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The Impact of Stereotypical Portrayals of Older Endorsers on
Consumer Perceptions and Attitudes

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Abstract (English)

While global demographics shift toward an aging population, older people remain marginalized and stereotyped in advertising. This master thesis investigates the effects and mechanisms of advertising portrayals of older endorsers on consumer perceptions and attitudes by utilizing a between-subjects experimental design, isolating an older female endorser across two experimental manipulations, a stereotypical and a non-stereotypical portrayal. The analyses of the direct effects indicated that the stereotypical portrayal negatively impacted consumer perceptions and attitudes toward the advertisement and the endorser compared to the non-stereotypical portrayal. However, mediation and covariate analyses demonstrated that product evaluation, rather than stereotyping, acted as the primary predictor of consumer perceptions and attitudes. These results challenge established marketing frameworks and practices by showing favorable evaluations of older endorsers when integrated into youthful, non-stereotypical advertisements and paired with highly evaluated products and brands. Consequently, rather than being restricted to age-related settings, older endorsers can be universally leveraged across the entire advertising landscape.

Keywords: advertising, older endorsers, stereotyping, perceptions, attitudes

Abstract (Deutsch)

Obwohl der globale demografische Wandel zu einer zunehmend alternden Gesellschaft führt, bleiben ältere Menschen in der Werbung marginalisiert und stereotypisiert. Die vorliegende Masterarbeit untersucht die Effekte und Mechanismen von Werbedarstellungen älterer Menschen auf die Wahrnehmungen und Einstellungen der Konsumenten. Die Studie basiert auf einem Between-Subjects-Experimentaldesign, das eine ältere Frau in zwei experimentellen Manipulationen, einer stereotypisierten und einer nicht stereotypisierten Darstellung, isoliert präsentiert. Die Analysen der direkten Effekte zeigten, dass die stereotypisierte Darstellung im Vergleich zur nicht stereotypisierten Darstellung einen negativen Einfluss auf die Wahrnehmungen und Einstellungen der Konsumenten bezüglich der Werbeanzeige und der Darstellerin ausübte. Weitere Mediations- und Kovarianzanalysen zeigten jedoch, dass die Produktevaluation und nicht die Stereotypisierung als primärer Prädiktor für die Wahrnehmungen und Einstellungen der Konsumenten fungierte. Diese Ergebnisse hinterfragen etablierte Marketingkonzepte und Industriestandards. Sie belegen eine positive Bewertung älterer Menschen, sofern diese in jugendliche, nicht stereotypisierte Werbung integriert und mit positiv bewerteten Produkten und Marken kombiniert werden. Schlussfolgernd müssen ältere Menschen nicht auf altersspezifische Kontexte beschränkt bleiben, sondern können universell in der gesamten Werbelandschaft eingesetzt werden.

Schlagwörter: Werbung, ältere Menschen, Stereotype, Wahrnehmungen, Einstellungen

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Introduction

Problem Definition

Despite global demographic trends toward an aging population and the increasing economic power of seniors, older demographics remain under-represented and under-researched. Studies indicate a systematic disconnection between demographic reality and media representation, in which older adults, specifically older women, appear notably infrequently (Eisend, 2022; Harwood and Roy, 1999; Kohlbacher, Prieler and Hagiwara, 2014; Prieler, 2020; Simcock and Sudbury-Riley, 2006; Williams *et al.*, 2010; Zhou and Chen, 1992). Definitions of age regarding older demographics vary. Academia converges on a threshold of 50-65 years when defining chronological age, while also emphasizing perceived age as a metric when researching older endorsers (Chen, 2015; Eisend, 2022; Prieler *et al.*, 2015; Prieler, 2020; Simcock and Sudbury-Riley, 2006; Yoon and Powell, 2012). The marginalization of older endorsers is mainly attributed to a cultural preoccupation with youth and the industry's focus on attractiveness, beauty standards, and the fear of alienating younger consumers (Carrigan and Szmigin, 2000; Eisend, 2022; Mazis *et al.*, 1992, cited in Kohlbacher, Prieler and Hagiwara, 2014; Prieler *et al.*, 2011b).

When older people appear in advertising, they are often portrayed in a stereotypical and stigmatized manner. Studies have found that older people are commonly used for specific products and industries such as health, medicine, or finance, confined to specific age-related roles and characteristics, and depicted more frequently in domestic and passive settings (Chen, 2015; Clarke, Bennett and Liu, 2014; Eisend, 2022; Harwood and Roy, 1999; Prieler *et al.*, 2011a; Simcock and Sudbury-Riley, 2006; Williams *et al.*, 2010). These portrayals and stereotypes of older adults impact how they are perceived by consumers and how attitudes toward older people, brands, and products are shaped (Eisend, 2022; Huber *et al.*, 2013; Kohlbacher, Prieler and Hagiwara, 2014; Prieler, 2020; Prieler and Kohlbacher, 2016, pp. 1-2). Literature indicates that older endorsers are perceived as more credible than younger models (Bristol, 1996, cited in Eisend, 2022), yielding positive effects on consumers (Kohlbacher, Prieler and Hagiwara, 2014; Milliman and Erffmeyer, 1989, cited in Eisend, 2022). Furthermore, research states that advertising effectiveness is

enhanced when older endorsers promote age-related products that specifically target senior demographics, which aligns with the theory that high congruency between product and endorser optimizes advertising efficacy and can positively influence consumer evaluations, perceptions, and attitudes (Chen, 2015; Eisend, 2022; Kohlbacher, Prieler and Hagiwara, 2014; Kwon, Saluja and Adaval, 2015; Prieler and Kohlbacher, 2016, pp. 66-67). Conversely, stereotypes and infrequent depictions in media can lead to oversimplified narratives and detrimental images of older people, which can negatively shape consumer perceptions and attitudes toward aging and seniors (Carrigan and Szmigin, 2000; Eisend, 2022; Haboush, Warren and Benuto, 2012; Prieler, 2020). While existing literature demonstrates that the portrayals and stereotyping of older endorsers have varying and diverse effects on consumers, the aim of this study is to analyze how different advertising portrayals of older endorsers impact consumer perceptions and attitudes, and which effects and mechanisms influence these relationships.

Research Gap

Existing academic literature has documented the general under-representation of older endorsers in advertising and reported their frequent stereotypical depiction. Prieler *et al.* (2011a) conducted a quantitative content analysis of 306 Japanese television advertisements to investigate the gender representation of older people, finding that older females were depicted significantly less frequently than older males (13.2% versus 30.5% representation) and were stereotypically shown in domestic settings and associated with cosmetic products. Clarke, Bennett and Liu (2014) analyzed the depiction of men in North American magazines, finding that older men were largely under-represented and depicted exclusively through stereotypes of aging masculinity, such as being powerful, experienced, healthy, and happy.

Furthermore, studies have focused on the evaluations and comparisons between different age segments and have analyzed advertising effects. Foos and Clark (2011) examined age and gender differences in perceptions of facial attractiveness, finding that younger adults consistently rated younger faces higher than older faces, with older females receiving the lowest overall ratings. This indicates that older adults are subject to negative aesthetic evaluations in addition to other stereotypes. Huber *et*

al. (2013) investigated how the perceived age of endorsers and their fit with existing brand stereotypes influenced the brand's age, identifying a significant effect where younger endorsers led to a younger perceived brand image compared to older endorsers. Moreover, Haboush, Warren and Benuto (2012) showed that the stereotyped media representation and internalization of women as young, thin, and attractive negatively shapes attitudes toward older women.

Research focusing on media representation, stereotyping, and the advertising effects of older endorsers on consumers frequently conflate the endorsers' chronological age with the stereotypical context in which they are portrayed, thus making it difficult to determine whether consumer responses are driven by age biases or by the stereotypical narratives. Accordingly, literature reviews emphasize that empirical evidence on consumer responses and on which specific portrayals of older endorsers achieve commercial efficacy, while mitigating negative social effects, is scarce (Eisend, 2022; Prieler and Kohlbacher, 2016, p. 2). Furthermore, academics propose that future research investigate commercial and social advertising effect variables simultaneously and understand their impact on consumer perceptions and attitudes (Eisend, 2022; Prieler, 2020). To address this research gap, this master thesis employs an experimental manipulation that holds the endorser's identity constant across stereotypical and non-stereotypical advertising contexts. By isolating the portrayal as the independent variable, this approach enables a scientific analysis of the impact of different advertising portrayals on consumer perceptions and attitudes.

Research Objectives and Research Questions

Addressing these methodological limitations, this research aims to investigate how portrayals of older adults shape consumer perceptions and attitudes. By employing a controlled experimental design that holds the identity of the older female endorser constant in different contexts, the thesis provides empirical findings on how effects and mechanisms influence perceptions and attitudes toward the advertisement and the endorser within a stereotypical and a non-stereotypical context. The thesis addresses the research objectives by developing three research questions. The first research objective explores how stereotypical and non-stereotypical portrayals

impact consumer perceptions of the endorser's age and attractiveness. Existing literature notes that older endorsers are marginalized in the industry due to age biases and lower attractiveness evaluations (Carrigan and Szmigin, 2000; Foos and Clark, 2011; Eisend, 2022; Mazis *et al.*, 1992, cited in Kohlbacher, Prieler and Hagiwara, 2014; Prieler *et al.*, 2011b). The study addresses these findings by examining whether the different manipulations can influence how consumers perceive the endorser's age and physical attractiveness.

The second research question investigates how consumer attitudes toward the advertisement and the endorser are shaped. Academic literature identifies a variety of advertising effects influencing consumer attitudes when older people are depicted and stereotyped (Eisend, 2022; Haboush, Warren and Benuto, 2012; Huber *et al.*, 2013; Kohlbacher, Prieler and Hagiwara, 2014; Prieler and Kohlbacher, 2016, pp. 1-2). This study engages with the literature by providing empirical data that directly compares the opposing outcomes on attitudes using the same endorser in different advertising contexts.

Moreover, this study focuses on the effects and mechanisms that influence consumer perceptions and attitudes. It investigates whether age and authenticity act as mediating variables and further examines product evaluation as an influencing covariate. Consequently, the following research questions (RQ) can be formulated:

RQ1: How are older endorsers in stereotypical and non-stereotypical portrayals perceived by consumers?

RQ2: How do stereotypical and non-stereotypical portrayals of older endorsers impact consumer attitudes toward the advertisement and the endorser?

RQ3: Which effects and mechanisms mediate and influence the relationships?

Structure

This thesis is structured into seven chapters. Chapter 1 establishes the foundational context, outlining the problem definition, research gap, and primary objectives. Chapter 2 builds the theoretical framework by examining the perspectives on age and the marginalization and stereotyping of older endorsers. Chapter 3 synthesizes the literature to construct the conceptual model and develop the research hypotheses. Chapter 4 presents the methodology by detailing the research design, stimuli development, operationalization of variables, data collection, and analysis procedures. Chapter 5 reports the empirical results by presenting descriptive data, assumption tests, manipulation tests, and hypothesis tests. Chapter 6 interprets these findings, articulating implications, acknowledging limitations, and proposing opportunities for future research. Finally, Chapter 7 summarizes the thesis and its academic contributions.

Literature Review

General

Older demographics rarely appear in advertisements. Despite global demographic trends toward an aging population, the older consumer segment remains under-researched, and the portrayal of older endorsers in advertising and media is notably infrequent (Eisend, 2022; Harwood and Roy, 1999; Prieler, 2020; Simcock and Sudbury-Riley, 2006; Williams *et al.*, 2010; Zhou and Chen, 1992). The systematic under-representation of older people and the disconnection between demographic reality and media representation are evidenced by scientific research. Prieler (2008, cited in Prieler *et al.*, 2010) stated that only 13.6% of advertisements featured people aged 60 years or older, compared to their actual population share of 24.4% in Japan. Gerbner and Ozyegin (1997, cited in Donlon, Ashman and Levy, 2005) showed that adults aged 65 years and older accounted for only 1.9% of prime-time television characters while representing 12.7% of the population. Similarly, Lee, Kim and Han (2006, cited in Prieler *et al.*, 2015) reported that older people were represented in 8%

of advertisements, despite accounting for 12% of the South Korean population. This marginalization of older people in advertising stands in contrast to the rapid demographic aging, which continuously increases the societal and economic power of older cohorts (Kohlbacher, Prieler and Hagiwara, 2014; Prieler, 2020). In the UK alone, the proportion of seniors has exceeded the proportion of teenagers, and forecasts predict a rise of seniors to 22.3% in 2031 (Yoon and Powell, 2012). In Japan, 41.9% of the population was aged 50 years or older, making it the oldest society in the world (Prieler *et al.*, 2011a). Moreover, the expanding silver economy, alongside the 45 to 65 age cohort, constitutes the wealthiest demographic globally (Fengler, 2021, cited in Eisend, 2022), increasing the importance of seniors as a target consumer market (Kohlbacher, Prieler and Hagiwara, 2014).

The under-representation of older endorsers in advertising and media is significantly more pronounced for older women than for older men (Baumann and de Laat, 2012; Prieler, 2020; Prieler *et al.*, 2011a; Simcock and Sudbury-Riley, 2006). Harwood and Roy (1999) demonstrated in their content analysis of magazines that elderly women accounted for only 32% of the represented elderly characters in the US and 25% in India. Prieler *et al.* (2011a) showed in their analysis of 306 Japanese advertisements that older women were portrayed significantly less frequently than older men (13.2% vs. 30.5%). Furthermore, research confirms that advertisers and society penalize women's aging process more severely than the aging process of men (Baumann and de Laat, 2012; Sontag, 1972, cited in Prieler, 2020). In comparison to older men, older women are depicted in more passive and background roles, appear more frequently in non-occupational and domestic settings, and are predominantly portrayed with certain products or industries, such as cosmetics (Baumann and de Laat, 2012; Luyt, 2011, cited in Prieler *et al.*, 2015; Prieler, 2020; Prieler *et al.*, 2011a). Overall, research demonstrates that sexism and ageism are among the most referenced stereotypes in the media landscape (Stern and Mastro, 2004, cited in Prieler *et al.*, 2011a), which often reinforce negative images of older people in which aging is viewed as a loss of status for men and specifically for women (Prieler, 2020; Prieler *et al.*, 2011a).

Definitions of Age

While the portrayal of older men and women in advertising and media remains scarce, academics attempt to define the age parameters separating older endorsers from their younger counterparts. Definitions of elderly endorsers in advertising vary. From a chronological perspective, the segment of older endorsers can include people over the age of 40, 45, 50, 60, 65, 70, or 80 (Chen, 2015; Eisend, 2022; Prieler, 2020; Prieler *et al.*, 2015; Simcock and Sudbury-Riley, 2006; Yoon and Powell, 2012). Miles (2008, cited in Yoon and Powell, 2012) established one method to structure the consumer age segment into four different cohorts, categorized as thrivers (50-59), seniors (60-69), elders (70-79), and survivors (above 80). Similarly, Chen (2015) reported two main age groups as young-old (ages 50-64) and old-old (above 65) when researching older demographics. Furthermore, the over 65 segment remains a typical threshold for research because it represents an average age at which consumers transition from the workforce into retirement (Barnhart and Penaloza, 2013, cited in Eisend, 2022; Prieler and Kohlbacher, 2016, cited in Eisend, 2022). In contrast, due to different retirement ages and life expectancies across the globe, the over 65 segment can be interpreted as too narrow for academia (Moschis, 2021, cited in Eisend, 2022). For the age segment above 50 years old, Japan exemplifies the necessity for this broader age definition. As one of the most rapidly aging societies, it has become a special market where the World Health Organization's threshold of 65 years has been supplanted by a lower threshold of 50 years as a direct response to the Baby Boom generation (Prieler *et al.*, 2015). Moreover, an alternative method to define the older population according to cultural contexts could be to use an age distribution metric, such as the 20th percentile. This normalized threshold enables standardized comparisons while acknowledging the group's inherent heterogeneity in health, social roles, and lifestyle interests (Eisend, 2022).

A critical distinction from chronological age is subjective or perceived age. Most studies focus on chronological age as a demographic variable when researching older people in advertising or when segmenting the consumer market (Chen, 2015; Eisend, 2022; Huber *et al.*, 2013; Prieler *et al.*, 2015; Simcock and Sudbury-Riley, 2006; Yoon and Powell, 2012). However, chronological age can often diverge from the subjective age as individuals perceive themselves differently from their biological

age (Barak and Shiffmann, 1981, cited in Huber *et al.*, 2013). Yoon and Powell (2012) indicated that older consumers perceive themselves as younger than their chronological age. This is supported by Kohlbacher and Cheron (2012, cited in Kohlbacher, Prieler and Hagiwara, 2014), who reported that older Japanese consumers feel approximately eight years younger than their chronological age. This cognitive discrepancy potentially explains why older demographics want to be targeted with models 10 to 15 years younger than their actual age (Prieler *et al.*, 2011b). In addition, research states that age is evaluated by physical cues and social roles (Lawrence, 1974, cited in Huber *et al.*, 2013), which strengthens the concept of perceived age as a metric for analyzing older demographics. Moreover, Prieler (2020) argued that chronological age presents a problematic definition and poor predictor when researching older people and suggested categorizing age into four different types: biological age, which stands for the physical and mental health status; social age, which shows the habits and social roles; cognitive age, which acts as the subjective and perceived age regarding how people feel; and lastly, gerontographics, which is a segmentation based on needs, attitudes, and lifestyles (Prieler, 2020).

Reasons

Academic literature identifies several factors contributing to the systemic underrepresentation of older endorsers in advertising (Carrigan and Szmigin, 2000; Eisend, 2022; Huber *et al.*, 2013; Prieler *et al.*, 2011b). Marketing has long maintained a consensus that positions youth as the primary innovators and target demographic (Rogers, 2003, cited in Eisend, 2022). However, modern consumption patterns suggest that this bias is becoming obsolete. For instance, most social media users are aged 40 and older (Nunan and Di Domenico, 2019, cited in Eisend, 2022), and older demographics adopt innovations earlier in specific sectors, such as e-mobility. This demonstrates that age alone is a flawed indicator of innovative behavior (Wolf and Seebauer, 2014, cited in Eisend, 2022). Furthermore, the marginalization of older endorsers is attributed to the perceived risk of alienation within a youth-oriented industry (Carrigan and Szmigin, 2000; Prieler *et al.*, 2011b). Advertising agencies prioritize younger models to avoid alienating younger consumers who may show less interest in products endorsed by elderly models

(Prieler *et al.*, 2011b). Huber *et al.* (2013) added context to this argument by showing in their study that younger endorsers influenced brand age perception and achieved rejuvenation. The study identified a significant main effect, demonstrating that the endorser's age acted as a direct cue for the brand's perceived image. Participants rated brand ages younger when the advertisement featured a younger endorser, and older when the advertisement featured older endorsers (Huber *et al.*, 2013). This correlation potentially explains why marketers might hesitate to use older endorsers in advertisements, especially when operating within industries that primarily target young consumers and attempt to position themselves as young and attractive companies. Furthermore, Kohlbacher, Prieler and Hagiwara (2014) stated that youth-oriented products are best advertised with younger endorsers, while elderly-oriented products are best advertised with older endorsers, which strengthens this argument. Moreover, the advertising industry has a youthful demographic profile. Brodmerkel and Barker (2021, cited in Eisend, 2022) reported that fewer than 10% of advertisers in the United States, UK, and Australia are over 45 years old. Consequently, shifting the focus toward older demographics may not align with the values and image of young marketers (Carrigan and Szmigin, 2000).

Another reason why older endorsers are largely absent in advertising is that they are perceived as less attractive than younger models (Eisend, 2022; Mazis *et al.*, 1992, cited in Kohlbacher, Prieler and Hagiwara, 2014). Foos and Clark (2011) explored the systemic bias against older faces and showed significant results that younger faces were rated higher in attractiveness than older faces. In addition, they showed that younger raters provided lower ratings than middle-aged and older raters, and that females received lower ratings than males (Foos and Clark, 2011). The study confirms a universal preference for young faces and provides a rationale for why advertisers favor younger instead of older endorsers. Building upon this premise, research indicates that attractive and beautiful endorsers can enhance consumer perceptions, as well as brand and product evaluations (Erdogan, 1999; Joseph, 1982, cited in Amos, Holmes and Strutton, 2008). Studies have shown that physically attractive endorsers are more successful in changing beliefs and generating purchase intentions (Erdogan, 1999). Additionally, research indicates that attractive endorsers positively impact consumers' product and advertisement evaluations when the product's characteristics are congruent with the image conveyed by the endorser

(Kamins, 1990; Kwon, Saluja and Adaval, 2015). Consequently, literature confirms that attractive, younger models can positively influence consumer perceptions and attitudes, which explains the systemic preference for youthful endorsers among marketing practitioners.

Stereotyping

When older people appear in advertisements, they are often portrayed in a stereotypical and stigmatized manner. Studies demonstrate that older people are shown in less important and age-specific roles, are used for a more specifically defined range of products and industries, and are depicted within circumscribed settings and characteristics (Clarke, Bennett and Liu, 2014; Chen, 2015; Eisend, 2022; Harwood and Roy, 1999; Prieler *et al.*, 2011a; Simcock and Sudbury-Riley, 2006; Williams *et al.*, 2010). Stereotyping can be defined as a method of social categorization and generalized beliefs that certain attributes differentiate one group from another. It can provide an orientation for consumers to understand roles or behaviors but can also lead to oversimplifications and misleading narratives (Eisend, 2022; Eisend, Plagemann and Sollwedel, 2014). Stereotypes establish a pattern of interpretation and perspective of older people that influences their social identity and dictates expectations of how older adults live (Röhr-Sendlmeier and Ueing, 2004, cited in Prieler *et al.*, 2010). One way in which older people are stereotyped in advertising is by being shown in age-related roles. Hummert *et al.* (1994, cited in Williams *et al.*, 2010) defined different stereotypes and roles that depict older people in advertising. The “Perfect Grandparent” is described as kind, loving, and family-oriented. It is a more positively framed role and characterizes older people as caring grandparents in relation to their grandchildren. The “Golden Ager” refers to the adventurous and active side of older people and describes more lively and independent individuals, specifically in the context of retirement. The “John Wayne Conservative” draws a more political view of older people as religious, patriotic, and nostalgic (Eisend, 2022; Hummert *et al.*, 1994, cited in Williams *et al.*, 2010). In contrast, the “Severely Impaired” is characterized as slow-thinking and incompetent, the “Despondent” as sad and depressed, the “Shrew/Curmudgeon” as a bitter and complaining character, and the “Recluse” as quiet and naive (Hummert *et al.*, 1994, cited in Williams *et al.*, 2010). Some age-related stereotypes specifically apply to

older men. Clarke, Bennett and Liu (2014) demonstrated in their analysis of male-oriented magazines that aging in advertising is an acceptable part of society if directly idealized and stereotyped with masculinity. The authors identified that when older men were portrayed, it was through key attributes such as power, success, physical fitness, health, youthfulness, and independence. Aging is exclusively explained through idealized and positive traits, thereby erasing the frailty, dependency, risks, and loss of autonomy of the elderly (Clarke, Bennett and Liu, 2014; Prieler, 2020). Additionally, studies show that men are characterized as increasingly authoritative and are more frequently shown as primary characters and in work environments as they age (Baumann and de Laat, 2012; Prieler *et al.*, 2011a; Zhou and Chen, 1992). Moreover, Smythe (1996, cited in Simcock and Sudbury-Riley, 2006) reported that older endorsers were negatively depicted as feeble, foolish, and inept, were shown in subordinate roles, and were portrayed as less active than younger people (Zhou and Chen, 1992). This negative effect of stereotyping is exacerbated when advertisers deal with older women. Older women are more frequently depicted in minor, secondary, or background roles (Prieler *et al.*, 2011a), appear in dependent functions such as spouses or parents, and are viewed as less authoritative and less credible compared to their male counterparts (Baumann and de Laat, 2012). Women are also portrayed with more negative traits, such as low intelligence and social isolation, compared to men (Vernon *et al.*, 1990, cited in Prieler, 2020).

Furthermore, when older people appear in advertisements, research shows that they are associated with specific products or certain industries. The industries and products most commonly featuring older adults include healthcare and medical services, financial services, food and beverages, public utilities, and household products (Eisend, 2022; Kohlbacher, Prieler and Hagiwara, 2014; Prieler *et al.*, 2011b; Simcock and Sudbury-Riley, 2006). In contrast, the industries and products in which older people are under-represented include fashion and clothing, sporting goods, automobiles, and fast food (Simcock and Sudbury-Riley, 2006; Williams *et al.*, 2010). This discrepancy arises because consumers accept older endorsers in medical or health contexts, associating the aging process with increased health maintenance, which aligns better with the responsibilities of seniors (Ylänne, Williams and Wadleigh, 2009, cited in Chen, 2015). Due to the stereotype of age and

medical necessity, it becomes more credible for advertisers to target seniors by using older endorsers. Utilizing younger endorsers in this context would provide lower congruency between the product and the endorser, thereby reducing advertising effectiveness (Kohlbacher, Prieler and Hagiwara, 2014; Prieler *et al.*, 2011b). Additionally, older endorsers are considered more credible than younger endorsers (Bristol, 1996, cited in Eisend, 2022). Characteristics like credibility, expertise, and competence can yield positive effects on consumers (Milliman and Erffmeyer, 1989, cited in Eisend, 2022; Kohlbacher, Prieler and Hagiwara, 2014). Expanding on these characteristics, authenticity functions as a broader and more holistic mechanism that integrates both credibility and similarity (Becker, Wiegand and Reinartz, 2019, cited in Eisend, 2022). Hence, research indicates that older consumers can relate more effectively to advertisements portraying older endorsers because they perceive a stronger alignment between authentic seniors and their own identities (Eisend, 2022; Kohlbacher, Prieler and Hagiwara, 2014). Moreover, academic literature reports that older people are frequently shown in home and domestic environments and portrayed within a context of retirement and physical inactivity (Baumann and de Laat, 2012; Chen, 2015; Eisend, 2022; Williams *et al.*, 2010; Zhou and Chen, 1992). Zhou and Chen's (1992) analysis of Canadian magazine advertising demonstrated that older adults were depicted as being more likely to stay at home and being less physically active than young people. They concluded that these images are unrealistic and negative stereotypes of older people (Zhou and Chen, 1992). Furthermore, Baumann and de Laat (2012) found that women, specifically, were associated with domestic products and placed in home settings, while men were also shown in outdoor, business, and occupational settings and associated with non-domestic products (Prieler *et al.*, 2011a). The results are also shown in the study by Harwood and Roy (1999), who found that advertisements in India and in the U.S. portrayed older males in the public domain of the workplace, while older women were portrayed in private settings and domestic domains, engaging in housework. While the literature highlights that advertisers utilize stereotypical, age-congruent portrayals to enhance advertising effectiveness and credibility, these narratives also create oversimplified and negative images about older demographics. Consequently, an empirical comparison of a stereotypical and non-stereotypical advertising portrayal is necessary to determine how these contexts influence consumer perceptions and attitudes.

Conceptual Framework

Based on the preceding research gap, research questions, and literature review, this master thesis develops a conceptual framework and hypotheses to empirically investigate the effects of stereotypical portrayals on consumer perceptions and attitudes. Hypothesis 1 (H1) aims to isolate the direct effect of stereotypical advertising on the female endorser's physical attractiveness. The literature establishes that older models are perceived as less attractive than younger models (Foos and Clark, 2011; Eisend, 2022; Mazis *et al.*, 1992, cited in Kohlbacher, Prieler and Hagiwara, 2014). Furthermore, the literature states that this effect is exacerbated specifically for older women (Prieler *et al.*, 2011a; Sontag, 1972, cited in Simcock and Sudbury-Riley, 2006). By manipulating the stereotypical setting and holding the endorser constant, Hypothesis 1 tests whether stereotyping impacts consumer perceptions and evaluations of attractiveness by separating contextual bias from inherent age bias.

H1: A stereotypical advertisement will negatively impact the endorser's attractiveness compared to a non-stereotypical advertisement.

Building upon this direct effect, Hypothesis 2 (H2) investigates the mediating effect of perceived age. Existing literature indicates a negative relationship between age and attractiveness (Mazis *et al.*, 1992, cited in Kohlbacher, Prieler and Hagiwara, 2014), and that perceived age is a dynamic construct relying on physical cues and social roles (Lawrence, 1974, cited in Huber *et al.*, 2013), making perceived age a stronger predictor of consumer behavior than chronological age (Huber *et al.*, 2013; Prieler, 2020). Consequently, Hypothesis 2 addresses the research gap by testing whether a stereotypical context increases the perceived age of the endorser compared to the non-stereotypical portrayal, thereby acting as a mediator that decreases her attractiveness. This tests both the negative effect of age bias and the negative effect of stereotyping.

H2: A stereotypical advertisement will increase the endorser's perceived age, which will negatively impact the endorser's attractiveness compared to a non-stereotypical portrayal.

Hypothesis 3 tests the direct impact of the stereotypical portrayal on consumer attitudes toward the advertisement (H3a) and the endorser (H3b). The literature establishes that aligning older endorsers with age-congruent products and age-related roles can enhance source credibility and advertising effectiveness, and generate positive effects on consumers (Chen, 2015; Milliman and Erffmeyer, 1989, cited in Eisend, 2022; Kohlbacher, Prieler and Hagiwara, 2014; Kwon, Saluja and Adaval, 2015; Prieler, 2020; Prieler and Kohlbacher, 2016, pp. 66-67). Furthermore, scholars indicate that empirical research on consumer attitudes and responses toward older endorsers is scarce (Eisend, 2022; Prieler, 2020; Prieler and Kohlbacher, 2016, p. 2). H3 addresses the research gap by testing whether the stereotypical portrayal positively influences consumer attitudes toward the endorser and advertisement.

H3: A stereotypical advertisement will positively impact consumer attitudes toward the advertisement (H3a) and the endorser (H3b) compared to a non-stereotypical advertisement.

Moreover, studies indicate that older endorsers offer higher credibility, wisdom, and expertise compared to younger endorsers (Eisend, 2022; Harwood and Roy, 1999; Kohlbacher, Prieler and Hagiwara, 2014). By utilizing authenticity as a more general term and holistic mechanism to integrate credibility and wisdom into the context of the presented advertisement (Eisend, 2022), this study explores in Hypothesis 4 (H4) whether authenticity serves as a mediator for consumer attitudes toward the advertisement (H4a) and the endorser (H4b). This addresses the research gap by determining whether pairing older adults with age-congruent products within a stereotypical context enhances perceived authenticity to improve evaluations and attitudes, thereby clarifying the contextual advertising effects (Kohlbacher, Prieler and Hagiwara, 2014).

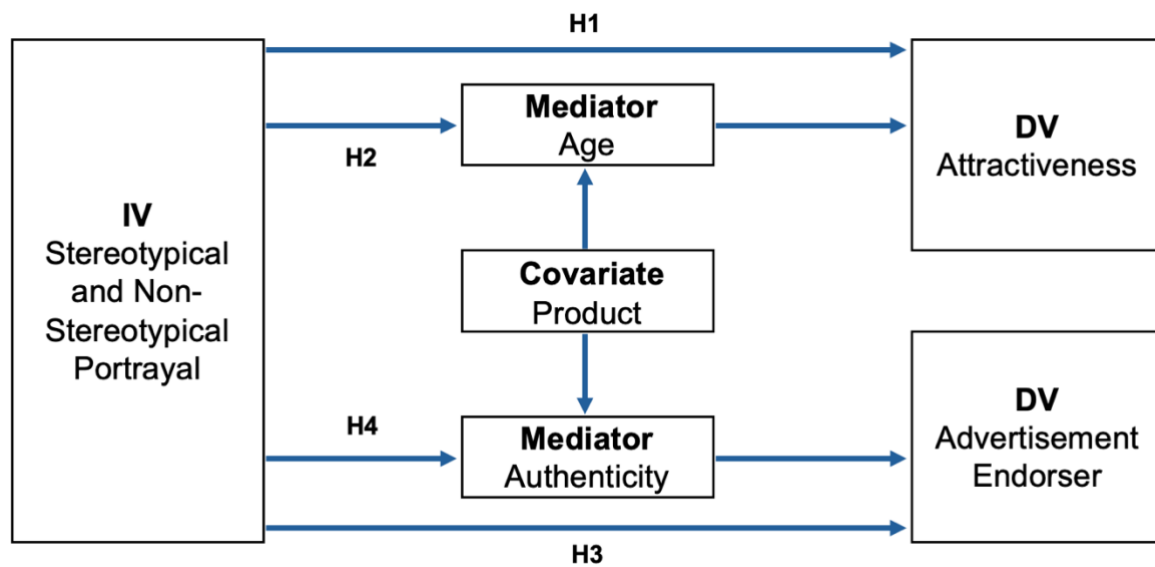
H4: A stereotypical advertisement will positively impact the endorser's authenticity, which will positively impact consumer attitudes toward the advertisement (H4a) and the endorser (H4b) compared to a non-stereotypical advertisement.

Lastly, to test the mediating effects proposed in H2 and H4 and to further address Research Question 3, consumer product evaluation is integrated into the framework as a covariate. By controlling for product evaluation, the research model ensures that

the impact on perception and attitudes is driven by the experimental manipulation rather than consumer biases toward the product presented in the advertisement. The research model is illustrated in Figure 1.

Figure 1

Research Model



Methodology

Research Design

To empirically investigate the impact of stereotypical and non-stereotypical advertising portrayals on consumer perceptions and attitudes, this master thesis employs a quantitative, causal research approach utilizing a controlled experimental design. The objective is to isolate the effect of the advertising context while holding the identity of the endorser constant. The study utilizes a single-factor, between-subjects experimental design with two distinct conditions. The experimental manipulation involves the creation of two stimuli, an advertisement depicting an older female endorser in a stereotypical setting and an advertisement depicting the same endorser in a non-stereotypical setting. Participants were randomly assigned to one of the independent groups, ensuring that each subject was exposed to only one condition. This randomization process is critical for mitigating selection bias and ensuring the internal validity of the experiment. The selection of a between-subjects design, rather than a within-subjects design, is methodologically justified to prevent practice and boredom effects (Field, 2013, pp. 62-63). Because participants evaluated only one condition, they remained unaware of the study's intent to compare age-related and stereotypical portrayals, thus allowing for an isolated analysis of how the specific contextual framing influences consumer perceptions and attitudes.

Stimuli Development

For the experimental manipulation, two advertising portrayals, a stereotypical and a non-stereotypical advertisement, were developed to serve as the study's stimuli. The stimuli were generated by OpenAI's ChatGPT and further edited in Adobe Photoshop and Adobe InDesign. To ensure the internal validity of the experiment and directly compare the stereotyping effects between the two groups, the identity of the endorser was held constant across both conditions. Regarding the endorser profile, an older female was selected for the experimental stimuli. This decision is supported by existing academic literature, which indicates that the marginalization of older women in advertising is significantly more pronounced than the marginalization of

older men (Baumann and de Laat, 2012; Prieler, 2020; Prieler *et al.*, 2011a; Simcock and Sudbury-Riley, 2006). Furthermore, studies demonstrate that the attractiveness evaluations of older women are even harsher than those of older men (Baumann and de Laat, 2012; Foos and Clark, 2011; Prieler, 2020). Given the prevalence of gender inequalities, this study utilizes an older female endorser under the assumption that the hypothesized effects on consumer perceptions and attitudes would be more pronounced and observable (Baumann and de Laat, 2012).

The stimulus for the stereotypical condition depicts the older endorser in an indoor, domestic setting. For this portrayal, a fictional brand named “Flexura” was created, featuring a healthcare cream indicated for joint pain and inflammation. In the advertisement, the endorser is presenting the health cream. This manipulation aligns with the established literature regarding the stereotyping of older women. Prieler *et al.* (2011a) empirically showed that female endorsers were disproportionately confined to domestic environments and frequently associated with cosmetic products. Moreover, the demographic of older adults is systematically relegated to healthcare, medical services, and pharmaceutical industries (Kohlbacher, Prieler and Hagiwara, 2014; Prieler *et al.*, 2011b). Thus, the “Flexura” cream serves as a stereotypical manipulation, relying on the expected industry relationship and the assumed congruency between an older endorser and medical necessity (Chen, 2015; Kohlbacher, Prieler and Hagiwara, 2014; Prieler *et al.*, 2011b).

Conversely, the stimulus for the non-stereotypical condition places the same older female endorser in a highly active, non-domestic setting, specifically inside a fitness gym. For this portrayal, a fictional sports brand named “X Force” was developed. The endorser is depicted as physically fit, promoting athletic sportswear and a sports water bottle. This portrayal contrasts with existing industry norms, as the literature confirms that older endorsers are largely absent from advertisements within the sports industry (Simcock and Sudbury-Riley, 2006; Williams *et al.*, 2010). This absence is rooted in the industry’s strategy to target younger models and reinforce images of youth, vitality, and physical attractiveness, which capitalizes on a higher perceived congruency between athletic products and youthful endorsers (Kamins, 1990; Mazis *et al.*, 1992, cited in Kohlbacher, Prieler and Hagiwara, 2014). By placing the older female in this youthful, physically active context, the “X Force” advertisement operationalizes the non-stereotypical condition. Consequently, the

designed portrayals provide the necessary experimental variance to measure the isolated effects of stereotyping on consumer perceptions and attitudes.

Sample and Data Collection

This study defines its target population as the general consumer base. Accordingly, the sampling frame targets the entire population, placing no restrictive inclusion criteria on age, gender, geographic residence, or educational attainment. For participant selection, a non-probability convenience sampling method was utilized. Participant recruitment and survey distribution were executed through the digital platforms SurveyCircle and WhatsApp, facilitating voluntary participation. To ensure statistical power and robust internal validity of the experimental findings, a minimum sample size threshold of 100 participants was established prior to data collection (Field, 2013, p. 232). Data collection was executed via a structured, undisguised online questionnaire on SoSci Survey. The questionnaire was identical in content for all participants across both experimental conditions to ensure methodological consistency of the dependent variables. Furthermore, the data protocol adhered to academic ethical standards. Prior to completing the questionnaire, all subjects were presented with an informed consent statement guaranteeing voluntary involvement, data confidentiality, and anonymity.

Operationalization of Variables

The data collection instrument was a structured, undisguised online questionnaire consisting of 12 items. To ensure standardized exposure to the experimental manipulation, the questionnaire commenced with the presentation of the advertising stimulus. A forced 6-second delay on the stimulus page ensured that participants processed the advertisement before evaluating the dependent constructs. Following the stimulus exposure, the questionnaire assessed six primary constructs designed to test the hypotheses and measure the covariate. Five of these constructs were measured using established 7-point Likert scales, four of which were semantic differentials (Holbrook and Batra, 1987; Ohanian, 1990; Park *et al.*, 2021), while one construct utilized an open-ended numerical format. The survey concluded with one

dichotomous manipulation check, one dichotomous control check, and four descriptive questions to capture participant demographics.

The first item measured product evaluation. This covariate was operationalized using a validated 7-point Likert scale adapted from Park *et al.* (2021). Subsequently, the questionnaire measured the mediators of the study. Serving as the mediating variable for Hypothesis 2, perceived age was measured using an open-ended numerical question, requiring participants to estimate the endorser's chronological age, yielding a continuous variable. Additionally, to test the mediating variable proposed in Hypothesis 4, perceived authenticity was operationalized using a 7-point Likert scale taken from Park *et al.* (2021). Furthermore, the questionnaire captured the study's dependent variables. To address Hypotheses 1 and 2, the physical attractiveness of the endorser was measured using the source credibility sub-scale by Ohanian (1990). Participants evaluated the endorser on a 7-point semantic differential scale, providing the empirical data to determine whether the stereotypical context negatively impacts physical appeal. Moreover, consumer attitudes toward the advertisement relevant to Hypotheses 3a and 4a were measured using the validated scale by Holbrook and Batra (1987). To maintain methodological consistency and ensure direct comparability, the attitudes toward the endorser for Hypotheses 3b and 4b were measured using the identical scale format. Finally, to confirm whether the manipulation was successful, a manipulation check was administered using a dichotomous nominal scale (Yes/No), asking participants to categorize the observed portrayal as stereotypical or non-stereotypical. An additional dichotomous control check was included to monitor the participants' attention. To conclude the survey instrument, four standardized demographic questions were administered.

Method of Data Analysis

All quantitative data analyses were conducted utilizing IBM SPSS Statistics (Version 29.0.2.0). Mediation and covariate analyses were executed via the PROCESS macro (Version 4.2) by Andrew F. Hayes.

Results

Descriptive Data

The data collection recorded 524 initial accesses to the online questionnaire. To ensure high data quality and the validity of the statistical testing, participants were required to pass an attention check. After excluding incomplete entries and those failing the attention check, a final sample of $N = 173$ participants remained for analysis, yielding a success rate of 33%. The study implemented two experimental conditions, a stereotypical and a non-stereotypical portrayal, to which participants were randomly assigned. Participants were nearly equally distributed between the two groups, with $n = 85$ (49.1%) assigned to the stereotypical portrayal and $n = 88$ (50.9%) to the non-stereotypical portrayal group. The demographic characteristics of the sample provide context for the generalizability of the findings. The mean age of the participants was 30.54 years. Regarding gender identity, the sample was predominantly female with $n = 97$ (56.1%), male with $n = 75$ (43.4%), and other with $n = 1$ (0.5%). The participants exhibited a high level of formal education. The majority of respondents held a university degree as their highest completed level of education with $n = 127$ (73.4%), followed by a high-school degree with $n = 32$ (18.5%), a vocational degree with $n = 13$ (7.5%), and unspecified with $n = 1$ (0.6%). The study was international in scope, with many participants from Central Europe. More than half of the participants resided in Germany with $n = 90$ (52%), followed by Austria with $n = 45$ (26%). The United States accounted for $n = 16$ (9.2%) of the sample, while the remaining 22 (12.8%) participants were distributed across various countries, including Switzerland, Canada, Malaysia, and others. Table 1 provides the descriptive data of the main variables. The table includes the means and standard deviations of the variables for both groups.

Table 1*Descriptive Data Variables – Mean (M) and Standard Deviation (SD)*

Variables	Stereotypical Portrayal		Non-Stereotypical Portrayal	
	M	SD	M	SD
Age	70.52	6.82	66.81	8.29
Attractiveness	4.07	0.11	4.69	0.13
Advertisement	2.85	1.48	3.78	1.98
Endorser	3.92	1.35	4.59	1.54
Authenticity	2.58	1.52	3.08	1.73
Product	3.48	1.34	4.23	1.68

Assumption Tests

Cronbach's alpha (α) was calculated to evaluate the internal consistency of the scales, ensuring that individual items reliably measure the same underlying construct for hypothesis testing. The results of the reliability analysis indicated that internal consistency across all measured constructs met the threshold of $\alpha > 0.7$ for established scales (Field, 2013, pp. 829-831). As seen in Table 2, all values suggest a high degree of item redundancy and reliability, confirming that the measurement instrument was interpreted consistently by the participants.

Table 2*Cronbach's Alpha (α) – Constructs*

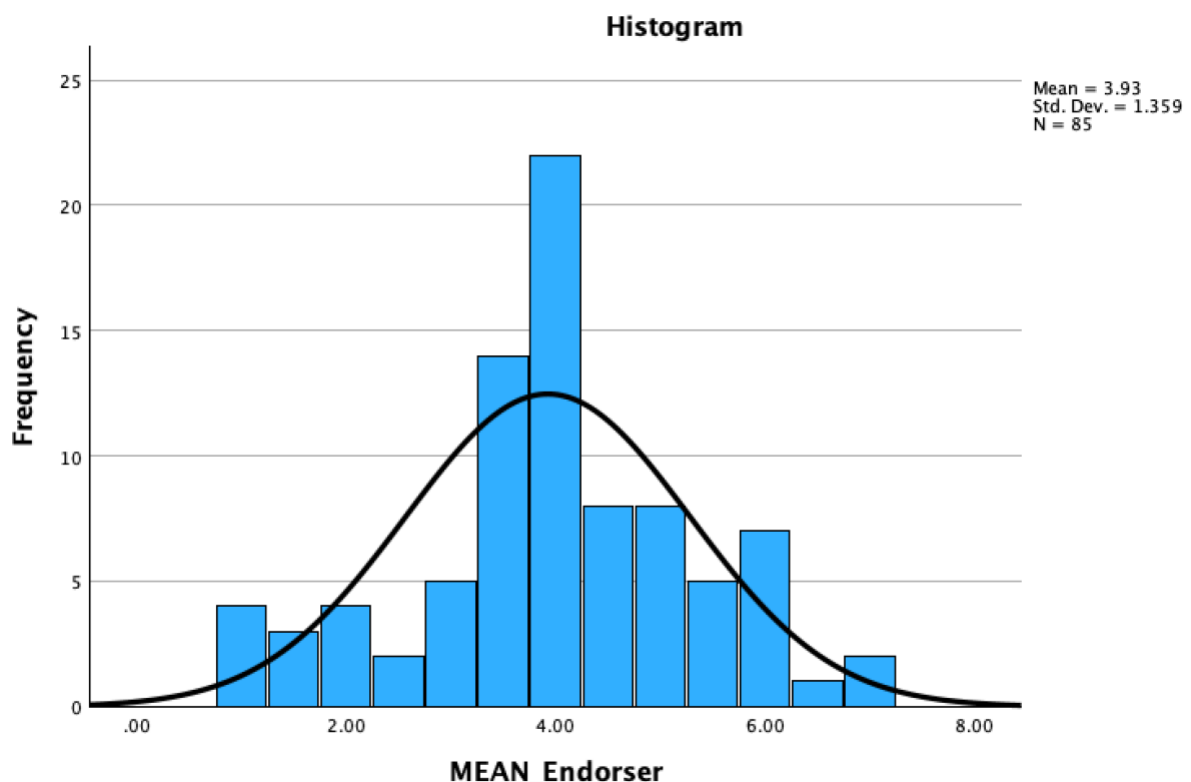
Construct	Cronbach's Alpha (α)
Product	0.966
Attractiveness	0.880
Authenticity	0.853
Advertisement	0.969
Endorser	0.957

Before conducting the inferential statistical analysis, the data were evaluated to ensure the necessary assumptions for parametric testing. As this study utilizes independent samples t-tests, a core assumption is that the data follow a normal

distribution. To assess this assumption, both the Kolmogorov-Smirnov and the Shapiro-Wilk tests were conducted. For almost all constructs, the tests yielded significant results ($p < 0.05$), which suggest a deviation from normality. However, the central limit theorem dictates that the sampling distribution of the mean tends toward normality as the sample size increases. Furthermore, normality tests tend to be highly sensitive to deviations in larger samples, frequently rejecting normality for data that remain suitable for parametric analysis (Field, 2013, pp. 225-232). To supplement the normality test results, the histograms were visually inspected. As seen in Figure 2, the histogram reveals that the data closely approximate a normal distribution and are devoid of extreme outliers, despite the Kolmogorov-Smirnov test showing a significant result of $p < 0.001$ and the Shapiro-Wilk test yielding a significant result of $p < 0.025$ for the distribution of the endorser evaluation in the stereotypical portrayal.

Figure 2

Histogram of Endorser Evaluation of Stereotypical Portrayal



Manipulation Tests

To verify the effectiveness of the experimental manipulation, participants categorized the portrayals as either stereotypical or non-stereotypical. The aim was to confirm that the stereotypical stimulus was significantly more likely to be identified as such than the non-stereotypical portrayal. In the stereotypical condition, 48 participants (56.5%) identified the condition as stereotypical, while 37 participants (43.5%) did not identify it correctly. In the non-stereotypical condition, the majority of 81 participants (92%) identified the condition as non-stereotypical, while only 7 participants (8%) categorized it as stereotypical. Furthermore, a Chi-square test and Fisher's Exact test were performed to examine the association between the portrayals and participant categorization. Both tests showed significant results of $p < 0.001$, indicating a significant difference between the experimental condition and the participants' perception of the portrayals.

Hypothesis Tests

All hypothesis tests were conducted at a significance level of $\alpha = 0.05$. Hypothesis 1 (H1) predicted that a stereotypical advertisement would have a negative impact on the perceived attractiveness of the older female endorser compared to a non-stereotypical portrayal. To test this, an independent samples t-test was performed, comparing the attractiveness ratings of both groups. The descriptive statistics support the direction of the hypothesis. Participants in the non-stereotypical condition rated the endorser's attractiveness higher ($M = 4.69$) than those in the stereotypical condition ($M = 4.07$).

Before interpreting the t-test, Levene's Test for Equality of Variances was conducted to assess the assumption of equal variance. The test reported a non-significant result ($p = 0.254$), indicating that the assumption of equal variances across both groups was met. Consequently, the standard t-test results (equal variances assumed) are reported. The results of the t-test indicate a significant difference between the groups. Both the one-sided and two-sided significance levels fall below the threshold of 0.05. Hence, Hypothesis 1 is fully supported. The data suggest that presenting the same older endorser in a stereotypical setting significantly reduced her perceived attractiveness compared to the non-stereotypical portrayal.

Table 3*Independent Samples Test Attractiveness – H1*

	Levene's test for		t-test for Equality of Means	
	Equality of			
	Variances	Sig.	Sig. One-Sided p	Sig. Two-Sided p
Equal variance assumed		0.254	< 0.001	< 0.001

Hypothesis 2 (H2) proposed a mediation model, positing that a stereotypical advertisement increases the endorser's perceived age, which negatively impacts the endorser's attractiveness. The analysis of H2 was performed in three steps: first, evaluating the mean differences in perceived age between the groups; second, testing the theoretical mechanism through mediation analysis; and third, including the variable product evaluation as a covariate to control for effects that influence the dependent variable. To test the relationship between the experimental condition and the mediator, an independent samples t-test was conducted. Levene's test for equality of variances was non-significant with $p = 0.679$, allowing for the assumption of equal variances. The independent t-test revealed a statistically significant difference in perceived age between the groups. Participants exposed to the stereotypical portrayal perceived the endorser as older ($M = 70.52$) compared to those exposed to the non-stereotypical portrayal ($M = 66.81$).

The mediation analyses were performed using the PROCESS macro by Hayes with 5,000 bootstrap samples. In the unadjusted model (Table 4), the stereotypical portrayal had a significant positive effect on perceived age ($coeff. = 3.71$; $p = 0.001$). Path b (Age $\rightarrow$ Attractiveness) also showed a significant negative effect on attractiveness ($coeff. = 0.027$; $p = 0.023$). The direct effect of the portrayal on attractiveness also remained significant ($coeff. = -0.052$; $p = 0.005$), confirming that the stereotypical portrayal increases perceived age and negatively impacts the attractiveness of the endorser. Overall, the model accounted for only 9.16% ($R^2 = 0.0916$) of the variance, indicating that the independent variable (portrayal) and the mediating variable (age) are weak predictors of the outcome variable

(attractiveness). Despite the significance of the individual paths a, b, and the direct effect, the indirect effect of the portrayal on attractiveness through the mediator was not statistically significant. This is evidenced by the 95% confidence interval, which included zero ($effect = -0.101$; $LLCI = -0.237$; $ULCI = 0.002$). Consequently, while the stereotypical portrayal did show significant effects on both variables, and perceived age also demonstrated a significant effect on the outcome variable of attractiveness, the statistical evidence does not support perceived age as a significant mediator.

Table 4

Mediation Analysis Unadjusted Model – H2

Pathway	Coeff. / effect	SE	t	p	95% CI
Path a (Portrayal → Age)	3.711	1.157	3.207	0.001	[1.427; 5.994]
Path b (Age → Attractiveness)	-0.0272	0.011	-2.284	0.023	[-0.05; -0.003]
Direct Effect c (Portrayal → Attractiveness)	-0.521	0.185	-2.808	0.005	[-0.887; -0.154]
Indirect Effect ab (Mediation)	-0.101	0.063	–	–	[-0.237; 0.002]

To examine the robustness of these findings and account for the influence of product evaluation, the mediation analysis was re-estimated as an adjusted model with product evaluation as a covariate (Table 5). Prior to the mediation analysis, an independent samples t-test was conducted to assess the mean product evaluations between the portrayals. Levene's test for equality of variances yielded a non-significant result with $p = 0.057$, indicating that the assumption of equal variances across both groups was met. Participants in the non-stereotypical condition rated the product significantly higher ($M = 4.23$) than in the stereotypical condition ($M = 3.48$).

Table 5*Mediation Analysis Adjusted Model including Covariate Product – H2*

Pathway	Coeff. / effect	SE	t	p	95% CI
Path a (Portrayal → Age)	3.183	1.183	2.689	0.007	[0.846; 5.519]
Covariate (Product → Age)	−0.702	0.379	−1.852	0.065	[−1.45; 0.046]
Path b (Age → Attractiveness)	−0.012	0.009	−1.406	0.161	[−0.031; 0.005]
Covariate (Product → Attractiveness)	0.506	0.009	11.023	0.000	[0.416; 0.597]
Direct Effect c (Portrayal → Attractiveness)	−0.193	0.145	−1.333	0.184	[−0.479; 0.093]
Indirect Effect ab (Mediation)	−0.041	0.03	–	–	[−0.107; 0.013]

The inclusion of the covariate increased the statistical power of the model, accounting for 47.15% of the variance ($R^2 = 0.471$) compared to the 9.16% of the unadjusted model. The results of the adjusted model revealed a shift in the significance of the pathways as seen in Table 5. The stereotypical portrayal remained a significant predictor of perceived age ($coeff. = 3.183$; $p = 0.007$), confirming that stereotyping increases perceived age regardless of product evaluation. Conversely, the effect of perceived age on attractiveness became non-significant ($coeff. = -0.012$; $p = 0.161$) when controlling for product evaluation. The covariate effect showed that product evaluation was a highly significant predictor of attractiveness ($coeff. = 0.506$; $p = 0.000$), indicating a strong positive relationship between product evaluation and endorser attractiveness. The direct effect also became non-significant ($coeff. = -0.193$; $p = 0.184$). The bootstrap confidence interval for the indirect effect

in the adjusted model included zero ($effect = -0.041$; $LLCI = -0.107$; $ULCI = 0.013$). Based on the robustness check through the covariate, Hypothesis 2 is rejected. While the stereotypical portrayal consistently increased the perceived age of the endorser, the negative impact on attractiveness is influenced by the evaluation of the product rather than the endorser's age.

Hypothesis 3 (H3) predicted that the stereotypical advertisement would positively impact consumer attitudes toward the advertisement (H3a) and the endorser (H3b) compared to the non-stereotypical advertisement. To test these predictions, two independent samples t-tests were conducted. For H3a, Levene's test indicated a significant violation of the assumption of homogeneity of variances ($F = 11.467$; $sig. < 0.001$). Consequently, the results for equal variances not assumed are reported. The analysis revealed a significant difference between the groups ($t = -3.487$; $p < 0.001$). However, contrary to the predicted direction, participants in the non-stereotypical condition reported significantly more favorable attitudes toward the advertisement ($M = 3.78$; $SD = 1.98$) compared to those exposed to the stereotypical portrayal ($M = 2.85$; $SD = 1.48$). Hence, Hypothesis 3a is rejected. These results are seen in Table 6.

Table 6

Independent Samples Test Attitude toward Advertisement – H3a

Variable	Group	N	M	SD	t	p
Attitude towards Advertisement (H3a)	Stereotypical	85	2.85	1.48	-3.487	< 0.001
	Non-	88	3.78	1.98	—	—
	Stereotypical					

Regarding consumer attitudes toward the endorser (H3b), Levene's test yielded a non-significant result, satisfying the assumption of equal variances ($F = 2.545$; $sig. = 0.112$). The independent samples t-test results confirmed a significant difference between the two groups ($t = -3.022$; $p = 0.003$). Similar to the findings of H3a, participants in the non-stereotypical condition reported significantly more favorable attitudes toward the endorser ($M = 4.59$; $SD = 1.54$) compared to the stereotypical

portrayal ($M = 3.92$; $SD = 1.35$). Thus, Hypothesis 3b is rejected. The data are seen in Table 7.

Table 7

Independent Samples Test Attitude toward Endorser – H3b

Variable	Group	N	M	SD	t	p
Attitude towards Endorser (H3b)	Stereotypical	85	3.92	1.35	−3.022	0.003
	Non-	88	4.59	1.54	—	—
	Stereotypical					

Hypothesis 4 (H4) proposed a mediation model predicting that a stereotypical advertisement would positively impact the endorser's authenticity, which would positively impact consumer attitudes toward the advertisement (H4a) and the endorser (H4b). To evaluate whether the stereotypical portrayal increased authenticity, an independent samples t-test was conducted. Levene's test indicated equal variances ($F = 1.867$; $p = 0.174$). The results revealed a significant difference between the two groups ($t = -2.024$; $p = 0.045$) but in the opposite direction of the hypothesized relationship. The stereotypical portrayal was perceived as significantly less authentic ($M = 2.58$; $SD = 1.52$) compared to the non-stereotypical portrayal ($M = 3.08$; $SD = 1.73$).

To test the mediation effects, the PROCESS Macro Model 4 by Hayes with 5000 bootstrap samples was utilized in the same manner as in Hypothesis 2. First, the unadjusted model was examined, followed by the application of a robustness check with product evaluation as a covariate. In the unadjusted model, a significant indirect effect was observed for both outcome variables, but in the opposite direction. For H4a, the indirect effect of authenticity on the attitudes toward the advertisement (Ad.) was significant ($effect = -0.393$; $LLCI = -0.775$; $ULCI = -0.018$). The stereotypical portrayal reduced authenticity ($coeff. = -0.502$; $p = 0.044$), which reduced attitudes toward the advertisement. Similarly, for H4b, the indirect effect of authenticity on the attitudes toward the endorser was significant ($effect = -0.278$; $LLCI = -0.565$; $ULCI = -0.005$). The stereotypical portrayal reduced authenticity ($coeff. = -0.502$; $p = 0.044$), which reduced attitudes toward the endorser.

To determine if these effects were driven by the participants' evaluations of the product, the adjusted models with product evaluation as a covariate were analyzed. The adjustment for H4a altered the results, as shown in Table 8. The inclusion of the covariate increased the statistical power of the model, accounting for 77.85% of the variance ($R^2 = 0.778$) compared to the unadjusted model's 56.25%. When controlling for product evaluation, path a became non-significant ($coeff. = -0.014$; $p = 0.942$), indicating that the stereotypical portrayal did not impact authenticity. Conversely, the covariate product evaluation had a significant effect on authenticity ($coeff. = 0.649$; $p = 0.000$), leading to the conclusion that authenticity is impacted by participants' product evaluations and not by the stereotypical manipulation. When analyzing the effects further, it became evident that both authenticity and product evaluation had a positive effect on consumer attitudes toward the advertisement, while the direct and indirect effects became non-significant. Consequently, when controlling for product evaluation, the results demonstrate that product evaluation is the main variable impacting authenticity and consumer attitudes toward the advertisement rather than the stereotypical portrayal. Hence, Hypothesis 4a is rejected.

Table 8*Mediation Analysis Adjusted Model including Covariate Product – H4a*

Pathway	Coeff. / effect	SE	t	p	95% CI
Path a (Portrayal → Authenticity)	-0.014	0.204	-0.072	0.942	[-0.418; 0.388]
Covariate (Product → Authenticity)	0.649	0.065	9.923	0.000	[0.52; 0.778]
Path b (Authenticity → Ad.)	0.398	0.050	7.715	0.000	[0.29; 0.489]
Covariate (Product → Ad.)	0.695	0.054	12.839	0.000	[0.588; 0.802]
Direct Effect c (Portrayal → Ad.)	-0.206	0.134	-1.535	0.126	[-0.472; 0.059]
Indirect Effect ab (Mediation)	-0.005	0.807	–	–	[-0.171; 0.152]

When analyzing the adjusted model for H4b, the results showed that similarly to H4a, the inclusion of the covariate increased the statistical power of the model, accounting for 58.41% ($R^2 = 0.584$) of the variance compared to the unadjusted model's 41.55%. The model showed significant effects of authenticity on consumer attitudes toward the endorser ($coeff. = 0.266$; $p = 0.000$), and product evaluation on consumer attitudes toward the endorser ($coeff. = 0.508$; $p = 0.000$). The direct effect ($effect = -0.154$; $LLCI = -0.455$; $ULCI = 0.145$) and indirect effect ($coeff = -0.004$; $LLCI = -0.121$; $ULCI = 0.101$) became non-significant. Hence, the results for H4b also confirm that product evaluation acts as the main variable influencing authenticity and attitudes toward the endorser rather than the experimental manipulation (see Table 9). Thus, Hypothesis 4b is rejected.

Table 9*Mediation Analysis Adjusted Model including Covariate Product – H4b*

Pathway	Coeff. / effect	SE	t	p	95% CI
Path a (Portrayal → Authenticity)	-0.014	0.204	-0.072	0.942	[-0.418; 0.388]
Covariate (Product → Authenticity)	0.649	0.065	9.923	0.000	[0.52; 0.778]
Path b (Authenticity → Endorser)	0.266	0.057	4.674	0.000	[0.154; 0.379]
Covariate (Product → Endorser)	0.507	0.061	8.281	0.000	[0.386; 0.627]
Direct Effect c (Portrayal → Endorser)	-0.154	0.152	-1.017	0.31	[-0.455; 0.145]
Indirect Effect ab (Mediation)	-0.004	0.055	–	–	[-0.121; 0.101]

Discussion

Interpretation of the Results

The objective of this master thesis was to examine how advertising portrayals of an older female impact consumer perceptions and attitudes toward the advertisement and the endorser. Hypothesis 1 was fully supported, confirming that the stereotypical portrayal negatively impacted the endorser's perceived attractiveness compared to the non-stereotypical portrayal. This finding demonstrates that the contextual framing is sufficient to diminish aesthetic evaluations of the endorser. While the literature shows that older endorsers are perceived as less attractive than younger endorsers (Eisend, 2022; Foos and Clark, 2011; Mazis *et al.*, 1992, cited in Kohlbacher, Prieler and Hagiwara, 2014), the negative effect on attractiveness is exacerbated by portraying older endorsers stereotypically. Consequently, consumers penalize older endorsers not just for being old, but also for the stigmatized setting and stereotypes in which they are presented.

Hypothesis 2 was rejected after the analysis revealed that the decline in the endorser's attractiveness was driven by negative product evaluation rather than the endorser's perceived age. This result refines the understanding of older endorsers' perceived age and attractiveness in advertising. The older female's attractiveness was not negatively perceived because of ageism, which the literature cites as a reason why older endorsers are absent from advertising (Carrigan and Szmigin, 2000; Eisend, 2022; Mazis *et al.*, 1992, cited in Kohlbacher, Prieler and Hagiwara, 2014; Prieler *et al.*, 2011b), but rather due to the negatively evaluated product that damaged the image and attractiveness of the endorser. The experimental manipulation of the stereotypical portrayal likely created a low-quality advertisement and poor product presentation, which alienated consumers, leading them to negatively evaluate the endorser's attractiveness.

While existing literature posits that age-specific portrayals and high congruency between endorser and product can enhance advertising efficacy and source credibility, as well as create favorable perceptions and attitudes toward older people, the results for Hypothesis 3 support the opposing view (Chen, 2015; Eisend, 2022; Hummert *et al.*, 1994, cited in Williams *et al.*, 2010; Kohlbacher, Prieler and

Hagiwara, 2014; Prieler and Kohlbacher, 2016, pp. 66-67; Kwon, Saluja and Adaval, 2015). The stereotypical advertisement resulted in inferior evaluations of the advertisement and the endorser. Rather than aligning with consumer views on the elderly, the manipulation likely reinforced negative advertising and social effects. The findings challenge the potential positive effects of stereotypical depictions of older demographics compared to non-stereotypical portrayals.

Finally, research suggests that older endorsers appear in specific industries and with age-related products such as healthcare, medicine, or finance because they are viewed as more credible, wiser, and more authentic than younger endorsers (Chen, 2015; Eisend, 2022; Kohlbacher, Prieler and Hagiwara, 2014; Williams *et al.*, 2010; Harwood and Roy, 1999). However, the findings of H4 indicate a divergent narrative. The unadjusted model demonstrated the opposite of the theoretical prediction by finding that depicting the older endorser with an age-oriented product in a stereotypical setting yielded lower perceived authenticity, which degraded consumer attitudes toward the advertisement and the endorser compared to the non-stereotypical portrayal. Furthermore, the covariate analysis revealed that this effect was driven by product evaluation, rather than stereotyping. These findings challenge the premise that older endorsers enhance source credibility and authenticity simply by being placed in age-related settings or paired with age-related products (Eisend, 2022; Hummert *et al.*, 1994, cited in Williams *et al.*, 2010; Kohlbacher, Prieler and Hagiwara, 2014; Prieler and Kohlbacher, 2016, pp. 66-67; Kwon, Saluja and Adaval, 2015).

Ultimately, the findings of H1 and H3 show that stereotyping negatively impacted consumer perceptions of attractiveness and their attitudes toward the advertisement and the endorser in direct comparison to the non-stereotypical portrayal.

Furthermore, when investigating the mediating effects in H2 and H4, the study demonstrates that the main variable influencing perceptions and attitudes is product evaluation and not the stereotypical depiction. Consequently, the findings establish that product evaluation functions as the definitive predictor for consumer responses in this study, effectively negating the stereotyping effects and the demographic framing.

Implications

The empirical findings of this study offer methodological, theoretical, and practical contributions to existing academic literature and provide insights for marketing practitioners. The research represents a methodological contribution in the study of stereotypical advertising portrayals. By holding the endorser's identity constant across different contexts, this research systematically isolates the variable of chronological age from the contextual influence of stereotyping. This controlled experimental design addresses a limitation in prior literature that frequently conflates the demographic characteristics of older endorsers with stereotyped media representation. Thus, the study enables the operationalization and measurement of stereotyping as an independent construct.

Regarding theoretical implications, the initial data demonstrated that stereotypical portrayals depicting older endorsers in passive and domestic roles and relying on high congruency between product and endorser yielded no advantages over non-stereotypical portrayals. Instead, stereotyping actively degraded the endorser's perceived attractiveness, inflated her perceived age, and negatively impacted consumer attitudes. The results show that when older endorsers are integrated into dynamic, non-stereotypical environments, they are perceived as more youthful and more attractive, which empirically challenges the advertising industry's unsubstantiated aesthetic bias toward youth and its focus on age-oriented portrayals. Furthermore, after investigating the covariate and mediating effects and mechanisms, the analysis distinguished product evaluation as the primary variable influencing consumer perceptions and attitudes toward the advertisement and the endorser. A strong product evaluation negates the incongruence between an older endorser and a youth-oriented product. This theoretical shift shows that the strength of the product and brand image supersedes the demographic alignment of the endorser, hence questioning the necessity of strict product-endorser congruency.

For marketers and brand managers, these findings challenge common practices in marketing and in media representation. Brands with high product evaluations among their target audience are not strictly reliant on younger endorsers to drive positive consumer responses. The positive evaluation of the non-stereotypical portrayal, despite featuring an older female endorser, demonstrates that product strength drives advertising success and efficacy rather than stereotyping. Furthermore, the

data indicate that older endorsers can be deployed effectively regardless of the target demographic's age. Given the participants' mean age of 30.54 years, a demographic assumed to align better with sports marketing than medical products (Kohlbacher, Prieler and Hagiwara, 2014), the study showed that the older endorser did not alienate younger consumers. Consequently, marketers and brand managers can utilize older endorsers universally across generalized marketing campaigns, discarding the obsolete view that advertising requires primarily younger endorsers and that older endorsers must be restricted to specialized and age-specific roles and industries.

Limitations

While this research provides empirical insights into the effects and mechanisms of stereotyping in advertising, several limitations must be acknowledged to contextualize the findings and guide future academic research. A methodological constraint is the reliance on non-probability convenience sampling through digital platforms. This distribution method generated a skewed demographic profile, overrepresenting younger and highly educated cohorts, such as university students. Consequently, this sampling bias restricts the external validity of the study and limits the generalizability of the empirical findings across a universally representative consumer population.

Regarding stimuli and operational constraints, a significant limitation stems from the utilization of artificial intelligence (AI) to generate the experimental portrayals. The application of AI-generated imagery introduced disadvantages by yielding unrealistic visuals. These anomalies risked shifting the participants' focus away from the intended independent variable toward the medium and the advertisement itself. Unsolicited feedback from participants during the data collection phase, questioning whether the study's focus was artificial intelligence in advertising, confirmed that the artificial nature of the stimuli likely acted as a confounding variable. Moreover, the visible use of artificial intelligence potentially influenced participants' perceptions and attitudes toward the product, the advertisement, and the endorser by creating a low-quality and unrealistic commercial. Thus, when studies use AI-generated visual

stimuli, they must integrate artificial intelligence as a statistical covariate to empirically control for its influence on consumer perceptions and attitudes.

Additionally, the study employed fictitious brands and products without providing supplementary product information or brand narratives. While this omission was a deliberate methodological choice designed to strictly isolate the participants' focus on the endorser and contextual framing, it potentially introduced an information deficit. It is probable that supplying contextual brand information would have enhanced participants' comprehension, particularly regarding the utilization of the healthcare product in the stereotypical portrayal. Providing this context may have altered product evaluation and yielded different outcomes regarding consumer perceptions and attitudes.

Future Research

A research gap that future studies can address is the integration of participant age as a moderating variable. Due to the utilization of a non-probability convenience sampling method, the current research design did not control for the chronological age of the participants. However, studies should compare responses and evaluations of younger and older cohorts when exposed to the same endorser across varying portrayals. While this thesis demonstrates that non-stereotypical portrayals achieved higher evaluations, it is critical to test whether this effect persists among older demographics. Older consumers may identify more strongly with older endorsers in stereotypical settings because of shared values and similar beliefs (Eisend, 2022), potentially making the portrayals more authentic and persuasive for the older demographic, as Hypothesis 4 suggested. Moreover, scholars must investigate the intersection of stereotyping and brand image perception. Huber *et al.* (2013) established that an endorser's chronological age functions as a direct cognitive cue for brand image, showing that younger endorsers generated a rejuvenated brand perception. Accordingly, future research should control for stereotyping as a variable to determine whether the contextual portrayal, rather than the biological age of the endorser alone, dictates the perceived age of the brand and product. Isolating these variables can clarify whether marketers can achieve brand rejuvenation through

modernized, non-stereotypical settings even when depicting older endorsers in the advertisements.

Finally, while this thesis used a single-endorser stimulus to ensure internal validity, advertisements frequently employ multiple endorsers in their portrayals (Roy and Harwood, 1997, cited in Prieler *et al.*, 2015). Future experimental designs should investigate the interactive effects when multiple endorsers of varying ages are depicted, specifically pairing an older endorser with a younger endorser within the advertisement. Academic research posits that older endorsers project higher credibility, while younger endorsers are perceived as more attractive (Bristol, 1996, cited in Eisend, 2022; Mazis *et al.*, 1992, cited in Kohlbacher, Prieler and Hagiwara, 2014). Future research must determine whether the characteristics of one endorser positively influence the perception of the other endorser. Specifically, researchers should investigate whether the presence of an older endorser transfers credibility to a younger endorser, and conversely, whether a younger endorser transfers physical attractiveness to an older model. Investigating these synergistic effects can provide practical implications and insights for integrating older endorsers into more frequent, universal, and mainstream media campaigns.

Conclusions

The aim of this master thesis was to empirically analyze the impact of stereotypical and non-stereotypical portrayals of older endorsers on consumer perceptions and attitudes by holding the identity of an older female endorser constant across two manipulations. This approach allowed for the operationalization of stereotyping as an independent construct to determine its influence on perceived age, authenticity, attractiveness, and consumer attitudes toward the advertisement and the endorser. The analysis demonstrated that the stereotypical portrayal negatively impacted perceptions and attitudes toward the advertisement and the endorser compared to the non-stereotypical portrayal. Moreover, the mediation and covariate analyses revealed that product evaluation acts as the primary variable that influences

perceptions and attitudes. The findings contribute to the academic literature and challenge advertising and industry practices. Pairing the older endorser with an age-congruent product and a stereotypical narrative failed to generate favorable advertising effects and consumer responses. However, when the endorser was placed in a youthful, dynamic environment and paired with a highly evaluated product, she was perceived as younger, more attractive, and even more authentic, enhancing perceptions and attitudes. These results challenge the advertising industry's aesthetic bias toward youth (Carrigan and Szmigin, 2000; Eisend, 2022; Prieler *et al.*, 2011b), indicating that this bias is rooted in unsubstantiated prejudice rather than objective consumer preferences. Despite the participants' low mean age of 30.54 years, the non-stereotypical portrayal was evaluated favorably. This demonstrates that older endorsers do not alienate younger demographics, even when presenting youth-oriented products. Brands with successful product evaluations can confidently leverage older endorsers universally across mass-market advertising campaigns without risking brand equity. Ultimately, this thesis concludes that the systemic marginalization and stereotyping of older adults in advertising reflect obsolete ageist biases rather than economic logic. The study demonstrates that older demographics can be portrayed universally in the media landscape. By embracing realistic and non-stereotypical portrayals, brands and marketers can optimize the commercial efficacy of older endorsers while fostering a more equitable, ethical, and accurate representation of aging in society.

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Appendix A – Experimental Manipulations

Appendix A.1 – Stereotypical Portrayal



Appendix A.2 – Non-Stereotypical Portrayal



Appendix B – Questionnaire

Appendix B.1 – Covariate Product

1. On a scale of 1 – 7, what do you think about the product in the advertisement?

Unappealing	☐	☐	☐	☐	☐	☐	☐	Appealing
Bad	☐	☐	☐	☐	☐	☐	☐	Good
Unpleasant	☐	☐	☐	☐	☐	☐	☐	Pleasant
Unfavorable	☐	☐	☐	☐	☐	☐	☐	Favorable
Unlikable	☐	☐	☐	☐	☐	☐	☐	Likable

Appendix B.2 – Mediating Variable Age

2. Please estimate the person's age in the advertisement:

Appendix B.3 – Dependent Variable Attractiveness

3. On a scale of 1 – 7, please rate the person's attractiveness in the advertisement:

Unattractive	☐	☐	☐	☐	☐	☐	Attractive
Not Classy	☐	☐	☐	☐	☐	☐	Classy
Ugly	☐	☐	☐	☐	☐	☐	Beautiful
Plain	☐	☐	☐	☐	☐	☐	Elegant
Not Sexy	☐	☐	☐	☐	☐	☐	Sexy

Appendix B.4 – Mediating Variable Authenticity

4. On a scale of 1 – 7, to what extent do you agree or disagree with the following statements about the person in the advertisement:

	Disagree						Agree
The person is genuine.	☐	☐	☐	☐	☐	☐	☐
The person is authentic.	☐	☐	☐	☐	☐	☐	☐
The person is real.	☐	☐	☐	☐	☐	☐	☐

Appendix B.5 – Dependent Variable Advertisement

5. On a scale of 1 – 7, what do you think about the advertisement?

HEAD 7

I dislike the advertisement	☐ ☐ ☐ ☐ ☐ ☐ ☐	I like the advertisement
I react unfavorably to the advertisement	☐ ☐ ☐ ☐ ☐ ☐ ☐	I react favorably to the advertisement
I feel negative toward the advertisement	☐ ☐ ☐ ☐ ☐ ☐ ☐	I feel positive toward the advertisement
The advertisement is bad	☐ ☐ ☐ ☐ ☐ ☐ ☐	The advertisement is good

Appendix B.6 – Dependent Variable Endorser

6. On a scale of 1 – 7, what do you think about the person in the advertisement?

I dislike the person	☐ ☐ ☐ ☐ ☐ ☐ ☐	I like the person
I react unfavorably to the person	☐ ☐ ☐ ☐ ☐ ☐ ☐	I react favorably to the person
I feel negative toward the person	☐ ☐ ☐ ☐ ☐ ☐ ☐	I feel positive toward the person
The person is bad	☐ ☐ ☐ ☐ ☐ ☐ ☐	The person is good

Appendix B.7 – Manipulation Check

7. Would you say the advertisement is a stereotypical portrayal of older people?

- ☐ Yes
☐ No

Appendix B.8 – Attention Check

8. Please select the person's sex in the advertisement:

- ☐ Male
☐ Female

Appendix B.9 – Demographic

9. Please state your age:

10. Please select your gender:

11. Please select the highest level of education you have completed:

12. Please state your country of residence:

Appendix C – Statistical Results

Appendix C.1 – Age

Descriptive Statistics

	N	Mean
Deskr_Age	173	30.54
Valid N (listwise)	173	

Appendix C.2 – Gender

Deskr_Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	75	43.4	43.4	43.4
	2	97	56.1	56.1	99.4
	3	1	.6	.6	100.0
	Total	173	100.0	100.0	

Appendix C.3 – Education

Deskr_Education					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-9	1	.6	.6	.6
	1	32	18.5	18.5	19.1
	2	13	7.5	7.5	26.6
	3	127	73.4	73.4	100.0
	Total	173	100.0	100.0	

Appendix C.4 – Residence

Deskr_Residence					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		2	1.2	1.2	1.2
	Austria	1	.6	.6	1.7
	austria	1	.6	.6	2.3
	Austria	42	24.3	24.3	26.6
	canada	1	.6	.6	27.2
	Canada	2	1.2	1.2	28.3
	Czech Republic	1	.6	.6	28.9
	Deutschland	4	2.3	2.3	31.2
	germany	5	2.9	2.9	34.1
	Germany	80	46.2	46.2	80.3
	Hanau	1	.6	.6	80.9
	Italy	1	.6	.6	81.5
	Malaysia	2	1.2	1.2	82.7
	Netherlands	1	.6	.6	83.2
	New Zealand	1	.6	.6	83.8
	Poland	1	.6	.6	84.4
	Portugal	1	.6	.6	85.0
	Spain	2	1.2	1.2	86.1
	Sweden	1	.6	.6	86.7
	switzerland	1	.6	.6	87.3
	Switzerland	4	2.3	2.3	89.6
	Switzerland - CH	1	.6	.6	90.2
	United States	9	5.2	5.2	95.4
	United States of America	1	.6	.6	96.0
	USA	6	3.5	3.5	99.4
	sterreich	1	.6	.6	100.0
	Total	173	100.0	100.0	

Appendix C.5 – Groups

		Group			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	MA02	85	49.1	49.1	49.1
	MA03	88	50.9	50.9	100.0
	Total	173	100.0	100.0	

Appendix C.6 – Attractiveness Mean

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Attractiveness_Mea	MA02	85	4.0753	1.09152	.11839
n	MA03	88	4.6977	1.29650	.13821

Appendix C.7 – Age Mean

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
AGE	MA02	85	70.52	6.829	.741
	MA03	88	66.81	8.290	.884

Appendix C.8 – Product Mean

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Prod_M	MA02	85	3.4824	1.34281	.14565
	MA03	88	4.2341	1.68051	.17914

Appendix C.9 – Advertisement Mean

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Advertisement_Mean	MA02	85	2.8588	1.48025	.16056
	MA03	88	3.7841	1.98166	.21125

Appendix C.10 – Endorser Mean

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Endorser_Mean	MA02	85	3.9265	1.35939	.14745
	MA03	88	4.5966	1.54782	.16500

Appendix C.11 – Authenticity Mean

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Authenticity_Mean	MA02	85	2.5804	1.52766	.16570
	MA03	88	3.0833	1.73039	.18446

Appendix C.12 – Cronbach's Alpha Attractiveness

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.880	.885	5

Appendix C.13 – Cronbach's Alpha Product

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.966	.967	5

Appendix C.14 – Cronbach's Alpha Advertisement

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.969	.969	4

Appendix C.15 – Cronbach's Alpha Endorser

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.957	.958	4

Appendix C.16 – Cronbach's Alpha Authenticity

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.853	.851	3

Appendix C.17 – Test of Normality

Tests of Normality							
	Group	Kolmogorov–Smirnov ^a			Shapiro–Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
AGE	MA02	.199	85	<.001	.916	85	<.001
	MA03	.152	88	<.001	.713	88	<.001
MEAN_Product	MA02	.111	85	.012	.979	85	.182
	MA03	.120	88	.003	.956	88	.005
MEAN_Attractivemess	MA02	.073	85	.200 [*]	.993	85	.922
	MA03	.100	88	.031	.965	88	.018
MEAN_Authenticity	MA02	.154	85	<.001	.891	85	<.001
	MA03	.132	88	<.001	.924	88	<.001
MEAN_Advertisement	MA02	.107	85	.017	.934	85	<.001
	MA03	.089	88	.084	.931	88	<.001
MEAN_Endorser	MA02	.145	85	<.001	.966	85	.025
	MA03	.116	88	.005	.940	88	<.001

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Appendix C.18 – Manipulation Check Stereotypical Portrayal

Manipulation_Check					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	48	56.5	56.5	56.5
	No	37	43.5	43.5	100.0
	Total	85	100.0	100.0	

Appendix C.19 – Manipulation Check Non-Stereotypical Portrayal

Manipulation_Check					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	8.0	8.0	8.0
	No	81	92.0	92.0	100.0
	Total	88	100.0	100.0	

Appendix C.20 – Manipulation Test

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	46.933 ^a	1	<.001		
Continuity Correction ^b	44.722	1	<.001		
Likelihood Ratio	51.075	1	<.001		
Fisher's Exact Test				<.001	<.001
Linear-by-Linear Association	46.661	1	<.001		
N of Valid Cases	173				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 27.02.

b. Computed only for a 2x2 table

Symmetric Measures

	Value	Approximate Significance
Nominal by Nominal Phi	.521	<.001
Cramer's V	.521	<.001
N of Valid Cases	173	

Appendix C.21 – Hypothesis 1 Independent Samples Test

Independent Samples Test

		Levene's Test for Equality of Variances				t-test for Equality of Means				95% Confidence Interval of the Difference	
		F	Sig.	t	df	Significance One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Attractiveness_Mean	Equal variances assumed	1.308	.254	-3.410	171	<.001	<.001	-.62243	.18252	-.98273	-.26214
	Equal variances not assumed			-3.420	167.894	<.001	<.001	-.62243	.18198	-.98170	-.26316

Independent Samples Effect Sizes

		Standardize r ^a	Point Estimate	95% Confidence Interval	
				Lower	Upper
Attractiveness_Mean	Cohen's d	1.20019	-.519	-.821	-.215
	Hedges' correction	1.20549	-.516	-.817	-.214
	Glass's delta	1.29650	-.480	-.785	-.172

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control (i.e., the second) group.

Appendix C.22 – Hypothesis 2 Age Independent Samples Test

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Significance One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
AGE	Equal variances assumed	.172	.679	3.207	171	<.001	.002	3.711	1.157	1.427 5.995
	Equal variances not assumed			3.218	166.872	<.001	.002	3.711	1.153	1.434 5.987

Independent Samples Effect Sizes

			Point Estimate	95% Confidence Interval	
Standardizer ^a				Lower	Upper
AGE	Cohen's d	7.608	.488	.185	.790
	Hedges' correction	7.641	.486	.184	.786
	Glass's delta	8.290	.448	.141	.752

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control (i.e., the second) group.

Appendix C.23 – Hypothesis 2 Mediation Analysis

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model: 4
Y: Attr_M
X: Group_M
M: AGE

Sample
Size: 173

OUTCOME VARIABLE:
AGE

Model Summary	R	R-sq	MSE	F	df1	df2	p
	.2382	.0567	57.8768	10.2871	1.0000	171.0000	.0016

Model	coeff	se	t	p	LLCI	ULCI
constant	66.8068	.8110	82.3777	.0000	65.2060	68.4076
Group_M	3.7108	1.1570	3.2073	.0016	1.4270	5.9946

OUTCOME VARIABLE:
Attr M

Model Summary	R	R-sq	MSE	F	df1	df2	p
	.3026	.0916	1.4058	8.5672	2.0000	170.0000	.0003

Model	coeff	se	t	p	LLCI	ULCI
constant	6.5166	.8062	8.0833	.0000	4.9252	8.1080
Group_M	-.5214	.1857	-2.8084	.0056	-.8879	-.1549
AGE	-.0272	.0119	-2.2844	.0236	-.0508	-.0037

***** DIRECT AND INDIRECT EFFECTS OF X ON Y *****

Direct effect of X on Y	Effect	se	t	p	LLCI	ULCI
	-.5214	.1857	-2.8084	.0056	-.8879	-.1549

Indirect effect(s) of X on Y:	Effect	BootSE	BootLLCI	BootULCI
AGE	-.1010	.0634	-.2370	.0029

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
5000

----- END MATRIX -----

Appendix C.24 – Hypothesis 2 Mediation Analysis including Product

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model: 4

Y: Attr_M
X: Group_M
M: AGE

Covariates:

Prod_M

Sample

Size: 173

OUTCOME VARIABLE:

AGE

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.2746	.0754	57.0657	6.9320	2.0000	170.0000	.0013

Model

	coeff	se	t	p	LLCI	ULCI
constant	69.7795	1.7957	38.8603	.0000	66.2349	73.3242
Group_M	3.1830	1.1837	2.6892	.0079	.8465	5.5196
Prod_M	-.7021	.3791	-1.8522	.0657	-1.4504	.0462

OUTCOME VARIABLE:

Attr_M

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.6867	.4715	.8226	50.2649	3.0000	169.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	3.4173	.6778	5.0420	.0000	2.0793	4.7553
Group_M	-.1935	.1451	-1.3333	.1842	-.4799	.0930
AGE	-.0129	.0092	-1.4062	.1615	-.0311	.0052
Prod_M	.5067	.0460	11.0233	.0000	.4160	.5975

***** DIRECT AND INDIRECT EFFECTS OF X ON Y *****

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
-.1935	.1451	-1.3333	.1842	-.4799	.0930

Indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI
AGE	-.0412	.0309	-.1079

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

----- END MATRIX -----

Appendix C.25 – Hypothesis 3a Independent Samples Test

Independent Samples Test											
Levene's Test for Equality of Variances				t-test for Equality of Means							
		F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						One-Sided p	Two-Sided p			Lower	Upper
Advertisement_Mean	Equal variances assumed	11.467	<.001	-3.470	171	<.001	<.001	-.92527	.26665	-1.45162	-.39891
	Equal variances not assumed			-3.487	160.927	<.001	<.001	-.92527	.26534	-1.44926	-.40128

Independent Samples Effect Sizes

		Standardize r ^a	Point Estimate	95% Confidence Interval	
				Lower	Upper
Advertisement_Mean	Cohen's d	1.75337	-.528	-.830	-.224
	Hedges' correction	1.76110	-.525	-.827	-.223
	Glass's delta	1.98166	-.467	-.772	-.160

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control (i.e., the second) group.

Appendix C.26 – Hypothesis 3b Independent Samples Test

Independent Samples Test											
Levene's Test for Equality of Variances				t-test for Equality of Means							
		F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						One-Sided p	Two-Sided p			Lower	Upper
Endorser_Mean	Equal variances assumed	2.545	.112	-3.022	171	.001	.003	-.67012	.22178	-1.10790	-.23234
	Equal variances not assumed			-3.028	169.488	.001	.003	-.67012	.22128	-1.10694	-.23330

Independent Samples Effect Sizes

		Standardizer a	Point Estimate	95% Confidence Interval	
				Lower	Upper
Endorser_Mean	Cohen's d	1.45830	-.460	-.761	-.157
	Hedges' correction	1.46474	-.458	-.758	-.156
	Glass's delta	1.54782	-.433	-.737	-.127

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control (i.e., the second) group.

Appendix C.27 – Hypothesis 4 Authenticity Independent Samples Test

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Significance One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
Authenticity_Mean	Equal variances assumed	1.867	.174	-2.024	171	.022	.045	-.50294	.24849	-.99345 -.01244
	Equal variances not assumed			-2.028	169.646	.022	.044	-.50294	.24795	-.99241 -.01347

Independent Samples Effect Sizes

				95% Confidence Interval	
			Point Estimate	Lower	Upper
Authenticity_Mean	Cohen's d	1.63395	-.308	-.607	-.008
	Hedges' correction	1.64116	-.306	-.605	-.007
	Glass's delta	1.73039	-.291	-.591	.011

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control (i.e., the second) group.

Appendix C.28 – Hypothesis 4a Mediation Analysis

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model: 4

Y: Advert_M
X: Group_M
M: Auth_M

Sample

Size: 173

OUTCOME VARIABLE:

Auth_M

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.1530	.0234	2.6698	4.0965	1.0000	171.0000	.0445

Model

	coeff	se	t	p	LLCI	ULCI
constant	3.0833	.1742	17.7020	.0000	2.7395	3.4272
Group_M	-.5029	.2485	-2.0240	.0445	-.9934	-.0124

OUTCOME VARIABLE:

Advert_M

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.7500	.5625	1.4482	109.2768	2.0000	170.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	1.3715	.2159	6.3525	.0000	.9453	1.7977
Group_M	-.5317	.1852	-2.8712	.0046	-.8973	-.1662
Auth_M	.7824	.0563	13.8922	.0000	.6713	.8936

***** DIRECT AND INDIRECT EFFECTS OF X ON Y *****

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
-.5317	.1852	-2.8712	.0046	-.8973	-.1662

Indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI	
Auth_M	-.3935	.1959	-.7754	-.0181

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

----- END MATRIX -----

Appendix C.29 – Hypothesis 4b Mediation Analysis

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model: 4

Y: Endors_M
X: Group_M
M: Auth_M

Sample

Size: 173

OUTCOME VARIABLE:

Auth_M

Model Summary

R	R-sq	MSE	F	df1	df2	p
.1530	.0234	2.6698	4.0965	1.0000	171.0000	.0445

Model

	coeff	se	t	p	LLCI	ULCI
constant	3.0833	.1742	17.7020	.0000	2.7395	3.4272
Group_M	-.5029	.2485	-2.0240	.0445	-.9934	-.0124

OUTCOME VARIABLE:

Endors_M

Model Summary

R	R-sq	MSE	F	df1	df2	p
.6446	.4155	1.3171	60.4215	2.0000	170.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	2.8907	.2059	14.0392	.0000	2.4842	3.2971
Group_M	-.3919	.1766	-2.2187	.0278	-.7405	-.0432
Auth_M	.5533	.0537	10.3006	.0000	.4472	.6593

***** DIRECT AND INDIRECT EFFECTS OF X ON Y *****

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
-.3919	.1766	-2.2187	.0278	-.7405	-.0432

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
Auth_M	-.2783	.1411	-.5654	-.0050

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

----- END MATRIX -----

Appendix C.30 – Hypothesis 4a Mediation Analysis including Product

Run MATRIX procedure:

```
***** PROCESS Procedure for SPSS Version 4.2 *****
Written by Andrew F. Hayes, Ph.D.      www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

*****
Model: 4
  Y: Advert_M
  X: Group_M
  M: Auth_M

Covariates:
  Prod_M

Sample
Size: 173

*****
OUTCOME VARIABLE:
  Auth_M

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .6177      .3816      1.7005      52.4529      2.0000      170.0000      .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant      .3340      .3100      1.0776      .2827      -.2779      .9459
Group_M      -.0148      .2043      -.0725      .9423      -.4182      .3885
Prod_M      .6493      .0654      9.9234      .0000      .5202      .7785

*****
OUTCOME VARIABLE:
  Advert_M

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .8823      .7785      .7375      198.0176      3.0000      169.0000      .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant      -.3614      .2048      -1.7642      .0795      -.7657      .0430
Group_M      -.2066      .1346      -1.5354      .1265      -.4722      .0590
Auth_M      .3897      .0505      7.7156      .0000      .2900      .4894
Prod_M      .6953      .0542      12.8394      .0000      .5884      .8022

***** DIRECT AND INDIRECT EFFECTS OF X ON Y *****

Direct effect of X on Y
      Effect      se      t      p      LLCI      ULCI
      -.2066      .1346      -1.5354      .1265      -.4722      .0590

Indirect effect(s) of X on Y:
      Effect      BootSE      BootLLCI      BootULCI
Auth_M      -.0058      .0807      -.1719      .1524

***** BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS *****

OUTCOME VARIABLE:
  Auth_M

      Coeff      BootMean      BootSE      BootLLCI      BootULCI
constant      .3340      .3339      .2824      -.2247      .9018
Group_M      -.0148      -.0137      .2049      -.4180      .3904
Prod_M      .6493      .6489      .0635      .5213      .7687

-----

OUTCOME VARIABLE:
  Advert_M

      Coeff      BootMean      BootSE      BootLLCI      BootULCI
constant      -.3614      -.3670      .1692      -.6997      -.0323
Group_M      -.2066      -.2032      .1319      -.4638      .0531
Auth_M      .3897      .3893      .0570      .2721      .4966
Prod_M      .6953      .6967      .0601      .5811      .8161

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
5000

----- END MATRIX -----
```

Appendix C.31 – Hypothesis 4b Mediation Analysis including Product

```
Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

      Written by Andrew F. Hayes, Ph.D.      www.afhayes.com
      Documentation available in Hayes (2022). www.guilford.com/p/hayes3

*****
Model: 4
  Y: Endor_M
  X: Group_M
  M: Auth_M

Covariates:
  Prod_M

Sample
Size: 173

*****
OUTCOME VARIABLE:
  Auth_M

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .6177      .3816      1.7005      52.4529      2.0000      170.0000      .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant      .3340      .3100      1.0776      .2827      -.2779      .9459
Group_M      -.0148      .2043      -.0725      .9423      -.4182      .3885
Prod_M      .6493      .0654      9.9234      .0000      .5202      .7785

*****
OUTCOME VARIABLE:
  Endor_M

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .7643      .5842      .9425      79.1548      3.0000      169.0000      .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant      1.6271      .2315      7.0272      .0000      1.1700      2.0842
Group_M      -.1548      .1521      -1.0175      .3103      -.4551      .1455
Auth_M      .2669      .0571      4.6743      .0000      .1542      .3796
Prod_M      .5070      .0612      8.2814      .0000      .3861      .6278

***** DIRECT AND INDIRECT EFFECTS OF X ON Y *****

Direct effect of X on Y
      Effect      se      t      p      LLCI      ULCI
      -.1548      .1521      -1.0175      .3103      -.4551      .1455

Indirect effect(s) of X on Y:
      Effect      BootSE      BootLLCI      BootULCI
Auth_M      -.0040      .0554      -.1218      .1019

***** BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS *****

OUTCOME VARIABLE:
  Auth_M

      Coeff      BootMean      BootSE      BootLLCI      BootULCI
constant      .3340      .3370      .2797      -.2216      .8826
Group_M      -.0148      -.0162      .2040      -.4117      .3828
Prod_M      .6493      .6482      .0639      .5233      .7733

-----

OUTCOME VARIABLE:
  Endor_M

      Coeff      BootMean      BootSE      BootLLCI      BootULCI
constant      1.6271      1.6256      .2640      1.1246      2.1441
Group_M      -.1548      -.1538      .1585      -.4624      .1532
Auth_M      .2669      .2657      .0595      .1471      .3793
Prod_M      .5070      .5080      .0652      .3830      .6411

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
5000

----- END MATRIX -----
```