pandemic, the data collection for the main study needed to be adapted to the current circumstances. The original plan to partly consider people in cafes in Stockholm was no longer possible. We therefore had to turn to our personal networks, asking friends, family, and colleagues to fill out the survey. This resulted in a decrease in the diversity of respondents and a slightly lower average age than in the pre-studies. The aim was however to achieve a similar gender distribution and age span for the main study as for the pre-studies, and we believe that the small difference between the study is acceptable given the circumstances. The data was collected between March 24th and April 8th, 2020.

From the 237 respondents who received and opened the survey, 203 finished it. Due to failing one of the attention questions, 2 additional observations were deleted. The study therefore included a total of 201 respondents (50.2% male, 49.8% female, aged 20-86, mean age = 32.5). Each scenario, i.e. group, contained around 50 respondents as shown in Table 6.

Table 6 – Respondent Demographics for Main Study

		Scenario Younger Man (N = 52)	Scenario Younger Woman (N = 49)	Scenario Older Man (N = 51)	Scenario Older Woman (N = 49)	Total sample (N = 201)
Gender	Male	25	23	28	25	101
	Female	27	26	23	24	100
	Other	0	0	0	0	0
Age	Min	21	22	20	22	20
	Max	74	79	86	80	86
	Average	32.7	31.7	32.6	33	32.5

3.4 Structure and Analysis of Data

3.4.1 Data Preparation

To analyze the data, the survey results were exported from Qualtrics directly into an SPSS file. It was ensured that the data was imported correctly by checking whether the type and measures for each variable were in the correct format. The names and labels were adapted to make navigation easier. Data lines from respondents who failed at least one attention question or did not finish the survey were deleted.

3.4.2 Recoding of Variables

Multi-measure concepts were indexed and relabeled if the Cronbach's Alpha was above .6, as suggested by Malhotra (2010). All data was changed into numerical format. Respondent gender was changed into 1 = "Female" and 2 = "Male". New files were created to allow for the mediation analyses, each only including two scenarios at a time; the control and one treatment group, since the analysis would not have been possible with the chosen PROCESS plugin otherwise. The control group was recoded into 0 and the respective treatment groups was set to 1 in each of the three files. To measure main effects of gender and age stereotypes separately as well as their interaction effect, two new variables were created from the four groups; *Gender of Model* (0 = "Male" / 1 = "Female") separating the scenarios portraying the younger and the older woman from those showing the younger and the older man. *Age of Model* (0 = "Younger" / 1 = "Older") separated the younger man and woman from the older man and woman.

3.4.3 Analytical Tools

IBM SPSS version 26 was used as the analytical tool for the studies. The data was automatically grouped based on the scenarios each showing one of the four stimuli. One-way ANOVAs with Tukey's Post Hoc tests were used for the manipulation check across the groups. To study the main effect of gender role and age stereotypes separately and their interaction effect, Two-way ANOVAs were calculated. To compare the differences across the four scenarios, means were compared with One-way ANOVAs with one-sided Dunnett's Post Hoc tests between the control and the respective treatment scenarios. To conduct the mediation analyses for the concepts of sender effort, social connectedness, social comparison and self-esteem, the plugin PROCESS version 3.4 by Andrew

Hayes was installed (Hayes, 2017). The data was tested, and the results were accepted at a 5% significance level. Whenever we found significance at 1%, we indicated it as such.

3.5 Critical Review of Data Quality

In accordance with Bryman and Bell (2011), the quality of the data in quantitative research can be evaluated based on its reliability, validity, and replicability. The studies will hence be reviewed below with regard to these concepts.

3.5.1 Reliability

Reliability measures a study's consistency and can be evaluated by its stability and internal reliability (Bryman & Bell, 2011). This study's stability was strengthened by including three pre-studies that secured the credibility of the occupation, models, and stimuli used in the main study. The level of stereotypicality was included as a manipulation check with regard to gender role and age and was recorded both in pre-study 3 and in the main study. Since pre-study 3 did not provide satisfying results for all three age statements, only one statement was included in the main study, which showed consistent findings across the studies. Also, the model attitude was pre-tested and included in the main study, with similar attitudes when comparing the models, strengthening the reliability. The respondents in the pre-studies filled out the survey on a tablet or computer provided by us, thereby ensuring a correct and comparable question format across respondents. This strengthened the reliability further.

The internal reliability was secured by using established question batteries within relevant theoretical fields with multiple items for almost all measures (see section *3.3.2 Scales and Measures*), of which it was possible to create strong indexes. All indexes had a Cronbach's Alpha of at least > .6, which is an acceptable threshold level (Malhotra, 2010).

3.5.2 Validity

Measurement Validity

Measurement validity is concerned with whether the measurement of a concept in fact measures this concept (Bryman & Bell, 2011). This was strengthened by using well-established scales and question batteries for the studied concepts. However, even though the statements regarding stereotypicality,

used as manipulation check, were adapted from established researchers in the fields, they had never been asked for simultaneously before. This might have negatively influenced the measurement validity. Pre-study 3 showed that the three statements used to evaluate the stereotypicality with regard to age were possibly partly misunderstood. This was therefore simplified in the main study by removing two of the statements, hence making it clearer for the respondents, as was also reflected in the results. It is also important to mention that even though the question batteries used are well-established within their respective fields, the use in this specific context was new. This is due to the field of consumer responses with regard to occupational gender role stereotypes and age stereotypes respectively being scarcely researched, and the combination of the two, to the best of our knowledge, is entirely new.

Statistical Inference Validity

Statistical inferences validity exists when it can be ensured that variations between groups do not appear randomly or by chance and can be controlled for by selecting appropriate alpha levels, limit the number of treatment groups, and having big enough sample sizes (Lynn & Lynn, 2003). An alpha level of 5% was selected for the study, which is in line with what Lynn and Lynn (2003) propose. However, with this significance level, a risk of a Type I error remains when running many tests, while the chance for a Type II error is decreased (Bryman & Bell, 2011). The number of treatment groups were limited to four, the minimum possible number of groups needed to execute the study, to limit the number of comparisons as described by Lynn and Lynn (2003). Each group consisted of around 50 respondents, which is in line with Söderlund (2018), who suggests having a minimum of 30 respondents per group.

Internal Validity

Internal validity concerns whether causality in fact can be established between variables, implying that the manipulation of the stimuli caused effects on the dependent variables (Bryman & Bell, 2011). In our study this was true for sender effort and ad picture attitude respectively. This was carefully monitored for in the experimental design of the pre-studies and the main study. First, random assignment (Bryman & Bell, 2011) with treatment groups of around 50 respondents each, in line with Lynn and Lynn (2003) and Söderlund (2018), was used to increase the internal validity. Furthermore, the influence of extraneous variables (Malhotra, 2010), was controlled for by creating stimuli that were highly similar to one another and only differed by the given treatment. The models of the four scenarios were selected and photoshopped to be as equal as possible. This included their clothing, hair

color, skin color, attractiveness, age, posture, facial expression, and position in the picture. As for the older models, we decided to use real people instead of using a software to make the two younger models look older. This decision was based on the fact that it would have only made the two female or two male models more comparable to each other but not influenced how the two female models were comparable to the two male models. Therefore, four different models were chosen to reach an equal amount of comparability and difference between all four scenarios. Pre-study 2 and the main study confirmed that the attitudes to all four models were equal. The main study also confirmed that the models were similarly attractive, although that the younger models were seen as slightly more attractive than the older models. This can be seen as part of the age stereotype due to the fact that younger people are considered more attractive than older people (McLellan & McKelvie, 1993), and did hence not negatively influence the internal validity of the study. Thus, the only aspect that differed between the scenarios was the models' age, gender, or both, which attributes the effects on the dependent variables solely to the manipulation of the stimuli in accordance with Lynn and Lynn (2003).

A weakness of this study with regard to internal validity is that the causal relationships between variables only have been studied either with regard to consumer responses for occupational gender role stereotypes or age stereotypes separately. Studying the two concepts simultaneously might have inflicted negatively on the internal validity due to this being a new context that has not been studied before.

External Validity

External validity covers whether the results can be generalized beyond the studied context (Bryman & Bell, 2011). Considering that the ad pictures in the main study did not contain a brand, logo, caption, or message, the likelihood that it looked like real ads possibly decreased. To ensure external validity, a question on how real the ad looked was included. The answer amounted to an acceptable level that was neither entirely realistic nor unrealistic. External validity can hence be said to have been partially sacrificed in favor of removing possible confounds that might have influenced the scenarios differently. The goal was to present the respondents with an isolated stimulus to simplify the processing for the respondents. Nonetheless, showing only the ad picture was enough for the respondents to understand it as an ad.

The respondents answering the survey should be representative of the population towards which the ad would be used in real life (Lynn & Lynn, 2003). Even though convenience samples were used, the samples' spread of respondents with regard to age and gender are still believed to present an acceptable level of representation of the population. For the main study's sample, our personal networks were used, which might negatively have affected the sample's representability. Given the situation of the global COVID-19 pandemic, this was however condoned. Further, the sample was limited to Sweden, as to minimize the risk for cultural differences to affect the results (Catalyst, 2006).

Ecological Validity

Ecological validity is limited by the nature of using questionnaires, implying that increased measurement and internal validity is achieved on behalf of ecological validity (Bryman & Bell, 2011). The ecological validity was strengthened by ensuring that the stimuli looked as natural as possible, through placing the models in a realistic occupational setting and limiting the use of photoshopping to manipulate the models. Thus, careful photoshopping of the ad pictures ensured that they looked as natural as possible.

3.5.3 Replicability

This study is considered highly replicable due to a detailed description of how the study was executed, including the scientific approach, study designs, questionnaires, data collection, and analyses (Bryman & Bell, 2011). The procedures and corresponding results are presented clearly for all three pre-studies and the main study. Further, more detailed results and the relevant questions from the surveys and stimuli from the pre- and main studies are included in the appendices.

4. Results and Analysis

In this section, the results of the main study, including the model perception, manipulation check, and hypothesis testing, are presented and analyzed.

4.1 Model Perception and Manipulation Check

The purpose of the model perception and manipulation check was to establish that the four scenarios were; 1) comparable with regard to attitude towards, and attractiveness of, the models, and 2) perceived differently regarding their stereotypicality of gender and age.

The four scenarios were found comparable since the created index for attitude towards the models was similar across the groups ($M_{YoungerMan}$ = 4.97, $SD_{YoungerMan}$ = 1.32, $M_{YoungerWoman}$ = 5.14, $SD_{YoungerWoman}$ = 1.25, $M_{OlderMan}$ = 5.45, $SD_{OlderMan}$ = 1.38, $M_{OlderWoman}$ = 5.42, $SD_{OlderWoman}$ = 1.13) and no significant differences were found between them, shown by a One-way ANOVA and Tukey's Post Hoc test (p > .19). This means that any difference found in the results can be attributed to the change of gender, age, or the combination of the two respectively, given the random assignment of the respondents to the stimuli, i.e. groups (Bryman & Bell, 2011). Since the attractiveness between the models was expected to differ, we did not base the decision of comparability on this, but measured it regardless to be aware of the differences. Hence, to measure the main effects, Independent Samples T-Tests for gender and age were calculated and only showed a difference between the age groups (t(199) = 3.85, p < .01, $M_{YoungerModels}$ = 4.83, $SD_{YoungerModels}$ = 1.02, $M_{OlderModels}$ = 4.23, $SD_{OlderModels}$ = 1.19), but not between genders. Both younger models were perceived as more attractive ($M_{YoungerMan}$ = 4.73, $SD_{YoungerMan}$ = 1.09, $M_{YoungerWoman}$ = 4.94, $SD_{YoungerWoman}$ = .94) than the two older models ($M_{OlderMan}$ = 4.08, $SD_{OlderMan}$ = 1.16, $M_{OlderWoman}$ = 4.39, $SD_{OlderWoman}$ = 1.20). However, the Tukey's Post Hoc test only showed statistical differences between the scenarios older man and younger woman as well as older man and younger man (p < .05). This is in line with what theory suggests (McLellan & McKelvie, 1993) and therefore confirms that attractiveness is not the best measure to establish comparability between groups. Regardless, the attractiveness level did not differ to a degree that it would have sacrificed comparability.

Table 7 – Model Perception: Descriptive Statistics for Comparability of the Scenarios

	Attitude towards models		Attractiveness of models	
	Mean	SD	Mean	SD
Younger Man (N = 52)	4.97	1.32	4.73	1.09
Younger Woman (N = 49)	5.14	1.25	4.94	.94
Older Man (N = 51)	5.45	1.38	4.08	1.16
Older Woman (N = 49)	5.42	1.13	4.39	1.20

Regarding the gender role stereotyping, both men were perceived as stereotyped ($M_{YoungerMan}$ = 4.54, $SD_{YoungerMan}$ = 1.90, $M_{OlderMan}$ = 4.69, $SD_{OlderMan}$ = 1.78), while the women were seen as non-stereotyped ($M_{YoungerWoman}$ = 2.43, $SD_{YoungerWoman}$ = 1.72, $M_{OlderWoman}$ = 2.37, $SD_{OlderWoman}$ = 1.65), as shown via a One-way ANOVA. The value 4 presents the midpoint, meaning that any result below 4 means "non-stereotyped" and anything above 4 means "stereotyped". A Tukey's Post Hoc test showed that the male and female scenarios were statistically different ($p < .05$) from each other, but there was no difference between the two female scenarios nor between the two male scenarios ($p > .05$), implying that the gender role stereotyping worked in the intended way.

With regard to the age stereotyping, the younger models were perceived as stereotyped with means slightly above the midpoint 4 ($M_{YoungerMan}$ = 4.65, $SD_{YoungerMan}$ = 1.76, $M_{YoungerWoman}$ = 4.29, $SD_{YoungerWoman}$ = 1.92, $p < .05$). The older models were perceived as non-stereotyped ($M_{OlderMan}$ = 3.59, $SD_{OlderMan}$ = 1.79, $M_{OlderWoman}$ = 2.53, $SD_{OlderWoman}$ = 1.72, $p < .05$), with means slightly below the midpoint of 4. However, the older woman was more clearly perceived as non-stereotyped compared to the older man. A One-way ANOVA showed statistical differences between the two age groups ($p < .05$) but not across gender ($p > .05$). The differences between the scenarios older man and younger woman as well as between the older man and the older woman were non-significant ($p > .05$). This was however not problematic since we did not directly compare these scenarios. The manipulation regarding age was hence acceptable.

Table 8 – Manipulation Check: Descriptive Statistics for Stereotypicality

	Generally stereotyped		Gender stereotyped		Age stereotyped	
	Mean	SD	Mean	SD	Mean	SD
Younger Man (N = 52)	4.21	1.87	4.54	1.90	4.65	1.76
Younger Woman (N = 49)	2.53	1.66	2.43	1.72	4.29	1.92
Older Man (N = 51)	4.31	1.83	4.69	1.78	3.59	1.79
Older Woman (N = 49)	2.31	1.79	2.37	1.65	2.53	1.72

4.2 Ad Perception

A question was asked about how realistic the respondents perceived the ad to be. The analysis showed that they did not perceive the ad to be either very realistic nor unrealistic. A Two-way ANOVA between age and gender of model revealed that gender of model had an influence on how realistic the ad was perceived ($F(1, 197) = 10.61$, $p < .01$, $\eta_p^2 = .05$), as shown in table 15 in Appendix IV, meaning that the ads featuring a male model ($M_{MaleModels} = 4.09$, $SD_{MaleModels} = 1.94$) were perceived as more realistic than the ads portraying a female model ($M_{FemaleModels} = 3.19$, $SD_{FemaleModels} = 1.94$). A One-way ANOVA and the Tukey's Post Hoc test did however not reflect this because only the younger woman was different from the older man ($p < .05$), while the other combinations were not different from each other ($p > .05$).

Table 9 – Descriptive Statistics for Ad Perception

	Mean	SD
Younger Man (N = 52)	4.04	1.92
Younger Woman (N = 49)	3.04	1.90
Older Man (N = 51)	4.14	1.97
Older Woman (N = 49)	3.35	1.99

4.3 Hypotheses Testing

To test the hypotheses, we first conducted Two-way ANOVAs to test whether we would find main or interaction effects of gender and age of the models. Next, One-way ANOVAs with one-sided Dunnett's Post Hoc that tests the respective treatment groups against one control group, to find differences between them, were conducted. The scenario portraying the younger man served as the

control group, while the other three scenarios, i.e. the treatment groups, were used to test parts a), b), and c) of the hypotheses respectively. Part a), concerning the influence of the occupational gender role stereotype, was analyzed by comparing the scenarios younger man to the younger woman, hence only breaking the occupational gender role stereotype. Part b), concerning the influence of the age stereotype, was studied by comparing the scenarios younger man to the older man, hence only breaking the age stereotype. Part c), concerning the combined effect of occupational gender role and age stereotypes, was analyzed by comparing the scenarios younger man to the older woman, hence breaking both the occupational gender role and age stereotype simultaneously. Based on the presented analysis, the hypotheses were either *supported* or *not supported*. It was important to compare the scenarios to each other in this way, compared to investigating only the main effects of gender and age by comparing both female scenarios to both male scenarios or both younger scenarios to the older ones, since we did not know whether or in which way age and gender would moderate each other (Cleveland et al., 2017). Further, the conducted mediation analyses will be explained in the respective sections. Last, due to the amount of calculations, we only present significant results and descriptive statistics. When no significant results were found, we however report it as such.

4.3.1 Sender Effort

We hypothesized that non-stereotypical portrayal of occupational gender role, age, and the two combined would lead to higher perceived sender effort. We first conducted a Two-way ANOVA to test for the main and interaction effects of the gender and age of the model. The overall model and the main effects were not significant ($p > .05$). We did however find a significant interaction effect of age and gender ($F(1, 197) = 4.16, p < .05, \eta_p^2 = .02$), as shown in table 16 in Appendix IV. We further calculated a One-way ANOVA with a one-sided Dunnett's Post Hoc test. The found interaction effect was reflected since the older man resulted in significantly higher perceived sender effort than the younger man ($M_{\text{YoungerMan}} = 2.01, SD_{\text{YoungerMan}} = 1.20, M_{\text{OlderMan}} = 2.63, SD_{\text{OlderMan}} = 1.44, p < .05$), hence, **H1b** was *supported*. The post hoc test showed no differences between the other groups, hence **H1a** and **H1c** were *not supported*.

Table 10 – Descriptive Statistics for Sender Effort

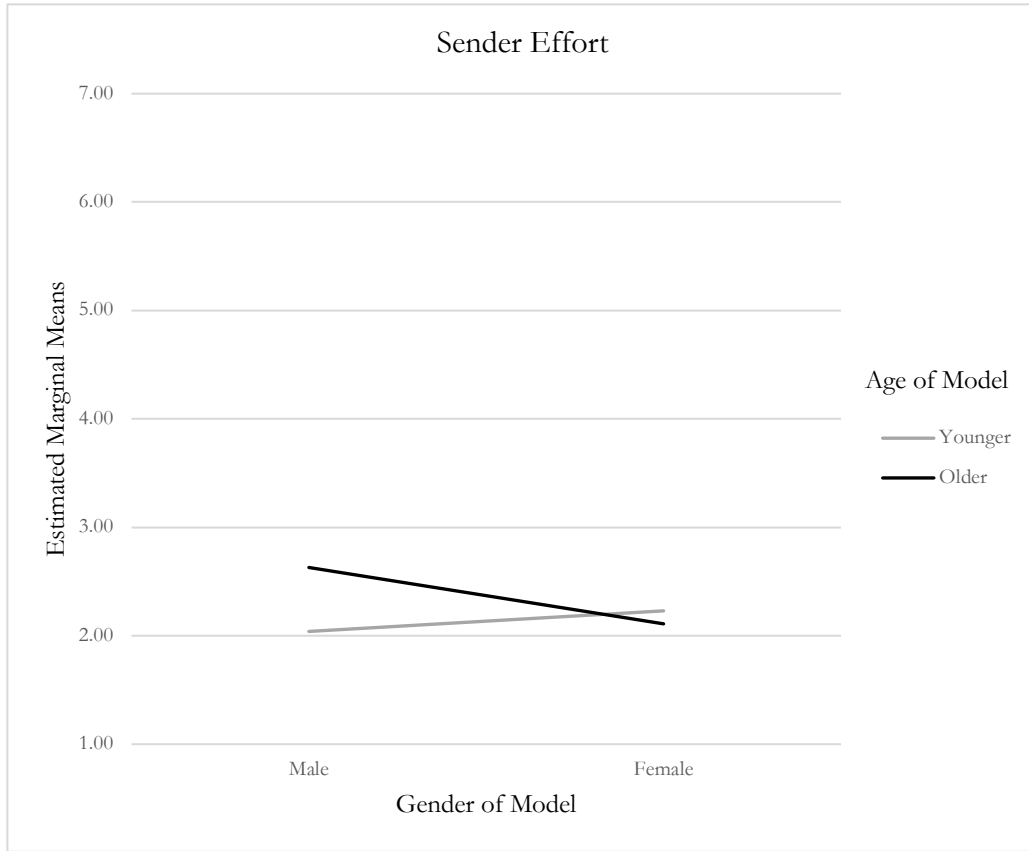|	Mean	SD
Younger Man (N = 52)	2.01	1.20
Younger Woman (N = 49)	2.23	1.19
Older Man (N = 51)	2.63	1.44
Older Woman (N = 49)	2.11	1.28

Figure 3 – Visualization of interaction effect of gender and age of model for sender effort

H1: Non-stereotypical portrayal, compared to stereotypical portrayal, of

   a. Occupational gender role   NOT SUPPORTED

   b. Age   SUPPORTED

   c. Occupational gender role and age combined   NOT SUPPORTED

will lead to higher perceived sender effort.

4.3.2 Ad Picture Attitude

We wanted to test whether non-stereotypical portrayal of occupational gender role, age, and the combination of them would lead to higher ad picture attitude. We first conducted a Two-way ANOVA to test for the main and interaction effects of gender and age of the models. No significant results ($p > .05$), were found, as shown in table 17 in Appendix IV. Then, a One-way ANOVA with a one-sided Dunnett's Post Hoc test was conducted. It was found that the older man led to higher ad picture attitude compared to the younger man ($M_{YoungerMan} = 3.85$, $SD_{YoungerMan} = 1.41$, $M_{OlderMan} = 4.46$, $SD_{OlderMan} = 1.37$, $p < .05$), hence **H2b** was *supported*. No differences were found between the other combinations. Hence, **H2a** and **H2c** were *not supported*.

Table 11 – Descriptive Statistics for Ad Picture Attitude

	Mean	SD
Younger Man (N = 52)	3.85	1.41
Younger Woman (N = 49)	4.06	1.47
Older Man (N = 51)	4.46	1.37
Older Woman (N = 49)	4.09	1.53

H2: Non-stereotypical portrayal, compared to stereotypical portrayal, of	
a. Occupational gender role	NOT SUPPORTED
b. Age	SUPPORTED
c. Occupational gender role and age combined	NOT SUPPORTED
will lead to higher ad picture attitude.	

4.3.3 Social Connectedness

We wanted to test whether non-stereotypical portrayal of occupational gender role, age, and the combination of the two would lead to higher social connectedness. A Two-way ANOVA for gender and age of the model showed no significant ($p > .05$) effects, as shown in table 18 in Appendix IV. Next, a One-way ANOVA with a one-sided Dunnett's Post Hoc test was calculated. No differences could be found between the respective groups as shown in table 12, hence **H3** was *not supported*.

Table 12 – Descriptive Statistics for Social
Connectedness

	Mean	SD
Younger Man (N = 52)	2.23	1.38
Younger Woman (N = 49)	2.49	1.53
Older Man (N = 51)	2.33	1.76
Older Woman (N = 49)	2.33	1.38

H3: Non-stereotypical portrayal, compared to stereotypical portrayal, of

    a. Occupational gender role   NOT SUPPORTED

    b. Age   NOT SUPPORTED

    c. Occupational gender role and age combined   NOT SUPPORTED

will lead to higher social connectedness.

We then only looked at female respondents and calculated a Two-Way ANOVA but with no significant effects, as shown in table 19 in Appendix IV. However, when conducting a One-Way ANOVA with a one-sided Dunnett's Post Hoc test, we found that seeing the younger woman ($M_{YoungerWoman}$ = 2.85, $SD_{YoungerWoman}$ = 1.76) led to significantly higher social connectedness ($p <$ .05) among female respondents compared to seeing the younger man ($M_{YoungerMan}$ = 1.93, $SD_{YoungerMan}$ = 1.30). Both the older man and the older woman were however not significantly ($p >$ .05) different from the younger man, as shown in table 13. However, it needs to be said that the group sizes were only around 25 respondents, which is seen as slightly lower than the normal threshold to get a good representation of the population (Newbold, Carlson, & Thorne, 2013). Hence, the result needs to be taken with caution.

<div align="center">

Table 13 – Descriptive Statistics for Social
Connectedness for Female Respondents

	Mean	SD
Younger Man (N = 27)	1.93	1.30
Younger Woman (N = 26)	2.85	1.76
Older Man (N = 23)	2.57	1.44
Older Woman (N = 24)	2.54	1.56

</div>

Mediation Analysis

To analyze a potential mediation of sender effort and social connectedness on ad picture attitude, we used model 6 of Hayes' plugin PROCESS version 3.4 to conduct a serial mediation analysis. In accordance with Berg and Liljedal (2020), bootstrapping was used with 5000 bootstrap samples and a 95% confidence interval (Preacher & Hayes, 2008; Zhao, Lynch, & Chen, 2010). To do the analysis, we needed to compare the younger man, i.e. the control group, to the three treatment scenarios individually, based on the recoded variables as described in section *3.4.2 Recoding of Variables*. The mediation effects of sender effort and social connectedness on ad picture attitude were calculated. An illustration of the model of comparing the scenarios is presented below (see figure 4). We found that sender effort and social connectedness mediated the effects of non-stereotypical portrayal of age on ad picture attitude, when comparing the scenarios younger man with the older man, with a significant indirect effect of .36 (5000 bootstrap samples, 95%, LLCI: .05, ULCI[1]: .69)[2]. Hence, **H4b** was *supported*. No effects could be found between the other scenarios, hence **H4a** and **H4c** were *not supported*.

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[1] Lower level confidence interval (LLCI), upper level confidence interval (ULCI).
[2] See Table 22, Appendix IV, for more detailed results of the mediation analysis.
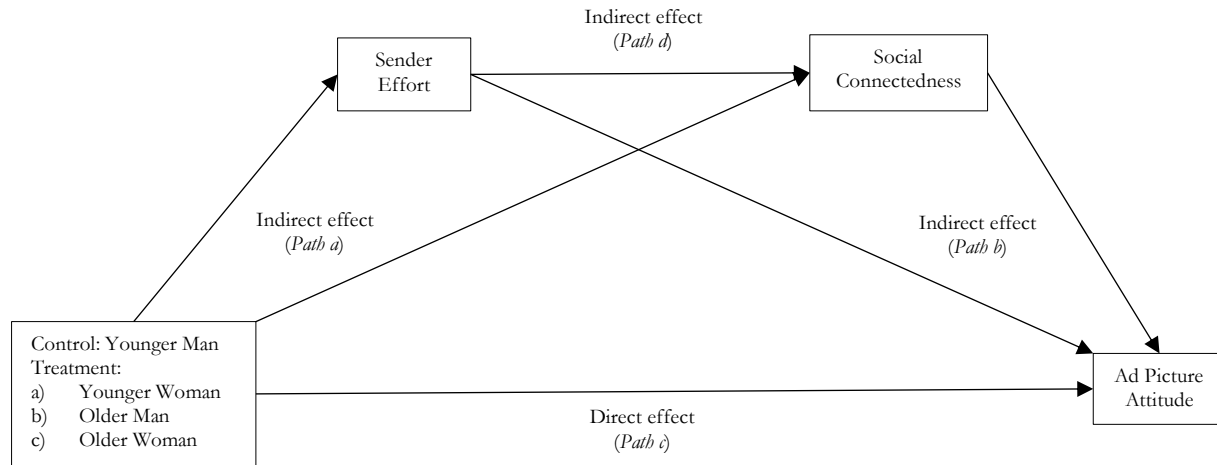
Figure 4 – Serial mediation analysis of sender effort and social connectedness on ad picture attitude

H4: Sender effort and social connectedness will mediate the effects of non-stereotypical portrayal of

   a. Occupational gender role   NOT SUPPORTED

   b. Age   SUPPORTED

   c. Occupational gender role and age combined   NOT SUPPORTED

on ad picture attitude.

4.3.4 Self-Esteem and Social Comparison

Self-Esteem

We wanted to test whether non-stereotypical portrayals of occupational gender role, age, and the two combined increased self-esteem among the respondents. We first conducted two Two-way ANOVA for social and performance self-esteem to check for main and interaction effects of gender and age of the models. No significant ($p > .05$) effects were found for either social nor performance self-esteem, as shown in table 20 and 21 in Appendix IV. We next measured social and performance self-esteem separately. Social self-esteem was measured on a reverse scale where lower scores meant higher self-esteem (Heatherton & Polivy, 1991). A One-way ANOVA with a one-sided Dunnett's Post hoc test showed no differences ($p > .05$) for any of the combinations of scenarios for either performance nor social self-esteem, as shown in table 14. Hence, **H5** was *not supported*.

Table 14 – Descriptive Statistics for Self-Esteem

	Social Self-Esteem (R)		Performance Self-Esteem	
	Mean	SD	Mean	SD
Younger Man (N = 52)	4.14	1.08	5.47	.95
Younger Woman (N = 49)	4.23	1.14	5.54	.90
Older Man (N = 51)	4.33	1.11	5.44	1.12
Older Woman (N = 49)	4.26	1.27	5.29	1.14

H5: Non-stereotypical portrayal, compared to stereotypical portrayal, of

 a. Occupational gender role   NOT SUPPORTED

 b. Age   NOT SUPPORTED

 c. Occupational gender role and age combined   NOT SUPPORTED

will lead to higher self-esteem.

Mediation Analysis

We wanted to measure whether social comparison would mediate possible effects of non-stereotypical portrayal of occupational gender role, age, and the two combined on self-esteem. Social comparison was measured with three questions; one general, one regarding gender, and one regarding age. As mentioned above, self-esteem was measured on the two dimensions performance and social self-esteem. The control group was tested against each of the treatment groups with each of the three social comparison questions and for both performance and social self-esteem individually, hence 18 combinations were analyzed. A visual illustration is shown in figure 5. Bootstrapping was used for the mediation analysis via model 4 of Hayes' PROCESS plugin (Zhao et al., 2010). No combination where either the direct effects (*Path c*) or both indirect effects (*Path a* and *Path b*) were significant were found when performing a simple mediation analysis with 5000 bootstrap samples and 95% confidence interval, testing the control against the treatment scenarios. Hence, **H6** was *not supported*.
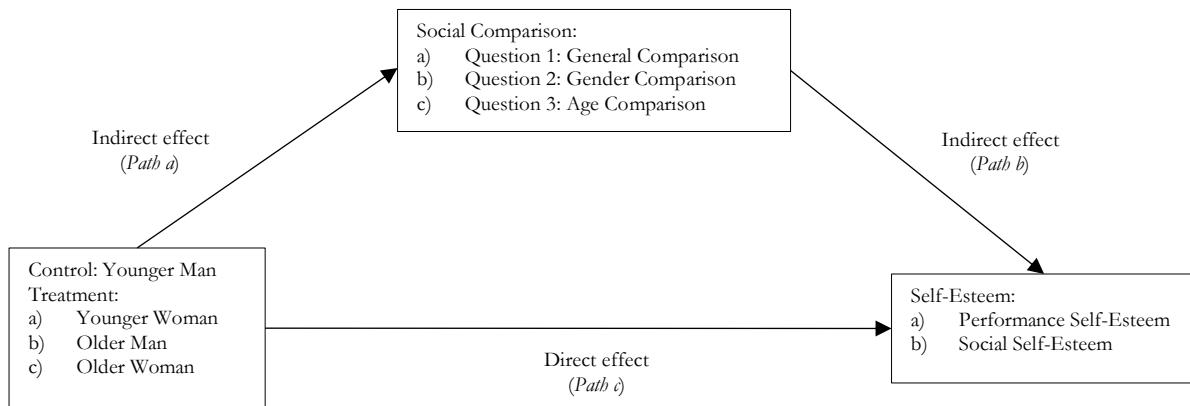
Figure 5 – Mediation analysis of social comparison on self-esteem

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H6: Social comparison will mediate the effects of non-stereotypical portrayal of

    a. Occupational gender role   NOT SUPPORTED

    b. Age   NOT SUPPORTED

    c. Occupational gender role and age combined   NOT SUPPORTED

on self-esteem.

---

5. Discussion

This section discusses the results of the hypotheses-testing. It gives explanations for the outcome of each of the studied concepts through relating the findings to theory.

5.1 Ad Effects

H1b was supported, meaning that non-stereotypical portrayal with regard to age, i.e. the older man, led to a higher sender effort than the stereotypical portrayal of the younger man. This is hence in line with the findings of non-stereotypical portrayals by Berg and Liljedal (2020) and of creative advertising by Dahlen et al. (2008) and Modig et al. (2014). Neither H1a nor H1c were supported, meaning that sender effort was not perceived higher when non-stereotypical portrayal with regard to occupational gender role nor occupational gender role and age combined were shown. However, the perceived sender effort was generally lower across all scenarios in this study than in previous research, e.g. Liljedal et al. (2020). This might be explained by the fact that our stimuli were only ad pictures, whereas previous researchers have added elements such as a product (e.g. Liljedal et al., 2020), a blurred logo (e.g. Berg & Liljedal, 2020), text (e.g. Dahlen et al., 2008), or used real ads (e.g. Modig et al., 2014). Knowledge of campaign elements might generate expense associations that in turn increase the perceived marketing effort (Kirmiani & Wright, 1989). We believe that the pure use of elements such as text or product is associated with more previous consumer knowledge than the complete absence of such elements. Hence, not including these elements, i.e. using only the ad picture, did not generate such an increase in the perceived sender effort, and therefore the general level was low. Even though we did find differences in the levels of perceived sender effort between the younger and the older man, both levels were still relatively low.

H2b was supported, implying that exposure to the non-stereotypical portrayal with regard to age, i.e. the older man, led to a higher ad picture attitude than the stereotypical portrayal of the younger man. Since the ad picture is an essential element of advertising in some contexts (Rossiter & Percy, 1997, as cited in Pieters & Wedel, 2004), an effect on the overall ad attitude is therefore also expected. This therefore adds to Berg and Liljedal's (2020) findings and shows that the effect also holds for male models for both male and female respondents and when studying ad pictures only. H2a was not supported, implying that exposure to the non-stereotypical portrayal with regard to occupational gender role, i.e. the younger woman, did not lead to higher ad picture attitude than the stereotypical

portrayal of the younger man. This result is hence not in line with Liljedal et al.'s (2020) and Åkestam et al.'s (2017a) findings. This might have several explanations. First, in one of Liljedal et al.'s (2020) studies, namely the one on Swedish respondents, and hence on respondents used to a similar degree of stereotyping (Eisend, 2010), pictures of either medical doctors or soldiers were used. However, each picture portrayed two or three people in contrasting gender roles. In our study, only one person was portrayed per picture, hence a contrast of gender roles was absent. It is plausible that seeing women in an assistant role or portrayed in a way making them look inferior to men strengthens negative perceptions (Windels, 2016), which hence lowers the attitude towards stereotyped images. Liljedal et al. (2020) argue that non-stereotypical portrayal leads to higher ad attitude, and we suggest that ad attitude instead might be negatively influenced when seeing a stereotypical portrayal. Since our stereotyped scenario portraying the younger man did not necessarily strengthen negative perceptions in line with Windels' (2016) reasoning, the ad picture attitude was likely not negatively influenced by the stereotyped image to the same degree as the ad attitude in Liljedal et al. (2020). Hence, no differences arose between the scenarios. Furthermore, in Åkestam et al.'s (2017a) study, YouTube videos were used as stimuli, where the stereotype was reinforced multiple times. Videos, compared to images, drive much more engagement e.g. in Facebook ads (Databox, 2019). We believe this tendency to be translatable also in similar contexts such as the studied one. Since our study's stimuli were subtle, they hence did not trigger the same strong reactions. This speaks for a belief that it is not necessarily only stereotypicality itself that increases ad picture attitude, but potentially also the context, media format, and reinforcement mechanism used. Further, H2c was not supported, implying that exposure to the double non-stereotyped scenario, the older woman, did not lead to a higher ad picture attitude. Possible explanations for this will be further discussed in section *5.3 Intersectionality Discussion.*

5.2 Social Effects

H3 was not supported, meaning that social connectedness was not influenced by whether the ad pictures were stereotyped or non-stereotyped with regard to occupational gender role, age, or the two combined. This could be because such social effects are only likely to appear as a result of repetitive exposure, where the ideas are reinforced and appear in different types of media (Pollay, 1987). Hence, since the respondents in this study were only exposed to one ad picture at a single point in time, the effects might have vanished.

Further, our hypothesis was partially based on Berg and Liljedal (2020) who studied non-stereotypical portrayal of age only among female respondents, while we suggested that this would also hold for male respondents. It was shown that male respondents did in fact not feel more socially connected to models that were non-stereotypical regarding age. However, when only looking at female respondents, seeing the non-stereotypical occupational gender role scenario, i.e. the younger woman, led to higher social connectedness compared to seeing the stereotypical younger man. This finding resonates with earlier research suggesting that ads can influence consumers beyond the ad context (e.g. Davies et al., 2002; Rosengren et al., 2013; Åkestam et al., 2017b), here however only for women. It has to be said that this finding was based on only between 23-27 respondents per group and therefore slightly below what it said to be a representative sample of the population (Newbold et al., 2013). The result hence needs to be taken with caution. Nonetheless, this is still an interesting finding that suggests that female respondents can be positively influenced by the non-stereotypical portrayals of occupational gender role and that they might be more receptive to stereotyped images of occupational gender role. This is in line with previous research which showed that stereotyped portrayals might generate negative effects among women (Bower, 2001) and is further supported by a study that found that women judge stereotyped advertising in general more negatively than men (Theodoridis, Kyrousi, Zotou, & Panigyrakis, 2013). This would explain why we saw an effect among female but not male respondents. These findings therefore contribute to closing the current research gap about the effects of using non-stereotypical portrayal of occupational gender role, age and the two combined and give a good indication for how female consumers' social connectedness is influenced.

H4b was supported, meaning that sender effort and social connectedness were found to mediate the effects of non-stereotypical portrayal of age on ad picture attitude, as suggested by earlier research (Berg & Liljedal, 2020). This suggests that the effect also hold for male models and not only for female respondents when exposed to female models, as previously tested by Berg and Liljedal (2020), and that the effects hold when studying ad pictures only. The mediation based on the non-stereotypical portrayal of occupational gender role, tested in H4a, and on occupational gender role and age combined, tested in H4c, were not supported. To explain this, we suggest a similar reasoning as for why H1a and H1c were not supported. Because sender effort was generally low, and no effects were found for social connectedness when analyzing all respondents, a significant mediation was thus not expected.

H5 was not supported, indicating that non-stereotypical portrayals of occupational gender role, age, and the two combined did in fact not lead to higher self-esteem among respondents. Previous research studied the effect of self-esteem in the context of physical attractiveness and financial success (Gulas & McKeage, 2000), but mostly with regard to body image and body shape (Bessenoff, 2006; Clay, Vignoles, & Dittmar, 2005; Irving, 1990; Loken & Peck, 2005). The effects might not arise in the context of occupational gender role, age, or the two combined. Also, the degree of stereotyping differs between countries, where Sweden has a rather low degree (Eisend, 2010). Since the previous studies on self-esteem were conducted in the U.S. (Bessenoff, 2006; Gulas & McKeage, 2000), the effects of stereotyping might differ. Further, Keh, Park, Kelly, and Du (2016) argue that whether self-esteem is affected by non-idealized images depends on how relatable the models are in terms of ethnicity. Building on Keh et al. (2016), we therefore believe that relatability to the portrayal is important in order for self-esteem to be affected. It is possible that the respondents did not find the occupation truck driver relatable, and hence their self-esteem was not influenced by the stimulus. Lastly, it is possible that effects only get triggered if the model and the respondents have the same gender. As suggested by earlier research, female respondents got influenced by non-stereotypical portrayal of female models (Bessenoff, 2006) and male respondents mostly got influenced by non-stereotypical portrayal of men (Gulas & McKeage, 2000). A non-stereotyped male model might not influence a female respondent as much, and a female model might not influence a male respondent, hence we did not see an overall effect of non-stereotypical portrayal of occupational gender role, age, nor the two combined.

The results of H6 could not confirm what theory suggested (Bessenoff, 2006; Tiggemann & McGill, 2004), in the sense that social comparison was not found to mediate the effects of non-stereotypical portrayal on self-esteem. However, when measuring social comparison by itself, overall low scores with no differences between the scenarios were found, indicating that the respondents did generally not compare themselves much to the models in any of the scenarios. The absence of effect via a mediation could therefore be explained by this. The question however arises of why the respondents did not compare themselves much to the models. An explanation could lie in that our stimuli were not idealized. D'Alessandro and Chitty (2011) describe idealized stereotypes as something desirable. Other research has also confirmed that higher social comparison was influenced by idealized images (Richins, 1991). It could thus be argued that because our stimuli were not necessarily idealized in the

sense that they were desired by consumers (D'Alessandro & Chitty, 2011), but only stereotyped, social comparison was hence not triggered, which in turn did not increase self-esteem.

5.3 Intersectionality Discussion

Consumer responses to the use of stereotypes with regard to occupational gender role, age, and the two combined, are new fields of research. It is therefore difficult to find solid explanations for why and under which circumstances positive effects arise from using the combination of such non-stereotypical portrayals, i.e. for why *part c)* of the hypotheses were not supported. We do however provide some suggestions. For sender effort, a significant interaction effect was found between the gender and age of the model. This gives indication that non-stereotypical portrayal on one of the two tested dimensions, here the age dimension, leads to positive effects, but that breaking both tested stereotypes at the same time does not. The older woman was more clearly perceived as non-stereotyped regarding her age than her male counterpart, even though pre-study 2 showed that they were perceived to be around the same age. This might be one of the reasons for why the scenario portraying the older woman did not lead to the same effects as for the older man and could be connected to the fact that women are seen as older earlier in life compared to men (Crawford, 2000, as cited in McConatha, Schnell, Volkwien, Riley, & Leach, 2003). This is also reflected in advertising, where older women are even less common than older men (Carrigan & Szmigin, 1998; Kessler et al., 2004; Prieler et al., 2017; Zhang et al., 2006). This would however suggest that consumers prefer the more stereotyped older man to the less stereotyped older woman, which goes against what previous research has suggested (e.g. Berg & Liljedal, 2020). We therefore ask ourselves whether consumers are not yet receptive to this kind of double non-stereotypical portrayal.

Furthermore, research shows that non-stereotypical portrayal can lead to positive effects (e.g. Berg & Liljedal, 2020; Liljedal et al., 2020; Åkestam et al., 2017a). However, Windels (2016) argues that some stereotyping might still lead to positive effects, e.g. when it simplifies a marketing message. It is therefore plausible that portraying a woman in a male-stereotyped occupation does indeed lead to positive effects, as shown by Liljedal et al. (2020), as long as the woman is young. However, if the woman is also non-stereotypical regarding her age, the simplifying of the marketing message in accordance with Windels (2016) might vanish, as she is too dissimilar to the portrayals consumers usually see. The positive effects of using non-stereotypical portrayal of occupational gender role and the negative effects of no longer simplifying a marketing message might hence cancel each other out.

The older man on the other hand was only non-stereotypical with regard to age, which research has shown can have positive effects (Berg & Liljedal, 2020). The portrayal of him did however simplify the marketing message in the sense that he was portrayed in a male-stereotyped occupation. In this case, the positive effects of using non-stereotypical portrayal of age (Berg & Liljedal, 2020) and the positive effects of simplifying a marketing message due to the stereotypical portrayal of occupational gender role (Windels, 2016), hence added up to a more positive sum of effects compared to the portrayal of the older woman.

6. Conclusions

This section contains the conclusions of the study. It summarizes what was investigated and presents the theoretical contributions. Implications for marketers and consumers are provided, and limitations and suggestions for future research are presented.

The purpose of this thesis was to investigate the following research question: *Can non-stereotypical advertising portrayals of occupational gender role, age, and occupational gender role and age combined lead to positive ad and social effects for consumers?* These fields were chosen because of the current lack of research on consumer responses in the areas occupational gender roles and age respectively, and the intersectionality of the two. The research question was studied by comparing consumer responses to stereotypical versus non-stereotypical portrayals of occupational gender role, age, and the two combined. We hypothesized that each of the three non-stereotypical portrayals would lead to positive ad and social effects compared to the stereotypical portrayals.

The results showed that this was generally not the case. Non-stereotypical portrayal of occupational gender role did not lead to positive ad nor social effects, and hence show that we were not able to replicate what previous research has found. It is thus possible that other factors than stereotypicality affect how consumers judge such portrayals. Non-stereotypical portrayal of age was however found to positively influence consumers' perceived sender effort and ad picture attitude, even though the former was rather low. It also showed a positive mediation of sender effort and social connectedness on ad picture attitude. Hence, we were able to confirm a connection between non-stereotypical portrayal of age and positive ad effects. Further, non-stereotypical portrayal of the combination of occupational gender role and age was not found to generate higher ad nor social effects for all consumers. This hence offers initial insight on this new field of research. It is possible that non-stereotypical portrayal may lead to positive effects if it is non-stereotypical on one but not on two dimensions. Last, non-stereotypical portrayal of occupational gender role led to higher social connectedness, but only among female consumers. This provides some additional insights on that a connection between non-stereotypical portrayal and social effects might exist for female consumers. With this study we were hence not able to fully confirm that positive ad and social effects are generated through non-stereotypical portrayals of occupational gender role, age, and the two combined in the studied context. We are however not able to reject that these effects still could arise in another context (Gopaldas et al., 2009).

The findings answer the research question in the sense that non-stereotypical portrayals of occupational gender role and non-stereotypical portrayal of occupational gender role and age combined did in fact not lead to higher ad nor social effects in the studied context. However, non-stereotypical portrayal of age led to higher perceived sender effort and ad picture attitude and hence generated positive ad effects. It can therefore be concluded that whether non-stereotypical portrayal of occupational gender role, age, and the two combined lead to positive ad and social effects depends on the context in which they are studied, on the stimulus used, and possibly on how many dimensions of stereotypicality they touch upon.

6.1 Theoretical Contributions

This thesis offers several theoretical contributions to the fields of consumer responses to non-stereotypical portrayals of occupational gender role and age respectively. It also contributes to opening up a new field of research on consumer responses to non-stereotypical portrayal of occupational gender role and age combined. Overall, it can be said that the use of non-stereotypical portrayals of occupational gender role, age, and the two combined might be context-dependent (Gopaldas et al., 2009). Even though previous research suggests positive ad and social effects for the studied concepts, we were not able to replicate all of these findings in the studied context.

6.1.1 Occupational Gender Role Stereotypes

The thesis contributes to the field of consumer responses to occupational gender role stereotypes by offering insights on the fact that such non-stereotypical portrayals do not always lead to ad and social effects. It was shown that in the studied context, with the relatively subtle stimuli used compared to e.g. Åkestam et al. (2017a), the previously found positive ad and social effects could not be replicated. Only when studying female consumers, higher social connectedness to the non-stereotyped younger woman could be established, however with a smaller sample size. Hence, this thesis' findings open up the question about how extreme a stimulus needs to be to trigger positive ad and social effects.

6.1.2 Age Stereotypes

This thesis also contributes to the growing field of the use of non-stereotypical portrayals of age in advertising. To the best of our knowledge, only the study by Berg and Liljedal (2020) researched how non-stereotypical portrayal of older women in beauty ads can have positive ad and social effects for

female consumers. This thesis offers additional insights on that non-stereotypical portrayal of age of older men can also generate positive effects on perceived sender effort for both male as well as female consumers and on ad picture attitude. The ad picture attitude is closely connected to the ad attitude considering that the picture is an essential element of advertising in some contexts (Rossiter & Percy, 1997, as cited in Pieters & Wedel, 2004).

6.1.3 Intersectionality

This thesis touches upon the new field of non-stereotypical portrayal of occupational gender role and age combined by studying consumer responses to such ad and social effects. Even though positive ad effects could be found for the non-stereotypical older man, this could not be replicated for the older woman. Furthermore, the presence of more positive ad effects for the portrayal of the older man compared to the older woman can potentially be understood by studying the occurrence of both positive and negative effects of stereotypes as described by Windels (2016). Stereotyping on two dimensions for the older woman might have canceled out some positive effects that remained when the stereotyping only happened on one dimension for the older man, hence resulting in a more positive sum of effects associated with the older man than with the older woman.

Also, as intersectionality theory suggests, stereotyping is context-dependent (Gopaldas et al., 2009). It is therefore also possible that no positive effects of double non-stereotypical portrayal were found because of the context it was studied in. We are therefore not able to conclude that such effects are generally not triggered, but only that they were not triggered in the studied context.

6.2 Implications for Marketers and Consumers

We find four main implications for marketers from this study. First, this thesis offers insights on the positive ad effects of using non-stereotypical portrayal of age in advertising. It was shown that non-stereotypical portrayal of age, when only touching upon one stereotype at a time, can lead to higher perceived sender effort and ad picture attitude, closely related to ad attitude as explained earlier. These factors are important to marketers since sender effort has been shown to have a positive impact on brand attitude (Modig et al., 2014) and perceived marketing effort has been confirmed to enhance perceived brand quality (Dahlen et al., 2008). Furthermore, high ad attitude has also previously been found to lead to e.g. higher brand attitude (e.g. Eisend et al., 2014; Åkestam et al., 2017a) and purchase intention (e.g. Wahid & Ahmed, 2011). Second, it was shown that non-stereotypical portrayal of

occupational gender role led to higher social connectedness among female respondents. Being aware of this finding might help marketers succeed in better targeting advertising towards consumers. Third, various research shows the negative effects that can be associated with the use of stereotypical images, such as decreased self-esteem (Bessenoff, 2006; Gulas & McKeage, 2000; Keh et al., 2016), worse self-development (Knoll at al., 2011), lower self-evaluation of attractiveness (Irving, 1990), poor body image (D'Alessandro & Chitty, 2011), and body dissatisfaction (Stice & Shaw, 1994). Even though this study did not show that non-stereotypical portrayal led to positive ad or social effects for all of the studied concepts, it is important to mention that it did also not lead to negative effects. Hence, we hope to be able to provide marketers with reason to consider the use of non-stereotypical portrayals, increase diversity in advertising, and hence lower consumers' pressure to conform to advertising ideals. Last, we found that the ads featuring the male models were perceived as slightly more realistic. This shows that if marketers decide to use non-stereotypical portrayals, they should consider how this might affect the credibility of their ad.

Our study also provides implications for consumers. The fact that the older woman was perceived as more non-stereotyped with regard to her age than the older man offers insight on the different ways in which men and women are perceived in advertising. This finding educates consumers and hence helps them become aware of the fact that age stereotyping differs depending on gender. Also, both the younger woman and the older woman were perceived as non-stereotyped with regard to gender in the portrayed occupation. This helps creating awareness of the uneven gender distribution for e.g. the studied occupation among consumers. Both of these findings can hopefully contribute positively in acting to decrease the use of such stereotyping. Also, the findings revealed that non-stereotypical portrayal of neither occupational gender role, age, nor the two combined led to negative ad nor social effects. Consumers can hence question marketers' choice to use such stereotyped portrayals in advertising.

6.3 Limitations and Criticism of the Study

We identify several limitations of this study. First, we find support for few of the hypothesized relationships, particularly not with regard to occupational gender role nor occupational gender role and age combined. It might be argued that the selected research question was aimed at investigating and combining research fields that are too new, since few theories about consumers' responses to non-stereotypical portrayals exist. This implies that a more exploratory research approach

(Edmondson & McManus, 2007) could have been suitable. However, considering that previous research in the studied fields have used a similar approach as was used in this thesis, this was considered the most appropriate approach. Furthermore, seeing that clear positive effects have been demonstrated with regard to non-stereotypical portrayals of occupational gender role (Liljedal et al., 2020; Åkestam et al., 2017a) and that stereotyping often occurs based on the combination of gender and age (Edström, 2018; Kessler et al., 2004; Waters, 2005) or in a workplace context (Gander, 2014), the chosen field of study was deemed relevant. Further, we also turn to the stimuli design as a possible explanation for why some hypothesized effects could not be seen. Whereas other researchers have contrasted gender roles by portraying men and women in the same photo in different hierarchical positions (Liljedal et al., 2020) or used videos as a means for reinforcement (Åkestam et al., 2017a), this was not the case for this study. It is possible that the absence of such elements did not activate the occupational gender role nor age stereotype in the hypothesized way. Furthermore, the respondents did not perceive either of the ads to look particularly realistic. This could possibly be explained by the absence of a brand logo or text in the ads, i.e. use of only the ad picture. This was however an accepted tradeoff to minimize possible confounds interacting with the concepts. Also, the ad pictures were created by us together with a friend of ours and were hence not real ads. None of us have professional photo editing skills and this likely contributed to the ad pictures looking less professional.

Also, the data sample for the study was not fully representative of the Swedish population. Due to the COVID-19 pandemic, collecting of responses at public places as initially planned, could not be realized. Instead, we had to rely on our private networks, which naturally entails a sort of bias. The sample size could also have been bigger, and it is possible that this could have contributed to that more statistically significant differences would have been found.

Last, a weakness can also be seen in asking consumers about perceived stereotypicality. People might interpret the definition of stereotyped differently (Åkestam, 2017), and it might generally be difficult to answer such questions, as was also reflected in pre-study 3. This poses a limitation with regard to the interpreted meaning of the values in the scales used.

6.4 Future Research

Overall, the studied field of research is fairly new and hence still under-researched. Given this knowledge gap, many different areas need more research. Occupational gender role stereotyping is very common in advertising (Eisend, 2010), and so is age stereotyping (e.g. Carrigan & Szmigin, 1998; Zhang et al., 2006), why both have critical implications for marketers and consumers. Therefore, future research is needed about consumer responses to non-stereotypical portrayal of occupational gender role, age, and the two combined. Even though a positive effect with regard to social connectedness was found for female respondents, this should be tested again with a larger sample. The combination of occupational gender role and age stereotypes in particular is suggested to be studied further, since gender and age are intertwined (Choroszewicz & Adams, 2019a; Cleveland et al., 2017) and earlier research confirmed the positive social effects from using non-stereotypical portrayal of both occupational gender role (Liljedal et al., 2020; Åkestam et al., 2017a) and age (Berg & Liljedal, 2020) respectively.

Further, the scope of this thesis was limited to studying one specific male-stereotyped occupation and the findings can thus only be applied to this context. It would hence be interesting to see whether the presented findings would hold not only in other male-stereotyped occupations, but more interestingly also in female-stereotyped occupations. Also, this study focused on the Swedish market. Since there are cultural differences between countries (Catalyst, 2006), it is important that studies like ours are replicated in other countries to test whether similar effects of using non-stereotypical portrayals may arise.

Several concepts, especially those related to social effects, were studied in the context of body image or shape (e.g. Bessenoff, 2006; Bissell & Rask, 2010; Clay et al., 2005; Irving, 1990; Loken & Peck, 2005). Our study showed that in an occupational context, non-stereotypical portrayal of gender role, age, or the two combined, did not lead to many positive ad nor social effects. However, we cannot say whether this was due to the occupation truck driver or due to the general context of occupation. Hence, more research is needed to clarify how the context influences the effects of such stereotyping.

More research is needed with regard to potential moderators of the relationship between non-stereotypical portrayals and ad as well as social effects. For example, Keh et al. (2016) gave insights on how the concept of relatability influences such effects. It is however unclear if also other factors that so far have been neglected could also play a role. In this study, the measures of whether the ad

pictures were stereotyped or non-stereotyped did not differ much to previous research, yet not the same effects could be found for all the concepts. Hence, further research is needed to fully understand whether only stereotypicality itself triggers ad and social effects or if other factors also influence this relationship.

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Appendix I

The models, i.e. the stimuli, tested in pre-study 2 are presented below.

Younger woman

Younger man

Older woman

Older man

Appendix II

The models, i.e. the stimuli, tested in pre-study 3 and used for the main study are presented below.

Younger woman

Younger man

Older woman

Older man

Appendix III

The surveys for the pre-studies and the relevant questions from the main study are presented below.

Pre-Study 1: Choice of Male-Stereotyped Occupation

Hej!

Vi är två studenter på Handelshögskolan som skriver vår masteruppsats inom marknadsföring. Det här är en undersökning där vi ber dig att svara på ett antal frågor i två olika delar. Undersökningen tar cirka 2 minuter att genomföra. Dina svar är självklart anonyma.

Del 1 handlar om olika yrken och del 2 handlar om marknadsföring. Vi ber dig att vänligen vara uppmärksam och att läsa frågorna noggrant innan du svarar.

Vi ber dig också att endast besvara enkäten på antingen en dator eller surfplatta.

 Stort tack för din medverkan!

Page Break

Block 1

Den här delen innehåller frågor kopplade till de två yrkena lastbilsförare och elektriker. Var uppmärksam på vilket yrke som frågorna gäller.

Page Break

<< Randomly assign order of occupation, display both with the respective questions >>

Var skulle du placera yrket **elektriker** på skalan nedanför?

	1	2	3	4	5	6	7	
Maskulint	○	○	○	○	○	○	○	Feminint

Inom vilket åldersspann tror du att majoriteten av de personer som arbetar inom yrket **elektriker** är?

- ○ Under 20 år
- ○ 21-30 år
- ○ 31-40 år
- ○ 41-50 år
- ○ 51-60 år
- ○ 61 år eller äldre

Page Break

Var skulle du placera yrket **lastbilsförare** på skalan nedanför?

	1	2	3	4	5	6	7	
Maskulint	○	○	○	○	○	○	○	Feminint

Inom vilket åldersspann tror du att majoriteten av de personer som arbetar inom yrket **lastbilsförare** är?

○   Under 20 år

○   21-30 år

○   31-40 år

○   41-50 år

○   51-60 år

○   61 år eller äldre

Page Break

Indikera till vilken grad du instämmer/ej instämmer med påståendet nedan:
Jag anser att både män och kvinnor är kapabla att utföra yrket **lastbilsförare**

	1	2	3	4	5	6	7	
Instämmer inte alls	○	○	○	○	○	○	○	Instämmer helt

I vilken ålder tror du att personer är kapabla att arbeta inom yrket **lastbilsförare**? (Vänligen markera ett eller flera/alla alternativ du anser passande)

☐ Under 20 år

☐ 21-30 år

☐ 31-40 år

☐ 41-50 år

☐ 51-60 år

☐ 61 år eller äldre

Page Break

Indikera till vilken grad du instämmer/ej instämmer med påståendet nedan:
Jag anser att både män och kvinnor är kapabla att utföra yrket **elektriker**

	1	2	3	4	5	6	7	
Instämmer inte alls	○	○	○	○	○	○	○	Instämmer helt

I vilken ålder tror du att personer är kapabla att arbeta inom yrket **elektriker**? (Vänligen markera ett eller flera/alla alternativ du anser passande)

☐ Under 20 år

☐ 21-30 år

☐ 31-40 år

☐ 41-50 år

☐ 51-60 år

☐ 61 år eller äldre

Page Break

Block 2

Denna del innehåller en allmän fråga om marknadsföring.

Page Break

Inom vilket åldersspann tror du att majoriteten av de personer som visas i annonser är?

○   Under 25 år

○   26-35 år

○   36-45 år

○   46-55 år

○   56-65 år

○   66 år eller äldre

Page Break

För att säkerställa att du fortfarande är med oss; vilka yrken gällde frågorna ovan?

○   Brandman och läkare

○   Lastbilsförare och elektriker

○   Polis och militär

Page Break

Demographic Block

Slutligen, två avslutande frågor om dig.

Hur gammal är du? Vänligen svara i siffror, t.ex. 41

_____

Vilket kön identifierar du dig med?

○ Kvinna

○ Man

○ Annat

Pre-Study 2: Choice of Models

Hej!

Vi är två studenter på Handelshögskolan som skriver vår masteruppsats inom marknadsföring. Det här är en undersökning där vi ber dig att svara på ett antal frågor. Undersökningen tar cirka 2 minuter att genomföra. Dina svar är självklart anonyma.

Vi ber dig att vänligen vara uppmärksam och att läsa frågorna noggrant innan du svarar.

Vi ber dig också att endast besvara enkäten på antingen en dator eller surfplatta.

Stort tack för din medverkan!

<< Randomly assign order & Displaying one ad at a time together with questions >>

Vad tycker du om personen på bilden?

	1	2	3	4	5	6	7	
Dåligt	◯	◯	◯	◯	◯	◯	◯	Bra
Gillar inte	◯	◯	◯	◯	◯	◯	◯	Gillar
Negativt intryck	◯	◯	◯	◯	◯	◯	◯	Positivt intryck

Hur gammal tror du att personen på bilden är? Skriv svaret i siffror nedan.

_____

Page Break

<< Go back to start, until all four ads were displayed. Then, continue below >>

Page Break

Block 2

För att säkerställa att du fortfarande är med oss, vänligen markera nummer fem på skalan nedan:

- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7

Page Break

Slutligen, två avslutande frågor om dig.

Hur gammal är du? Vänligen svara i siffror, t.ex. 25

_____

Vilket kön identifierar du dig med?

○   Kvinna

○   Man

○   Annat

End of Questionnaire

Pre-Study 3: Manipulation Check of Stimuli

Hej!

Vi är två studenter på Handelshögskolan som skriver vår masteruppsats inom marknadsföring. Det här är en undersökning där vi ber dig att svara på ett antal frågor. Undersökningen tar cirka 3 minuter att genomföra. Dina svar är självklart anonyma.

Vi ber dig att vänligen vara uppmärksam och att läsa frågorna noggrant innan du svarar.

Vi ber dig också att endast besvara enkäten på antingen en dator eller surfplatta.

Stort tack för din medverkan!

Page Break

Block 1

I den här sektionen kommer du att se fiktiva annonser som visar **lastbilschaufförer**.

Vänligen studera annonsen ovan och indikera till vilken grad du instämmer/ej instämmer med påståendena nedan:

Det här är en stereotyp porträttering av **könsroller**

	1	2	3	4	5	6	7	
Instämmer inte alls	○	○	○	○	○	○	○	Instämmer helt

Jag tror att *andra* vuxna anser att det här är en stereotyp porträttering av **könsroller**

	1	2	3	4	5	6	7	
Instämmer inte alls	○	○	○	○	○	○	○	Instämmer helt

Vänligen studera annonsen ovan och indikera till vilken grad du instämmer/ej instämmer med påståendena nedan:

Den porträtterade personens **ålder** är stereotypisk i marknadsföring

	1	2	3	4	5	6	7	
Instämmer inte alls	○	○	○	○	○	○	○	Instämmer helt

- -

Det här är en stereotypisk annons med hänsyn till **ålder**

	1	2	3	4	5	6	7	
Instämmer inte alls	○	○	○	○	○	○	○	Instämmer helt

- -

Jag tror att *andra* vuxna anser att den porträtterade personens **ålder** är stereotypisk i marknadsföring

	1	2	3	4	5	6	7	
Instämmer inte alls	○	○	○	○	○	○	○	Instämmer helt

<< Go back to start, until all four ads were displayed. Then, continue below >>

Page Break

För att säkerställa att du fortfarande är med oss; vilket yrke hade personerna i annonserna?

    ○   Brandman

    ○   Lastbilschaufför

    ○   Polis

Page Break

Demographics Block

Slutligen, två avslutande frågor om dig.

Hur gammal är du? Vänligen svara i siffror, t.ex. 42

_____

Vilket kön identifierar du dig med?

    ○   Kvinna

    ○   Man

    ○   Annat

End of Questionnaire

Main Study

Hej!

Vi är två studenter på Handelshögskolan som skriver vår masteruppsats inom marknadsföring. Det här är en undersökning där vi ber dig att svara på ett antal frågor. Undersökningen tar cirka 5 minuter att genomföra. Dina svar är självklart anonyma.

Vi ber dig att vänligen vara uppmärksam och att läsa frågorna noggrant innan du svarar.

Vi ber dig också att, om möjligt, besvara enkäten på en dator. Med anledning av enkätens format rekommenderar vi **ej** att besvara enkäten på en mobiltelefon. Ifall du besvarar enkäten på en surfplatta, vänligen vrid enheten så att alla svarsalternativ syns.

Stort tack för din medverkan!

Page Break

Block 1

I den här undersökningen kommer du att se en fiktiv annons och svara på ett antal frågor. Personen som visas i annonsen har yrket **lastbilschaufför**. Vänligen studera annonsen noggrant innan du besvarar frågorna.

Page Break

<< Randomly assigned respondent to one of the groups >>

<< Displaying respective ad >>

Vad är din åsikt om annonsen?

	1	2	3	4	5	6	7	
Dålig	◯	◯	◯	◯	◯	◯	◯	Bra
Ogillar	◯	◯	◯	◯	◯	◯	◯	Gillar
Negativ uppfattning	◯	◯	◯	◯	◯	◯	◯	Positiv uppfattning

Page Break

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Vad tycker du om personen på bilden?

	1	2	3	4	5	6	7	
Dåligt	◯	◯	◯	◯	◯	◯	◯	Bra
Gillar inte	◯	◯	◯	◯	◯	◯	◯	Gillar
Negativt intryck	◯	◯	◯	◯	◯	◯	◯	Positivt intryck

Page Break

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Hur attraktiv tycker du personen på bilden är?

	1	2	3	4	5	6	7	
Mycket oattraktiv	○	○	○	○	○	○	○	Mycket attraktiv

Page Break

Hur väl instämmer du med följande påståenden? (1 = Instämmer inte alls , 7 = Instämmer helt)

	1	2	3	4	5	6	7
Jag känner att annonsens avsändare har lagt ner mycket tid bakom annonsen	○	○	○	○	○	○	○
Jag känner att annonsens avsändare har lagt ner mycket ansträngning bakom annonsen	○	○	○	○	○	○	○
Jag känner att annonsens avsändare har lagt ner mycket tanke bakom annonsen	○	○	○	○	○	○	○

Page Break

Hur väl instämmer du med följande påstående? (1 = Instämmer inte alls, 7 = Instämmer helt)

	1	2	3	4	5	6	7
Jag känner samhörighet med personen i annonsen	◯	◯	◯	◯	◯	◯	◯

Page Break

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Hur väl instämmer du med följande påståenden? Vänligen besvara frågorna utefter hur du anser att det faktiskt är och **inte** utefter hur du vill att det ska vara. (1 = Instämmer inte alls, 7 = Instämmer helt)

	1	2	3	4	5	6	7
Det här är en stereotyp annons	◯	◯	◯	◯	◯	◯	◯
Det här är en stereotyp porträttering av **könsroller**	◯	◯	◯	◯	◯	◯	◯
Den porträtterade personens **ålder** är stereotypisk i marknadsföring	◯	◯	◯	◯	◯	◯	◯

Page Break

För att säkerställa att du fortfarande är med oss; vilket yrke hade personen i annonsen?

○   Brandman

○   Lastbilschaufför

○   Polis

Page Break

Vänligen besvara frågorna nedan: (1 = Inte alls, 7 = I en extrem utsträckning)

	1	2	3	4	5	6	7
I vilken utsträckning jämförde du dig med personen i annonsen?	○	○	○	○	○	○	○
När du såg annonsen, i vilken utsträckning var dina tankar relaterade till aspekter gällande **könsroller**?	○	○	○	○	○	○	○
När du såg annonsen, i vilken utsträckning var dina tankar relaterade till aspekter gällande **ålder**?	○	○	○	○	○	○	○

Page Break

Nu kommer några frågor kring din uppfattning om några olika ämnen i allmänhet.

Hur väl instämmer du med följande påståenden? (1 = Instämmer inte alls, 7 = Instämmer helt)

	1	2	3	4	5	6	7
Jag känner mig självmedveten	○	○	○	○	○	○	○
Jag är orolig för vad andra människor tycker om mig	○	○	○	○	○	○	○
Jag är orolig över att se dum ut	○	○	○	○	○	○	○
Jag känner mig säker på mina förmågor	○	○	○	○	○	○	○
Jag känner mig lika smart som andra	○	○	○	○	○	○	○
Jag känner mig säker på att jag förstår saker	○	○	○	○	○	○	○

Hur troligt anser du att det är att annonsen du sett i den här undersökningen skulle kunna vara en riktig annons?

	1	2	3	4	5	6	7	
Inte troligt	○	○	○	○	○	○	○	Troligt

Page Break

För att säkerställa att du fortfarande är med oss...

	1	5	8	14	21	34	40
Vänligen markera nummer åtta på skalan:	○	○	○	○	○	○	○

Page Break

Block 4: Demographics

Slutligen, två avslutande frågor om dig.

Page Break

Hur gammal är du? Vänligen svara i siffror, t.ex. 42

_____

Vilket kön identifierar du dig med?

    ◯   Kvinna

    ◯   Man

    ◯   Annat

End of Questionnaire

Appendix IV

More detailed test results for the hypotheses testing are presented below.

Table 15 - Two-way ANOVA: Ad Perception: Tests of Between Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	42.639a	3	14.213	3.758	0.012**	0.054
Intercept	2662.669	1	2662.669	704.105	0.000***	0.781
Gender	40.133	1	40.133	10.613	0.001***	0.051
Age	2.058	1	2.058	0.544	0.462	0.003
Gender * Age	0.54	1	0.54	0.143	0.706	0.001
Error	744.983	197	3.782			
Total	3468	201				
Corrected Total	787.622	200				

a. R Squared = .054 (Adjusted R Squared = .040)

*Significance level: ** p < .05, *** p < .001*

Table 16 - Two-way ANOVA: Sender Effort: Tests of Between Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	11.180a	3	3.727	2.27	0.082	0.033
Intercept	1012.464	1	1012.464	616.787	0.000***	0.758
Gender	1.131	1	1.131	0.689	0.408	0.003
Age	3.041	1	3.041	1.853	0.175	0.009
Gender * Age	6.82	1	6.82	4.155	0.043**	0.021
Error	323.378	197	1.642			
Total	1348	201				
Corrected Total	334.558	200				

a. R Squared = .033 (Adjusted R Squared = .019)

*Significance level: ** p < .05, *** p < .001*

Table 17 - Two-way ANOVA: Ad Picture Attitude: Tests of Between Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	9.971a	3	3.324	1.594	0.192	0.024
Intercept	3403.91	1	3403.91	1632.051	0.000***	0.892
Gender	0.35	1	0.35	0.168	0.683	0.001
Age	5.121	1	5.121	2.455	0.119	0.012
Gender * Age	4.286	1	4.286	2.055	0.153	0.010
Error	410.876	197	2.086			
Total	3826.222	201				
Corrected Total	420.847	200				

a. R Squared = .024 (Adjusted R Squared = .009)

*Significance level: ** p < .05, *** p < .001*

Table 18 - Two-way ANOVA: Social Connectedness: Tests of Between Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1.858a	3	0.619	0.324	0.808	0.005
Intercept	1095.078	1	1095.078	572.519	0.000***	0.744
Gender	0.561	1	0.561	0.293	0.589	0.001
Age	0.129	1	0.129	0.068	0.795	0.000
Gender * Age	1.180	1	1.180	0.617	0.433	0.003
Error	376.809	197	1.913			
Total	1473.000	201				
Corrected Total	378.667	200				

a. R Squared = .005 (Adjusted R Squared = -.010)

*Significance level: *** p < .001*

Table 19 - Two-way ANOVA: Social Connectedness for Female Respondents: Tests of Between Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	11.993a	3	3.998	1.722	0.168	0.051
Intercept	607.519	1	607.519	261.712	0.000***	0.732
Gender	5.005	1	5.005	2.156	0.145	0.022
Age	0.698	1	0.698	0.301	0.585	0.003
Gender * Age	5.545	1	5.545	2.389	0.126	0.024
Error	222.847	96	2.321			
Total	840.000	100				
Corrected Total	234.840	99				

a. R Squared = .051 (Adjusted R Squared = .021)

Significance level: *** p < .001

Table 20 - Two-way ANOVA: Social Self-Esteem: Tests of Between Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.974a	3	0.325	0.244	0.866	0.004
Intercept	3612.865	1	3612.865	2714.666	0.000***	0.932
Gender	0.003	1	0.003	0.002	0.962	0.000
Age	0.605	1	0.605	0.455	0.501	0.002
Gender * Age	0.342	1	0.342	0.257	0.613	0.001
Error	262.181	197	1.331			
Total	3877.444	201				
Corrected Total	263.155	200				

a. R Squared = .004 (Adjusted R Squared = -.011)

Significance level: ** p < .05, *** p < .001

Table 21 - Two-way ANOVA: Performance Self-Esteem: Tests of Between Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1.639a	3	0.546	0.512	0.675	0.008
Intercept	5938.421	1	5938.421	5563.429	0.000***	0.966
Gender	0.072	1	0.072	0.067	0.796	0.000
Age	0.951	1	0.951	0.891	0.346	0.005
Gender * Age	0.654	1	0.654	0.612	0.435	0.003
Error	210.278	197	1.067			
Total	6155.444	201				
Corrected Total	211.917	200				

a. R Squared = .008 (Adjusted R Squared = -.007)

*Significance level: ** p < .05, *** p < .001*

Table 22 - Serial Mediation Analysis for Sender Effort and Social Connectedness

Purpose: Comparing scenario younger man and older man across all respondents

METRICS:
Model: 6
Y: MAdAtti (Ad Picture Attitude)
X: GroBin (Group binary: 0 = Younger Man; 1= Older Man)
M1: MSendEff (Sender Effort)
M2: MSocConn (Social Connectedness)
Sample Size: 103

OUTCOME VARIABLE: MSendEff (Sender Effort)
Model Summary

R	R-sq	MSE	F	df1	df2	p
.2284	.0521	1.7505	5.5565	1.0000	101.0000	.0203

Model

	Coeff	se	t	p	LLCI	ULCI
constant	2.0128	.1835	10.9704	.0000	1.6489	2.3768
GroBin	.6146	.2607	2.3572	.0203	.0974	1.1319

OUTCOME VARIABLE: MSocConn (Social Connectedness)
Model Summary

R	R-sq	MSE	F	df1	df2	p
.3929	.1543	1.5123	9.1253	2.0000	100.000	.0002

Model

	Coeff	se	t	p	LLCI	ULCI
constant	1.4394	.2525	5.7013	.0000	.9385	1.9403
GroBin	-.1391	.2489	-.5587	.5776	-.6330	.3548
MSendEff	.3932	.0925	4.2511	.0000	.2097	.5767

OUTCOME VARIABLE: MAdAtti (Ad Picture Attitude)
Model Summary

R	R-sq	MSE	F	df1	df2	p
.6177	.3816	1.2811	20.3593	3.0000	99.0000	.0000

Model

	Coeff	se	t	p	LLCI	ULCI
constant	2.4583	.2675	9.1908	.0000	1.9276	2.9890
GroBin	.2488	.2295	1.0842	.2809	-.2065	.7041
MSendEff	.5719	.0925	6.1834	.0000	.3884	.7555
MSocConn	.1090	.0920	1.1839	.0393	.0737	.2916

TOTAL EFFECT MODEL
OUTCOME VARIABLE: MAdAtti (Ad Picture Attitude)
Model Summary

R	R-sq	MSE	F	df1	df2	p
.2167	.0469	1.9351	4.9752	1.0000	101.0000	.0279

Model

	Coeff	se	t	p	LLCI	ULCI
constant	3.8526	.1929	19.9711	.0000	3.4699	4.2352
GroBin	.6115	.2741	2.2305	.0279	.0677	1.1553

TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y
Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps
.6115	.2741	2.2305	.0279	.0677	1.1553	.4313

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps
.2488	.2295	1.0842	.2809	-.2065	.7041	.1480

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	.3627	.1631	.0517	.6895
Ind1	.3515	.1529	.0676	.6720
Ind2	.0152	.0376	-.1108	.0504
Ind3	.0263	.0264	-.0138	.0913
(C1)	.3667	.1548	.0769	.6810
(C2)	.3252	.1518	.0559	.6501
(C3)	-.0415	.0534	-.1750	.0365

Specific indirect effect contrast definition(s):

(C1)	Ind1	minus	Ind2
(C2)	Ind1	minus	Ind3
(C3)	Ind2	minus	Ind3

Indirect effect key:

Ind1 GroBin	→	MSendEff	→	MAdAtti		

Ind2 GroBin	→	MSocConn	→	MAdAtti		
Ind3 GroBin	→	MSendEff	→	MSocConn	→	MAdAtti

ANALYSIS NOTES AND ERRORS

Level of confidence for all confidence intervals in output: 95

Number of bootstrap samples for percentile bootstrap confidence intervals: 5000