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„Muscle-man marketing on social media. The transfer of warmth- and competence-stereotypes of increasingly muscular male body shapes to brands.“

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Table of Contents

Acknowledgements	3
Preliminary Remarks	3
Abstract.....	4
Introduction.....	5
Theoretical Background	6
(Marketing) Trends in Social Media	6
Men, Muscles and Social Media	7
Warmth and Competence.	8
Present study and Hypotheses.....	10
Pilot Study.....	11
Sample and Stimuli	12
Sample.....	12
Stimuli.....	12
Measures	12
Warmth and Competence.	12
Male Adiposity and Muscularity Scale.	13
Procedure	13
Results	14
Method	15
Stimuli Materials.....	15
Men	15
Products and Brand Logos	15
Sample.....	16
Materials and Procedure	17
Results	18
Group Differences regarding Competence	18
Group Differences regarding Warmth.....	21

Group Differences regarding Purchase Intention.....	23
Additional Analyses	24
Discussion.....	25
Competence.....	26
Warmth.....	27
Purchase Intention.....	27
Limitations and future research	29
Stimuli.....	29
Handling facial expressions.	29
Product categories.....	29
Differentiation of the muscularity groups.....	30
Strengths of the Study	30
Conclusion	30
References.....	32
List of Tables.....	37
List of Figures.....	38
Appendix 1: Abstract (Deutsch)	39
Appendix 2: Adapted Items.....	40
Items of the Competence Scale (adapted from Fiske et al., 2002)	40
Items of the Warmth Scale (adapted from Fiske et al., 2002).....	40
Items of the Purchase Intention Scale (adapted from Putrevu & Lord, 1994).....	40

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Preliminary Remarks

The data collection of the present master thesis has been conducted in collaboration with Sarah Kaltenegger, who also focussed on male body shapes in her master's thesis but concentrated on weight as a dependent variable. Almost the same questionnaire was used, but different data sets were collected, and they were analysed separately.

Abstract

Social media platforms have been on the rise for years. Advertisers in particular have not been able to get around this for a long time. Especially cooperations with influencers offer a new possibility to reach one's target group, while simultaneously taking advantage of transferring characteristics of the influencer to the shown products and ultimately to the brand. The aim of the present study is to investigate the transfer of perceived warmth and competence of male body shapes, differing in degree of muscularity, to simultaneously presented products and to the brands behind them ($N = 159$). The degree of muscularity is of particular interest, as the topic of fitness has become more and more important in recent years and enjoys great popularity, especially on image-focused social media platforms. Pictures of non-gender specific products were shown in combination with pictures of men from three body shape groups, with increasing muscle proportion. Afterwards, first the brands of the shown products were assessed regarding warmth, competence and purchase intention and second, the men were evaluated for perceived warmth and competence. However, in this study a connection between the competence and warmth ratings of the shown stimuli (men) and the competence and warmth ratings of the brands of the products shown with them could be found, though it wasn't linear as predicted. Future studies should focus on the type of connection and on standardizing the characteristics and quality of the stimuli.

Keywords: muscularity, male body shapes, social media advertising, influencer marketing, stereotype content model

Introduction

The rise of social media platforms in the last years was accompanied by continuously changing trends in advertising strategies. Pop-up windows, banners and the most recent: influencer marketing (Cho & Cheon, 2004). The latter is defined as a cooperation between a company and a social media user, who gained a large number of fans, called followers, by creating valuable content on one or more social media platforms (Lou & Yuan, 2019). Different options for cooperations are possible. Either companies provide the influencer with free samples of their product or they pay them outright. The influencer is not only used to present the product to his or her followers, but to also subconsciously transfer their desirable characteristics to the products and ultimately to the brand, not unlike the more traditional brand ambassadors (Schouten, Janssen, & Verspaget, 2020). The main difference is though, that the so-called followers of an influencer trust their recommendation like that of a friend rather than that of a person who has gained fame and now tries to sell them a product (Swant, 2016).

Another trend you can't get around on social media is the one about health and fitness. Especially social media platforms with a focus on images or videos, like Instagram or Tiktok, promote a trend that is spreading under the keyword 'fitspiration'. The word is a combination of the words 'fitness' and 'inspiration' and the trend contains images, videos and texts to motivate people to exercise and lead a healthy lifestyle (Alberga, Withnell, & von Ranson, 2018). Exercising and the degree of one's muscularity is of particular interest, as it is a very important component of a man's body image (Gattario et al., 2015). Furthermore, the online availability of fitness programs and videos skyrocketed – especially during the Covid-19 pandemic, which was accompanied by several periods of closed fitness studios and cancelled fitness courses (Brand, Timme, & Nosrat, 2020). At this point the two trends meet and result in the present study. I try to shed light on the question if the presentation of a product with

body shapes differing in muscularity changes the products perception and subsequently the assessments of the brand behind it, through the transfer of with the body shape associated stereotypes. The investigation takes place against the background of the established Stereotype Content Model (Fiske, Cuddy, Glick, & Xu, 2002), more specifically its two dimensions warmth and competence and how (or if) the stereotypes linked to the male body shapes transfer to products.

Theoretical Background

(Marketing) Trends in Social Media

Social media platforms, such as YouTube, Facebook or Instagram continue to gain popularity (Campbell & Farrell, 2020; Vrontis, Makrides, Christofi, & Thrassou, 2021). The latter recorded 1000 million monthly active users in June 2018 and already has a user forecast for 2022 of 1130.2 million users worldwide (Statista, 2021b, 2021c). Since this shift towards the digital world is no longer limited to young or tech-savvy target groups, advertising has joined the wave. However, advertising media to just gain visibility online, such as banners or pop-up windows, are no longer the means of choice (Cho & Cheon, 2004). Instead, cooperation with so-called social media influencers, or for short influencers, has become established (Vrontis et al., 2021). More and more brands discover the benefits of working with influencers, motivating them to recommend and promote their products and services on their social media channels, for example by offering free products or by simply paying them. This type of advertising is called influencer marketing and is especially interesting because approximately 50% of internet users follow an influencer account of some kind on social media and rely on their recommendations (Vrontis et al., 2021). Influencers are people who have created valuable content on one or more social media platforms, with a large number of fans, called followers, whose attitudes and opinions they can affect with their content. (Lou & Yuan, 2019). The number of followers is equivalent to the range of the influencer, a number

publicly available, which makes it easier for companies to find relevant influencers. Through insights into their private lives, influencers achieve a different access to their followers (aka the advertisements target group) compared to more traditional marketing methods and gain their trust more than a celebrity, which are increasingly being replaced by them as brand ambassadors (Schouten et al., 2020). Also, their produced content feels more organic than brand created content (Campbell & Farrell, 2020). Even if posts or videos have to be labelled as a cooperation, an influencer's recommendation resembles the recommendation of a friend rather than that of a person who has gained fame and now tries to sell them a product (Swant, 2016). However, regardless of whether an influencer or celebrity is a brand ambassador, the advertiser's intention is to transfer desirable personality traits of the selected person to their product or brand. This works because of the fact that consumers anthropomorphise brands, give them a personality, to feel emotions in relation to the brand and to develop a relationship with it (Aaker, 1997). Furthermore, influencers provide expertise in a special field, e.g. fitness, which makes their followers often turn to them for recommendations or help (Vrontis et al., 2021). A good example can be found in the last few years in form of rising fitness awareness and online workouts. Influencers like Pamela Reif¹ gained followers by giving information about their diet, workout routine and even posting videos to take part in it for free. They participate in a social media trend called 'fitspiration'. The name is a combination of the words 'fitness' and 'inspiration' and it contains images, videos and texts to motivate people to exercise and lead a healthy lifestyle (Alberga et al., 2018).

Men, Muscles and Social Media

As mentioned briefly at the beginning, interest in fitness health has risen in the last ten years (Batrakoulis, 2019). Especially during the Covid-19 pandemic, which was accompanied by several periods of closed fitness studios and cancelled fitness courses, the interest in

¹ (Reif, 2012)

home-fitness-programs rose as people tried to maintain their exercise behaviour, to maintain their fitness-level or level of muscularity, or tended to adopt exercising (Brand et al., 2020). Particularly of interest in this study is the first, maintaining one's muscularity. Science assumes a link between muscularity and masculinity, which makes muscularity a very important component of a man's body image (Gattario et al., 2015). Especially for young men, who often see a muscular body as a sign of having achieved the status of a man (Calogero & Thompson, 2010). Over the years the body ideals for men changed, continuously demanding more and more muscularity (Hatoum & Belle, 2004). To be more precise, the male body ideal is v-shaped, featuring a well-developed and muscular upper body, with well-defined, abdominal muscles ('six-pack') and narrow hips (Olivardia, Pope, Borowiecki, & Cohane, 2004). Muscularity as a physical feature, besides other features indicating masculinity, is easy to see and eventually helps to assess one's opposite. The Stereotype Content Model (SCM) has proven very useful in explaining how and why we react to different people in a different way, after often having just a brief impression (Fiske et al., 2002). Fiske and colleagues, (2002) further noted that masculinity is also linked to the so-called dimension of competence, one of the two dimensions of the SCM, which will be described in more detail in the following paragraph.

Warmth and Competence. When people meet each other, it is evolutionary beneficial to first examine what the intention of one's opposite is and also whether he/she is capable of acting on it (Fiske et al., 2002). Research in the field of human social cognition refers to the first parameter as warmth, the second as competence. Warmth is defined as how friendly or good-natured someone is, competence as how intelligent and efficient (Fiske et al., 2002). Perceived warmth and competence are established as the two universal dimensions of social cognition, on group level as well as on individual level and even across cultures (Cuddy, Fiske, & Glick, 2008; Cuddy et al., 2009). The model is particularly interesting for the

present study, because the perceptions of the two core dimensions are independent of each other and can therefore also be contrary (high on one dimension, low on the other).

Interestingly, as mentioned earlier, personalities or personality traits are not limited to people. Brand personality is defined as “the set of human characteristics associated with a brand” (J. L. Aaker, 1997, p. 347), which further means also brands (and organizations) can and are judged in terms of warmth and competence (Aaker, Fournier, & Brasel, 2004).

The long tradition of research on SCM has also already found some differences in the perception of certain groups of people. Women are predicted to be perceived as warmer than men, and men to be perceived as more competent than women. Other research links warmth to the broader concept of femininity (Abele, 2003). Warmth and competence are especially of interest in this study, though they also seem to play a role in consumers purchasing behaviour. Well thought out and planned purchase decisions seem to be linked to perceived competence, spontaneous purchases are predicted better by warmth than competence (Diamantopoulos, Florack, Halkias, & Palcu, 2017). Thus, products presented with a less muscular (i.e. more feminine) man should have a higher chance to be purchased spontaneously, than products presented with a very muscular man. Consequently, the same should apply in reverse to products whose purchase is long considered, which are presented with a very muscular (thus less feminine, perceived more competent) man. As mentioned above, the perceptions of the two core dimensions are independent of each other and can therefore also be contrary. Which means to be perceived as very warm doesn't necessarily mean to be perceived as (not) very competent. Due to the opposing predicted trends of perception of the core dimensions (more warm - less competent, less warm - more competent) for increasing muscular men, the SCM is especially suitable to research the concluded hypotheses.

In this study I focus on male body shapes, as they are, compared to female body shapes and their effects on the viewer, rather unexplored (Edwards, Tod, & Molnar, 2014;

Tiggemann & Anderberg, 2020). Other than advertisements in traditional media formats like fashion magazines, which were largely devoted to women and girls for a long time (Levine & Smolak, 1996), it is now a lot easier to connect directly with potential male consumers. This study also contributes to a closer look at the influence of "average" people in advertising.

Present study and Hypotheses

The present study puts attention on the transfer of male body shape stereotypes to products and ultimately to the brands behind the product, with a special focus on male muscularity as a less researched body shape variable. Due to the increase in the use of influencer marketing, there is also an economic relevance for the research of male body shapes and their assessment. As stated earlier, competence is associated with masculinity (Fiske et al., 2002), shown through a more muscular body shape (Gattario et al., 2015) respectively a v-shaped body. Therefore, I conclude the more muscular a man is, the more competent he is perceived, which can be transferred through simultaneous presentation to a product and ultimately the brand of the product. For the present study, I assume three body shape types with increasing levels of muscularity: average, above average and far above average. I deduce the following hypotheses from the above-mentioned literature.

H_{1a}: If a product is presented in combination with a far above average muscular man, the brand of the product shown is subsequently rated as more competent compared to a brand presenting a comparable product with an average muscular man.

H_{1b}: When a product is presented in combination with an above average muscular man, the brand of the product shown is subsequently rated as more competent compared to a brand presenting a comparable product with an average muscular man.

As mentioned in the work of Abele (2003), warmth is associated with femininity, consequently less masculinity, represented through less muscularity, should result in lower warmth ratings.

H_{2a}: When a product is presented in combination with an average muscular man, the brand of the product shown is subsequently rated as warmer compared to a brand presenting a comparable product with a far above average muscular man.

H_{2b}: When a product is presented in combination with an average muscular man, the brand of the product is subsequently rated as warmer compared to a brand presenting a comparable product with an above average muscular man.

I am also interested in purchase intention, as it is the overall goal of every marketing intervention to win over the consumer. In contrast to well thought out and planned purchase decisions, spontaneous purchases are predicted better by warmth than competence (Diamantopoulos et al., 2017). As mentioned earlier, warmth is associated with femininity, therefore I predict for the purchase of a product of everyday life:

H_{3a}: When a product is presented with a far above average muscular man, purchase intention is lower than when it is presented with an average muscular man.

H_{3b}: When a product is presented with an above average muscular man, the purchase intention is lower than when it is presented with an average muscular man.

Pilot Study

For the main study, pictures of men with varying degrees of muscularity were chosen to be used as stimulus material. A pilot study was conducted in order to test the intended perception of belonging to three selected body shape categories (average muscularity, above average muscularity, well above average muscularity) and to narrow down the pool of images. The study was carried out online and resulted in finding the five most representative pictures for each body shape group. It was also investigated whether, despite the limited sample size, differences regarding warmth and competence were already evident between the groups.

Sample and Stimuli

Sample. The size of the recruited sample for the pilot study was $N = 31$ (19 females, 12 male), with age ranging between 21 – 63 years ($M_{\text{age}} = 34.23$, $SD_{\text{age}} = 11.30$). The calculated body size index was between 16.33 – 38.97 ($M_{\text{BMI}} = 25.29$, $SD_{\text{BMI}} = 4.48$), which ranges from underweight ($\text{BMI} < 18$) over normal weight, to overweight ($\text{BMI} > 25$) and obese ($\text{BMI} > 30$) (World Health Organisation, 2021). The self-described body shape regarding muscularity ranged between 1 – 3 ($M_{\text{BS}} = 1.68$, $SD_{\text{BS}} = 0.70$) on a scale from 1 – 5. 93.5% of the participants were Austrian citizens, 6.5% from Germany. Subjects were recruited via social media and personal networks. Participation in the study was voluntary and no incentives were given.

Stimuli. The pilot study contained 49 images of men with varying degrees of muscularity. The images of men were sourced from several online stores of numerous fashion companies. This ensured a neutral to friendly facial expression as well as a neat appearance of all men in all images. Attention was also given to choosing Caucasian men, to prevent cultural bias and stereotypes from influencing the results (Fiske et al., 2002). In order to account for the possible influence of ingroup-outgroup bias, participants were also asked to indicate their own level of muscularity on a 5-point pictorial scale (adapted Male Adiposity and Muscularity Scale, Thornborrow et al., 2020).

Measures

Warmth and Competence. To assess the earlier mentioned dimensions of warmth and competence in the present study, four items per dimension were given. The items for the competence dimension were perceived competence, efficiency, effectiveness and intelligence. Items assessing the warmth dimension were perceived friendliness, warmth, good-naturedness and sympathy. All items were adapted from Fiske et al. (2002). After each

picture, the participants were asked to rate the man visible on it with regard to the mentioned items on a 5-point Likert scale (1 = *do not agree at all*, 5 = *agree completely*).

Male Adiposity and Muscularity Scale. Thornborrow et al., (2020) designed and used the Male Adiposity and Muscularity Scale (MAMS) in their study to evaluate their participants' perceived level of muscularity of their own perceived body shape and their desired body shape. The original scale consists of ten computer generated images, five of them showing an increase in adiposity and the other five an increase in muscularity, operationalised in waist-to-chest ratios (WCR) from 0.65 to 0.80. The lower the WCR value, the more v-shaped is the torso shape of the man, which is, as mentioned earlier, the desired ideal (Olivardia et al., 2004). Except for the interesting feature (adiposity or muscularity), all other characteristics of the men shown in the pictorial scale remain unchanged. As the scale depicts men who are ethnically non-White, the skin tones of the men were lightened with an image editing software to fulfil the purpose of the present study. For the investigation of the present hypotheses, only the part of the scale that shows a five-step increase in muscularity was used.

Procedure

At the begin of the study, participants were shown a short briefing about the procedure and were asked for their consent to participate in the study. Afterwards, basic demographic data (e.g. gender, weight, height and education) was collected. Subsequently participants were shown 49 pictures of men, one after the other, and asked for their personal assumption regarding the character of the shown person, regarding warmth and competence with four items each. They were also asked to estimate the shown man's body shape on the five-stage pictorial muscularity scale of the MAMS. Right before the end of the questionnaire participants were asked to assess their own body shape on the same picture scale as which was used before to rate the men. Women and men were shown the same scale and were asked

to select the body shapes which resemble their muscularity the most regardless of gender. On the last page of the study, participants were thanked for taking part.

Results

The results of the survey were ratings of degree of muscularity, as well as ratings of warmth and competence for each male stimulus picture. Means per picture were computed for each of these three factors. For each body shape group, the five most representative images were selected by comparing the average muscularity ratings with the selected MAMS categories (1, 3 and 5), and those closest to said values were chosen. These 15 pictures were used to calculate distances between groups.

Distances between the body shape groups (average, above average, far above average) via ratings of the participants were examined using IBM SPSS Statistics (version 26). The size of the effect η^2 was computed via an online tool (Hemmerich, 2018). The ANOVA was calculated with group membership as an independent variable and the participants rating as a dependent variable. Results proved that distances between the assigned body shape groups of the fifteen chosen pictures were significant $F(2,15) = 633.341, p < .001, \eta^2 = .99$. They did not show a significant difference between the groups in terms of warmth ($F(2,15) = 0.081, p = .923$) or competence ($F(2,15) = 0.767, p = .486$). A second evaluation of the perceived warmth and competence of the men was included in the main study since differences were not evident in this limited sample.

Table 1

Mean (SD) ratings of body shape per body shape group.

Body Shape Group	Rated Body Shape
	Mean (SD)
Average muscular	1.16 (0.10)
Above average muscular	3.10 (0.20)
Far above average muscular	4.60 (0.14)

Note. Per body shape group only the 5 chosen pictures were used to calculate group differences.

After ensuring significant differences between the body shape groups, the 15 stimulus images identified as most appropriate in the pilot study were carried over into the main study.

Method

The main study was an extended and differentiated form of the described pilot study. All measurements used, warmth and competence as well as MAMS, were the same as in said pilot study and will not be further described in detail. In addition, an adapted purchase intention scale (after Putrevu & Lord, 1994) was used, as well as an attention check item (Shamon & Berning, 2020), which are explained in further detail in the ‘Materials and Procedure’ paragraph. Product images of toiletries were used as additional stimuli, as well as brand logos of the products in the rating tasks. The main study was conducted as a within subject design with repeated measures.

Stimuli Materials

Men. The 15 pictures of men (5 for each body shape group) used in the main study were selected out of a pool of pictures in a pilot study mentioned earlier.

Products and Brand Logos. I chose pictures of toiletry articles (toothpastes and hand soaps) to test my hypotheses on transfer of body shape stereotypes to brands, because they are considered as unisex and men as well as women need to use them in their everyday lives.

The used pictures were sourced from several international online stores. I chose brands which did not already have a well-established brand image or were not well known in Austria.

Attention was also paid on selecting products with a marketing image (product colour, etc.) that did not already target one gender, in order to prevent gender bias or an influence of the perceived gender affiliation to the warmth and competence ratings of the product and ultimately to the brand. To ensure a uniform appearance of the products, the backgrounds and shadows were removed from those which did not already meet these criteria and replaced with a neutral, white background. The logos of the brands used for the rating part were cut out of the product picture with a photo editing software or, if available in a good resolution, taken from the company's own website.

Sample

I carried out an a priori power analysis to determine the minimum sample size study using the freeware tool G*Power (Faul, Erdfelder, Lang, & Buchner, 2007). To detect a small to medium sized effect ($f = 0.25$) with $\alpha = .05$ and $1 - \beta = .80$, the analysis resulted in a minimum sample size of 159. A total of 597 participants started the questionnaire. After excluding incomplete questionnaires and subjects who answered the attention check item incorrectly, another subject was excluded after boxplot analysis, because of a calculated BMI of 100, which suggests a typing error occurred when entering the data. The final sample comprised the minimum required number of 159 subjects (64.2% females, $M_{\text{age}} = 32.17$, $SD_{\text{age}} = 10.29$, range 18 - 66 years) with a body size index between 16.44 - 36.51 ($M_{\text{BMI}} = 23.44$, $SD_{\text{BMI}} = 3.80$). According to WHO classification system (World Health Organisation, 2021) the mean BMI of the participants complies with normal weight. 56.6% were Austrian citizens and 39.0% from Germany. The majority of the participants stated German as their mother tongue (94.3%). The self-described body shape regarding muscularity distributed over A (= average muscular, $\text{WCR} = 0.80$, 38.4%), B (= slightly above average muscular, $\text{WCR} =$

0.763, 47.2%), C (= above average muscular, WCR = 0.725, 10.1%) and D (= more than above average muscular, WCR = 0.688, 4.4%). No participant described himself or herself as E (= far above average muscular, WCR = 0.65). Data was collected for four weeks starting in December 2020, during a nationwide lockdown due to the coronavirus pandemic. Subjects were recruited via social media and through personal networks. Participation in the study was voluntary and no incentives were given to the participants.

Materials and Procedure

After a short briefing, the participants were asked for their consent to take part in the study. The following task to evaluate the perceived warmth and competence of the brands presented consisted of three parts. In the first part, evaluative conditioning was carried out. Participants were shown randomized combinations of pictures of men and toiletry articles. For each body shape group five combinations were shown. Each combination of a man with a product was presented three times for three seconds each, in randomized order. To avoid effects due to reading direction, the presentation order (right - left) of the images was randomized as well. To ensure the participants attention for the following evaluation part, an attention check item of the careless response scale was presented with a 7-point Likert answering scale (1 = *do not agree at all* and 7 = *agree completely*) (Shamon & Berning, 2020). Only if this item was answered correctly (1 = *do not agree at all*) the participants' responses were used for the analysis. The second part of the main section contained brand evaluation of warmth/competence for the brands of the shown products on a 5-point Likert scale (1 = *do not agree at all* and 5 = *agree completely*), as well as query purchase intention (i.e. 'It is very likely that I will use this brand in the future.') on a 7-point Likert scale (1 = *do not agree at all* and 7 = *agree completely*; adapted after Putrevu & Lord, 1994) and brand awareness ('Do you know this brand?') on a 5-point Likert scale (1 = *do not agree at all* and 5 = *agree completely*). The third part contains the evaluation of the pictures of men. This part

was included, because of the non-significant results regarding warmth and competence in the pilot study.

Demographics and the categorization of one's own body shape, with the same pictorial scale as used to rate the men before, are placed at the end, only followed by a short debriefing.

Results

All calculations in the analysis were carried out using IBM SPSS Statistics (version 26). In preliminary analyses of the data, no serious violations of the assumptions of normality, linearity and homoscedasticity were found, except for Purchase Intention, which is slightly right-skewed. To estimate the effect sizes I used an online calculation tool (Lenhard & Lenhard, 2016). Furthermore, it was verified that no multicollinearity exists within the model. A linear mixed model was calculated to detect the differences in perceptions of warmth, competence and purchase intention of the brands to test my hypotheses. In order to examine whether the transfer of perceived warmth and competence from the person shown to the brand was successful, analyses were calculated that included the evaluation of the pictures of the 15 men presented. For all conducted analyses I set a significance level of $\alpha = .05$.

Group Differences regarding Competence

To test the hypotheses H_{1a} and H_{1b} I computed a linear mixed model with body shape group as an independent variable and rated brand competence as a dependent variable with subject-ID as random intercept. Analysis showed a significant negative connection between the degree of muscularity of the man shown with the product and the following competence rating of the brand of the shown product $F(2,2224) = 34.286, p < .001$. The means in Table 2 indicate that brands of products that were shown with average muscular men were rated more competent, compared to brands of products that were shown with above average muscular and far above average muscular men, which received rather similar warmth ratings. Pairwise

comparisons revealed, that the difference of mean competence scores between the average muscular men and the above average ($p < .001$, $d = -0.27$) as well as the average muscular men and the far above average muscular men ($p < .001$, $d = -0.27$) is significant, but the one between the above average and far above average men ($p = .838$) was not (see Table 2).

Table 2

Mean (SD) ratings of competence, warmth and purchase intention of brands for presentation with each male stimulus body shape group

Stimulus body shape group	Competence	Warmth	Purchase Intention
	Mean (SD)	Mean (SD)	Mean (SD)
Average muscular	2.970 (0.06) ^α	2.604 (0.06)	2.916 (0.10) ^α
Above average muscular	2.687 (0.06)	2.390 (0.06)	2.408 (0.10)
Far above average muscular	2.679 (0.06)	2.609 (0.06) ^α	2.563 (0.10)

Note: Values marked with an α are the highest rating in the regarding dimension.

Therefore, my hypothesis predicting higher competence ratings for brands displaying their product with a far above average muscular man in comparison with brands displaying their product with an average muscular man (H_{1a}), is not supported by the results.

Furthermore, hypothesis H_{1b}, referring to differences between ratings in terms of the perceived competence of the brand, presented by an above average muscular man and an average muscular man is also not supported by the data. In the previous model, an interaction analysis with regard to gender was added, but no interaction was found $F(2,2222) = .504$, $p = .604$. BMI was calculated from the reported height and weight of the subjects. For additional analysis the variable was centred and integrated into the previous model. The analysis revealed no significant interaction between the centered BMI and the three groups in terms of competence $F(2, 2222) = 0.900$, $p = .407$.

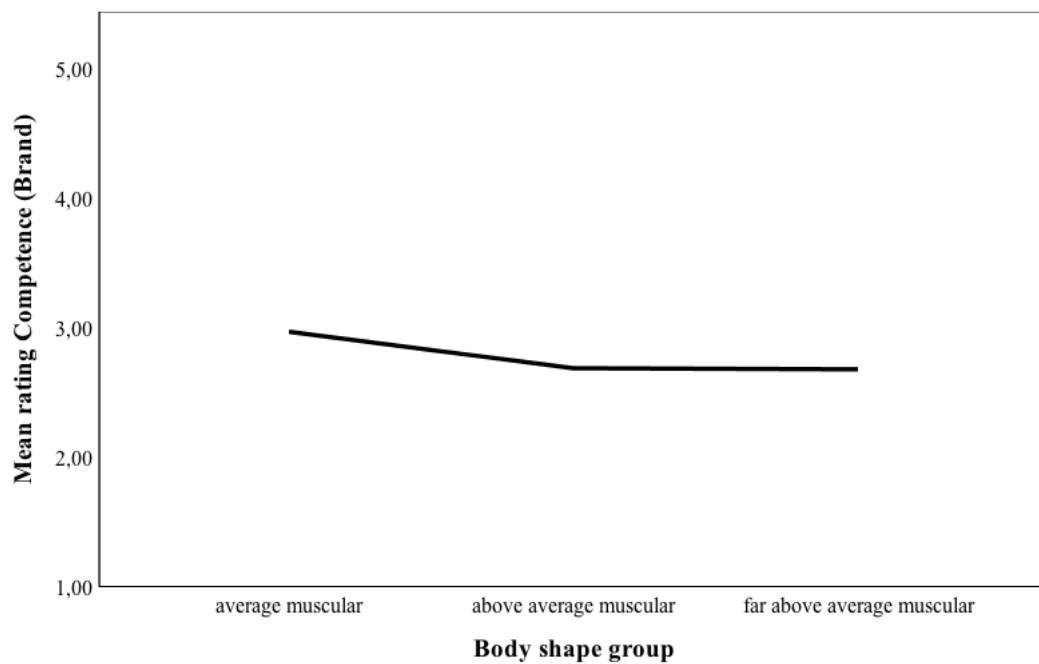


Figure 1. Illustration of the mean values for the perceived competence across the three body shape groups.

Although the result of the analysis confirms my hypotheses with average muscular people as the reference group (see Table 3), it also shows that there is no significant difference between the above average muscular men and far above average muscular men ($p = .838$), which indicates a non-linear progression of the scores (see Figure 1).

Table 3

Pairwise comparisons of competence ratings of brands

Reference Group	Group	Mean distance (SD)	p	95% CI
Average muscular	Above average muscular	- .282 (0.04)	< .001*	[- .361, - .204]
	Far above average muscular	- .291 (0.04)	< .001*	[- .369, - .212]

Note: Significant p -values are marked with an asterisk.

Group Differences regarding Warmth

To test the hypotheses H_{2a} and H_{2b} I computed a linear mixed model with body shape group as an independent variable and rated brand warmth as a dependent variable with subject-ID as random intercept. The analysis revealed a significant connection between the degree of muscularity of the man shown with the product and the following warmth rating of the brand $F(2,2224) = 20.268, p < .001$. Though, other than suspected, the connection was not linear (see Figure 2). The means in Table 2 indicate that brands of products that were shown with above average muscular men were rated less warm, compared to brands of products that were shown with average muscular and far above average muscular men, which received rather similar warmth ratings. The pairwise comparisons between the groups showed a significant drop in warmth ratings between the average muscular and above average muscular men ($p < .001, d = -0.21$) (see Table 2). Whereas there was hardly any difference between the warmth ratings of the brands whose products were shown with average muscular or far above average men (see Table 4).

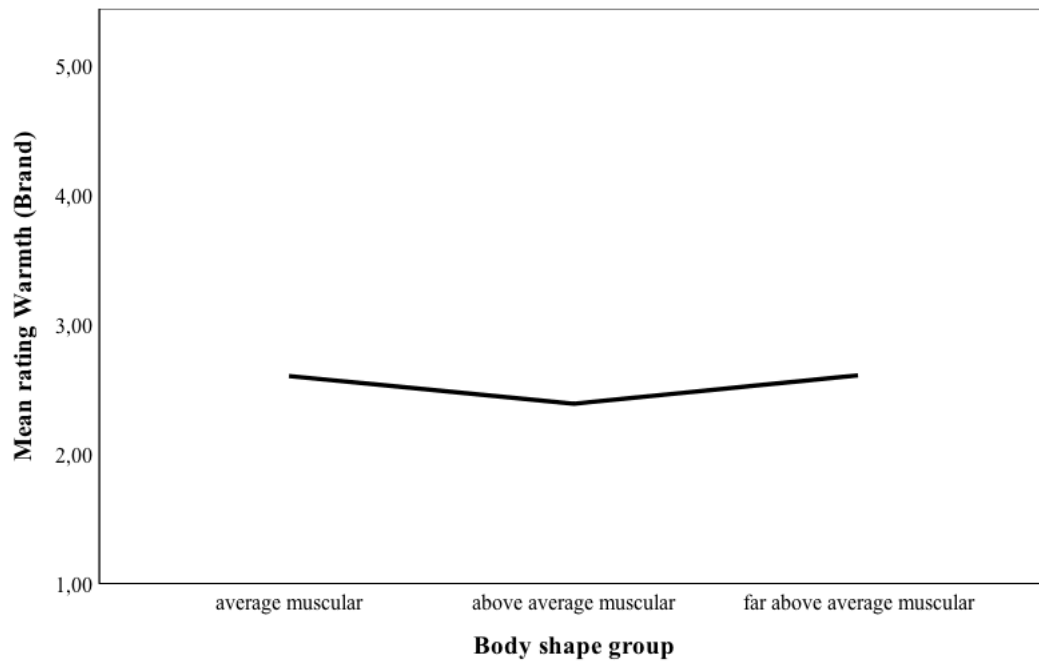


Figure 2. Illustration of the mean values for the perceived warmth across the three body shape groups.

Table 4

Pairwise comparisons of warmth ratings of brands

Reference Group	Group	Mean distance (SD)	<i>p</i>	95% CI
Average muscular	Above average muscular	- .241 (0.04)	< .001*	[- .292, - .137]
	Far above average muscular	.005 (0.04)	.898	[- .072, .082]

Note: Significant *p*-values are marked with an asterisk.

The results do not support my hypothesis predicting higher warmth ratings for brands displaying their product with an average muscular man in comparison with brands displaying their product with a far above average muscular man (H_{2a}). Whereas, hypothesis H_{2b} , referring to higher ratings of perceived warmth of a brand presented by an average muscular man and an above average muscular man is supported by the data. Additional analysis was

computed which integrated centered BMI ($F(2,2222) = 2.371, p = .094$) and gender ($F(2,2222) = 0.820, p = .440$) into the model separately, but without significant results.

Group Differences regarding Purchase Intention

To test the hypotheses H_{3a} and H_{3b} I computed a linear mixed model with body shape group as an independent variable and rated purchase intention as a dependent variable with subject-ID as random intercept. Analysis revealed a significant correlation between purchase intention and the degree of muscularity of the man shown with the product $F(2,2224) = 33.089, p < .001$. The means in Table 2 show that brands of products that were shown with average muscular men got higher ratings on intended purchase intention compared to brands of products that were shown with above average muscular and far above average muscular men. Also, the pairwise comparisons between the three groups were all significant (see Table 5). But again, other than suspected beforehand the connection between the independent and dependent variable was not linear (see Figure 3). Also, in this case, brands which had their products were shown with men of the body shape group "above average" received the lowest ratings.

Therefore, my hypotheses predicting lower ratings in stated purchase intention for brands displaying their product with a far above average muscular man in comparison with brands displaying their product with an average muscular man (H_{3a}) and predicting lower ratings in stated purchase intention for brands displaying their product with an above average man in comparison with an average man (H_{3b}) are both supported by the results. Additional analysis was computed which integrated centered BMI ($F(2,2222) = 0.811, p = .444$) and gender ($F(2,2222) = 1.020, p = .361$) into the model separately, but without significant results.

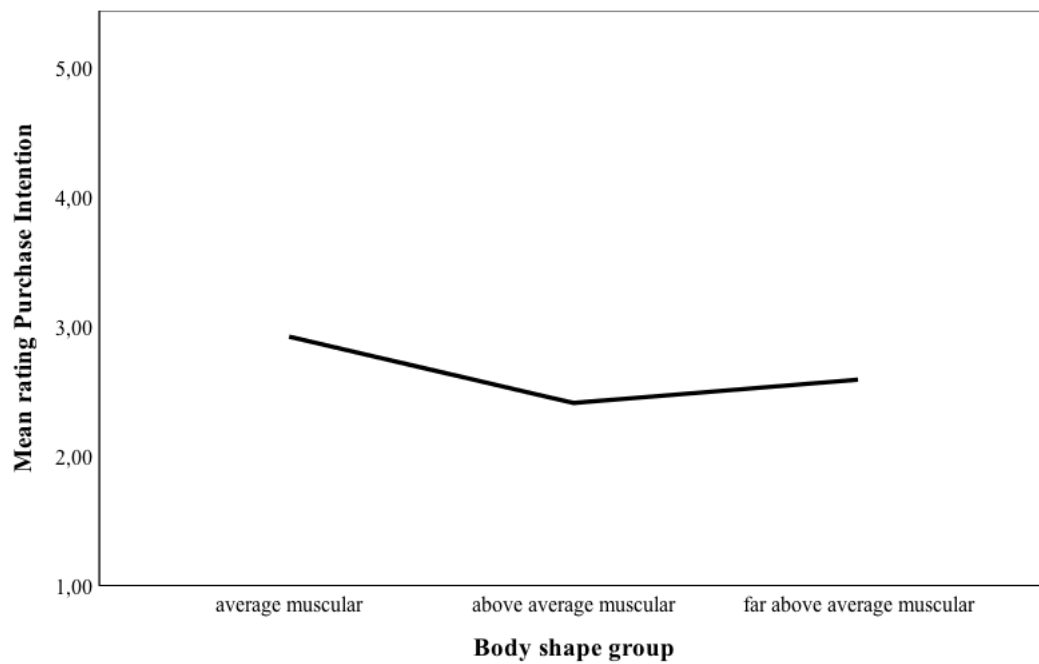


Figure 3. Illustration of the mean values of stated purchase intention for the shown brands across the three body shape groups.

Table 5

Pairwise comparisons of stated purchase intention for brands

Reference Group	Group	Mean distance (SD)	<i>p</i>	95% CI
Average muscular	Above average muscular	- .282 (0.04)	< .001*	[- .361, - .204]
	Far above average muscular	- .291 (0.04)	<.001*	[- .369, - .212]

Note: Significant *p*-values are marked with an asterisk.

Additional Analyses

To evaluate whether the transfer of perceived stereotypes of warmth and competence from man to brand was successful, a linear mixed model between the assessment of the men in the pictures (by body shape group) and the assessment of the brands was computed.

Warmth ratings of brands and men are associated significantly ($b_{\text{warmth}} = 0.0494$, $T_{\text{warmth}} =$

2.647, $p_{\text{warmth}} = .008$). Also, ratings of perceived competence of brands and men are associated significantly ($b_{\text{competence}} = 0.0476$, $T_{\text{competence}} = 2.005$, $p_{\text{competence}} = .045$). Brand ratings regarding competence as well as warmth are though consistently lower in comparison to the ratings of the men. Also, for the brands, which had their product presented with a man from the above average group, ratings for perceived competence as well as for perceived warmth dropped, while the ratings for the above average men themselves rose.

Discussion

Calls for models /brand ambassadors with average body shapes are becoming louder and louder in public advertising and influencer marketing. Bans on too-thin models in the fashion industry can be seen as a reaction to previous research, which in the past, however, has mainly focused on female body shapes. Research on male body shapes and body attributes linked to masculinity (namely muscularity) has been rather neglected so far (Edwards, Tod, & Molnar, 2014; Tiggemann & Anderberg, 2020). For this reason, also little is known about the effect of transferring the stereotypical characteristics of muscular men to brands. However, this should be addressed urgently, as fitness (body shape) is becoming a more and more important topic, especially also for young men. The male body ideal changed to dictating a muscular body over the years (Hatoum & Belle, 2004) and young men feel the need to strive for it. In line with their generation, they seek help and advice on social media platforms. As influencer marketing is on the advance, it is important to get to know the effects of the presentation of products with men with more muscular body shapes on brands.

The goal of this study was to investigate the transfer of the two independent dimensions of SCM, warmth and competence, from three groups of men with increasing muscularity (average, above average and well above average) across simultaneously presented products to the brands of the presented products. Opposite effects on perception of

warmth and competence above groups with increasing proportion of muscularity were expected (low to high in terms of competence, high to low in terms of warmth).

In order to explore my hypotheses, if presenting products with increasing muscular groups of men will change the assessment of the brands of the products regarding the two dimensions of the SCM and ultimately the purchase intention of the observer towards the brands products, I conducted an online study with a within-subject design. 15 pictures of men of three body shape categories (average muscular, above average muscular and far above average muscular) were selected from a pool of 49 images in a preliminary study. They were shown in a randomised combination with 15 pictures of toiletry articles. Each pair got shown three times in randomized order. Afterwards each man got rated for perceived warmth and competence (four items each), followed by a rating of the same dimensions for the brands of the shown product as well as the purchase intention and brand awareness for the brands. Findings of the analysis show first signs of a connection between ratings of warmth and competence of a brand and the body shape stereotypes of the men the products were presented with.

Competence

As mentioned at the beginning, the dimension of competence is associated with masculinity (Fiske et al., 2002), shown through a more muscular body shape (Gattario et al., 2015). I concluded the more muscular a man is, the more competent he is perceived, which can be transferred through simultaneous presentation to a product and ultimately the brand of the product.

Contrary to my hypotheses, the competence ratings of brands do not increase linearly with rising muscularity levels of the men shown simultaneously with the brand's product. Mean competence ratings of the brands declined with increasing muscularity and stabilized on the lower level. Competence ratings for the men themselves whereas rose at first and then fell below the initial value. These findings are not trivial, because a non-linear progression of

the relationship between muscularity and competence can be observed, for which a reason has yet to be found. A possible explanation for this effect could be the activation of another stereotype belief: the “dumb jock” stereotype (Wininger & White, 2015). It contains, that if a person invests more time in training their muscles, they have less time left for their education, indicating being less smart when muscular. However, this is only speculation and needs to be investigated in further studies.

Warmth

The warmth dimension of the SCM is associated with femininity (Abele, 2003). Consequently, a linear increase in masculinity as an opponent to femininity, shown by a linear increase in muscularity, should lead to a linear decrease in the evaluation of warmth for the shown men as well as for the brand of the presented product.

However, the results of the present study turned out differently than expected. Brands whose product was presented with an above-average man received significantly lower warmth ratings compared to brands which had their product shown with men of the other two body shape groups, whose mean ratings for brand warmth were almost identical. Especially the latter circumstance makes it difficult to find an explanation for the result, because brands which presented their product with the group of most muscular (i.e. most masculine) men received warmth ratings as high as brands which presented alongside men of the least muscular (i.e. most feminine) group of the study. It is possible that most people find it difficult to assess a man who is far more muscular than average, as an encounter with them in everyday life is rather rare. However, other explanatory approaches are also conceivable, but these must first be investigated in further studies.

Purchase Intention

The ultimate goal of any marketing activity and advertising itself is to influence the customer's purchase intention. As mentioned at the beginning, the perceived competence and warmth of a brand seem to influence the consumers purchasing behavior. Perceived

competence is a predictor for well thought through purchases, spontaneous purchases are predicted better by warmth than competence (Diamantopoulos et al., 2017). From this I concluded that brands which presented their products with a less muscular (i.e. more feminine, perceived as warmer) men should have a higher chance to have their products purchased spontaneously, compared to brands which presented their products with above average or far above average muscular men.

Since this study asked respondents to spontaneously assess whether they would buy the product, the results were in line with this assumption. Brands of products which were presented with men from the average group (least muscular, i.e. most feminine) got the highest ratings for purchase intention. Interestingly, these brands also got the lowest mean rating for warmth, but as they got the highest mean rating on competence the results are in line with the results of Aaker and colleagues (2012), who identified competence as a direct driver of purchase intention. This result is relevant because it is an indication that future marketing efforts should try to emphasize more the competence aspect of a product.

As social media and the trend towards fitness and healthy lifestyles seem to continue to accompany us in the future (Batrakoulis, 2019), and marketing strategies incorporating social media influencers are also indispensable for the time being (Vrontis et al., 2021), it is important to conduct further studies to continue to explore the relationship between male body shapes and their impact on products presented with them. In this context, muscularity should be particularly in focus, since it is an important factor in the context of masculinity (Gattario et al., 2015), especially among young adults (Calogero & Thompson, 2010), who make up 37.1% of Instagram users worldwide (Statista, 2021a). Research should strive to understand the possible factors involved in the transfer of the dimensions of the Stereotype Content Model to further investigate and evolve the mechanisms used in current advertising. Also, subsequent research should shed more light on the differences in perception of men

with different body shapes, which has not been as focused on science until recently (Edwards et al., 2014).

Limitations and future research

During the implementation of the study, some difficulties became apparent, especially in the selection of the test material, which should be improved in future studies.

Stimuli. Various types of appearances (hair style, facial hair – or lack thereof), different clothing styles (e.g. muscle shirts that increase the amount of body on display) and differing facial expressions of the depicted men (the more muscular the models get, the more they show a negative to neutral facial expression instead of a friendly) may have influenced the results of the present study. For this reason, future studies should use images of different bodies with the same face inserted using image editing software.

Handling facial expressions. Some participants reported, in the space provided for comments included in the debriefing, being distracted by the person's facial expression. Consistent neutral or friendly facial expressions of men on test materials should be used in future studies to eliminate the distraction and ensure the subject's concentration on the independent variable. Also, a study with a control group just showing faces could examine how much the effect is influenced by facial expressions. Nor can it be completely ruled out that social desirability hasn't influenced the assessment of the men. More than one participant reported the study to be sexist and that they ignored the body in favour of the facial expression. Especially since there is a debate in social media in terms of body positivity there might be a bias to assess the men in terms of warmth and competence. For future research the men could be evaluated using other measures which disguise the purpose of evaluation.

Product categories. In this study one product category, toiletry articles, was used for the procedure. In further studies, several different product categories should be used to determine whether the found effects are generalisable.

Differentiation of the muscularity groups. One of the major problems that arose first was the question of how much muscularity actually is considered average. This is especially problematic, as it seems to be different for different age groups, cultures, between genders and overall depending on the own in-group. For example, a person in their twenties doing fitness multiple times a week may categorize differently in contrast to a person in their fifties enjoying their free time on the couch at home. Also, it's not as clear as with different weight groups (Harris, Bradlyn, Coffman, Gunel, & Cottrell, 2008), how people categorize muscularity and perceive increasing muscularity in general. Further, unlike obesity (Hebl, Ruggs, Singletary, & Beal, 2008), there is no knowledge of a clear negative or positive stigma accompanying muscularity so far.

Strengths of the Study

Besides its limitations, the present study also has some considerable strengths. The effects were tested in an experiment, not in an explorative procedure, which makes the results causally interpretable. Also 15 different pictures of men were used in the experiment instead of just one. Thus, the effect was tested for 5 different bodies per body shape group. However, the latter is accompanied by the limitation that the different bodies were also shown with different faces, which could have influenced the men's evaluation (attractiveness, facial expression).

Conclusion

In summary, there is evidence that the varying ratings of the warmth and competence dimensions of SCM can be transferred from people with different levels of muscularity across a product to a brand. This insight can be used specifically in the field of online marketing. No effects of gender or BMI could be found in the data of this study. Whereas this study raised the question of why the ratings do not rise and fall linearly, but rather why the products presented with men of above average muscularity consistently received the lowest

mean ratings. Future studies should focus primarily on visually consistent stimuli and on differences in the quality of transfer of warmth/competence-ratings in different product categories in combination with men varying body shapes in amount of muscle.

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List of Tables

Table 1: Mean (SD) ratings of body shape per body shape group	15
Table 2: Mean (SD) ratings of competence, warmth and purchase intention of brands for presentation with each male stimulus body shape group	19
Table 3: Pairwise comparisons of competence ratings of brands	20
Table 4: Pairwise comparisons of warmth ratings of brands	22
Table 5: Pairwise comparisons of stated purchase intention for brands	24

List of Figures

Figure 1. Illustration of the mean values for the perceived competence in across the three body shape groups.....	20
Figure 2. Illustration of the mean values for the perceived warmth in across the three body shape groups.....	22
Figure 3. Illustration of the mean values of stated purchase intention for the shown brands across the three body shape groups.....	24

Appendix 1: Abstract (Deutsch)

Soziale Medien sind seit Jahren auf dem Vormarsch. Vor allem Werbetreibende kommen daran schon lange nicht mehr vorbei. Gerade Kooperationen mit Influencern bieten eine neue Möglichkeit, die eigene Zielgruppe zu erreichen und gleichzeitig den Vorteil der Übertragung von Eigenschaften des Influencers auf die gezeigten Produkte und letztlich auf die Marke zu nutzen. Ziel der vorliegenden Studie ist es, den Transfer von wahrgenommener Wärme und Kompetenz von männlichen Körperformen, die sich im Grad der Muskulatur unterscheiden, auf gleichzeitig präsentierte Produkte und auf die dahinterstehenden Marken zu untersuchen ($N = 159$). Der Grad der Muskularität ist von besonderem Interesse, da das Thema Fitness in den letzten Jahren immer mehr an Bedeutung gewonnen hat und sich vor allem auf bildfokussierten Social Media Plattformen großer Beliebtheit erfreut. Bilder von nicht geschlechtsspezifischen Produkten wurden in Kombination mit Bildern von Männern aus drei Körperformgruppen mit steigendem Muskelanteil gezeigt. Anschließend wurden zum einen die Marken der gezeigten Produkte hinsichtlich Wärme, Kompetenz und Kaufabsicht und zum anderen die Männer hinsichtlich wahrgenommener Wärme und Kompetenz bewertet. In dieser Studie konnte ein Zusammenhang zwischen den Kompetenz- und Wärmebewertungen der gezeigten Stimuli (Männer) und den Kompetenz- und Wärmebewertungen der Marken der mit ihnen gezeigten Produkte gefunden werden, der allerdings nicht wie vorhergesagt linear war. Zukünftige Studien sollten sich auf die Art des Zusammenhangs und auf die Standardisierung der Eigenschaften und Qualität der Stimuli konzentrieren.

Appendix 2: Adapted Items

Items of the Competence Scale (adapted from Fiske et al., 2002)

kompetent (competent)

leistungsfähig (effective)

effizient (efficient)

intelligent (intelligent)

Items of the Warmth Scale (adapted from Fiske et al., 2002)

freundlich (friendly)

herzlich (warm)

gutmütig (good-natured)

sympathisch (sympathetic)

Items of the Purchase Intention Scale (adapted from Putrevu & Lord, 1994)

1. Ich würde diese Marke das nächste Mal kaufen, wenn ich ein solches Produkt benötigen würde. (I would buy this brand the next time I would need a product like this.)
2. Es ist sehr wahrscheinlich, dass ich diese Marke in Zukunft nutzen werde. (It is very likely that I will use this brand in the future.)
3. Ich würde diese Marke ausprobieren, wenn sie in meinem Supermarkt verfügbar wäre. (I would try this brand if it was available in my supermarket.)