FACULTEIT ECONOMIE EN BEDRIJFSKUNDE

THE IMPACT OF FACELESS FASHION MODELS ON ADVERTISING EFFECTIVENESS

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Foreword

With this master's dissertation I conclude my business engineering education at Ghent University. I am grateful to be able to finish my five-year education with such an interesting topic. My whole life I have been a fashion and advertising enthusiast.

I would like to thank everyone who helped me complete this research in any way possible. First of all, I want to express my gratitude towards Prof. Dr. Mario Pandelaere for the opportunity of conducting this research. I want to thank Ignazio Ziano for his helpful feedback and guidance.

Furthermore, I would like to thank family and friends for their support and for their help in distributing the questionnaire. To conclude, I want to thank the many respondents who were willing to contribute some time to participate in the survey.

Abstract

Fashion retailers often use advertisements where the models are portrayed faceless. In these advertisements the heads of the models are completely covered or cropped out of the picture. This research investigates the effect of these advertisements on three metrics of advertising effectiveness, being attitude toward the ad, attitude toward the brand and brand purchase intention, in an experimental setting. The experiment consisted of an online questionnaire which exposed 230 female participants to three advertisements showing either faceless of full-figure female fashion models. In advance it was expected that the advertisements with full-figure models would lead to more positive responses to the three metrics. However, the results indicate that the model representation, faceless or full-figure, does not significantly impact the advertising effectiveness metrics.

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LIST OF ABBRIVIATIONS

EBA	Extrastriate Body Area
FBA	Fusiform Body Area
FFA	Fusiform Face Area
A_{ad}	Attitude toward the ad
A_b	Attitude toward the brand
P_I	Purchase intention toward the brand
C_b	Brand cognitions
A_{site}	Attitude toward the site
I_b	Intention to buy
DMH	Dual Mediation Hypothesis
IIH	Independent Influences Hypothesis
EDMH	Extended Dual Mediation Hypothesis
EAS	Emotional Arousal Score
LLCI	Lower Limit Confidence Interval
ULCI	Upper Limit Confidence Interval

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0 Introduction

This master's dissertation covers the subject of faceless fashion advertising. In faceless fashion advertisements, advertisers make use of cropped pictures where the models are shown from the neck/ mouth down or pictures where the models are portrayed with a completely covered face. This type of ads can be found in print as well as online media (Instagram, Pinterest...). Many industries make use of this type of advertisements, known examples are the film and fashion industry *(see Appendix 1)*.

In 2016, comedian Marcia Belsky started a Tumblr page called 'The Headless women of Hollywood'. On this blog she addresses the topic of faceless advertising in the film industry. By collecting many movie posters that depict headless female bodies, she wants to raise awareness of the objectification and sexualisation of women in this sector (Cohen, 2016). The blog received a lot of attention by the press and some critics broadened the focus to other industries, for example to fashion advertising. Liffreing (2016) states "But when it comes to headless women, Hollywood has nothing on the advertising industry". Again, Liffreing (2016) focusses on the sexualisation of women and she notes that in 96% of the advertisements using objectifying pictures, the models are female.

Due to the large amount of attention given to this topic since Marcia Belsky's Tumblr blog, the use of headless female models for advertising purposes received a lot of critique. Nonetheless, to date these faceless advertisements still exist next to the traditional advertisements which use full-figure models. The fact that they coexist raises questions about the differences in effectiveness of both types. Is there a good reason why faceless advertisements are still being used? Do the consumers share the dislike towards faceless advertisements with the critics? In order to investigate the impact of these two types of model representations, a comparison was made between advertisements with full-figure models and faceless models. This comparison is focused on brand related metrics, since the effects of faceless models on product related measures, such as product attitude, were already shown by Berg (2015). More precisely, the impact of faceless models on three advertising effectiveness metrics is investigated, being attitude toward the ad, attitude toward the brand and brand purchase intention. This will be tested in an experimental setting that only targets female respondents.

The rest of this master's dissertation is structured in the following way. First part gives an overview of important literature. The current knowledge of fashion advertising in relation to faceless models is discussed. Then more information is given on the person perception process and the role of faces in evoking emotions and attracting attention. More importantly, it is also stated why advertisers should care about this. This is followed by an explanation of the three advertising effectiveness measures. As a conclusion of this first part, three hypotheses are formed, based on the knowledge gained from preceding literature. In the second part, the methodology of the research is discussed. This is followed by elaborating on the results in part three. To conclude the practical implications and the limitations of this research are addressed.

1 Literature review

1.1 Fashion advertising

Fashion advertising is about much more than promoting products. It is a means to introduce, create and strengthen a brand personality (Kim & Hall, 2014). Kim & Hall (2014) state that fashion advertisements are enabling marketeers to deliver brand related information to the customers in a controlled and creative way. Furthermore, it allows them to position the brand and to target a market segment of choice. It is clear that fashion advertising aims to promote brands and not just the individual products.

Even though the purpose of fashion advertisements has remained the same, the execution has developed over time. Many fashion retailers have chosen to deviate from the traditional way of representing models in their advertisements. They often use "faceless" models, whose faces are completely or partly hidden or cropped out of the picture (Berg, 2015). Even though nowadays the use of these advertisements has increased, faceless models are not a new phenomenon. Fuss (1992) already mentioned the use of "headless torsos and severed heads" when discussing women's fashion photography.

Much research has already been done on fashion models as they are inseparable from the fashion industry and certainly from advertising. However, the implications of faceless advertising have not often been addressed. The sexualising of women and the influence of the model's attractiveness on consumers self-esteem and on advertising effectiveness are some of the most common subjects in previous literature (Frith, Shaw, & Cheng, 2005). Whenever faceless models did receive attention, the focus remained on these topics. This does not come as a surprise, since cropping heads out of pictures increases in the first place the objectification (Gay & Castano, 2010). Objectification is explained by Gay and Castano (2010) as considering bodies or body parts as an object, without taking into account the personality of the person that is being observed, which is closely related to sexualisation.

So, there is not much literature that shines a light on the effect or benefits of faceless models. Faces in advertisements on the other hand, are a widely researched topic. Ding and Xiao (2014) found that faces have a substantial impact on advertising effectiveness. In particular, choosing the right model, with the right face, could have a significant positive influence on the consumers'

attitude towards the advertisement and brand. The reason why retailers still choose to use cropped pictures is often because it is less expensive. This results from the fact that models have to be paid additionally every time their faces are being used in an advertisement (Considine, 2011). Using mannequins instead of models could further decrease the cost. Nevertheless, this way of advertising is not commonly used, since it is clear from previous research that consumers prefer the items being displayed on human models (Khakimdjanova & Park, 2005).

In one of the few studies that addresses the topic of faceless fashion in relation to advertising effectiveness, Berg (2015) stated that the impact of cropped pictures is moderated by the gender of the viewer as well as the gender of the model and mediated by self-referencing. The findings of this study support the use of faceless decorative models only if both the model and consumer are female. Under these conditions, the use of faceless models has proven to lead to more positive attitudes toward the product. When the model is male, the application of full-figure pictures results into more positive product attitudes, which is the case for both female and male customers. The main explanation given for this effect is that holistic processing is applied for male bodies while pictures of female bodies are processed piece by piece (Aviezer, Trope, & Todorov, 2012; Berg, 2015; Bernard, Gervais, Allen, Campomizzi, & Klein, 2012). Holistic processing means that the different elements of male bodies are observed and processed as a whole. Cropping the picture, portraying the model without a head, disturbs the image of the male body as we know it. As a result, the person processing and interpretation of attractiveness is disrupted for faceless male models. This harms the product attitude since much research has shown that the higher the attractiveness of the models the better the product evaluations (Berg, 2015). The reason why attractiveness sells will be explained later on, see *2.2.1 Faces evoke Emotion*. The piece by piece processing of female bodies implies that different elements are processed separately and these elements are then added to form a complete image of the body. Due to this local processing of female bodies, headless female models do not experience the disturbed person and attractiveness perception.

When the model is female, the gender of the consumer also matters. Berg (2015) referred to the fact that the average decorative model differs a lot from the average woman. Fashion models tend to be younger, thinner, whiter and more attractive than women generally are (Fredrickson & Roberts, 1997). Furthermore, women tend to elaborate stronger on the different aspects of a message. The cues that have been elaborated on are then used to form judgements and opinions about the presented message. This implies that women also take more cues into account when analysing an advertisement. It is therefore common practice for female consumers to elaborate on

the differences between the depicted model and themselves. Since there are a lot of dissimilarities, this often leads to difficulties in identifying with the advertisements. As a result of this increased trouble of identification, self-referencing is rather challenging for many female viewers. Self-referencing is a process where people associate self-relevant information of messages with already known information about themselves. Problems with identification and self-referencing to an advertisement lead to less positive product evaluations (Berg, 2015; Englis & Solomon, 1995). When contextual cues that induce a difference between the consumer and the model are deleted, such as cropping the heads from the models, self-referencing is facilitated. Men on the other hand do not elaborate on every cue separately but use these to form an overall opinion about the presented stimuli instead. As a consequence, they do not tend to focus on the discrepancies between themselves and the model. Self-referencing is even found to be stronger when full-figure male models are used, as this is how the male body is generally observed due to the holistic processing. So, it can be concluded that only when the decorative model and the consumer are female, product evaluations tend to be more positive for faceless advertisements, which is mediated by self-referencing (Berg, 2015).

1.2 Person perception process

The human brain has specific mechanisms dedicated to person perception. Different parts of the brain are responsible for processing visual appearances of faces and bodies. Downing, Jiang, Shuman and Kanwisher (2001) proved the existence of a body-selective region in the brain, the extrastriate body area (EBA). This region shows a significant response to human bodies and body parts, while the response to faces was not significant. Headless bodies result in a higher stimulation of this area due to the fact that faces have the ability to capture a lot of attention and therefore reduce the attention given to bodies (Morris, Pelphrey, & McCarthy, 2006). Urgesi, Candidi, Ionta and Aglioti (2007) found that the specific function of the EBA is organizing visual appearances of the human body and person identification whenever the body configurations change rapidly, e.g. when the person in question makes sudden movements. Besides the EBA, there is another body-selective region, this was identified by Schwarzlose, Baker and Kanwisher (2005), namely the fusiform body area (FBA). This region is anatomically and functionally different from the extrastriate body area. While the EBA is stimulated when processing body parts, the FBA is responsible for creating holistic visuals of the body (Amoruso, Couto, & Ibáñez, 2011; Taylor, Wigget, & Downing, 2007).

On top of the body selective regions, there are also parts of the brain that are selectively responsive to faces. Three main regions have been identified, the area of the superior temporal sulcus (fSTS), occipital face area (OFA) and the fusiform face area (FFA) (Kanwisher & Yovel, 2006). From these three the FFA was found to be the most stable one (Kanwisher, McDermott, & Chun, 1997) and consequently, it was subject of most research on face specific processing. This region is adjacent to the fusiform body area.

The fact that different parts of the brain are responsive to faces or bodies, leads to the question whether there are differences in the way these visual stimuli are dealt with. Maurer, Grand and Mondloch (2002) stated that adults have become extremely skilful in recognizing different faces which is due to configural processing. Configural processing of faces is explained as the fact that the relation between the features of the face are processed and not solely the features themselves. Furthermore, Maurer et al. (2002) stated that this type of processing can be divided in three different classes. The first form is first-order-relation processing; recognizing a visual impulse as a face because it has the basic features namely two eyes, a nose and a mouth. Secondly there is holistic processing; the facial characteristics are strongly combined into a representation of the face as a whole, which makes it difficult to process the different features. Thirdly, second-order-relation processing relates to the position of the features. In order to identify when and for which stimuli configural processing is applied, the inversion effect has generally been used (Maurer et al., 2002; Minnebusch & Daum, 2009; Yin, 1969). The inversion effect refers to the fact that it is more complicated to form an interpretation of stimuli that are upside down compared to upright (Yin, 1969). This was indicated by higher error rates in recognition and slower processing times. When this effect is found for a stimulus, it is assumed that configural processing is applied. This effect has been confirmed for visual stimuli of faces. Minnebusch, Suchan & Daum (2008) found that the identification of bodies with blurred faces was also negatively affected by inversion. However, an opposite effect occurred for headless bodies. This implies that configural processing is used for the identification of full bodies with faces, blurred or not, but not for headless bodies. The explanation given by Minnebusch et al. (2008) was that headless bodies are uncommon stimuli with a negative undertone and are thus processed in another way.

Put simply, there is a difference in processing between faces and other stimuli, such as headless bodies. On this ground, it is likely to assume that responses to headless or complete bodies will vary. Faces have shown to impact two responses that advertisers could care about, being attention to and emotion evoked by advertisements. Below it is indicated how faces have an effect on these responses and why they are of importance to advertisers.

1.2.1 Faces evoke emotion

Faces have the ability to evoke emotions in the observer, this happens due to two distinct mechanisms. First of all, there is a direct way in which faces evoke emotions. People have the tendency to imitate the facial expressions of the people they observe (Dimberg, 1982). For example, watching smiling faces automatically puts a smile on the face of the observer. Furthermore Wild, Erb and Bartels (2001) found that people not only copy the expressions of others but as a result also become affected by the emotions displayed. Happy and sad faces evoke respectively happiness and sadness in the observer. The findings did not support the earlier given proposition of Hatfield, Cacioppo and Rapson (1992), which stated that women should experience stronger emotions when observing others as they also react with more explicit facial expressions. As a consequence, it is expected that both men and women are affected by emotional expressive faces.

The fact that faces evoke emotions in the viewer is of great interest to fashion advertisers, since the use of emotional appeal ads are a well-established practice in their way of advertising. This can be explained by the fact that it is rather difficult to convince people to buy fashion related items based on logical/rational reasons. Panda, Panda and Mishra (2013) indicate that there is no consensus in previous literature about the effect and role of emotions in advertising. However, they conclude that an emotional appeal would be more appropriate for value-expressive products, including fashion items and a rational appeal would perform better for utilitarian products. Furthermore, they say that emotional appeal advertisements lead to higher brand and advertisement recognition and recall. It is important to note that this is merely the case when positive emotions are evoked by the ad (Panda et al., 2013). Additionally, also Sciulli, Bebko and Bhagat (2017) found that there is a positive relation between the power of the emotional appeal of an advertisement and the engagement towards the ad of the observer.

Secondly, there is an indirect way in which faces evoke emotion. Watching good-looking people induces positive emotions about these people. They are assumed to be better parents, to have better jobs and marriages, more social and happier lives (Dion, Berscheid, & Walster, 1972). Peters, Rhodes and Simmons (2007) showed that facial attractiveness is of the greatest importance to the overall attractiveness perception of a person. Face processing thus plays a crucial role in attractiveness determination.

Buunk and Dijkstra (2011) state why advertisers should care about the model's attractiveness. They give two reasons for the increase in positive product evaluations and purchase intentions

when attractive models are pictured in advertisements. Firstly, as previously mentioned good-looking models stimulate positive person evaluations and evoke good emotions about themselves. These models then pass on the positive feelings to the advertised product. This is referred to as the "Transference effect". Secondly, they state that social comparison processes affect the product evaluations. Under normal circumstances, when the subjects are not made aware of their gender (e.g. stating that a woman is the only female in a group would prime her on her gender), an assimilation effect is observable when the model is believed to be attractive. In this case, the subject perceives itself to be similar to the model or believes that this might be possible in the future. Opposed to this assimilation effect, subjects tend to contrast themselves from less attractive models. This effect is however only present when the subject and the model have the same sex. This assimilation effect has proven to influences the mood of women and their opinion towards the advertised product.

It is clear that full-figure models have an advantage in evoking positive emotions over faceless models. This means that an ad with a carefully chosen attractive and emotional expressive full-figure model could be expected to outperform an ad with a faceless model on product evaluations, advertisement engagement and brand recall.

1.2.2 Faces attract and retain attention

The second result of the difference in the processing of faces and other stimuli that will be discussed is dedicated to the ability to attract attention. Faces in relation with attention is already a much-discussed topic. In 1995, an attention theory was introduced by Lavie (1995), the perceptual load theory. It states that irrelevant stimuli will unintentionally capture attention if there is spare capacity that is not taken by the relevant stimuli. As a consequence, only when perceptual load is low (e.g. when there is only one or a few relevant stimuli), the distractor stimuli will have the chance to be processed.

However, the processing of faces was found to happen unrelated to the perceptual load. Lavie, Ro and Russell (2003) showed that subjects were unable to ignore irrelevant face stimuli that were used as distractors in an experimental task. This holds true even when perceptual load of the relevant task was high. In this task, subjects had to search for the name of a famous politician or pop star in a two, four or six letter string. In advance, they were explicitly told to ignore all the facial distractor stimuli appearing on the screen. Results show that the response times were significantly lower when the distractor faces belonged to the name presented. This indicates that these faces weren't ignored. Furthermore, it was found that faces are still being processed, even

when perceptual load is at a level where other distractor stimuli are being overlooked. That implies that processing of faces happens automatically since it occurs independent from attentional capacity limits (Lavie, Ro, & Russell, 2003).

Ro, Russell and Lavie (2001) conducted different experiments, all consisting of a change detecting task. In this task subjects received a picture with different objects. After a certain amount of time, the picture was changed. They had to indicate as quickly as possible if one of the displayed objects was replaced by another object of the same category or whether there was no change at all. There were six categories of objects: faces, food, clothes, musical instruments, appliances, and plants. The authors found that in situations of high perceptual load, changes in faces were detected faster and more accurately than changes in any other common object. This advantage was not detected when the stimuli were presented alone. In this case, attention could completely be allocated to the object under consideration, which means that there was no competition for attention. These findings indicate that faces have the ability to attract attention over other stimuli, since change detection is known to be strongly influenced by attention.

Nonetheless, Olk & Garay-Vado (2011) found that faces indeed have the ability to attract attention, but the orientation of faces plays a critical role. The first experiment of their research consisted of a similar task as the one of Lavie et al. (2003). Here the subjects received the name of an actor or actress accompanied with a nonword letter string of one, three or five signs. Facial distractors were added, either the person named or someone of the opposite gender was depicted. The subjects had to say whether the name in the letter sting belonged to a man or a woman. For the upright distractor faces a congruency effect was found regardless of the perceptual load of the task. An explanation given by many authors for this attentional preference to faces is the fact that they are visual stimuli of great biological and social importance (e.g. Bindemann, Burton, Hooge, Jenkins, & De Haan, 2005; Lavie et al., 2003; Olk & Garay-Vado, 2011; Ro et al., 2001). Faces give information about a person's gender, mood, age, ...

From the previously mentioned findings, it is clear that faces attract more attention than other objects. Moreover, Bindemann et al. (2005) found that faces also have an advantage in retaining visual attention, this concerns familiar as well as unfamiliar faces. The attentional benefit of faces might be of interest to advertisers. Including full-figure models could lead to advertisements that are able to catch the eye of possible customers. However, since faces also retain the attention longer, it could be that less attention is given to other ad elements, such as the brand name and the advertised product. This could in turn influence the attitude towards the ad.

1.2.3 Face processing and advertisements

When the right faces are selected, their ability to capture attention and evoke emotions could have a positive influence on the impact of advertisements on consumer attitudes. However, the fact that faces merely possess these capabilities is not enough to conclude that full-figure models should be preferred over faceless models. Whether faces are indeed an important element in the perception creation of an advertisement is dependent on the impact that the pictorial element can create. If the pictorial element had no effect on the ability of an advertisement to capture and retain attention, the faces would nevertheless be overlooked. In this case, the use of faceless or full-figure models would only lead to a minor or no difference.

Pieters & Wedel (2004) found that the pictorial element of an advertisement captures a substantial amount of baseline attention. Baseline attention can be explained as the capability of an element to capture the attention of the observer independent of its size. The text and brand element lack this tendency. The fact that the pictorial element always succeeds to captures the attention means that it has the possibility to influence the viewers responses to advertisements. It is thus important for advertisers to carefully choose the pictorial element and adapt it to the expectations of their target audience.

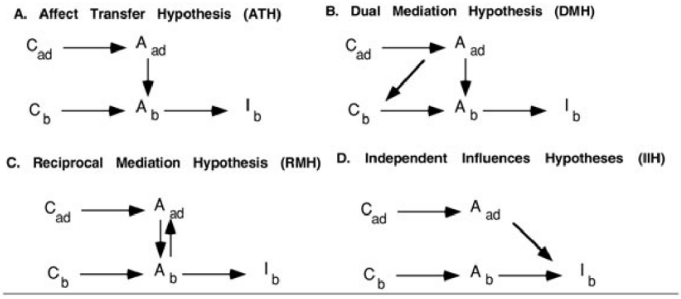
The combination of these two findings leads to the conclusion that when faces are included in advertisements, they will receive attention by the viewer. The change from full-figure models to faceless models could therefore possibly have a significant influence on the effect that advertisements have on the observer.

1.3 Advertising effectiveness

In order to examine if the use of faceless models in fashion advertising has an impact on advertising effectiveness, as previously predicted, it is critical to have a clear understanding of what advertising effectiveness is. Previous studies recommended to define this based on three metrics that are important to advertisers: attitude toward the ad (A_{ad}), attitude toward the brand (A_b) and brand purchase intention (P_I) (Ding & Xiao, 2014; Goldsmith, Lafferty, & Newell, 2000).

MacKenzie, Lutz and Belch (1986) found a causal relationship between these three constructs of advertising effectiveness, with A_{ad} as a mediating variable. By clearly showing the importance of the A_{ad} metric, they proved the relevance of the affective reactions from consumers to

commercials. They developed four hypotheses that can possibly explain the effect that advertising has on the consumers' intentions to buy, these are represented in figure 1.



where:
C_{ad} = ad cognitions or thoughts
C_b = brand cognitions or thoughts
A_{ad} = attitude towards the ad
A_b = attitude towards the brand
I_b = intention to buy

Source : MacKenzie et al. (1986)

Figure 1: *The mediation role of attitude toward the ad*

Mackenzie et al. (1986) found that the Dual Mediation Hypothesis (DMH) performs better compared to the other models. They conclude that it represents the true relationship between the variables. This hypothesis defines a direct and indirect relationship between A_{ad} and A_b. The direct link between A_{ad} and A_b is the strongest one observed in any of the four models, this is a powerful indication that A_{ad} is an important mediator of A_b. The indirect link is realized through cognitions about the brand (C_b). Primary brand cognitions are created through attitudinal reactions to the ad. After brand purchase, the primary impressions or perceptions will be reinforced or changed.

These results were replicated and broadened for online advertising by Karson and Fisher (2005). In their experiments A_{ad} was replaced by A_{site} in order to capture the online non-product information that has the possibility to influence the attitudes and intentions of digital customers e.g. site navigation, security and other design features. First of all, they came to the same results as Mackenzie et al. (1986) regarding the four models of figure 1, i.e. DMH had the best fit and the Independent Influences Hypothesis (IIH) appeared to be the worst model. Secondly, the direct link between A_{site} and intention to buy (I_b) was added to the DMH, which resulted in the Extended Dual Mediation Hypothesis (EDMH). Intention to buy represents the brand purchase intention metric of advertising effectiveness. Karson & Fisher (2005) say that the $A_{site} \rightarrow I_b$ relationship is expected to be stronger than the $A_{ad} \rightarrow I_b$ of traditional media, since digital customers clearly have more opportunity and motivation to explore the non-product or non-brand information. Opportunity means there are more A_b independent cues on websites in combination with

customers taking more time to analyse online ads compared to traditional ones. However, this does not mean that they exclude this relationship when considering traditional media. The explanation given for the relevance of this relationship in traditional media ($A_{ad} \rightarrow I_b$) is the fact that A_{ad} possesses information that is not brand or product specific and thus is not included in A_b but influences the intentions of the consumers. The introduction of this relationship significantly improved the overall fit of the model. Furthermore, Karson & Fisher (2005) gave two explanations for this new connection. First, they divided A_{ad} (or A_{site}) in claim and nonclaim components. Claim components consist of the information that delivers specific product information in order to convince consumers, nonclaim components are all the other features, which are especially present on websites. They found that the $A_{site} \rightarrow I_b$ relationship only depends on the nonclaim elements. Second, it was found that this path was only significant when the viewers' motivation to analyse and process the advertisement was low.

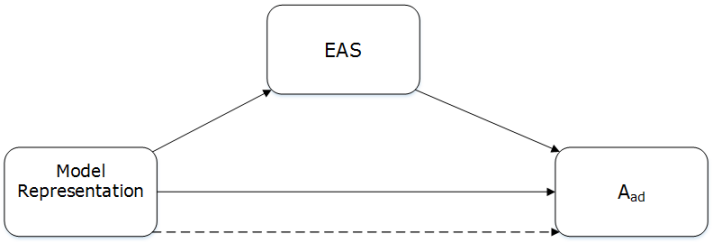
1.4 Hypotheses

Following from the literature review above, three hypotheses regarding the metrics of advertising effectiveness can be formed.

Hypothesis 1

Sciulli et al. (2017) showed that advertisements that evoke sufficient emotions in the consumer lead to higher ad engagement and brand recognition. Furthermore, it has been described above that faces have the capability to capture the attention of the viewer and to evoke emotions (Lavie et al., 2003; Ro et al., 2001; Wild et al., 2001). Combining these findings leads to the first hypothesis.

H1: The use of faceless models in fashion advertising will lead to less positive attitude toward the ad responses. This effect is mediated by the emotions evoked by the ad.



Where: EAS = emotional arousal score

Figure 2: *Graphical representation of hypothesis 1*

Hypothesis 2

The dual mediation hypothesis says that the A_b metric is directly influenced by the A_{ad} metric (Mackenzie et al., 1986). This means that less positive A_{ad} responses will also lead to less positive A_b responses.

H2: The use of faceless models in fashion advertising will lead to less positive attitude toward the brand responses. This effect is mediated by the A_{ad} responses.

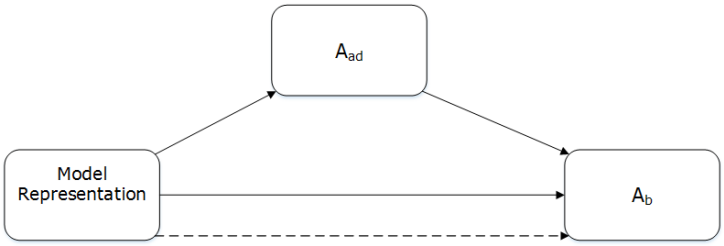


Figure 3: *Graphical representation of hypothesis 2*

Hypothesis 3

Even though, Karson & Fisher (2005) found that the link between A_{ad} and P_I is stronger in online advertising as proposed by the extended dual mediation hypothesis, they state that there is also a link between A_{ad} and P_I in traditional media. Due to this link, the brand purchase intention is predicted to be directly influenced by advertising effectiveness. Since it is expected that the attitude toward the ad will be less positive for ads using faceless models, it can be expected that the purchase intention will also be lower. The DMH and EDMH furthermore give proof for the existence of the A_{ad} → A_b → P_I link (Karson & Fisher, 2005; Mackenzie et al., 1986).

H3: The use of faceless models in fashion advertising will lead to lower brand purchase intentions of the viewers. This effect is mediated by the responses on A_{ad} and A_b.

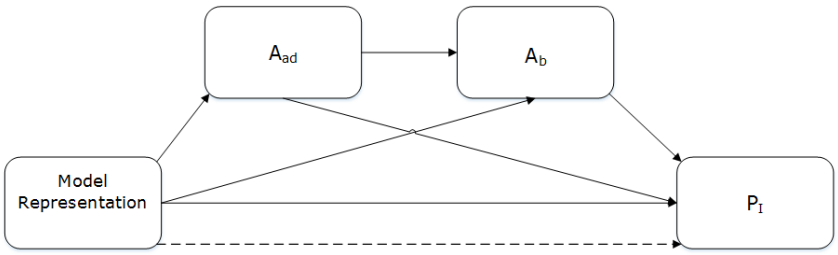


Figure 4: *Graphical representation of hypothesis 3*

2 Methodology

2.1 Objective

The goal of this master's dissertation is to test the impact of faceless models on advertising effectiveness in an experimental setting. In particular, the aim is to find out if the A_{ad}, A_b and P_I metrics are influenced by this model representation.

Kim & Hall, (2014) clearly stated that fashion advertising has a strong focus on promoting brands and thus not solely on promoting products. For this reason, the focus of this research is on ad and brand related metrics. The three hypotheses regarding these advertising effectiveness measures expect a beneficial outcome for ads with full-figure models. Still, Berg (2015) found that under some conditions faceless models lead to more positive product evaluations. This difference can be explained as follows. The current research does not consider evaluations of the advertised product which was the case in the study of Berg (2015). So, it will be investigated if the use of faceless models harms the brand image regardless of the fact that it can lead to better product evaluations.

What will concretely be done is the following. It will be tested whether the use of full figure models indeed evokes more emotions in the viewers. Next to that, it is the main objective to find out if there is a difference in the purchase intention and the attitude toward the ad and brand metrics when the same product is advertised with a full-figure model compared to a faceless model. This difference could then give an indication of whether the increase in utilization of faceless models by retailers is still justified.

2.2 Sample

Berg (2015) already showed that the use of cropped models is only supported for female customers and models. Under these conditions, the faceless advertisements led to more positive product evaluations. For male customers there was no improvement. It thus makes sense to focus on female participants to test the impact of faceless models on other metrics of advertising effectiveness. Moreover, the advertisements for fashion items, such as clothes, shoes, bags and jewellery, are very gender specific. This means that exposing male as well as female respondents to the same fashion advertisements would lead to misleading results. In reality, they are almost

never both the target group of the same advertisement. For these two reasons, it was decided to work with only female respondents during this experiment. Women of any age were allowed to participate in the online survey.

This research was conducted using an online questionnaire, which was created on Qualtrics. The survey was launched on the 18th of March 2019 and closed on the 2nd of April 2019. It was distributed through social media, in particular Facebook. It was shared on personal profiles, by me and many family members and friends, as well as in various survey sharing groups. By making use of these international groups, it was possible to reach more respondents of different nationalities. It was expected that not many respondents older than fifty would be reached through Facebook. Therefore, this age category was targeted by e-mail. Family members mailed the questionnaire to colleagues and friends. Every time the questionnaire was sent out, it clearly stated that only women could take part and that there were no age limitations. In the end 436 respondents opened and started the survey. Of these respondents, 43 were male and 163 did not completely finish the survey. So, after filtering these responses on gender and completeness, it was clear that only 230 participations were valid *(N=230)*. This means that only 52.75% of the responses were completely finished by female respondents and were thus useful for further analysis. The power resulting from this sample size was calculated with the program G*Power. A mixed repeated measures ANOVA will be executed, the main interest lies in the between factors main effect. The post-hoc power is equal to 0.97, for an effect size of $f = 0.25$ and $\alpha = 0.05$. This means that there is 97% power of detecting an effect size of 0.25, which enables medium effects to be picked up (Buchner, Erdfelder, Faul, & Lang, 2017; J. Cohen, 1992). Furthermore, with this sample size and $\alpha = 0.05$., there is 80% power of detecting an effect size $f = 0.19$.

The respondents were of age 16 to 65 (*M = 28.53, SD = 11.72*). Most frequent age was 22 years *(22.60%)*. Participants of 23 nationalities were reached. These are Australian, Belgian, British, Bulgarian, Croatian, Czech, Dutch, Filipino, Finnish, French, German, Greek, Indian, Indonesian, Italian, Lithuanian, Polish, Russian, Scottish, Slovak, Taiwanese, American and Vietnamese. The most frequent nationality was Belgian *(77%)*.

2.3 Experimental Design

The respondents took part in an online questionnaire. A mixed design was used, with two between-conditions and three within-conditions. Participants were randomly assigned to one of the two between-conditions. One group received advertisements where the advertised products

were displayed on a full-figure model. Further on, this will be referred to as the full-figure condition. The other group received the same advertisements, but the faces of the models were cropped out of the ads. This will be called the faceless condition. In the end, 118 respondents were assigned to the full-figure condition and 112 to the faceless condition. The three within-conditions are the three distinct advertisements that all respondents received. The advertisements each displayed a different product. The advertised product in ad 1 was a dress, in the second ad it was a handbag and in the third advertisement the principal article was a pair of shoes. These ads will further be referred to as respectively advertisement 1, advertisement 2 and advertisement 3 *(see Appendix 2)*. Every advertisement was carefully selected, making sure it had an upright positioned model. Advertisements where the model was laying down were avoided since Olk & Garay-Vado (2011) showed that only upright faces have the ability to capture attention. This was done to ensure that the respondents paid attention to the faces in the advertisements.

As previously stated in the dual mediation hypothesis, the metric 'attitude towards the brand' is not solely influenced by the presented ad. Brand cognitions will also have an impact on the responses regarding this metric (Mackenzie et al., 1986). This could lead to a misrepresentation of the investigated effect. If participants recognize the brand, they will let previous experiences with this brand affect their responses. So, it will not be possible to purely test the effect of the model representation on the three advertisement effectiveness measures. For this reason, the brands of all the advertisements used in the survey, were changed to non-existing brand names. The fake brand names did not have an obvious meaning. In advertisement 1, Gucci was replaced by Nalelo, Vera Wang of advertisement 2 became Vilungo and Prada of ad 3 was changed to Barazzo.

The respondents received questions about all these advertisements. Next to that, they had to answer demographic questions and a manipulation check. The content and design of all the questions is described below.

2.3.1 Demographic questions

Demographic questions were asked in order to eliminate the men from the survey and to be able to segment the respondents afterwards. In this block of questions respondents were asked for their gender, age, state of employment, nationality and their fashion interest *(see Appendix 3)*.

2.3.2 Advertising effectiveness measures

To measure the three metrics of advertising effectiveness, scales proposed in previous research were used (Ding & Xiao, 2014; Miniard, Bhatla, & Rose, 1990) *(See Appendix 3).* The scales for the three metrics are semantic differentials. For attitude toward the advertisement a three-item, seven-point scale has been used. The three items were 1. bad/good, 2. uninteresting/interesting and 3. dislike/like. Attitude toward the brand is measured with a three-item, 1. unfavourable/favourable, 2. negative/positive, 3. dislike/like, bipolar scale. Again, a seven-point scale was applied to measure these items. To measure brand purchase intention a two-item seven-point scale has been used. The items were 1. unlikely/likely, 2. improbable/probable. All these seven-point scales were represented by a number ranging from -3 until +3 between the poles of an item. As a result, all these metrics are interval scaled.

2.3.3 Emotional Arousal measure

To find out which type of advertisements evokes more emotions in the viewer a twelve-item, 7-point Likert-type scale was applied, as suggested by Sciulli et al. (2017) *(see Appendix 3).* The twelve items represented emotions. These were happy, angry, good, disgusted, glad, fearful, joyful, bad, unpleasant, surprised, sad, and pleasant. Participants had to indicate for every item whether they strongly disagreed to strongly agreed that the presented advertisement made them feel this way. This was repeated for all three advertisements the participant received. From this scale, two different constructs will be made, one consisting of the average positive scaled emotions and the second one of the average negative scaled emotions. These two constructs will then be averaged, which results in the global emotional arousal score (EAS). This is repeated for every advertisement. This score shows the amount of emotional reaction to each of the three ads presented to the respondent. This procedure was proposed by Sciulli et al. (2017).

2.3.4 Manipulation check

A manipulation check was introduced in order to test whether the respondents had seen a full-figure or a faceless model *(see Appendix 3).* For every of the three advertisements shown to the participant, they had to indicate on a seven-point scale whether they saw a face or not. The question was formulated as follows:

"Answer for the three ads. Was the face of the model visible in the advertisement?
1 = Not at all visible
7 = Very visible"

2.4 Procedure

First, a small introduction was shown to the respondents. It stated that there were no right or wrong answers and that the data would be analysed completely anonymously. Second, the respondents had to fill in the demographic questions, as explained above. The demographic questions were asked at the start of the questionnaire in order to be able to immediately terminate the survey as soon as the participants indicated that they were male. After the demographic questions, the participants were randomly assigned to one of the two between-conditions. Participants of both groups received three advertisements *(see Appendix 2).* For every advertisement they received, they had to answer the advertising effectiveness and the emotional arousal questions. For each group, the advertisements appeared in a randomized order. This was done to avoid systematic order effects. Furthermore, the order of the questions belonging to each advertisement and the order of the twelve items in the emotional arousal scale was also randomized. By doing so, it was avoided that the results were affected by the order of the questions. The manipulation check came at the end of the survey with the purpose to test whether they remembered seeing faces in the three ads or not.

3 Results

3.1 Manipulation check

As stated above *(see '2.3.4 Manipulation check')*, the manipulation check was asked by means of a seven-point scale. The respondents had to indicate whether a face was 'Not at all visible' to 'Very visible' on a slider. As a result, there is no right or wrong answer. The check was included in order to test whether the participants actively paid attention to the faces of the models.

When the face of the model was visible in the advertisement, it is expected that the participants noticed this. So, a higher score is predicted for the manipulation check in this case. Independent t-tests clearly show that the mean of the manipulation check score is significantly higher for the full-figure condition compared to the faceless condition. This is true for all three advertisements; advertisement 1 *($t(228) = 12.84, p<0.001$)*, advertisement 2 *($t(209.61) = 13.88, p<0.001$)*, advertisement 3 *($t(207.82) = 14.65, p<0.001$)*. The mean and standard deviation of the manipulation score can be found in table 1. The results show that the participants clearly noticed whether a face was depicted in the advertisements or not, thus the manipulation succeeded.

Table 1: Mean and variances of Manipulation check

	Full-Figure		**Faceless**	
	Mean	**St.dev**	**Mean**	**St.dev**
Advertisement 1	5.40	1.66	2.40	1.88
Advertisement 2	5.64	1.45	2.58	1.87
Advertisement 3	5.87	1.50	2.49	1.96

3.2 Scale reliability

The questionnaire was completely composed of established scales. Even though it is expected that these scales are reliable, the Cronbach alpha of the advertising effectiveness scales and emotional arousal scale will be investigated. This is done for all the scales of every advertisement used throughout the survey.

3.2.1 Advertisement effectiveness measures

In table 2 the Cronbach's alphas for the different scales can be observed. As expected of established scales, these are all greater than 0.7. This means that the scales which measure the different advertising effectiveness metrics are all internally consistent (Bland & Altman, 1997). Since the alpha analysis gave this result, one construct was made for every scale of the survey by averaging the different items. These constructs for A_{ad}, A_b and P_I will take the role of the dependent variables in the following analysis.

Table 2: *Cronbach's alpha of advertising effectiveness scales*

	Full-figure			**Faceless**		
	A_{ab}	**A_b**	**P_I**	**A_{ab}**	**A_b**	**P_I**
Advertisement 1	0.93	0.95	0.96	0.94	0.93	0.97
Advertisement 2	0.94	0.97	0.97	0.93	0.96	0.97
Advertisement 3	0.95	0.95	0.96	0.95	0.97	0.98

3.2.2 Emotional Arousal measure

From the scale that tests the emotions evoke by the advertisements, 2 distinct constructs will be made. One for the positive feelings evoked by the ad and one for the negative feelings. So, for every advertisement it was tested whether the 6 positive and 6 negative items of the emotional arousal scale were internally consistent. The positive emotional items were happy, good, glad, joyful, surprised and pleasant. The negative emotional items of this scale were angry, disgusted, fearful, bad, unpleasant and sad. The results can be found in table 3. From this table it is clear that the two parts of the scale were internally consistent for every ad.

Table 3: *Cronbach's alpha of emotional arousal scale*

	Full-figure		**Faceless**	
	+	-	+	-
Advertisement 1	0.91	0.87	0.88	0.90
Advertisement 2	0.92	0.89	0.90	0.91
Advertisement 3	0.91	0.90	0.91	0.93

3.3 Recoding

A new string variable named ‘Condition’ was made. It received the value ‘Full-Fig’ for the respondents who were subject to the full-figure between-condition. If participants belonged to the group of the faceless between-condition, the value was set to ‘Faceless’. Practically this was done as follows. If the question about A_{ad} for advertisement 1 with a completely pictured model had a value ranging from 1 to 7, the respondent was assigned to the full-figure condition. If the value of the A_{ad} question for advertisement 1 with a cropped picture had a value in this range, the respondent was assigned to the faceless condition. This was possible since the two answers are mutually exclusive, and all the responses were first screened for completeness. This variable will further be used as the independent variable. For the mediation and moderation analysis, numeric variables are required. The full-figure condition received the value 1, the faceless condition receives the value 2.

Secondly, a new variable was made to express the emotional arousal score for all the advertisements used in the questionnaire. This was done according the procedure of Sciulli et al. (2017), as described above in ‘*2.3.3 Emotional arousal measure’.*

Thirdly, the variable ‘Age Category’ was created. The respondents were aged in the range of 16 to 65 years old. This was divided in 5 groups with a range of 10 years. The variable ‘Age Category’ thus could receive the following values; 16-25, 26-35, 36-45, 46-55 and 56-65. This variable was created in order to check whether there were big differences between the responses to the three advertising effectiveness metrics of people of different age categories.

3.4 Descriptive Statistics

3.4.1 Descriptive statistics based on model representation

In this part, an overview will be given of the average and standard deviation of the responses to the advertising effectiveness measures, A_{ad}, A_b and P_I. These data will then be used in the mixed repeated measures ANOVA to test the three hypotheses.

Table 4: *Means and standard deviations A_{ad} responses*

Descriptive Statistics - A_{ad} metric			
	Condition	**Mean**	**Std. Deviation**
Advertisement 1	Faceless	4.49	1.60
	Full_Fig	4.63	1.52
Advertisement 2	Faceless	4.53	1.65
	Full_Fig	4.76	1.67
Advertisement 3	Faceless	4.95	1.73
	Full_Fig	4.71	1.66

Table 5: *Means and standard deviations A_b responses*

Descriptive Statistics - A_b metric			
	Condition	**Mean**	**Std. Deviation**
Advertisement 1	Faceless	4.57	1.48
	Full_Fig	4.52	1.41
Advertisement 2	Faceless	4.45	1.56
	Full_Fig	4.62	1.51
Advertisement 3	Faceless	4.83	1.63
	Full_Fig	4.71	1.45

Table 6: *Means and standard deviations P_I responses*

Descriptive Statistics - P_I metric			
	Condition	**Mean**	**Std. Deviation**
Advertisement 1	Faceless	3.96	1.79
	Full_Fig	3.59	1.76
Advertisement 2	Faceless	3.78	1.89
	Full_Fig	3.95	1.92
Advertisement 3	Faceless	4.17	1.94
	Full_Fig	3.96	1.82

3.4.2 Descriptive statistics based on model representation and Age

An overview is given of the means and standard deviation of the responses to the three metrics, based on the Age Category. From these tables, it is already clear that the differences in the responses between the age categories are rather small.

Table 7: *Means and standard deviations A_{ad} responses per Age Category*

Descriptive Statistics A_{ad} per Age Category					
		Faceless		**Full_Fig**	
Age Category		**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
16-25	$\mathbf{A_{ad1}}$	4.52	1.69	4.85	1.42
	$\mathbf{A_{ad2}}$	4.52	1.50	4.81	1.65
	$\mathbf{A_{ad3}}$	4.95	1.74	4.69	1.60
26-35	$\mathbf{A_{ad1}}$	4.62	1.07	4.37	1.51
	$\mathbf{A_{ad2}}$	4.51	2.03	4.33	1.42
	$\mathbf{A_{ad3}}$	5.26	1.71	5.41	0.86
36-45	$\mathbf{A_{ad1}}$	3.56	1.68	3.83	1.22
	$\mathbf{A_{ad2}}$	4.33	1.67	4.83	1.82
	$\mathbf{A_{ad3}}$	5.22	1.54	4.96	2.10
46-55	$\mathbf{A_{ad1}}$	4.48	1.62	4.13	1.89
	$\mathbf{A_{ad2}}$	5.00	1.91	4.49	2.17
	$\mathbf{A_{ad3}}$	4.65	1.93	4.41	1.97
56-65	$\mathbf{A_{ad1}}$	4.00	1.00	3.93	2.20
	$\mathbf{A_{ad2}}$	2.56	1.90	5.33	1.05
	$\mathbf{A_{ad3}}$	4.89	1.02	4.33	2.32

Table 8: *Means and standard deviations A_b responses per Age Category*

Descriptive Statistics A_b per Age Category					
		Faceless		Full_Fig	
Age Category		**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
16-25	A_{b1}	4.59	1.60	4.65	1.33
	A_{b2}	4.37	1.54	4.59	1.43
	A_{b3}	4.78	1.64	4.68	1.45
26-35	A_{b1}	4.87	1.04	4.52	1.08
	A_{b2}	4.41	1.40	4.04	1.22
	A_{b3}	5.08	1.85	4.96	0.72
36-45	A_{b1}	3.67	2.08	3.38	1.27
	A_{b2}	4.56	1.71	4,50	1.78
	A_{b3}	5.00	1.86	4.50	1.58
46-55	A_{b1}	4.44	1.16	4.56	1.79
	A_{b2}	5.10	1.71	5.00	2.11
	A_{b3}	4.79	1.61	4.74	1.58
56-65	A_{b1}	4.22	1.07	4.20	1.92
	A_{b2}	3.00	1.00	5.40	1.01
	A_{b3}	5.00	1.00	4.87	2.24

Table 9: *Means and standard deviations P_I responses per Age Category*

Descriptive Statistics P_I per Age Category					
		Faceless		Full_Fig	
Age Category		**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
16-25	P_{I1}	3.96	1.80	3.54	1.86
	P_{I2}	3.53	1.80	3.76	2.07
	P_{I3}	3.98	1.97	3.77	1.84
26-35	P_{I1}	4.27	1.76	3.78	1.46
	P_{I2}	4.69	1.84	4.33	1.50
	P_{I3}	5.15	1.53	5.17	0.66
36-45	P_{I1}	4.33	2.52	3.00	1.28
	P_{I2}	2.17	2.02	4.56	0.73
	P_{I3}	3.67	3.06	4.31	1.87
46-55	P_{I1}	3.94	1.65	4.08	1.50
	P_{I2}	4.56	1.96	4.23	1.93
	P_{I3}	4.50	1.79	4.19	1.75
56-65	P_{I1}	2.33	2.31	3.70	2.17
	P_{I2}	3.67	2.31	4.70	0.84
	P_{I3}	3.67	2.31	3.80	2.59

3.5 Hypotheses testing

To test if there is a significant difference between the responses, on the three metrics of advertising effectiveness, of the faceless condition compared to the full-figure condition, mixed repeated measures ANOVA tests will be used. The A_{ad}, A_b and P_I serve as the dependent variable during these tests. There is a between-condition with two levels, namely Full-figure or Faceless. These are the independent variables. The between-condition will be referred to as 'Model Representation'. There is also a within-condition with three levels, being the three different advertisements shown to the respondents. The within-condition will be referred to as 'Advertisement Number'. Since this mixed repeated measures ANOVA is a parametric test, the assumptions will be checked first.

3.5.1 Testing for Normality

First assumption of the mixed repeated measures ANOVA that will be checked is normality. This assumption states that the means should follow the normal distribution.

For the A_{ad} metric, the Shapiro-Wilk test shows that the data is not normally distributed. The results of this test are as follows; for advertisement 1 $p = 0.001$ for the full-figure as well as the faceless condition, advertisement 2 and 3 have $p < 0.001$ for both conditions. The same conclusion can be found for the A_b metric. Here the Shapiro-Wilk test shows following results; ad 1has $p = 0.004$ for the full-figure as well as the faceless condition, for ad 2 $p < 0.001$ for the full-figure condition and $p = 0.004$ for the faceless condition, ad 3 $p < 0.001$ for both conditions. The data of the P_I metric is also not normally distributed. The Shapiro-Wilk test results in $p < 0.001$ for every advertisement in both conditions. After analysis of the skewness and kurtosis, it is clear that all the distributions for the A_{ad} and A_b metric are slightly left skewed with a negative kurtosis. The distributions of the P_I also follow these characteristics, except for advertisement 1 in the full-figure condition. This is right skewed with a negative kurtosis *(See appendix 4).*

However, the ANOVA tests are robust against a violation of this assumption. On top of that, the Central Limit Theorem states that the means are approximately normally distributed when the sample size is sufficiently large, which is the case in this research (Norman, 2010). For these reasons, this parametric test can still be applied. Before using the mixed repeated measures ANOVA, other assumptions will be tested first. Only when there is a violation, the assumptions are indicated in the section of the corresponding test.

3.5.2 Attitude toward the Ad

When running the mixed repeated measures ANOVA for the A_{ad} data, another assumption appeared to be violated. Mauchly's test of Sphericity indicated that the assumption of sphericity was not met, $\chi^2(2) = 6.17, p = 0.046$ *(see Appendix 4)*. This means that the variances of the differences between the within conditions, in this case the three different advertisements, are not equal. For this reason, the Huynh-Feldt correction will be applied. This correction was chosen since $\varepsilon > 0.75$ (LaerdStatistics, 2015). This was the only assumption that was violated on top of the normality assumption.

For an overview of the descriptive statistics of this metric see *3.4.1 Descriptive Statistics based on model representation, table 4.* Having a first look at these descriptive statistics shows that there

are only small differences between the groups. The mixed repeated measures ANOVA test further showed that there was no statistically significant interaction between the model representation and advertisement number for the attitude toward the ad responses, *F (1.97, 449.82) = 1.56, p = 0.212.* Furthermore, the main effect of advertisement number (within-condition) also showed no statistically significant difference in the means of the A_{ad} responses between the different advertisements, *F (1.97, 449.82) = 2.03, p = 0.133.* Likewise, the main effect of Model Representation (between-condition) indicated a not statistically significant difference in the means of the A_{ad} responses between the full-figure and faceless group, *F (1, 228) = 0.09, p = 0.763.* An overview of these results can be found in table 10.

***Table 10**: Result of mixed repeated measures ANOVA for the A_{ad} metric*

Mixed Repeated Measures ANOVA A_{ad}				
	Correction	**Type Effect**	**F**	**Sign.**
Advertisement Number	Huynh-Feldt	Main effect	F(1.97, 449.82) = 2.03	0.133
Model representation	Huynh-Feldt	Main effect	F(1, 228) = 0.09	0.763
Advertisement Number *Model representation	Huynh-Feldt	Interaction effect	F(1.97, 449.82) = 1.56	0.212

There was no difference expected in the A_{ad} responses between the different advertisements. However, the results show that also the A_{ad} responses of the full-figure group do not significantly differ from the responses of the faceless group, which was not thought in advance. As a result, it is clear that the first part, the main effect, of hypothesis one is not supported.

3.5.3 Attitude toward the Brand

While running the test on the data of the attitude toward the brand metric, it became clear that only the assumption of normality was violated. The test can still proceed as stated above in *3.5.1 Testing for Normality*.

For an overview of the descriptive statistics of this metric see *3.4.1 Descriptive Statistics based on model representation, table 5.* These descriptive statistics show that there aren't any big differences between the means of the different advertisements, nor between the means of the faceless and full-figure group for one advertisement. The results of the mixed repeated measures

ANOVA confirm this first impression. They show that there are again no significant main or interaction effects. An overview of the results of this test can be found in table 11.

Table 11: *Result of mixed repeated measures ANOVA for the A_b metric*

Mixed repeated measures ANOVA A_b			
	Type Effect	**F**	**Sig.**
Advertisement Number	Main effect	F(2, 456) = 2.11	0.123
Model representation	Main effect	F(1, 228) = 0.00	0.990
Advertisement Number * Model representation	Interaction effect	F(2, 456) = 0.69	0.504

There was no difference predicted in the A_b responses between the different advertisements. So, the insignificant advertisement number effect was as expected. However, the results also show that the A_b responses of full-figure group do not significantly differ from the responses of the faceless group, which means that the main effect of hypothesis two cannot be confirmed. This is not surprising, since A_{ad} is expected to be its main influencer.

3.5.4 Brand Purchase Intention

All the assumptions of the mixed repeated measures ANOVA are met, except the one of normality as stated above *(see 3.5.1 Testing for Normality).*

An overview of the means and standard deviations of the responses to this metric can be found in *3.4.1 Descriptive statistics based on model representation, table 6.* From this table it is clear that all the means lay in a small range. So, no big differences are observed between the means of the advertisements, neither between the means of full-figure and faceless condition of the same advertisement. This is confirmed by the repeated measures ANOVA test, again no significant main or interactions effects were found. An overview of the results can be found below in table 12.

Table 12: *Result of mixed repeated measures ANOVA for the P_I metric*

Mixed repeated measures ANOVA P_I			
	Type Effect	**F**	**Sig.**
Advertisement Number	Main effect	F(2, 456) = 1.83	0.162
Model representation	Main effect	F(1, 228) = 0.70	0.404
Advertisement Number * Model representation	Interaction effect	F(2, 456) = 1.60	0.202

Also for the P_I metric, a difference in the mean response of the full-figure group compared to the faceless group was expected. However, the main effect of model representations shows that this difference is not statistically significant, *F (1, 228) = 0.70, p = 0.404.* P_I is expected to be influenced by attitude toward the ad and brand attitude, so it could be predicted after seeing the results of the other tests. From these results, it can be concluded that the first part, the main effect, of hypothesis three is not supported.

3.6 Mediation Analysis

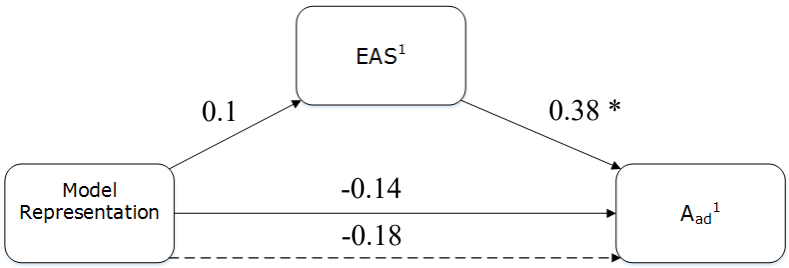
3.6.1 Purpose

A mediation analysis will be performed as stated in the three hypotheses. To test the mediation part of hypothesis 1 and 2, model 4 of the Process macro by Hayes (Hayes, 2019), hypothesis 3 is investigated with model 6 of this macro. This macro was documented by (Hayes, 2017). Each analysis consisted of 5,000 bootstraps and 95% bias-corrected confidence intervals.

3.6.2 Attitude toward the Ad

The mediation model that will be tested is the same for all three advertisements. To test this, model 4 of the process macro by Hayes (2019) will be used. This model takes model representation as the independent variable, of which the effect is tested on the dependent variable A_{ad}. This effect is tested directly and indirectly, through the mediator EAS.

Advertisement 1

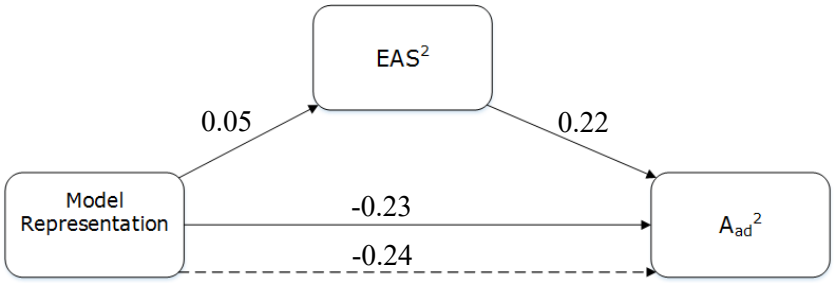


ab = 0.04, se = 0.04, 95% CI = [-0.022; 0.134]

Figure 5: *Mediation analysis hypothesis 1, advertisement 1*

It is found that the more emotions evoked by advertisement 1, the higher the attitude towards the ad score. However, the type of model representation did not significantly influence the emotions being aroused by the ad. As a conclusion, it is not possible to state that the impact of model representation on the A_{ad} metric is mediated by the EAS score for the first ad *(ab = 0.04, se = 0.04, 95% CI = -0.022 to 0.134).*

Advertisement 2

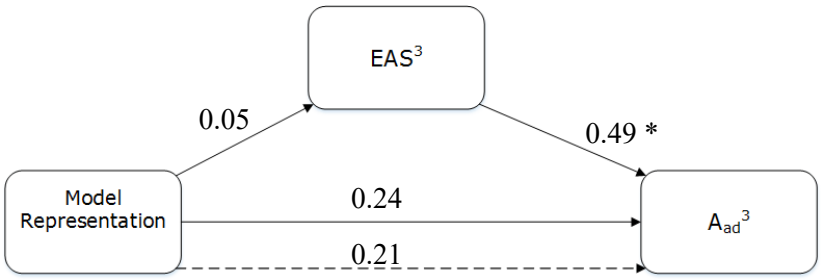


ab = 0.01, se = 0.03, 95% CI = [-0.030; 0.077]

Figure 6: *Mediation analysis hypothesis 1, advertisement 2*

For advertisement two, no relations were significant. This means that the attitude toward the ad responses were not higher when the EAS score was higher. This result was not expected by the above literature review. Model representation did not influence the EAS score. So, the effect of model representation on the A_{ad} metric is not mediated by the EAS score for advertisement 2 *(ab = 0.01, se = 0.03, 95% CI = -0.030 to 0.077).*

Advertisement 3



ab = 0.03, se = 0.05, 95% CI = [-0.062; 0.134]

Figure 7: *Mediation analysis hypothesis 1, advertisement 3*

A significant relationship was again found between the EAS score and the attitude toward the ad score for advertisement 3. This means that the more emotions evoked in the viewer by the ad, the higher their response to the A_{ad} metric. However, the model representation did not result in a significant influence on the EAS score. For advertisement 3, it has to be concluded that the relationship between model representation and A_{ad} is not mediated by the EAS score *(ab = 0.03, se = 0.05, 95% CI = -0.062 to 0.134).*

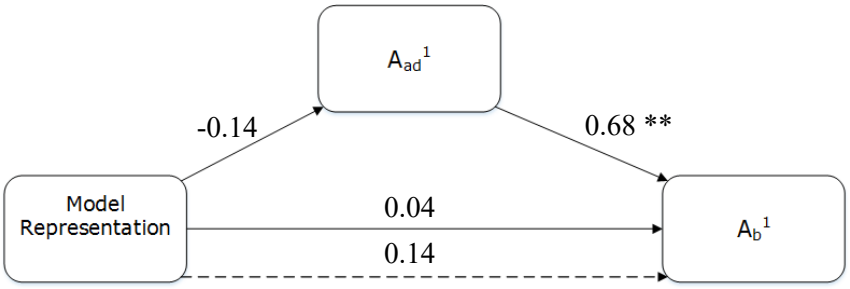
Conclusion

For none of the three advertisement, the relationship between model representation and the A_{ad} metric was found to be mediated by the EAS. This is due to the fact that model representation does not seem to impact the EAS. Therefore, it is concluded that the second part of hypothesis one cannot be confirmed.

3.6.3 Attitude toward the Brand

To test whether the effect of model representation on A_b is mediated by A_{ad}, model 4 of the process macro by Hayes (2019) is used. This model takes model representation as the independent variable, A_b is the dependent variable and A_{ad} serves as the mediator variable.

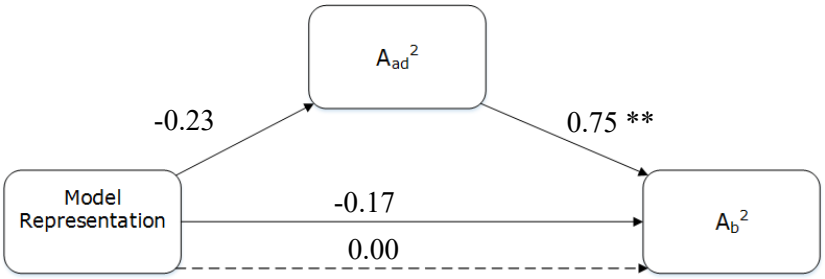
Advertisement 1



ab = -0.10, se = 0.14, 95% CI = [-0.357; 0.175]

Figure 8: *Mediation analysis hypothesis 2, advertisement 1*

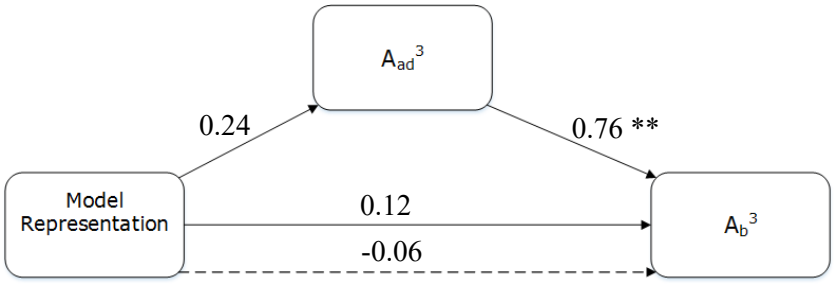
Advertisement 2



ab = -0.17, se = 0.17, 95% CI = [-0.494; 0.155]

Figure 9: *Mediation analysis hypothesis 2, advertisement 2*

Advertisement 3



ab = 0.18, se = 0.17, 95% CI = [-0.161; 0.508]

Figure 10: *Mediation analysis hypothesis 2, advertisement 3*

Conclusion

Since the models of all three advertisements lead to the same conclusion, only a general conclusion will be stated. For a detailed overview see figure 8, 9 and 10. In all cases, the advertisements with a higher A_{ad} score also received a higher A_b score, the relationship between these metrics is found to be significant. This is in line with the previously stated DMH. However, model representation was found not to influence the A_{ad} score for all three advertisements. As a consequence, for none of the advertisements the indirect effect was significant, ad 1 *(ab =-0.10, se = 0.14, 95% CI = -0.357 to 0.175*), ad 2 *(ab = -0.17, se= 0.17, 95% CI = -0.494 to 0.155)* and ad 3 *(ab = 0.18, se = 0.17, 95% CI = -0.161 to 0.508)*. So, it is possible to conclude that the relationship between model representation and the attitude toward the brand metric is not mediated by attitude toward the ad, for all the advertisements. As a result, next to the first part, also the second part of hypothesis two is not supported.

3.6.4 Brand Purchase Intention

Hypotheses three stated a case of serial mediation. This hypothesis predicts that the model representation influences the A_{ad} responses which in turn increase A_b responses, and finally this increases the brand purchase intentions. Next to that it is also expected that model representation will influence A_{ad} which in turn directly influences P_I, as stated in the EDMH. In case of serial mediation with two mediation variables, for which model 6 of the Process macro by Hayes (2019) will be used, three indirect effects are tested. An overview of these effects is given in table 13. In this model, model representation is the independent variable of which the effect on the dependent variable P_I is tested, both directly and through the two mediators A_{ad} and A_b. From this table it is clear that both expected indirect effects will be investigated in this model. Further on these effects will be referred to as indirect 1, 2 and 3. This model will again be tested for the three different advertisements.

Table 13: *Overview indirect effects of mediation analysis of PI*

Indirect effect 1:	Model Representation	→	A_{ad}	→	PI		
Indirect effect 2:	Model Representation	→	A_b	→	PI		
Indirect effect 3:	Model Representation	→	A_{ad}	→	Ab	→	PI

Advertisement 1

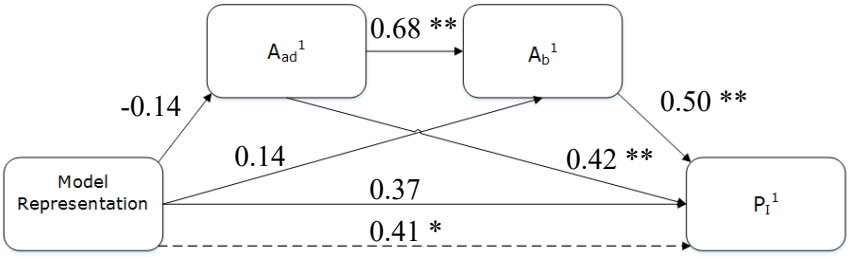


Figure 11: *Mediation analysis hypothesis 3, advertisement 1*

For advertisement 1, there are significant relationships between A_{ad} and A_b, A_b and P_I and between A_{ad} and P_I. These significant relationships confirm what was stated in the DMH and EDMH. However, the indirect effect of model representation on P_I through A_{ad} showed to be not significant *(ab = -0.06, se = 0.09, 95% CI = -0.239 to 0.115),* as is the indirect effect through A_b *(ab = -0.07, se= 0.07, 95% CI = -0.064 to 0.206).* The serial indirect effect was also not significant *(ab = -0.05, se = 0.07, 95% CI = -0.199 to 0.0.091).* The analysis thus clearly showed that none of the indirect effects are significant. So, for advertisement 1, it cannot be concluded that the relationship between model representation and P_I is mediated by A_{ad} and A_b. This can be due to the fact that model representation does not have a significant effect on A_{ad} nor on A_b.

Advertisement 2

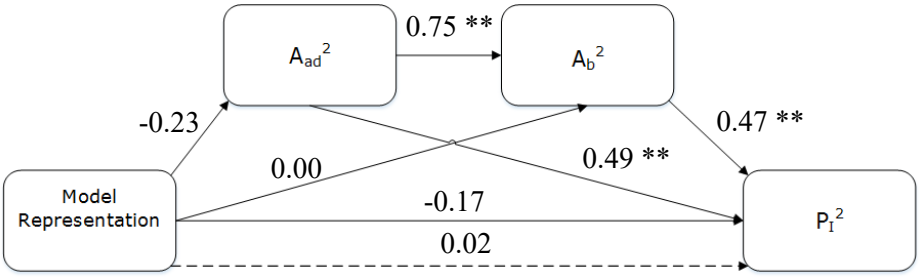


Figure 12: *Mediation analysis hypothesis 3, advertisement 2*

Same as for advertisement 1, a significant relationship between A_{ad} and A_b, A_b and PI and between A_{ad} and P_I can be observed for advertisement 2. However, none of the indirect effects are significant, indirect effect 1 *(ab = -0.11, se = 0.11, 95% CI = -0.336 to 0.103),* indirect effect 2 *(ab = 0.00, se = 0.06, 95% CI = -0.121 to 0.111)* and the serial indirect effect *(ab = -0.08, se = 0.09, 95% CI = -0.272 to 0.065).* So, the relationship between model representation is not found to be mediated by A_{ad} and A_b, since model representation does not have a significant effect on

A_{ad}, A_b or P_I. This means that also for advertisement 2, the second part of hypothesis 2 is not supported.

Advertisement 3

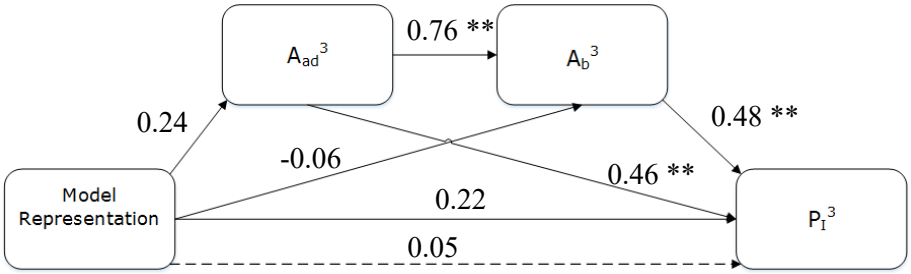


Figure 13: *Mediation analysis hypothesis 3, advertisement 3*

The findings of advertisement 1 and 2 can be repeated for advertisement 3. Again, none of the indirect effects were significant, indirect effect 1 *(ab = 0.11, se = 0.11, 95% CI = -0.090 to 0.346),* indirect effect 2 *(ab = -0.03, se = 0.06, 95% CI = -0.133 to 0.087)* and indirect effect 3 *(ab = 0.09, se = 0.08, 95% CI = -0.075 to 0.257).* The model representation does not lead to a significant change in A_{ad} responses, and as a result the serial mediation of the model representation, P_I relationship by A_{ad} and A_b is not supported. As previously showed, model representation is also not found to directly impact P_I. Next to the main effect, also the mediation part of hypothesis three is not supported for advertisement 3.

Conclusion

For none of the advertisements the relationship between model representation and P_I was found to be mediated by A_{ad} and A_b. Consequently, the second part of hypothesis three that that claims this mediation is not supported.

3.7 Moderation Analysis: Fashion Interest

In this section it will first be investigated if for any of the advertisements, the relationship between model representation and attitude toward the ad is moderated by the fashion interest of the respondents. Respondents were asked to indicate on a scale from 0 to 10, how interested they were in fashion. The responses ranged from 0 to 10 *(M = 7.21; SD = 1.84).* After that it is tested whether the effect of model representation through A_{ad} on A_b is moderated by fashion interest. It is thus only tested if fashion interest moderates the relationship between model representation and A_{ad}. This is due to the fact that the brand names were changed to non-existing brands. So, even

when a respondent indicates to have a high interest in fashion, they will not be familiar with the brand and this is thus not expected to moderate this relationship. It is however possible that their interest in fashion has introduced them to different types of advertisements and thus enables them to form a well-founded opinion about the ad. Each analysis consisted of 5,000 bootstraps and 95% bias-corrected confidence intervals.

3.7.1 Attitude toward the Ad

Model 1 of the Process macro from Hayes was used to investigate this effect (Hayes, 2017). In this model the effect of the independent variable model representation is tested on the dependent variable A_{ad} across different levels of the moderator, fashion interest.

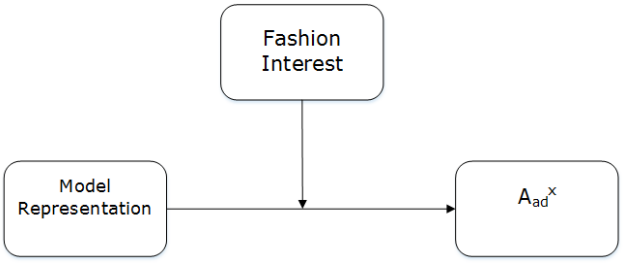


Figure 14: *Moderation analysis A_{ad} (moderator = Fashion interest)*

Advertisement 1

The analysis revealed a statistically significant interaction term (*b = -0.28, t(226) = -2.57, p = 0.011)*, showing that the effect of model representation on attitude toward the ad varies with different levels of fashion interest. The spotlight analysis indicates that the effect of model representation on A_{ad} is not significant across all levels of fashion interest. For a moderate *(M = 7.21)* or low *(M - 1SD = 5.37)* fashion interest, no significant effect was found *b = -0.10, t(226) = -0.52, p = 0.601* and *b = 0.41, t(226) = 1.45, p = 0.149* respectively. When the fashion interest was high *(M + 1SD = 9.05)* a significant effect was found *b = -0.62, t(226) = -2.19, p = 0.029.* To give a more detailed overview, the Johnsen-Neyman technique was used. Two cut-off levels for fashion interest were found, on these points the effect between model representation and A_{ad} changes from being statistically significant to not statistically significant or the other way around. Up to a fashion interest level of 3.98 the effect appeared to be significant with a positive coefficient, between this value and 8.59 the effect was not statistically significant. Above 8.59 the effect was again significant, nevertheless with a negative coefficient *(see appendix 5)*. This means that for respondents with a very low (> 1SD below the mean) fashion interest, the use of

faceless models leads to higher values of A_{ad} responses. On the contrary, for respondents which indicate to have a high interest in fashion, the use of faceless models leads to lower values of A_{ad} responses *(see appendix 5)*.

Advertisement 2

For advertisement 2 the same conclusions can be made as for advertisement 1. The indirect effect was significant, $b = -0.40, t(226) = -3.33, p = 0.001$. The spotlight analysis gave the following results; for low (1 SD below the mean) and moderate $(M = 7.21)$ levels of fashion interest, the effect of model representation on A_{ad} is not significant, $b = 0.51, t(226) = 1.68, p = 0.094$ and $b = -0.21, t(226) = -0.96, p = 0.337$ respectively. For high levels of fashion interest the effect of model representation on A_{ad} appeared to be significant, $b = -0.92, t(226) = -3.05\ p = 0.003$. Again, the floodlight analysis indicated 2 cut-off points *(see appendix 5 for an overview of the effects)*. Below a fashion interest score of 4.69, the faceless representation leads to significantly higher A_{ad} responses and above 7.82 the full-figure representation leads to significantly higher A_{ad} responses. For fashion interests between 4.69 and 7.82, no significant effect was found.

Advertisement 3

Advertisement 3 did not show a significant interaction effect $(b = -0.04, t(226) = -0.32, p = 0.748)$. The direct effect of model representation and fashion interest also appeared to be not statistically significant, $b = 0.53, t(226) = 0.58, p=0.561$ and $b = 0.12, t(226) = 0.61, p = 0.540$ respectively. For advertisement 3, changing the model representation does not have an effect on the A_{ad} responses, this effect is thus also not moderated by fashion interest.

Conclusion

Since different results were found for advertisement 3 than for the other two advertisements, it cannot be concluded that the relationship between model representation and A_{ad} is moderated by fashion interest. The deviating results of advertisement 3 could possibly be explained by the fact that the model is not as central as in the other two advertisements. Nonetheless, it is not certain that this is the reason of the difference and as a consequence no conclusion can be made about this matter. Further research should be conducted on the importance of the centrality of the model.

3.7.2 Attitude toward the brand

Here it will be investigated whether the indirect effect of model representation on A_b responses through A_{ad} was moderated by the fashion interest of the respondents. Model 7 of the Process macro from Hayes was used to investigate this effect (Hayes, 2017). This model takes model representation as the dependent variable, A_b as the dependent variable and A_{ad} as the mediator of

the effect of model representation on A_b. Furthermore, this model takes one moderator which moderates the effect between the dependent variable and the mediator. The moderator is fashion interest in this case.

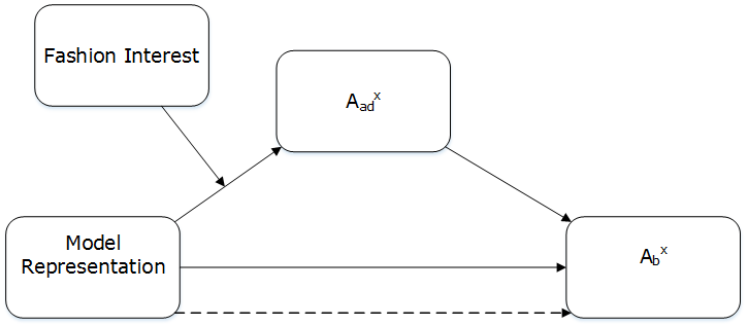


Figure 15: *Moderated mediation analysis A_b (moderator = Fashion interest)*

Advertisement 1

The analysis indicated that the index of moderated mediation was significant, *ab =-0.19, se = 0.08, 95% CI = -0.356 to -0.039.* This reveals that the indirect effect of model representation on A_b through A_{ad} is significantly different when the level of fashion interest changes. Only for high levels of fashion interest *(M + 1SD = 9.05)* a significant indirect effect was found. This effect was negative, *ab = -0.43, se = 0.20, 95% CI = -0.830 to -0.027.* For low *(M – 1SD = 5.37)* and moderate *(M = 7.21)* values of fashion interest the indirect effect was not present, *ab = 0.28, se = ,20 95% CI = -0.101 to 0.681* and *ab = -0.07, se = 14, 95% CI = -0.332 to 0.1938* respectively. As a consequence, the data shows that, for consumers indicating to have a high interest in fashion, faceless model representation has a negative influence on attitude towards the ad which in turn has a positive influence on the attitude toward the brand.

Advertisement 2

Again, the same conclusions can be made as for advertisement 1. The index of moderated mediation was significant, *ab = -0.29, se = 0.09, 95% CI = -0.472 to -0.141.* Only for high levels of fashion interest (mean + 1SD = 9.05) a negative significant indirect effect appeared, *ab = -0.69, se = 0.23, 95% CI= -1.145 to -0.252.* So, for consumers indicating to have a high interest in fashion, faceless model representation has a negative influence on attitude towards the ad which in turn has a positive influence on the attitude toward the brand.

Advertisement 3

For advertisement 3 the index of moderated mediation was not statistically significant, *ab = -0.03, se = 0.09, 95% CI = -0.203 to 0.154.* This indicates that the indirect effect of model

representation on A_b through A_{ad} does not significantly variate with different levels of fashion interest. It could also be seen that the effect of the interaction term of model representation and fashion interest on A_{ad} was not statistically significant, *a = -0.04, t(226) = -0.32, p = 0.748*. This indicated that fashion interest is not a moderator of this relationship for advertisement 3.

Conclusion

Same as for the moderation analysis of A_{ad}, it is not possible to conclude that the indirect effect of model representation on A_b through A_{ad} is moderated by fashion interest, since this is not valid for advertisement 3.

3.7.3 Brand purchase intention

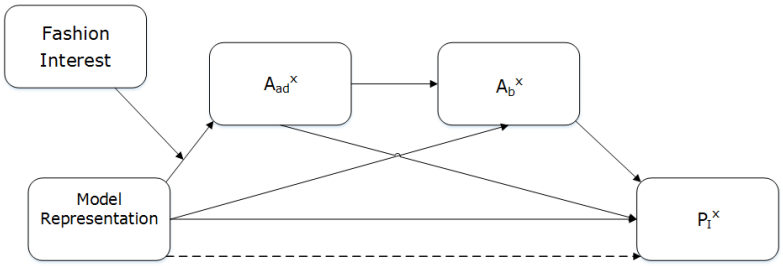


Figure 16: *Moderated mediation analysis P_I (moderator = Fashion interest)*

This model can be analysed in SPSS by applying model 83 of the Process macro from Hayes (2019) (Stride, Gardner, Catley, & Thomas, 2015). This model takes 2 or more mediators in series and 1 moderator, which moderates only the path between the independent variable and the first mediator. The model investigates the direct effect of model representation on P_I as well as the indirect effect through A_{ad}, the indirect effect through A_b and the indirect effect through A_{ad} and sequential A_b. In this case the independent variable is model representation, the first mediator equals A_{ad}, the effect between these two variables is moderated by the moderator fashion interest. The second mediator is A_b and the dependent variable is P_I. Two of the indirect effects will be discussed in this section, these are presented in table 14 below.

Table 14: *Overview indirect effects of moderated mediation of P_I*

Indirect effect 1:	Model representation	→	A_{ad}	→	P_I		
Indirect effect 2:	Model representation	→	A_{ad}	→	A_b	→	P_I

Advertisement 1

It was examined whether the indirect of model representation on P_I through A_{ad} and A_{ad} and sequential A_b was dependent on the level of Fashion interest. This revealed that this was the case since the index of moderated mediation of both indirect effects was significant. Indirect effect 1; *ab = -0.12, se = 0.06, 95% CI = -0.246 to -0.023,* indirect effect 2; *ab = -0.10, se = 0.04, 95% CI = -0.193 to -0.020.* An overview of the indirect effects is given in table 15.

Table 15: *Indirect effects moderated mediation PI, ad 1*

	Level Fashion interest	**Effect**	**se**	**LLCI**	**ULCI**
Indirect effect 1	5.37	0.17	0.13	-0.056	0.456
	7.21	-0.04	0.09	-0.224	0.119
	9.05	-0.26	0.14	-0.581	-0.028
Indirect effect 2	5.37	0.14	0.10	-0.048	0.363
	7.21	-0.04	0.07	-0.185	0.092
	9.05	-0.21	0.11	-0.456	-0.024

It can be concluded that for high values of fashion interest *(M + 1SD = 9.05)*, changing model representation to faceless models has a negative effect on the responses to P_I. This holds true through both the indirect effects.

Advertisement 2

For advertisement 2 the index of moderated mediation also appeared to be significant for both indirect effects. Indirect effect 1; *ab = -0.19, se= 0.07, 95% CI = -0.335 to -0.069,* indirect effect 2; *ab = -0.14, se= 0.05, 95% CI = -0.252 to -0.053.* This indicates that the indirect of model representation on P_I through A_{ad} and A_b significantly changes with different levels of fashion interest. An overview of the direct effects is given in table 16.

Table 16: *Indirect effects moderated mediation PI, ad 2*

	Level Fashion interest	**Effect**	**se**	**LLCI**	**ULCI**
Indirect effect 1	5.37	0.25	0.16	-0.020	0.593
	7.21	-0.10	0.11	-0.322	0.109
	9.05	-0.45	0.18	-0.831	-0.1378
Indirect effect 2	5.37	0.18	0.11	-0.017	0.422
	7.21	-0.07	0.08	-0.251	0.076
	9.05	-0.33	0.14	-0.631	-0.099

It can also be concluded for advertisement 2 that for high values of fashion interest *(M + 1SD = 9.05)*, changing model representation to faceless models has a negative effect on the responses to P_I. This is again the case through both indirect effects

Advertisement 3

The moderated mediation index for both indirect effects of advertisement 3 was not statistically significant. Indirect effect 1; *ab = -0.02, se = 0.06, 95% CI = -0.13 to 0.09*, indirect effect 2; *ab = -0.01, se = 0.04, 95% CI = -0.10 to 0.08.* This implies that the indirect effects of model representation on P_I through A_{ad} and A_b do not significantly differ for diverse levels of fashion interest, no moderated mediation. This could already be predicted since the analysis shows that the interaction term model representation*fashion interest has no significant effect on A_{ad}. As a consequence, the effect of model representation on A_{ad} does not differ across diverse levels of fashion interest, so there is no moderation present for this advertisement. An overview of the indirect effects can be found in table 17.

Table 17: *Indirect effects moderated mediation PI, ad 3*

	Level Fashion interest	**Effect**	**se**	**LLCI**	**ULCI**
Indirect effect 1	5.37	0.15	0.15	-0.13	0.45
	7.21	0.11	0.11	-0.08	0.35
	9.05	0.08	0.15	-0.21	0.41
Indirect effect 2	5.37	0.12	0.11	-0.12	0.35
	7.21	0.09	0.08	-0.07	0.26
	9.05	0.06	0.12	-0.17	0.31

Conclusion

Since the results of advertisement 3 differ from the other two advertisements, it cannot be generally concluded that the effect of model representation on P_I through A_{ad} and A_b is moderated by fashion interest.

4 Discussion

4.1 Summary of results

This research investigated whether the use of faceless models in fashion advertisements has an effect on advertising effectiveness. The main conclusion is that the model representation, full-figure vs faceless fashion models, does not seem to impact the responses of female respondents on the three metrics of advertising effectiveness. This means that none of the three proposed hypotheses can be confirmed.

H1: The use of faceless models in fashion advertising will lead to less positive attitude toward the ad responses. This effect is mediated by the emotions evoked by the ad.

Hypothesis 1 stated that changing the model representation from full-figure to faceless would decrease the emotions evoked in the viewer which in turn would lead to lower scores of attitude toward the ad. It was found that the model representation did not impact the emotions evoked by the advertisements, nor was there a direct impact of model representation on A_{ad}. Sciulli et al. (2017) showed a positive relation between the power of emotional appeal of an ad and the engagement toward the ad. In this research the ads were not substantially pretested for evoking emotions, so the power of emotional appeal was not investigated. It is possible that the faces of the full-figure models were not sufficiently emotionally expressive in these three advertisements and as a result it could be that the full-figure ads did not evoke enough emotions. This could explain why there was no difference in the emotions evoked by the full-figure advertisement compared to the faceless advertisement. A more rigorous pre-test should be carried out to confirm the power of emotional evocation of the advertisements.

H2: The use of faceless models in fashion advertising will lead to less positive attitude toward the brand responses. This effect is mediated by the A_{ad} responses.

Hypothesis 2 stated that ads with full-figure models would lead to higher attitude toward the ad responses which in turn would lead to higher A_b responses. Nor the direct effect between model representation and A_b, or the indirect effect through A_{ad} was supported by the data of this research. The indirect effect could be expected to be not significant after seeing the results of hypothesis one. Mackenzie et al. (1986) already showed that A_{ad} was a very important mediator of A_b. The

effect of A_{ad} on A_b was also found to be statistically significant for the data of this study. However, the effect of model representation on A_{ad} appeared to be not significant, so no mediation was found.

H3: The use of faceless models in fashion advertising will lead to lower brand purchase intentions of the viewers. This effect is mediated by the responses on A_{ad} and A_b.

Hypothesis 3 stated that the use of full-figure models was expected to increase A_{ad} which in turn would increase A_b and as a result would lead to a higher brand purchase intention. The indirect effect of model representation through only A_{ad} on P_I was also investigated. Both indirect effects led to results that were not statistically significant, so was the direct effect between model representation and P_I. This could again be explained by the fact that model representation does not have an effect on A_{ad} or A_b and that these two metrics are very important mediators of P_I, as stated in the DMH and EDMH (Karson & Fisher, 2005; Mackenzie et al., 1986).

4.2 Limitations and suggestions for further research

This section will give an overview of several limitations of this master's dissertation. Since the current results show a couple of inconsistencies with established literature, it will be stated how some of these limitations can explain the inconsistencies.

A first striking observation is the high drop-out rate, 393 female participants opened and started the questionnaire and only 230 of them completely finished it. As a consequence, the drop-out rate equals 41.48%. Two reasons can be found for the high number of dropouts. First of all, online questionnaires lead to a lower completion rate than paper based surveys (Carstens & Brecko, 2006). Secondly, and more importantly, some people have personally indicated that they did not understand all the English terms in the questionnaire. Many of them stated that they did not fully comprehend the meaning of some items of the different scales. As a result, it is possible to conclude that this English questionnaire was not always easy to complete for non-native English speakers. This resulted in respondents dropping out when things were unclear. This could also have led to respondents completing the survey without fully understanding what was asked, which would lead to results that do not represent reality. It is very important for further research to test whether the respondents understand the meaning of the items of these scales.

The second limitation concerns the mediator variables. Berg (2015) found that female consumers give more positive product evaluations when the advertised female model was portrayed faceless. The current study did not replicate these findings for the ad and brand attitudes or the brand purchase intention. Furthermore, Berg (2015) showed that the effect of model representation on product evaluations was mediated by self-referencing, this research did not include this mediator for the effect of model representation on the three advertising effectiveness metrics. Including this in the current research could lead to different results. As previously stated, it is also necessary to investigate whether the full-figure versions of the three advertisements that were used have the capability to evoke emotions. If this was not the case, then this could be a reason why the emotional arousal score did not differ between the full-figure and faceless model representation advertisements. As a consequence, this could explain why the EAS was not found to mediate the relationship between model representation and the A_{ad} metric.

The third limitation is related to the moderation analysis. For advertisement 1 and 2, the effect of model representation on A_{ad} was moderated by the indicated fashion interest of the viewer. This effect was not found for advertisement 3. When looking at the advertisements, it is clear that the model in advertisement 3 takes a less central position. Further research is needed to investigate if the position of the model in the advertisement in combination with model representation has an effect on advertising effectiveness.

The Belgian nationality was with 77% the most represented nationality in the data. Noppe et al. (2018) showed that 11,7% of the Belgian population has another nationality. Furthermore, they stated that this has known an increase over the years. They provide data starting from 2000 which clearly show the positive evolution. It can thus be assumed that these survey results are representative for the Belgian population. Further research is needed if a generalization to other nationalities is desired.

4.3 Practical implications

Faceless fashion advertisements received a lot of negative critiques for being discriminating towards women and increasing the sexual objectification of women in the fashion industry (Liffreing, 2016). Nonetheless, this research could not conclude that the use of faceless models in fashion advertisements is harmful for the advertised brands. The predicted negative effect on attitude toward the ad, attitude toward the brand and brand purchase intention of the consumer could not be confirmed. The use of faceless models can thus still be justified when consumer and

model are female, since Berg (2015) found that it leads to more positive product evaluations under these circumstances and due to the fact that the use of faceless models can decrease the cost of the advertisement. This decrease in cost has several causes. First of all , Considine (2011) states that models are paid for their time and additionally whenever their faces are used, cropping the faces would mean reducing the wages of the models. Secondly, there is no need to use famous models when they are faceless. This means that models who charge less per hour can be considered. Lastly, Ding and Xiao (2014) showed that choosing the right face for an advertisement, has an impact on the advertising effectiveness. Furthermore, they state that advertisers should be careful when selecting a fashion model and thus a face for their advertisements, since different customer segments have different preferences for the facial features of the models. When targeting more than one customer segment, different faces should be used. This means that a significant cost is needed to research which faces the customers like and on top of that an increased cost when multiple models have to be hired. Making use of faceless advertising could completely eliminate these costs.

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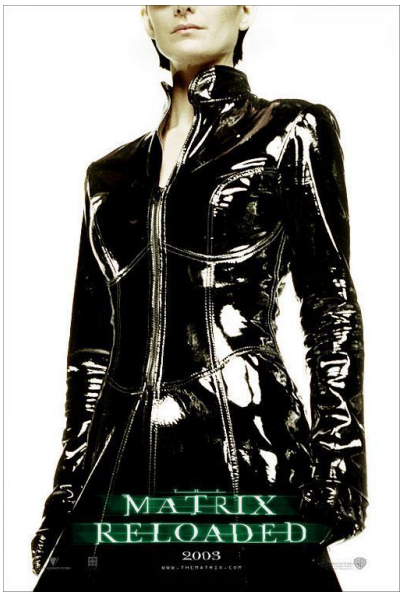
Appendix 1: Examples of faceless advertisements

1. Film industry



2. Fashion industry

Appendix 2: Between- and within subject manipulations

1. Full-figure condition

Advertisement 1:

Advertisement 2:

Advertisement 3:

2. Faceless condition

Advertisement 1:

Advertisement 2:

Advertisement 3:

Appendix 3: Survey questions overview

Introduction

Dear participant

The next survey will take 5 minutes of your time.
There are no right or wrong answers. The data will be analyzed anonymously.

Thank you for your participation.

Margo Mullie
Ghent University

Demographics

What is your gender?

Male
Female

What is your age? (In numbers e.g. 25)

What is your current state of employment?

Employed full time
Employed part time
Unemployed
Retired
Student
Disabled
Other

What is your nationality?

On a scale from 0 to 10, how interested are you in fashion?

What is your attitude towards this **advertisement**?

	-3	-2	-1	0	1	2	3	
Uninteresting	○	○	○	○	○	○	○	Interesting
Dislike	○	○	○	○	○	○	○	Like
Bad	○	○	○	○	○	○	○	Good

How do you feel about the advertised **brand**?

	-3	-2	-1	0	1	2	3	
Dislike	○	○	○	○	○	○	○	Like
Negative	○	○	○	○	○	○	○	Positive
Unfavourable	○	○	○	○	○	○	○	Favourable

How do you feel while viewing this advertisement?

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Joyful	○	○	○	○	○	○	○
Bad	○	○	○	○	○	○	○
Disgusted	○	○	○	○	○	○	○
Glad	○	○	○	○	○	○	○
Sad	○	○	○	○	○	○	○
Unpleasant	○	○	○	○	○	○	○
Good	○	○	○	○	○	○	○
Pleasant	○	○	○	○	○	○	○
Fearful	○	○	○	○	○	○	○
Surprised	○	○	○	○	○	○	○
Happy	○	○	○	○	○	○	○
Angry	○	○	○	○	○	○	○

Would you buy any product of the advertised brand?

	-3	-2	-1	0	1	2	3	
Unlikely	○	○	○	○	○	○	○	Likely
Improbable	○	○	○	○	○	○	○	Probable

Manipulation check

Answer for the three ads. Was the face of the model visible in the advertisement?
1 = Not at all visible
7= Very visible

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

Appendix 4: Testing of the Assumptions

1. Normality

1.1 Aad

Tests of Normality A_{ad}					
Condition		Shapiro-Wilk		Skewness	Kurtosis
		Statistic	Sig.		
Aad1	**Faceless**	0.96	0.001	- 0.45	- 0.46
	Full_Fig	0.96	0.001	- 0.31	- 0.76
Aad2	**Faceless**	0.94	0.000	- 0.49	- 0.66
	Full_Fig	0.94	0.000	- 0.56	- 0.41
Aad3	**Faceless**	0.92	0.000	- 0.66	- 0.41
	Full_Fig	0.94	0.000	- 0.57	- 0.54

The Shapiro-Wilk test for normality shows that the data of A_{ad} is not normally distributed for every condition and every advertisement. The skewness and kurtosis seem to be slightly smaller than zero. Which implies a left skewed and platykurtic distribution.

1.2 Ab

Tests of Normality A_b					
Condition		Shapiro-Wilk		Skewness	Kurtosis
		Statistic	Sig.		
Ab1	**Faceless**	0.96	0.004	- 0.37	- 0.40
	Full_Fig	0.97	0.004	- 0.18	- 0.38
Ab2	**Faceless**	0.96	0.004	- 0.15	- 0.80
	Full_Fig	0.95	0.000	- 0.11	- 0.61
Ab3	**Faceless**	0.93	0.000	- 0.61	- 0.50
	Full_Fig	0.95	0.000	- 0.45	- 0.006

The Shapiro-Wilk test for normality shows that the data of A_b is not normally distributed for every condition and every advertisement. The skewness and kurtosis seem to be slightly smaller than zero. Which implies a left skewed and platykurtic distribution.

1.3 PI

Tests of Normality P_I					
	Condition	Shapiro-Wilk		Skewness	Kurtosis
		Statistic	Sig.		
PI1	Faceless	0.94	0.000	- 0.23	- 1.00
	Full_Fig	0.94	0.000	0.26	- 1.01
PI2	Faceless	0.91	0.000	- 0.21	- 1.26
	Full_Fig	0.91	0.000	- 0.25	- 1.14
PI3	Faceless	0.93	0.000	- 0.19	- 1.10
	Full_Fig	0.93	0.000	- 0.20	- 1.05

The Shapiro-Wilk test for normality shows that the data of P_I is not normally distributed for every condition and every advertisement. The skewness and kurtosis seem to be slightly smaller than zero for most of the conditions. Which implies a left skewed and platykurtic distribution. One exception is the full-figure condition for advertisement 1, here the skewness is slightly positive.

1. Sphericity

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b] Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Advertisement	,973	6,173	2	,046	,974	,986	,500

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept + Condition

Within Subjects Design: Advertisement

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

The Mauchly's test of Sphericity gives a significant effect. This means that the assumption of sphericity is violated. Since the $\varepsilon > 0.75$, the Huynh-Feldt correction will be applied.

Appendix 5: Moderation Analysis: A_{ad}

Advertisement 1

Conditional effects of the focal predictor at values of the moderator(s):

Fashion_	Effect	se	t	p	LLCI	ULCI
5.3703	0.4106	0.2838	1.4468	0.1493	-0.1486	0.9697
7.2087	-0.1048	0.1999	-0.5244	0.6005	-0.4986	0.2890
9.0471	-0.6202	0.2829	-2.1919	0.0294	-1.1777	-0.0626

Moderator value(s) defining Johnson-Neyman significance region(s):

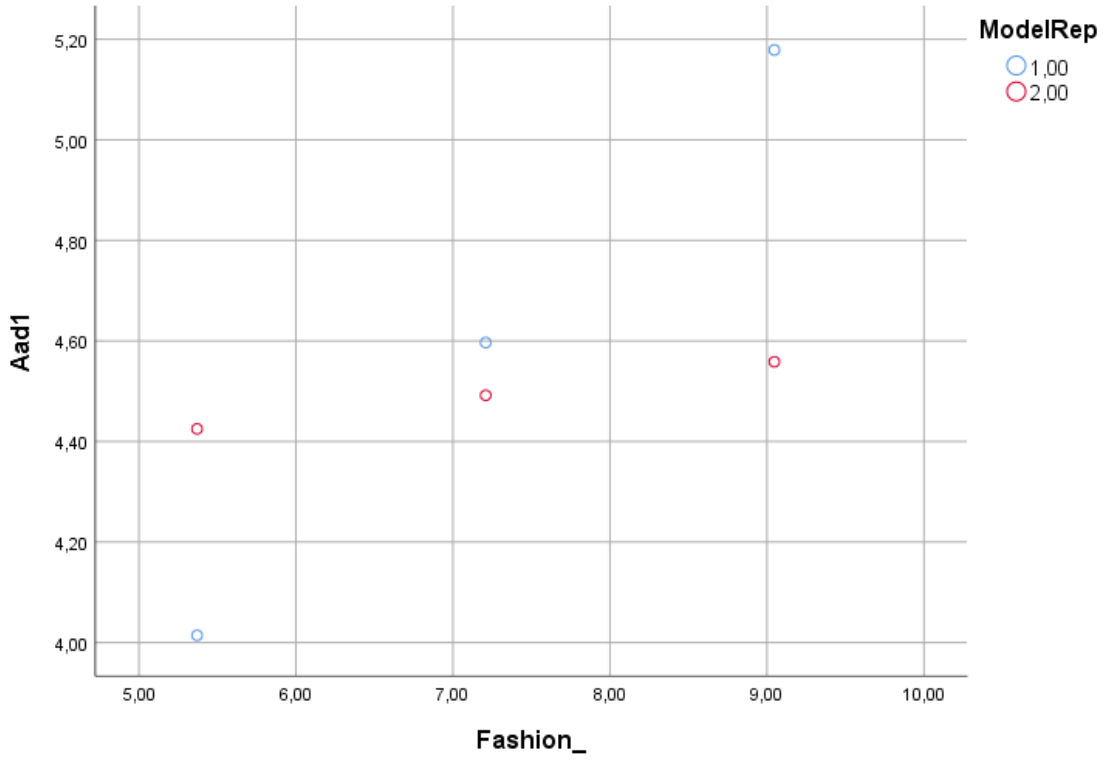
Value	% below	% above
3.9838	4.7826	95.2174
8.5951	80.0000	20.0000

Conditional effect of focal predictor at values of the moderator:

FI	Effect	se	t	p	LLCI	ULCI
0.0000	1.9160	0.8132	2.3563	0.0193	0.3137	3.5184
0.5000	1.7759	0.7603	2.3357	0.0204	0.2776	3.2741
1.0000	1.6357	0.7078	2.3111	0.0217	0.2410	3.0303
1.5000	1.4955	0.6555	2.2814	0.0235	0.2038	2.7873
2.0000	1.3554	0.6037	2.2450	0.0257	0.1657	2.5450
2.5000	1.2152	0.5525	2.1995	0.0289	0.1265	2.3039
3.0000	1.0750	0.5019	2.1418	0.0333	0.0860	2.0641
3.5000	0.9349	0.4523	2.0667	0.0399	0.0435	1.8262
3.9838	0.7992	0.4056	1.9705	0.0500	0.0000	1.5985
4.0000	0.7947	0.4041	1.9668	0.0504	-0.0015	1.5909
4.5000	0.6545	0.3576	1.8303	0.0685	-0.0501	1.3592
5.0000	0.5144	0.3138	1.6392	0.1026	-0.1040	1.1327
5.5000	0.3742	0.2739	1.3662	0.1732	-0.1655	0.9139
6.0000	0.2340	0.2399	0.9756	0.3303	0.2386	0.7067
6.5000	0.0939	0.2145	0.4375	0.6622	-0.3289	0.5166
7.0000	-0.0463	0.2012	-0.2301	0.8182	-0.4428	0.3502
7.5000	-0.1865	0.2023	-0.9218	0.3576	-0.5851	0.2121
8.0000	-0.3266	0.2175	-1.5016	0.1346	-0.7553	0.1020
8.5000	-0.4668	0.2443	-1.9107	0.0573	-0.9482	0.0146

8.5951	-0.4935	0.2504	-1.9705	0.0500	-0.9870	0.0000
9.0000	-0.6070	0.2793	-2.1730	0.0308	-1.1574	-0.0566
9.5000	-0.7471	0.3199	-2.3356	0.0204	-1.3775	-0.1168
10.0000	-0.8873	0.3641	-2.4367	0.0156	-1.6049	-0.1697

The Johnson-Neyman analysis shows a positive significant effect from fashion interest 0 to 3.98, a negative significant effect from 8.60 to 10. In between 3.98 and 8.60, the effect wasn't significant.



The plot shows that for low and high fashion interest values the A_{ad} responses for model representation 1 are further removed from the responses of model representation 2 than for average values of fashion interest.

Advertisement 2

Conditional effects of the focal predictor at values of the moderator(s):

Fashion_	Effect	se	t	p	LLCI	ULCI
5.3703	0.5105	0.3037	1.6812	0.0941	-0.0878	1.1089
7.2087	-0.2058	0.2139	-0.9621	0.3370	-0.6272	0.2157
9.0471	-0.9221	0.3028	-3.0453	0.0026	-1.5187	-0.3254

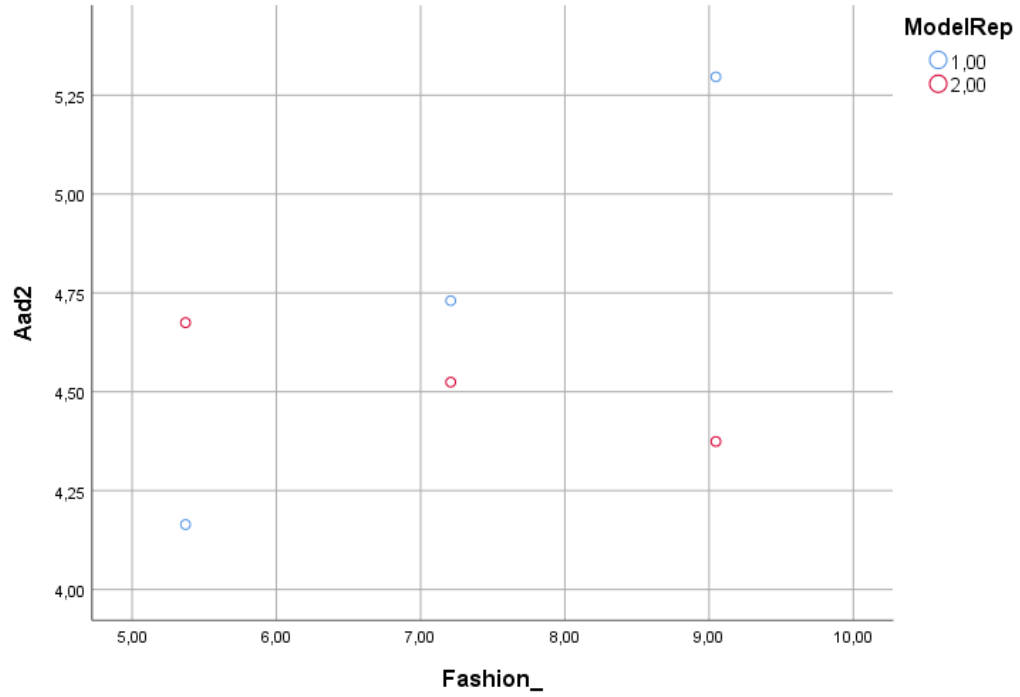
Moderator value(s) defining Johnson-Neyman significance region(s):

Value	% below	% above
4.9675	8.2609	91.7391
7.8200	51.3043	48.6957

Conditional effect of focal predictor at values of the moderator:

FI	Effect	se	t	p	LLCI	ULCI
0.0000	2.6030	0.8702	2.9913	0.0031	0.8883	4.3177
0.5000	2.4082	0.8136	2.9597	0.0034	0.8049	4.0115
1.0000	2.2134	0.7574	2.9223	0.0038	0.7209	3.7058
1.5000	2.0185	0.7015	2.8774	0.0044	0.6362	3.4009
2.0000	1.8237	0.6461	2.8228	0.0052	0.5506	3.0968
2.5000	1.6289	0.5912	2.7551	0.0063	0.4639	2.7939
3.0000	1.4341	0.5371	2.6699	0.0081	0.3756	2.4925
3.5000	1.2393	0.4841	2.5601	0.0111	0.2854	2.1931
4.0000	1.0445	0.4324	2.4155	0.0165	0.1924	1.8965
4.5000	0.8496	0.3827	2.2202	0.0274	0.0956	1.6037
4.9675	0.6675	0.3387	1.9705	0.0500	0.0000	1.3350
5.0000	0.6548	0.3358	1.9500	0.0524	-0.0069	1.3165
5.5000	0.4600	0.2931	1.5694	0.1179	-0.1176	1.0376
6.0000	0.2652	0.2567	1.0331	0.3027	-0.2406	0.7710
6.5000	0.0704	0.2296	0.3065	0.7595	-0.3821	0.5228
7.0000	-0.1245	0.2153	-.5780	0.5639	-0.5488	0.2999
7.5000	-0.3193	0.2165	-1.4749	0.1416	-0.7458	0.1073
7.8200	-0.4440	0.2253	-1.9705	0.0500	-0.8880	0.0000
8.0000	-0.5141	0.2328	-2.2084	0.0282	-0.9728	-0.0554
8.5000	-0.7089	0.2614	-2.7115	0.0072	-1.2241	-0.1937
9.0000	-0.9037	0.2989	-3.0233	0.0028	-1.4927	-0.3147
9.5000	-1.0985	0.3423	-3.2091	0.0015	-1.7731	-0.4240
10.0000	-1.2934	0.3897	-3.3190	0.0011	-2.0612	-0.5255

The Johnson-Neyman analysis shows a positive significant effect from fashion interest 0 to 4.97, a negative significant effect from 7.82 to 10. In between 4.97 and 7.82, the effect wasn't significant.



The plot show that for low and high fashion interest values the A_{ad} responses for model representation 1 are further removed from the responses of model representation 2 than for average values of fashion interest.

Advertisement 3

No significant interaction effect.

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,5813	1,4836	2,4139	,0166	,6578	6,5049
ModelRep	,5310	,9116	,5825	,5608	-1,2653	2,3274
Fashion_	,1218	,1983	,6146	,5395	-,2688	,5125
Int_1	-,0394	,1225	-,3216	,7480	-,2808	,2020

The interaction term is not significant, indicating that there is no moderation.